

GARY R. HERBERT Governor

SPENCER J. COX Lieutenant Governor

Department of Environmental Quality

L. Scott Baird Executive Director

DIVISION OF WASTE MANAGEMENT AND RADIATION CONTROL Ty L. Howard Director

A meeting of the Waste Management and Radiation Control Board has been scheduled for September 10, 2020 at 1:30 p.m.

This is an electronic/telephonic meeting. No Anchor Location.

All Board members and any interested persons will participate electronically or telephonically, via the Internet: https://meet.google.com/ouz-hhcs-hay

Join by phone: (US) +1 319-895-2148 PIN: 249 327 200#

This meeting is being held in accordance with House Bill 5002, effective July 1, 2020, which amended the Open and Public Meetings Act to address electronic meetings held without an anchor location. The Chair of the Waste Management and Radiation Control Board has determined that the presence of the COVID 19 virus in the community presents a substantial risk to the health and safety of those who might be present at an anchor location. Therefore, this meeting will be conducted without an anchor location. A member of the public may view this meeting and make comment via the electronic means outlined above.

AGENDA

Call to	o Order.			
Public	Comments on Agenda Items.			
Declarations of Conflict of Interest.				
		1		
Under	ground Storage Tanks UpdateTab	2		
Admir	nistrative Rules	3		
A.	Final adoption on proposed rule changes to UAC R315-261, 262, 264, 265, 266, 268, 270, and 273 of the hazardous waste rules to incorporate federal regulatory changes promulgated by the Environmental Protection Agency (EPA) and published in the Federal Register on February 22, 2019 (84 FR 5816) (Board Action Item).			
	Publiconduction Declar Approximately (Boar Under Administration)	Approval of the Meeting Minutes for the August 13, 2020 Board Meeting		

(Over)

- - A. Energy *Solutions* request for a site-specific treatment variance from the Hazardous Waste Management Rules. Energy *Solutions* seek authorization to receive and dispose of waste containing high-subcategory Mercury (**Information Item Only**).

VIII. Other Business.

- A. Director's Report.
- B. Miscellaneous Information Items.
- C. Scheduled of next Board meeting (October 8, 2020).

IX. Adjourn.

In compliance with the Americans with Disabilities Act, individuals with special needs (including auxiliary communicative aids and services) should contact Larene Wyss, Office of Human Resources at (801) 536-4284, Telecommunications Relay Service 711, or by email at "lwyss@utah.gov".

Waste Management and Radiation Control Board Electronic/Telephonic Board Meeting Minutes August 13, 2020 1:30 p.m.

No Anchor Location. All Board members participated electronically OR telephonically. UDEQ employees and others from the general public also participated either electronically or telephonically.

Board Members participating Brett Mickelson (Chair), Dennis Riding (Vice-Chair),

(Electronically/Telephonically) Richard Codell, Marc Franc, Steve McIff, Nathan Rich, Vern Rogers

and Shane Whitney

Board Members Absent/Excused: Scott Baird, Danielle Endres and Shawn Milne

DEQ Staff members participating

Ty Howard, Brent Everett, Thomas Ball, Arlene Lovato

(Electronically/Telephonically): Deborah Ng and Elisa Smith

I. Call to Order.

Chairmen Mickelson called the meeting to order at 1:35; roll call of Board members was conducted (see above).

Chairmen Mickelson announced that this meeting of the Waste Management and Radiation Control Board is being conducted electronically. The Chair of the Waste Management and Radiation Control Board determined that the presence of the COVID 19 virus in the community presents a substantial risk to the health and safety of those who might be present at an anchor location. Therefore, this meeting is being conducted without an anchor location.

A member of the public may participate/view this meeting via an electronic platform Google Meet or by Telephone call-in number by utilizing the electronic link/telephone number provided in the public notice of this meeting. (Public notice of this meeting was posted on the DWMRC website and the Utah Public Notice website).

Also, a member of the public may make a comment on any Agenda item during each Board meeting during the time allotted for "Public Comments on Agenda Items" listed on all Agendas.

- II. Public Comments on Agenda Items. None.
- III. Declarations of Conflict of Interest.

Shane Whitney declared a conflict of interest and will recuse himself from voting on Agenda Item VII. (Approval of Proposed Stipulation and Consent Order between the Board and Thermo Fluid, Inc.)

IV. Approval of the Meeting Minutes for the July 9, 2020 Board Meeting (Board Action Item).

It was moved by Richard Codell and seconded by Dennis Riding and UNANIMOUSLY CARRIED to approve the July 9, 2020 Board Meeting Minutes.

V. Underground Storage Tanks Update.

Brent Everett, Director of the Division of Environmental Response and Remediation (DERR), informed the Board that the cash balance of the Petroleum Storage Tank (PST) Trust Fund at the end of June 2020 was \$17,405,685.00. The preliminary estimate for the cash balance of the PST Trust Fund for the end of July 2020 is \$18,401,258.00. The PST Trust Fund balance fluctuates throughout the year as payments are made. The DERR reviews claims closely to ensure qualified expenses are appropriately reimbursed. The DERR continues to watch the balance of the PST Trust Fund closely to ensure sufficient cash is available to provide coverage of covered releases. The DERR has submitted all data to the actuarial contractor who is reviewing the PST program. The DERR expects to receive a draft report in September 2020 and will provide a copy of the actuarial report to the Board when it is finalized. There were no questions or comments.

VI. Administrative Rules.

A. Final adoption on prosed rule changes to UAC R315-270-42 of the hazardous waste rules to standardize language in Subsections R315-270-42(a)(1)(ii), R315-270-42(b)(2), R315-270-42(c)(2) and R315-270-42(e)(2)(iii) requiring a permittee to send notices to the facility mailing list and to appropriate units of State and local governments (Board Action Item).

Tom Ball, Planning and Technical Support Section Manger of the Division of Waste Management and Radiation Control reviewed the request for the Board approval for final adoption of the proposed changes to Hazardous Waste Rules UAC R315-270-42, to standardize language in Subsections R315-270-42(a)(1)(ii), R315-270-42(b)(2), R315-270-42(c)(2) and R315-270-42(e)(2)(iii) requiring a permitee to send notices to the facility mailing list and to appropriate units of State and local governments.

At the Board meeting on May 14, 2020, the Board approved the proposed changes to R315-270-42 to be filed with the Office of Administrative Rules for publication in the Utah State Bulletin. The proposed rule changes were published in the June 15, 2020 issue of the Utah State Bulletin (Vol. 2020, No. 12). An Executive Summary and selected pages from the Utah State Bulletin showing the publication of the proposed changes were provided in the August 13, 2020 Board packet.

The public comment period for this rulemaking ended on July 15, 2020. No comments were received.

The Board is authorized under Subsection 19-6-105(1)(c) to make rules governing generators and transporters of hazardous wastes and owners and operators of hazardous waste treatment, storage, and disposal facilities. The rule changes also meet existing DEQ and state rulemaking procedures.

The Director recommended the Board approve final adoption of the proposed changes to UAC R315-270-42 as published in the June 15, 2020 issue of the Utah State Bulletin and set an effective date of August 17, 2020.

It was moved by Mark Franc and seconded by Nathan Rich and UNANIMOUSLY CARRIED to approve for final adoption the proposed rule changes to Hazardous Waste Rules UAC R315-270-42, to standardize language in Subsections R315-270-42(a)(1)(ii), R315-270-42(b)(2), R315-270-42(c)(2) and R315-270-42(e)(2)(iii) requiring a permitee to send notices to the facility mailing list and to appropriate units of State and local governments.

VII. Hazardous Waste Section.

A. Approval of Proposed Stipulation and Consent Order between the Board and Thermo Fluids Inc. (Board Action Item),

Deborah Ng, Hazardous Waste Section Manager of the Division of Waste Management and Radiation Control provided an overview of the Stipulation and Consent Order (SCO), No. 1909097, to resolve the Thermo Fluids Inc.'s (TFIs) Notice of Violation and Compliance Order (NOV/CO) No. 1909088. TFI is a used oil processor and used oil marketer located at 3545 West 500 South in Salt Lake City, Utah.

The Division documented compliance issues during inspections conducted at TFI on May 1, 2, and May 9 of 2019. The Division issued TFI a NOV/CO on November 19, 2019, based on the following compliance issues: TFI failed to comply with regulatory requirements of TFI's Used Oil Processor Permit, Used Oil Marketer Registration, the Utah Used Oil Management Act, and the Utah Solid and Hazardous Waste Act when conducting used oil operations.

TFI has since resolved these specific violations and returned to compliance. The SCO includes a monetary penalty of \$42,906.00.

Utah Code §19-6-104(1)(e) authorizes the Board to review and approve or disapprove settlements negotiated by the Director with a civil penalty over \$25,000.

The 30-day public comment period for this SCO began on May 27, 2020 and ended on June 25, 2020. No comments were received. As a Board Action Item, the Director recommended approval of the proposed SCO. The supporting paperwork for the SCO was provided in the July 9, 2020 Board's packet.

It was moved by Dennis Riding and seconded by Mark Franc and UNANIMOULSY CARRIED to approve the proposed Stipulation and Consent Order between the Board and Thermo Fluids, Inc. (Shane Whitney abstained from voting).

VIII. Other Business.

A. Miscellaneous Information Items.

Ty Howard provided an update of the Division's activities occurring during the pandemic. Division staff continue to work remotely (telework) and the UDEQ Offices remain closed to the general public. The Division is continuing in maintaining a skeleton crew in the office to manage mail/correspondence, etc. At this point in time it is unclear when staff will return to the office, but anticipate a phased approach.

Salt Lake County continues in the Moderate-Risk (Orange) Phase for Covid-19 as designated by the Utah Department of Health. Therefore, the current operations of conducting business will continue until Salt Lake County moves to a lower phase Mr. Howard thanked all the Board members for their efforts to continue to conduct Board meeting electronically, and although not an ideal situation is thankful for the technology available that allows for the Board meeting to be conducted electronically.

B. Schedule of next Board meeting.

The next Board meeting was scheduled for September 10, 2020 at 1:30 p.m.

IX. Adjourn.

The meeting adjourned at 1:55 p.m.

UST STATISTICAL SUMMARY August 1, 2019 -- July 31, 2020

		PROGRAM											
	August	September	October	November	December	January	February	March	April	May	June	July	(+/-) OR Total
Regulated Tanks	4,098	4,093	4,092	4,089	4,081	4,090	4,108	4,113	4,116	4,130	4,123	4,128	30
Tanks with Certificate of Compliance	4,022	3,994	3,996	3,997	3,986	3,982	3,992	3,988	4,000	4,006	4,009	4,033	11
Tanks without COC	76	99	96	92	95	108	116	125	116	124	114	95	19
Cumulative Facilitlies with Registered A Operators	1,296	1,293	1,291	1,292	1,292	1,290	1,291	1,291	1,290	1,289	1,289	1,255	94.15%
Cumulative Facilitlies with Registered B Operators	1,296	1,293	1,291	1,292	1,292	1,290	1,290	1,291	1,290	1,290	1,291	1,292	96.92%
New LUST Sites	5	6	14	9	6	6	8	5	2	6	4	3	74
Closed LUST Sites	3	2	5	5	3	5	6	7	5	3	4	2	50
Cumulative Closed LUST Sites	5243	5245	5255	5261	5264	5270	5276	5281	5285	5291	5292	5295	52
						FINANCIA	AL						
	August	September	October	November	December	January	February	March	April	May	June	July	(+/-)
Tanks on PST Fund	2,696	2,675	2,663	2,661	2,647	2,636	2,641	2,637	2,637	2,637	2,642	2,662	(34)
PST Claims (Cumulative)	673	673	672	672	673	673	674	675	675	681	684	685	12
Equity Balance	-\$10,785,760	-\$10,680,862	-\$10,323,368	-\$10,502,116	-\$10,575,676	-\$10,309,455	-\$9,997,725	-\$9,765,034	-\$9,475,125	-\$9,022,705	-\$8,712,595	-\$7,717,022	\$3,068,738
Cash Balance	\$15,352,251	\$15,457,149	\$15,794,912	\$15,616,114	\$15,542,604	\$15,808,825	\$16,120,555	\$16,353,246	\$16,643,155	\$17,095,575	\$17,405,685	\$18,401,258	\$3,049,007
Loans	1	0	0	0	0	0	0	0	0	0	0	0	-1
Cumulative Loans	121	121	121	121	121	121	121	121	121	121	121	121	0
Cumulative Amount	\$4,738,367	\$4,738,367	\$4,738,367	\$4,738,367	\$4,738,367	\$4,738,367	\$4,738,367	\$4,738,367	\$4,738,367	\$4,738,367	\$4,738,367	\$4,738,367	\$0
Defaults/Amount	1	1	1	1	1	1	1	1	1	1	2	2	1
	August	September	October	November	December	January	February	March	April	May	June	July	TOTAL
Speed Memos	18	28	40	40	25	136	53	27	54	32	50 50	7 7	510
Compliance Letters	3	0	17	19	2	22	30	8	8	7	5	15	136
Notice of Intent to Revoke	0	0	0	0	0	1	2	0	0	0	0	0	3
Orders	0	0	0	4	3	0	0	0	0	0	2	3	12

Page 6

UTAH WASTE MANAGEMENT AND RADIATION CONTROL BOARD

Executive Summary

Final Adoption

UAC R315-261, R315-262, R315-264, R315-265, R315-266, R315-268, R315-270, and R315-273

August 13, 2020

	8 /
What is the issue before the Board?	Final approval from the Board is needed to adopt changes to R315-261, 262, 264, 265, 266, 268, 270, and 273 of the hazardous waste rules to incorporate federal regulatory changes promulgated by the Environmental Protection Agency (EPA) and published in the Federal Register on February 22, 2019 (84 FR 5816). The final rule creates a tailored, sector-specific regulatory framework for managing hazardous waste pharmaceuticals at healthcare facilities that generate, accumulate, or otherwise handle hazardous waste pharmaceuticals and reverse distributors engaged in the management of prescription hazardous waste pharmaceuticals.
What is the historical background or context for this issue?	At the Board meeting on July 9, 2020, the Board approved the proposed changes to R315-261, 262, 264, 265, 266, 268, 270, and 273 to be filed with the Office of Administrative Rules for publication in the Utah State Bulletin. The proposed rule changes were published in the August 1, 2020 issue of the Utah State Bulletin (Vol. 2020, No. 15). Selected pages from the Utah State Bulletin showing the publication of the propose changes follow this Executive Summary. The public comment period for this rulemaking ended on August 31, 2020. No comments were received.
What is the governing statutory or regulatory citation?	The Board is authorized under Subsection 19-6-105(1)(c) to make rules governing generators and transporters of hazardous wastes and owners and operators of hazardous waste treatment, storage, and disposal facilities. The rule changes also meet existing DEQ and state rulemaking procedures.
Is Board action required?	Yes. Board approval for final adoption of the rule changes is necessary.
What is the Division Director's recommendation?	The Director recommends the Board approve final adoption of the changes to UAC R315-261, 262, 264, 265, 266, 268, 270, and 273 as published in the August 1, 2020 issue of the Utah State Bulletin and set an effective date of September 14, 2020.

Where can	more information be	
obtained?		

Please contact Tom Ball (801-536-0251, <u>tball@utah.gov</u>) or Rusty Lundberg (801-536-4257, <u>rlundberg@utah.gov</u>).

UTAH STATE BULLETIN

OFFICIAL NOTICES OF UTAH STATE GOVERNMENT Filed July 02, 2020, 12:00 a.m. through July 15, 2020, 11:59 p.m.

Number 2020-15 August 01, 2020

Nancy L. Lancaster, Managing Editor

The *Utah State Bulletin (Bulletin)* is an official noticing publication of the executive branch of Utah state government. The Office of Administrative Rules, part of the Department of Administrative Services, produces the *Bulletin* under authority of Section 63G-3-402.

The Portable Document Format (PDF) version of the *Bulletin* is the official version. The PDF version of this issue is available at https://rules.utah.gov/. Any discrepancy between the PDF version and other versions will be resolved in favor of the PDF version.

Inquiries concerning the substance or applicability of an administrative rule that appears in the *Bulletin* should be addressed to the contact person for the rule. Questions about the *Bulletin* or the rulemaking process may be addressed to: Office of Administrative Rules, PO Box 141007, Salt Lake City, Utah 84114-1007, telephone 801-957-7110. Additional rulemaking information and electronic versions of all administrative rule publications are available at https://rules.utah.gov/.

The information in this *Bulletin* is summarized in the *Utah State Digest (Digest)* of the same volume and issue number. The *Digest* is available by e-mail subscription or online. Visit https://rules.utah.gov/ for additional information.

Office of Administrative Rules, Salt Lake City 84114

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Utah state bulletin.

Semimonthly.

- 1. Delegated legislation--Utah--Periodicals. 2. Administrative procedure--Utah--Periodicals.
- I. Utah. Office of Administrative Rules.

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TABLE OF CONTENTS

EDITOR'S NOTES	
Duplicate Filing on Rule R277-500	1
EXECUTIVE DOCUMENTS	
Adopting version 4.8 of the Phased Guidelines for the General Public and Businesses to Ma	
Public Health and Economic Reactivation (2020/044/EO)	
Extending Face Coverings Requirement in State Facilities (2020/045/EO)	
Adopting Version 4.9 of the Phased Guidelines for the General Public and Businesses to Ma	
Public Health and Economic Reactivation (2020/046/EO)	7
NOTICES OF PROPOSED RULES	q
Administrative Services	
Finance	
R25-7. Travel-Related Reimbursements for State Employees	10
R25-21. Medical Cannabis Payment Provider Standard	
Commerce	= .
Occupational and Professional Licensing	
R156-79. Hunting Guides and Outfitters Licensing Act Rule	24
Education	
Administration	
R277-310. International Guest Teachers	29
R277-418. Distance, Blended, Online, or Competency Based Learning Program	31
R277-488. Dual Language Immersion Program	34
R277-527. International Guest Teachers	
R277-622. School-based Mental Health Qualified Grant Program	39
R277-701. Early College Programs	43
R277-707. Enhancement for Accelerated Students Programs	47
R277-713. Concurrent Enrollment of Students in College Courses	
R277-723. Start Smart Utah Program	
R277-912. Law Enforcement Related Incident Reporting	58
Environmental Quality	
Waste Management and Radiation Control, Waste Management	
R315-261. General Requirements – Identification and Listing of Hazardous Waste	
R315-262. Hazardous Waste Generator Requirements	
R315-264-1. General – Purpose, Scope and Applicability	
R315-265-1. Incorporation, General – Purpose, Scope, and Applicability	
R315-266. Standards for the Management of Specific Hazardous Wastes and Specific Typ	
Hazardous Waste Management Facilities	
R315-268. Land Disposal Restrictions	
R315-270-1. Hazardous Waste Permit Program – Purpose and Scope of These Rules	
R315-273-80. Standards for Universal Waste Management, Petitions to Include Other Was	
Under Rule R315-273 General	133
Health Children's Health Insurance Program	
R382-10-22 Public Health Emergency Provisions	136

R277-912-3. Annual Report Content and Access.

- (1) The Superintendent shall compile the data to form an aggregated report consistent with the requirements of Subsection 53E-3-516(3), (4) and (5).
- (2) The report shall exclude all identifiable student information and data.
- (3) The report shall be compiled no later than November 1st of each year in which the school year ended and provided to the board.
- (4) An external entity may request access to the data used to compile the report consistent with Utah Code Title 63G, Chapter 2, Government Records Access Management Act.
- (5) The Superintendent shall respond to the request within 15 business days and provide the report within 30 business days of the request by providing the most recent data set available at the time of the request, so long as the data set is aggregated and no student identifiable information is included in the data set.
- (6) If the request is for the data being used for an upcoming report that is more than 30 days from being compiled, the Superintendent may wait longer than 30 days to provide the requested report.

KEY: incident reporting; law enforcement

Date of Enactment or Last Substantive Amendment: [February 7, 2019]2020

Authorizing, and Implemented or Interpreted Law: Art X Sec 3; 53E-3-401(3); 53E-3-516

NOTICE OF PROPOSED RULE				
TYPE OF RULE: Amendment				
Utah Admin. Code R315-261 Filing No. 52923				

Agency Information

1. Department:	Environ	Environmental Quality		
Agency:	Waste Management and Radiation Control, Waste Management			
Building:	MASOB			
Street address:	195 N 1	950 W		
City, state:	Salt Lake City, UT			
Mailing address:	PO Box 144880			
City, state, zip:	Salt Lake City, UT 84114-4880			
Contact person(s):				
Name:	Phone:	Email:		
Thomas Ball	801- 536- 0251	tball@utah.gov		
Rusty Lundberg	801- 536- 4257	rlundberg@utah.gov		
Please address questions regarding information on this notice to the agency.				

General Information

2. Rule or section catchline:

R315-261. General Requirements – Identification and Listing of Hazardous Waste

3. Purpose of the new rule or reason for the change:

Under the current rules for management of hazardous waste, a small portion of pharmaceuticals are regulated as hazardous wastes when disposed. Hospitals, clinics, nursing homes, and other facilities that generate hazardous waste pharmaceuticals have experienced difficulty complying with the framework of the hazardous waste rules. To respond to these concerns and facilitate compliance among healthcare facilities, the Environmental Protection Agency (EPA) has finalized a tailored, sectorspecific regulatory framework for managing hazardous waste pharmaceuticals at healthcare facilities and reverse distributors (facilities that receive and accumulate prescription pharmaceuticals for the purpose of facilitating manufacturer credit). On February 22, 2019, the EPA published the final rule in the Federal Register (84 FR 5816). The final rule entitled, Management Standards for Hazardous Waste Pharmaceuticals and Amendment to the P075 Listing for Nicotine, applies to healthcare facilities that generate, accumulate, or otherwise handle hazardous waste pharmaceuticals and reverse distributors engaged in the management of prescription hazardous waste pharmaceuticals.

As stated above the rule provides a new set of sectorspecific standards for healthcare facilities (for both humans and animals) and reverse distributors for management of their hazardous waste pharmaceuticals in lieu of the existing hazardous waste generator regulations. The final rule promulgates Sections R315-266-500 through R315-266-510. Healthcare facilities and reverse distributors must manage their hazardous waste pharmaceuticals under this new set of rules in lieu of operating under Rule R315-262 as they have been. These operating standards include a prohibition on disposing of hazardous waste pharmaceuticals in the sewer, called The new rules also include a conditional sewering. exemption for hazardous waste pharmaceuticals that are also identified as controlled substances by the Drug Enforcement Administration (DEA). Further, the rules redefine when containers that held hazardous waste pharmaceuticals are considered empty. Healthcare facilities that are very small quantity generators (VSQGs) must comply with the sewer prohibition for their hazardous waste pharmaceuticals under the new rules and have the option of complying with Sections R315-266-500 through R315-266-510 in lieu of operating under the conditional exemption found in Section R315-262-14. Additionally, the final rule amends the P075 acute hazardous waste listing for nicotine and salts to indicate that U.S. Food and Drug Administration (FDA)-approved over-the counter (OTC) nicotine replacement therapies (NRTs) are not included in the listing.

These rule changes became effective at the Federal level on August 21, 2019. (EDITOR'S NOTE: The proposed amendment to Rule R315-262 is under Filing No. 52924 and the proposed amendment to Rule R315-266 is under Filing No. 52927 in this issue, August 1, 2020, of the Bulletin.)

4. Summary of the new rule or change:

Subsection R315-261-4(a)(1)(ii) is amended to include the prohibition on sewering of hazardous waste pharmaceuticals found in the new Section R315-266-505.

Subsection R315-261-6(a)(2) is amended to remove references to several rules that do not exist in Rule R315-266.

Subsection R315-261-7(c) is added. This subsection refers the reader to the new Section R315-266-507 for the requirements for determining if containers of hazardous waste pharmaceuticals are considered empty.

Subsection R315-261-33(c) is amended to include reference to the new Section R315-266-507 for the requirements for an empty container that once held hazardous waste pharmaceuticals.

The listing for Nicotine, P075, in the Table in Subsection R315-261-33(e) was amended to exclude patches, gums, and lozenges that are FDA approved over-the-counter nicotine replacement therapies from the listing.

In addition to the amendments listed above, nonsubstantive changes were made to correct typographical errors and to the format and the wording throughout the amended rule to correct format and wording that was not consistent with the current Rulewriting Manual for Utah Rulewriters.

Fiscal Information

5. Aggregate anticipated cost or savings to:

A) State budget:

The operates one hospital. This hospital is not currently listed as a generator of hazardous waste which could mean that the hospital does not generate any hazardous waste or is a VSQG of hazardous waste. However, this hospital could be subject to the new rules because it falls under the definition of healthcare facility as contained in the rules.

Adoption of these new rules could result in no change to the state budget if the hospital does not generate any hazardous waste.

If the hospital were to generate hazardous waste, then the estimated cost due to the adoption of this rule is approximately \$85 per year. The estimated savings due to the adoption of this rule is approximately \$245 per year and would result in an overall cost savings of approximately \$160 per year.

Data to assist in making this determination was obtained from the EPA document entitled "Regulatory Impact Analysis for EPA's Final Regulations for the Management of Hazardous Waste Pharmaceuticals" dated October 2018.

B) Local governments:

It is not anticipated that adoption of these rule changes will have any effect on local governments because no local governments in the operate healthcare facilities or reverse distributors.

C) Small businesses ("small business" means a business employing 1-49 persons):

There are approximately 7,437 facilities in the that are healthcare facilities and reverse distributors as defined by this rule. Approximately 6,956 of these facilities are small businesses that would potentially be affected by this rule. Not all healthcare facilities and reverse distributors are generators of hazardous waste so it is not possible to determine exactly how many of these businesses will be affected by this rule adoption. Based on information obtained from EPA, it is estimated that approximately 904 of these facilities are generators of hazardous waste. The estimated cost to small businesses due to the adoption of this rule is approximately \$85 per year. The estimated savings to small businesses due to the adoption of this rule is approximately \$245 per year resulting in an overall cost savings of approximately \$160 per year.

Data to assist in making this determination was obtained from the EPA document entitled "Regulatory Impact Analysis for EPA's Final Regulations for the Management of Hazardous Waste Pharmaceuticals" dated October 2018.

D) Non-small businesses ("non-small business" means a business employing 50 or more persons):

As stated previously, there are approximately 7,437 facilities in the that are healthcare facilities and reverse distributors as defined by this rule. Approximately 476 of these facilities are non-small businesses that would potentially be affected by this rule. Not all healthcare facilities and reverse distributors are generators of hazardous waste so it is not possible to determine exactly how many of these businesses will be affected by this rule adoption. Based on information obtained from EPA, it is estimated that approximately 62 of these facilities are generators of hazardous waste. The estimated cost to non-small businesses due to the adoption of this rule is approximately \$85 per year. The estimated savings to non-small businesses due to the adoption of this rule is approximately \$245 per year resulting in an overall cost savings of approximately \$160 per year.

Data to assist in making this determination was obtained from the EPA document entitled "Regulatory Impact Analysis for EPA's Final Regulations for the Management of Hazardous Waste Pharmaceuticals" dated October 2018.

E) Persons other than small businesses, non-small businesses, state, or local government entities ("person" means any individual, partnership, corporation, association, governmental entity, or public or private organization of any character other than an *agency*):

The Division believes that all facilities that could be impacted fiscally by this rule are captured in the four previous categories. It is anticipated if there are any persons other than small businesses, non-small businesses, state, or local governments that are healthcare facilities or reverse distributors, that these persons would see a cost savings with the adoption of this rule similar to the savings discussed previously.

F) Compliance costs for affected persons:

It is not anticipated that there will be any additional compliance costs for affected persons due to the adoption of this rule other than those mentioned above.

G) Regulatory Impact Summary Table (This table only includes fiscal impacts that could be measured. If there are inestimable fiscal impacts, they will not be included in this table. Inestimable impacts will be included in narratives above.)

Regulatory Impact Table

Fiscal Cost	FY2021	FY2022	FY2023
State Government	\$85	\$85	\$85
Local Governments	\$0	\$0	\$0
Small Businesses	\$76,840	\$76,840	\$76,840
Non-Small Businesses	\$5,270	\$5,270	\$5,270
Other Persons	\$0	\$0	\$0
Total Fiscal Cost	\$82,195	\$82,195	\$82,195
Fiscal Benefits			
State Government	\$245	\$245	\$245
Local Governments	\$0	\$0	\$0
Small Businesses	\$221,480	\$221,480	\$221,480
Non-Small Businesses	\$15,190	\$15,190	\$15,190
Other Persons	\$0	\$0	\$0

Total Fiscal Benefits	\$236,915	\$236,915	\$236,915
Net Fiscal Benefits	\$154,720	\$154,720	\$154,720

H) Department head approval of regulatory impact analysis:

The Executive Director of the Department of Environmental Quality, L. Scott Baird, has reviewed and approved this fiscal analysis.

6. A) Comments by the department head on the fiscal impact this rule may have on businesses:

It is not anticipated that these rule changes will have a negative fiscal impact on any healthcare facility or reverse distributor involved in the management of hazardous waste pharmaceuticals. This rule simplifies requirements and provides regulatory flexibilities and thereby improves regulatory clarity for healthcare facilities and provides more regulatory certainty for reverse distributors. The simplification and clarity provided by these rule changes will reduce the regulatory burden on these facilities, increase compliance, and result in better protection of human health and the environment.

B) Name and title of department head commenting on the fiscal impacts:

L. Scott Baird, Executive Director

Citation Information

7. This rule change is authorized or mandated by state law, and implements or interprets the following state and federal laws. State code or constitution citations (required):

Section 19-6-104 | Section 19-6-105 | Section 19-6-106

Public Notice Information

9. The public may submit written or oral comments to the agency identified in box 1. (The public may also request a hearing by submitting a written request to the agency. The agency is required to hold a hearing if it receives requests from ten interested persons or from an association having not fewer than ten members. Additionally, the request must be received by the agency not more than 15 days after the publication of this rule in the Utah State Bulletin. See Section 63G-3-302 and Rule R15-1 for more information.)

A) Comments will be accepted 08/31/2020 until:

10. This rule change MAY 09/07/2020 become effective on:

NOTE: The date above is the date on which this rule MAY become effective. It is NOT the effective date. After the date designated in Box 10, the agency must submit a Notice of Effective Date to the Office of Administrative

Rules to make this rule effective. Failure to submit a Notice of Effective Date will result in this rule lapsing and will require the agency to start the rulemaking process over.

Agency Authorization Information

Agency head	Ty L. Howard,	Date:	07/09/2020
or designee,	Director		
and title:			

R315. Environmental Quality, Waste Management and Radiation Control, Waste Management.

R315-261. General Requirements -- Identification and Listing of Hazardous Waste.

R315-261-4. Exclusions.

- (a) Materials which are not solid wastes. The following materials are not solid wastes for the purpose of Rule R315-261:
 - (1)(i) Domestic sewage; and
- (ii) Any mixture of domestic sewage and other wastes that passes through a sewer system to a publicly-owned treatment works for treatment, except as prohibited by Section R315-266-505 and Clean Water Act requirements at 40 CFR 403.5(b). "Domestic sewage" means untreated sanitary wastes that pass through a sewer system.
- (2) Industrial wastewater discharges that are point source discharges subject to regulation under section 402 of the Clean Water Act, as amended. This exclusion applies only to the actual point source discharge. It does not exclude industrial wastewaters while they are being collected, stored or treated before discharge, nor does it exclude sludges that are generated by industrial wastewater treatment.
 - (3) Irrigation return flows.
- (4) Source, special nuclear or by-product material as defined by the Atomic Energy Act of 1954, as amended, 42 U.S.C. 2011 et seq.
- (5) Materials subjected to in-situ mining techniques which are not removed from the ground as part of the extraction process.
- (6) Pulping liquors[, i.e.,] that is black liquor, that are reclaimed in a pulping liquor recovery furnace and then reused in the pulping process, unless it is accumulated speculatively as defined in Subsection R315-261-1(c).
- (7) Spent sulfuric acid used to produce virgin sulfuric acid provided it is not accumulated speculatively as defined in Subsection R315-261-1(c).
- (8) Secondary materials that are reclaimed and returned to the original process or processes in which they were generated where they are reused in the production process provided:
- (i) Only tank storage is involved, and the entire process through completion of reclamation is closed by being entirely connected with pipes or other comparable enclosed means of conveyance;
- (ii) Reclamation does not involve controlled flame combustion, such as occurs in boilers, industrial furnaces, or incinerators;
- (iii) The secondary materials are never accumulated in such tanks for over twelve months without being reclaimed; and
- (iv) The reclaimed material is not used to produce a fuel, or used to produce products that are used in a manner constituting disposal.
- (9)(i) Spent wood preserving solutions that have been reclaimed and are reused for their original intended purpose; and
- (ii) Wastewaters from the wood preserving process that have been reclaimed and are reused to treat wood.
- (iii) Prior to reuse, the wood preserving wastewaters and spent wood preserving solutions described in Subsections R315-261-4(a)(9)(i) and (ii), so long as they meet [all of] the following conditions:

- (A) The wood preserving wastewaters and spent wood preserving solutions are reused on-site at water borne plants in the production process for their original intended purpose;
- (B) Prior to reuse, the wastewaters and spent wood preserving solutions are managed to prevent release to either land or groundwater or both;
- (C) Any unit used to manage wastewaters [and/]or spent wood preserving solutions or both prior to reuse can be visually or otherwise determined to prevent such releases;
- (D) Any drip pad used to manage the wastewaters [and/]or spent wood preserving solutions or both prior to reuse complies with the standards in 40 CFR 265.440 through 265.445, which are adopted and incorporated by reference, regardless of whether the plant generates a total of less than 100 kg/month of hazardous waste; and
- (E) Prior to operating pursuant to this exclusion, the plant owner or operator prepares a one-time notification stating that the plant intends to claim the exclusion, giving the date on which the plant intends to begin operating under the exclusion, and containing the following language: "I have read the applicable regulation establishing an exclusion for wood preserving wastewaters and spent wood preserving solutions and understand it requires me to comply at all times with the conditions set out in the regulation." The plant shall maintain a copy of that document in its on-site records until closure of the facility. The exclusion applies so long as the plant meets [all]each of the conditions. If the plant goes out of compliance with any condition, it may apply to the Director for reinstatement. The Director may reinstate the exclusion upon finding that the plant has returned to compliance with [all]each of the conditions and that the violations are not likely to recur.
- (10) EPA Hazardous Waste Nos. K060, K087, K141, K142, K143, K144, K145, K147, and K148, and any wastes from the coke byproducts processes that are hazardous only because they exhibit the Toxicity Characteristic specified in Section R315-261-24, subsequent to generation, these materials are recycled to coke ovens, to the tar recovery process as a feedstock to produce coal tar, or mixed with coal tar prior to the tar's sale or refining. This exclusion is conditioned on there being no land disposal of the wastes from the point they are generated to the point they are recycled to coke ovens or tar recovery or refining processes, or mixed with coal tar.
- (11) Nonwastewater splash condenser dross residue from the treatment of K061 in high temperature metals recovery units, provided it is shipped in drums, if shipped and not land disposed before recovery.
- (12)(i) Oil-bearing hazardous secondary materials [, i.e.,] that is sludges, byproducts, or spent materials, that are generated at a petroleum refinery, SIC code 2911, and are inserted into the petroleum refining process, SIC code 2911-including, but not limited to, distillation, catalytic cracking, fractionation, or thermal cracking units[; i.e.,] namely cokers, unless the material is placed on the land, or speculatively accumulated before being so recycled. Materials inserted into thermal cracking units are excluded under Subsection R315-261-4(12)(i), provided that the coke product also does not exhibit a characteristic of hazardous waste. Oil-bearing hazardous secondary materials may be inserted into the [same]the petroleum refinery where they are generated, or sent directly to another petroleum refinery and still be excluded under this provision. Except as provided in Subsection R315-261-4(a)(12)(ii), oil-bearing hazardous secondary materials generated elsewhere in the petroleum industry[, i.e.,] namely from sources other than petroleum refineries, are not excluded under Section R315-261-4. Residuals generated from processing or recycling materials excluded under Subsection R315-261-4(a)(12)(i), where such materials as generated would have otherwise met a listing under Sections R315-261-30 through R315-261-35, are designated as F037 listed wastes [when]if disposed of or intended for disposal.

- (ii) Recovered oil that is recycled in the [same-]manner and with the [same-]conditions as described in Subsection R315-261-4(a)(12)(i). Recovered oil is oil that has been reclaimed from secondary materials, including wastewater, generated from normal petroleum industry practices, including refining, exploration and production, bulk storage, and transportation incident thereto, SIC codes 1311, 1321, 1381, 1382, 1389, 2911, 4612, 4613, 4922, 4923, 4789, 5171, and 5172. Recovered oil does not include oil-bearing hazardous wastes listed in Sections R315-261-30 through 35; however, oil recovered from such wastes may be considered recovered oil. Recovered oil does not include used oil as defined in Subsection 19-6-703(19).
- (13) Excluded scrap metal <u>includes</u> [{] processed scrap metal, unprocessed home scrap metal, and unprocessed prompt scrap metal[}] being recycled.
- (14) Shredded circuit boards being recycled provided that they are:
- (i) Stored in containers sufficient to prevent a release to the environment prior to recovery; and
- (ii) Free of mercury switches, mercury relays and nickel-cadmium batteries and lithium batteries.
- (15) Condensates derived from the overhead gases from kraft mill steam strippers that are used to comply with 40 CFR 63.446(e). The exemption applies only to combustion at the mill generating the condensates.
 - (16) Reserved.
- (17) Spent materials, as defined in Section R315-261-1, other than hazardous wastes listed in Sections R315-261-30 through 35, generated within the primary mineral processing industry from which minerals, acids, cyanide, water, or other values are recovered by mineral processing or by beneficiation, provided that:
- (i) The spent material is legitimately recycled to recover minerals, acids, cyanide, water or other values;
 - (ii) The spent material is not accumulated speculatively;
- (iii) Except as provided in Subsection R315-261-4(a)(17)(iv), the spent material is stored in tanks, containers, or buildings meeting the following minimum integrity standards: a building shall be an engineered structure with a floor, walls, and a roof [all]each [of which are being made of non-earthen materials providing structural support, except smelter buildings may have partially earthen floors provided the secondary material is stored on the non-earthen portion, and have a roof suitable for diverting rainwater away from the foundation; a tank shall be free standing, not be a surface impoundment, as defined in Section R315-260-10, and be manufactured of a material suitable for containment of its contents; a container shall be free standing and be manufactured of a material suitable for containment of its contents. If tanks or containers contain any particulate which may be subject to wind dispersal, the owner[/] or operator shall operate these units in a manner which controls fugitive dust. Tanks, containers, and buildings shall be designed, constructed and operated to prevent significant releases to the environment of these materials.
- (iv) The Director may make a site-specific determination, after public review and comment, that only solid mineral processing spent material may be placed on pads rather than tanks containers, or buildings. Solid mineral processing spent materials do not contain any free liquid. The Director shall affirm that pads are designed, constructed and operated to prevent significant releases of the secondary material into the environment. Pads shall provide the [same_]degree of containment afforded by the non-RCRA tanks, containers and buildings eligible for exclusion.
- (A) The Director shall also consider if storage on pads poses the potential for significant releases via groundwater, surface water, and air exposure pathways. Factors to be considered for assessing the

- groundwater, surface water, air exposure pathways are: The volume and physical and chemical properties of the secondary material, including its potential for migration off the pad; the potential for human or environmental exposure to hazardous constituents migrating from the pad via each exposure pathway, and the possibility and extent of harm to human and environmental receptors via each exposure pathway.
- (B) Pads shall meet the following minimum standards: Be designed of non-earthen material that is compatible with the chemical nature of the mineral processing spent material, capable of withstanding physical stresses associated with placement and removal, have run on [4] and runoff controls, or both, be operated in a manner which controls fugitive dust, and have integrity assurance through inspections and maintenance programs.
- (C) Before making a determination under Subsection R315-261-4(a)(17)(iv), the Director shall provide notice and the opportunity for comment to [all]each person[s] potentially interested in the determination. This can be accomplished by placing notice of this action in major local newspapers, or broadcasting notice over local radio stations.
- (v) The owner or operator provides notice to the Director providing the following information: The types of materials to be recycled; the type and location of the storage units and recycling processes; and the annual quantities expected to be placed in land-based units. This notification shall be updated [when]if there is a change in the type of materials recycled or the location of the recycling process.
- (vi) For purposes of Subsection R315-261-4(b)(7), mineral processing spent materials shall be the result of mineral processing and may not include any listed hazardous wastes. Listed hazardous wastes and characteristic hazardous wastes generated by non-mineral processing industries are not eligible for the conditional exclusion from the definition of solid waste.
- (18) Petrochemical recovered oil from an associated organic chemical manufacturing facility, where the oil is to be inserted into the petroleum refining process, SIC code 2911, along with normal petroleum refinery process streams, provided:
- (i) The oil is hazardous only because it exhibits the characteristic of ignitability, as defined in Section R315-261-21, [and/]or toxicity for benzene or both, Section R315-261-24, waste code D018; and
- (ii) The oil generated by the organic chemical manufacturing facility is not placed on the land, or speculatively accumulated before being recycled into the petroleum refining process. An "associated organic chemical manufacturing facility" is a facility where the primary SIC code is 2869, but where operations may also include SIC codes 2821, 2822, and 2865; and is physically co-located with a petroleum refinery; and where the petroleum refinery to which the oil being recycled is returned also provides hydrocarbon feedstocks to the organic chemical manufacturing facility. "Petrochemical recovered oil" is oil that has been reclaimed from secondary materials[;i.e.,] that is sludges, byproducts, or spent materials, including wastewater, from normal organic chemical manufacturing operations, as well as oil recovered from organic chemical manufacturing processes.
- (19) Spent caustic solutions from petroleum refining liquid treating processes used as a feedstock to produce cresylic or naphthenic acid unless the material is placed on the land, or accumulated speculatively as defined in Subsection R315-261-1(c).
- (20) Hazardous secondary materials used to make zinc fertilizers, provided that the following conditions specified are satisfied:
- (i) Hazardous secondary materials used to make zinc micronutrient fertilizers shall not be accumulated speculatively, as defined in Subsection R315-261-1(c)(8).

- (ii) Generators and intermediate handlers of zinc-bearing hazardous secondary materials that are to be incorporated into zinc fertilizers shall:
- (A) Submit a one-time notice to the Director, which contains the name, address and EPA ID number of the generator or intermediate handler facility, provides a brief description of the secondary material that will be subject to the exclusion, and identifies when the manufacturer intends to begin managing excluded, zinc-bearing hazardous secondary materials under the conditions specified in Subsection R315-261-4(a)(20).
- (B) Store the excluded secondary material in tanks, containers, or buildings that are constructed and maintained in a way that prevents releases of the secondary materials into the environment. At a minimum, any building used for this purpose shall be an engineered structure made of non-earthen materials that provide structural support, and shall have a floor, walls and a roof that prevent wind dispersal and contact with rainwater. Tanks used for this purpose shall be structurally sound and, if outdoors, shall have roofs or covers that prevent contact with wind and rain. Containers used for this purpose shall be kept closed except when it is necessary to add or remove material, and shall be in sound condition. Containers that are stored outdoors shall be managed within storage areas that:
- (I) Have containment structures or systems sufficiently impervious to contain leaks, spills and accumulated precipitation; and
- (II) Provide for effective drainage and removal of leaks, spills and accumulated precipitation; and
 - (III) Prevent run-on into the containment system.
- (C) With each off-site shipment of excluded hazardous secondary materials, provide written notice to the receiving facility that the material is subject to the conditions of Subsection R315-261-4(a)(20).
- (D) Maintain at the generator's or intermediate handlers's facility for no less than three years records of [all]each shipment[s] of excluded hazardous secondary materials. For each shipment these records shall at a minimum contain the following information:
 - (I) Name of the transporter and date of the shipment:
- (II) Name and address of the facility that received the excluded material, and documentation confirming receipt of the shipment; and
- (III) Type and quantity of excluded secondary material in each shipment.
- (iii) Manufacturers of zinc fertilizers or zinc fertilizer ingredients made from excluded hazardous secondary materials shall:
- (A) Store excluded hazardous secondary materials in accordance with the storage requirements for generators and intermediate handlers, as specified in Subsection R315-261-4(a)(20)(ii)(B).
- (B) Submit a one-time notification to the Director that, at a minimum, specifies the name, address and EPA ID number of the manufacturing facility, and identifies when the manufacturer intends to begin managing excluded, zinc-bearing hazardous secondary materials under the conditions specified in Subsection R315-261-4(a)(20).
- (C) Maintain for a minimum of three years records of [all]each shipment[s] of excluded hazardous secondary materials received by the manufacturer, which shall at a minimum identify for each shipment the name and address of the generating facility, name of transporter and date the materials were received, the quantity received, and a brief description of the industrial process that generated the material.
- (D) Submit to the Director an annual report that identifies the total quantities of [all]any excluded hazardous secondary materials that were used to manufacture zinc fertilizers or zinc fertilizer ingredients in

- the previous year, the name and address of each generating facility, and the industrial processes[(s)] from which they were generated.
- (iv) Nothing in Section R315-261-4 preempts, overrides or otherwise negates the provision in Section R315-262-11, which requires any person who generates a solid waste to determine if that waste is a hazardous waste.
- (v) Interim status and permitted storage units that have been used to store only zinc-bearing hazardous wastes prior to the submission of the one-time notice described in Subsection R315-261-4(a)(20)(ii)(A), and that afterward will be used only to store hazardous secondary materials excluded under Subsection R315-261-4(a)(20), are not subject to the closure requirements of Rules R315-264 and R315-265
- (21) Zinc fertilizers made from hazardous wastes, or hazardous secondary materials that are excluded under Subsection R315-261-4(a)(20), provided that:
 - (i) The fertilizers meet the following contaminant limits:
 - (A) For metal contaminants:

TABLE

Constituent Maximum Allowable Total Concentration in Fertilizer, per Unit (1%) of Zinc ppm)

Arsenic	0.3
Cadmium	1.4
Chromium	0.6
Lead	2.8
Mercury	0.3

- (B) For dioxin contaminants the fertilizer shall contain no more than eight (8) parts per trillion of dioxin, measured as toxic equivalent.
- (ii) The manufacturer performs sampling and analysis of the fertilizer product to determine compliance with the contaminant limits for metals no less than every six months, and for dioxins no less than every twelve months. Testing shall also be performed [whenever]if changes occur to manufacturing processes or ingredients that could significantly affect the amounts of contaminants in the fertilizer product. The manufacturer may use any reliable analytical method to demonstrate that no constituent of concern is present in the product at concentrations above the applicable limits. It is the responsibility of the manufacturer to ensure that the sampling and analysis are unbiased, precise, and representative of the product(s) introduced into commerce.
- (iii) The manufacturer maintains for no less than three years records of [all]each sampling and analyses performed for purposes of determining compliance with the requirements of Subsection R315-261-4(a)(21)(ii). Such records shall at a minimum include:
- (A) The dates and times product samples were taken, and the dates the samples were analyzed;
- (B) The names and qualifications of the person<u>or</u> $\underline{\text{persons}[(s)]}$ taking the samples;
- (C) A description of the methods and equipment used to take the samples;
- (D) The name and address of the laboratory facility at which analyses of the samples were performed;
- (E) A description of the analytical methods used, including any cleanup and sample preparation methods; and
- (F) [All]Any laboratory analytical results used to determine compliance with the contaminant limits specified in this Subsection R315-261-4(a)(21).
 - (22) Used cathode ray tubes (CRTs)
- (i) Used, intact CRTs as defined in Section R315-260-10 are not solid wastes within the United States unless they are disposed, or

unless they are speculatively accumulated as defined in Subsection R315-261-1(c)(8) by CRT collectors or glass processors.

- (ii) Used, intact CRTs as defined in Section R315-260-10 are not solid wastes [when]if exported for recycling provided that they meet the requirements of Section R315-261-40.
- (iii) Used, broken CRTs as defined in Section R315-260-10 are not solid wastes provided that they meet the requirements of Section R315-261-39.
- (iv) Glass removed from CRTs is not a solid waste provided that it meets the requirements of Section R315-261-39(c).
- (23) Hazardous secondary material generated and legitimately reclaimed within the United States or its territories and under the control of the generator, provided that the material complies with Subsections R315-261-4(a)(23)(i) and (ii):
- (i)(A) The hazardous secondary material is generated and reclaimed at the generating facility, for purposes of this definition, generating facility means [all]any contiguous property owned, leased, or otherwise controlled by the hazardous secondary material generator; or
- (B) The hazardous secondary material is generated and reclaimed at different facilities, if the reclaiming facility is controlled by the generator or if both the generating facility and the reclaiming facility are controlled by a person as defined in Section R315-260-10, and if the generator provides one of the following certifications: "on behalf of (insert generator facility name), I certify that this facility will send the indicated hazardous secondary material to (insert reclaimer facility name), which is controlled by (insert generator facility name) and that (insert name of either facility) has acknowledged full responsibility for the safe management of the hazardous secondary material," or "on behalf of (insert generator facility name), I certify that this facility will send the indicated hazardous secondary material to (insert reclaimer facility name), that both facilities are under common control, and that (insert name of either facility) has acknowledged full responsibility for the safe management of the hazardous secondary material." For purposes of this paragraph, "control" means the power to direct the policies of the facility, whether by the ownership of stock, voting rights, or otherwise, except that contractors who operate facilities on behalf of a different person as defined in Section R315-260-10 shall not be deemed to "control" such facilities. The generating and receiving facilities shall both maintain at their facilities for no less than three years records of hazardous secondary materials sent or received under this exclusion. In both cases, the records shall contain the name of the transporter, the date of the shipment, and the type and quantity of the hazardous secondary material shipped or received under the exclusion. These requirements may be satisfied by routine business records[, e.g.,] such as financial records, bills of lading, copies of DOT shipping papers, or electronic confirmations; or
- (C) The hazardous secondary material is generated pursuant to a written contract between a tolling contractor and a toll manufacturer and is reclaimed by the tolling contractor, if the tolling contractor certifies the following: "On behalf of (insert tolling contractor name), I certify that (insert tolling contractor name) has a written contract with (insert toll manufacturer name) to manufacture (insert name of product or intermediate) which is made from specified unused materials, and that (insert tolling contractor name) will reclaim the hazardous secondary materials generated during this manufacture. On behalf of (insert tolling contractor name) retains ownership of, and responsibility for, the hazardous secondary materials that are generated during the course of the manufacture, including any releases of hazardous secondary materials that occur during the manufacturing process". The tolling contractor shall maintain at its facility for no less than three years records

- of hazardous secondary materials received pursuant to its written contract with the tolling manufacturer, and the tolling manufacturer shall maintain at its facility for no less than three years records of hazardous secondary materials shipped pursuant to its written contract with the tolling contractor. In both cases, the records shall contain the name of the transporter, the date of the shipment, and the type and quantity of the hazardous secondary material shipped or received pursuant to the written contract. These requirements may be satisfied by routine business records[, e.g.,] such as financial records, bills of lading, copies of DOT shipping papers, or electronic confirmations. For purposes of Subsection R315-261-4(a)(23)(i)(C), tolling contractor means a person who arranges for the production of a product or intermediate made from specified unused materials through a written contract with a toll manufacturer. Toll manufacturer means a person who produces a product or intermediate made from specified unused materials pursuant to a written contract with a tolling contractor.
- (ii)(A) The hazardous secondary material is contained as defined in Section R315-260-10. A hazardous secondary material released to the environment is discarded and a solid waste unless it is immediately recovered for the purpose of reclamation. Hazardous secondary material managed in a unit with leaks or other continuing or intermittent unpermitted releases is discarded and a solid waste.
- (B) The hazardous secondary material is not speculatively accumulated, as defined in Subsection R315-261-1(c)(8).
 - (C) Notice is provided as required by Section R315-260-42.
- (D) The material is not otherwise subject to material-specific management conditions under Subsection R315-261-4(a) [when]if reclaimed, and it is not a spent lead-acid battery, see Sections R315-266-80 and R315-273-2.
- (E) Persons performing the recycling of hazardous secondary materials under this exclusion shall maintain documentation of their legitimacy determination on-site. Documentation shall be a written description of how the recycling meets [all]the three factors in Subsection R315-260-43(a) and how the factor in Subsection R315-260-43(b) was considered. Documentation shall be maintained for three years after the recycling operation has ceased.
- (F) The emergency preparedness and response requirements found in Sections R315-261-400, 410, 411 and 420 are met.
- (24) Hazardous secondary material that is generated and then transferred to another person for the purpose of reclamation is not a solid waste, provided that:
- (i) The material is not speculatively accumulated, as defined in Subsection R315-261-1(c)(8);
- (ii) The material is not handled by any person or facility other than the hazardous secondary material generator, the transporter, an intermediate facility or a reclaimer, and, while in transport, is not stored for more than 10 days at a transfer facility, as defined in Section R315-260-10, and is packaged according to applicable Department of Transportation regulations at 49 CFR parts 173, 178, and 179 while in transport;
- (iii) The material is not otherwise subject to material-specific management conditions under Subsection R315-261-4(a) [when]if reclaimed, and it is not a spent lead-acid battery, see Sections R315-266-80 and R315-273-2;
- (iv) The reclamation of the material is legitimate, as specified under Section R315-260-43;
- (v) The hazardous secondary material generator satisfies [all of-]the following conditions:
- (A) The material shall be contained as defined in Section R315-260-10. A hazardous secondary material released to the environment is discarded and a solid waste unless it is immediately recovered for the purpose of recycling. Hazardous secondary material

managed in a unit with leaks or other continuing releases is discarded and a solid waste.

- (B) Prior to arranging for transport of hazardous secondary materials to a reclamation facility, [() or facilities[)], where the management of the hazardous secondary materials is not addressed under a hazardous waste part B permit or interim status standards, the hazardous secondary material generator shall make reasonable efforts to ensure that each reclaimer intends to properly and legitimately reclaim the hazardous secondary material and not discard it, and that each reclaimer will manage the hazardous secondary material in a manner that is protective of human health and the environment. If the hazardous secondary material will be passing through an intermediate facility where the management of the hazardous secondary materials is not addressed under a hazardous waste part B permit or interim status standards, the hazardous secondary material generator shall make contractual arrangements with the intermediate facility to ensure that the hazardous secondary material is sent to the reclamation facility identified by the hazardous secondary material generator, and the hazardous secondary material generator shall perform reasonable efforts to ensure that the intermediate facility will manage the hazardous secondary material in a manner that is protective of human health and the environment. Reasonable efforts shall be repeated at a minimum of every three years for the hazardous secondary material generator to claim the exclusion and to send the hazardous secondary materials to each reclaimer and any intermediate facility. In making these reasonable efforts, the generator may use any credible evidence available, including information gathered by the hazardous secondary material generator, provided by the reclaimer or either the intermediate facility, [and/or provided by a third party, or both. The hazardous secondary material generator shall affirmatively answer [all of]the following questions for each reclamation facility and any intermediate facility:
- (I) Does the available information indicate that the reclamation process is legitimate pursuant to Section R315-260-43? In answering this question, the hazardous secondary material generator can rely on their existing knowledge of the physical and chemical properties of the hazardous secondary material, as well as information from other sources including the reclamation facility and audit reports about the reclamation process.
- (II) Does the publicly available information indicate that the reclamation facility and any intermediate facility that is used by the hazardous secondary material generator notified the appropriate authorities of hazardous secondary materials reclamation activities pursuant to Section R315-260-42 and have they notified the appropriate authorities that the financial assurance condition is satisfied per Subsection R315-261-4(a)(24)(vi)(F)? In answering these questions, the hazardous secondary material generator can rely on the available information documenting the reclamation facility's and any intermediate facility's compliance with the notification requirements per Section R315-260-42, including the requirement in Subsection R315-260-42(a)(5) to notify the Director whether the reclaimer or intermediate facility has financial assurance.
- (III) Does publicly available information indicate that the reclamation facility or any intermediate facility that is used by the hazardous secondary material generator has not had any formal enforcement actions taken against the facility in the previous three years for violations of Sections R315-260 through R315-268, R315-270, and R315-273 and has not been classified as a significant non-complier with Sections R315-260 through R315-268, R315-270, and R315-273? In answering this question, the hazardous secondary material generator can rely on the publicly available information from EPA or the state. If the reclamation facility or any intermediate facility that is used by the hazardous secondary material generator has had a formal enforcement

- action taken against the facility in the previous three years for violations of Sections R315-260 through R315-268, R315-270, and R315-273 and has been classified as a significant non-complier with Sections R315-260 through R315-268, R315-270, and R315-273, does the hazardous secondary material generator have credible evidence that the facilities will manage the hazardous secondary materials properly? In answering this question, the hazardous secondary material generator can obtain additional information from EPA, the state, or the facility itself that the facility has addressed the violations, taken remedial steps to address the violations and prevent future violations, or that the violations are not relevant to the proper management of the hazardous secondary materials.
- (IV) Does the available information indicate that the reclamation facility and any intermediate facility that is used by the hazardous secondary material generator have the equipment and trained personnel to safely recycle the hazardous secondary material? In answering this question, the generator may rely on a description by the reclamation facility or by an independent third party of the equipment and trained personnel to be used to recycle the generator's hazardous secondary material.
- (V) If residuals are generated from the reclamation of the excluded hazardous secondary materials, does the reclamation facility have the permits required, [{]if any[}], to manage the residuals? If not, does the reclamation facility have a contract with an appropriately permitted facility to dispose of the residuals? If not, does the hazardous secondary material generator have credible evidence that the residuals will be managed in a manner that is protective of human health and the environment? In answering these questions, the hazardous secondary material generator can rely on publicly available information from EPA or the state, or information provided by the facility itself.
- (C) The hazardous secondary material generator shall maintain for a minimum of three years documentation and certification that reasonable efforts were made for each reclamation facility and, if applicable, intermediate facility where the management of the hazardous secondary materials is not addressed under a hazardous waste part B permit or interim status standards prior to transferring hazardous secondary material. Documentation and certification shall be made available upon request by the Director within 72 hours, or within a longer period of time as specified by the Director. The certification statement shall:
- (I) Include the printed name and official title of an authorized representative of the hazardous secondary material generator company, the authorized representative's signature, and the date signed;
- (II) Incorporate the following language: "I hereby certify in good faith and to the best of my knowledge that, prior to arranging for transport of excluded hazardous secondary materials to (insert name(s) of reclamation facility and any intermediate facility), reasonable efforts were made in accordance with Subsection R315-261-4(a)(24)(v)(B) to ensure that the hazardous secondary materials would be recycled legitimately, and otherwise managed in a manner that is protective of human health and the environment, and that such efforts were based on current and accurate information."
- (D) The hazardous secondary material generator shall maintain at the generating facility for no less than three years records of [all]each off-site shipment[s] of hazardous secondary materials. For each shipment, these records shall, at a minimum, contain the following information:
 - (I) Name of the transporter and date of the shipment;
- (II) Name and address of each reclaimer and, if applicable, the name and address of each intermediate facility to which the hazardous secondary material was sent;

- (III) The type and quantity of hazardous secondary material in the shipment.
- (E) The hazardous secondary material generator shall maintain at the generating facility for no less than three years confirmations of receipt from each reclaimer and, if applicable, each intermediate facility for [all]each off-site shipment[s] of hazardous secondary materials. Confirmations of receipt shall include the name and address of the reclaimer, or intermediate facility, the type and quantity of the hazardous secondary materials received and the date which the hazardous secondary materials were received. This requirement may be satisfied by routine business records[-e.g.,] such as financial records, bills of lading, copies of DOT shipping papers, or electronic confirmations of receipt;
- (F) The hazardous secondary material generator shall comply with the emergency preparedness and response conditions in Sections R315-261-400, 410, 411, and 420.
- (vi) Reclaimers of hazardous secondary material excluded from regulation under this exclusion and intermediate facilities as defined in Section R315-260-10 satisfy [all of] [the following conditions:
- (A) The reclaimer and intermediate facility shall maintain at its facility for no less than three years records of [all]each shipment[s] of hazardous secondary materials that were received at the facility and, if applicable, for [all]each shipment[s] of hazardous secondary materials that were received and subsequently sent off-site from the facility for further reclamation. For each shipment, these records shall at a minimum contain the following information:
 - (I) Name of the transporter and date of the shipment;
- (II) Name and address of the hazardous secondary material generator and, if applicable, the name and address of the reclaimer or intermediate facility which the hazardous secondary materials were received from;
- (III) The type and quantity of hazardous secondary material in the shipment; and
- (IV) For hazardous secondary materials that, after being received by the reclaimer or intermediate facility, were subsequently transferred off-site for further reclamation, the name and address of the, subsequent, reclaimer and, if applicable, the name and address of each intermediate facility to which the hazardous secondary material was sent.
- (B) The intermediate facility shall send the hazardous secondary material to the reclaimer, or reclaimers [(s)] designated by the hazardous secondary materials generator.
- (C) The reclaimer and intermediate facility shall send to the hazardous secondary material generator confirmations of receipt for [all]each off-site shipment[s] of hazardous secondary materials. Confirmations of receipt shall include the name and address of the reclaimer, or intermediate facility, the type and quantity of the hazardous secondary materials received and the date which the hazardous secondary materials were received. This requirement may be satisfied by routine business records[, e.g.,] such as financial records, bills of lading, copies of DOT shipping papers, or electronic confirmations of receipt.
- (D) The reclaimer and intermediate facility shall manage the hazardous secondary material in a manner that is at least as protective as that employed for analogous raw material and shall be contained. An "analogous raw material" is a raw material for which a hazardous secondary material is a substitute and serves the [same-]function and has similar physical and chemical properties as the hazardous secondary material.
- (E) Any residuals that are generated from reclamation processes shall be managed in a manner that is protective of human health and the environment. If any residuals exhibit a hazardous

- characteristic according to Sections R315-261-20 through 24, or if they themselves are specifically listed in Sections R315-261-30 through 35, such residuals are hazardous wastes and shall be managed in accordance with the applicable requirements of Rules R315-260 through $\underline{R315}$ -266, $\underline{R315}$ -268, and $\underline{R315}$ -270.
- (F) The reclaimer and intermediate facility have financial assurance as required under Sections R315-261-140 through 151,
- (vii) In addition, [all]each person[s] claiming the exclusion under Subsection R315-261-4(a)(24) provide notification as required under Section R315-260-42.
- (25) Hazardous secondary material that is exported from the United States and reclaimed at a reclamation facility located in a foreign country is not a solid waste, provided that the hazardous secondary material generator complies with the applicable requirements of Subsection R315-261-4(a)(24)(i)-(v), excepting Subsection R315-261-4(a)(24)(v)(B)(2) for foreign reclaimers and foreign intermediate facilities, and that the hazardous secondary material generator also complies with the following requirements:
- (i) Notify EPA of an intended export before the hazardous secondary material is scheduled to leave the United States. A complete notification shall be submitted at least sixty days before the initial shipment is intended to be shipped off-site. This notification may cover export activities extending over a twelve month or lesser period. The notification shall be in writing, signed by the hazardous secondary material generator, and include the following information:
- (A) Name, mailing address, telephone number and EPA ID number, if applicable, of the hazardous secondary material generator;
- (B) A description of the hazardous secondary material and the EPA hazardous waste number that would apply if the hazardous secondary material was managed as hazardous waste and the U.S. DOT proper shipping name, hazard class and ID number, UN/NA, for each hazardous secondary material as identified in 49 CFR parts 171 through 177.
- (C) The estimated frequency or rate at which the hazardous secondary material is to be exported and the period of time over which the hazardous secondary material is to be exported;
- (D) The estimated total quantity of hazardous secondary material;
- (E) [All]Each point[s] of entry to and departure from each foreign country through which the hazardous secondary material will pass;
- (F) A description of the means by which each shipment of the hazardous secondary material will be transported, for example mode of transportation vehicle including air, highway, rail and water, and types of containers including drums, boxes and tanks;
- (G) A description of the manner in which the hazardous secondary material will be reclaimed in the country of import;
- (H) The name and address of the reclaimer, any intermediate facility and any alternate reclaimer and intermediate facilities; and
- (I) The name of any countries of transit through which the hazardous secondary material will be sent and a description of the approximate length of time it will remain in such countries and the nature of its handling while there, for purposes of this section, the terms "EPA Acknowledgement of Consent", "country of import" and "country of transit" are used as defined in [40 CFR-]Section R315-262[-]-81 with the exception that the terms in Section R315-261-4 refer to hazardous secondary materials, rather than hazardous waste:
- (ii) Notifications shall be submitted electronically using EPA's Waste Import Export Tracking System, WIETS, or its successor system.
- (iii) Except for changes to the telephone number in Subsection R315-261-4(a)(25)(i)(A) and decreases in the quantity of

hazardous secondary material indicated pursuant to Subsection R315-261-4(a)(25)(i)(D), [when]if the conditions specified on the original notification change, including any exceedance of the estimate of the quantity of hazardous secondary material specified in the original notification, the hazardous secondary material generator shall provide EPA with a written renotification of the change. The shipment cannot take place until consent of the country of import to the changes, except for changes to Subsection R315-261-4(a)(25)(i)(I) and in the ports of entry to and departure from countries of transit pursuant to Subsection R315-261-4(a)(25)(i)(E), has been obtained and the hazardous secondary material generator receives from EPA an EPA Acknowledgment of Consent reflecting the country of import's consent to the changes.

- (iv) Upon request by EPA, the hazardous secondary material generator shall furnish to EPA any additional information which a country of import requests in order to respond to a notification.
- (v) EPA will provide a complete notification to the country of import and any countries of transit. A notification is complete when EPA receives a notification which EPA determines satisfies the requirements of Subsection R315-261-4(a)(25)(i). Where a claim of confidentiality is asserted with respect to any notification information required by Subsection R315-261-4(a)(25)(i), EPA may find the notification not complete until any such claim is resolved in accordance with 40 CFR 260.2.
- (vi) The export of hazardous secondary material under Subsection R315-261-4(a)(25) is prohibited unless the country of import consents to the intended export. [When]If the country of import consents in writing to the receipt of the hazardous secondary material, EPA will send an EPA Acknowledgment of Consent to the hazardous secondary material generator. Where the country of import objects to receipt of the hazardous secondary material or withdraws a prior consent, EPA will notify the hazardous secondary material generator in writing. EPA will also notify the hazardous secondary material generator of any responses from countries of transit.
- (vii) For exports to OECD Member countries, the receiving country may respond to the notification using tacit consent. If no objection has been lodged by any country of import or countries of transit to a notification provided pursuant to Subsection R315-261-4(a)(25)(i) within thirty days after the date of issuance of the acknowledgement of receipt of notification by the competent authority of the country of import, the transboundary movement may commence. In such cases, EPA will send an EPA Acknowledgment of Consent to inform the hazardous secondary material generator that the country of import and any relevant countries of transit have not objected to the shipment, and are thus presumed to have consented tacitly. Tacit consent expires one calendar year after the close of the thirty_[-]day period; renotification and renewal of [all]each consent[s] is required for exports after that date.
- (viii) A copy of the EPA Acknowledgment of Consent shall accompany the shipment. The shipment shall conform to the terms of the EPA Acknowledgment of Consent.
- (ix) If a shipment cannot be delivered for any reason to the reclaimer, intermediate facility or the alternate reclaimer or alternate intermediate facility, the hazardous secondary material generator shall re-notify EPA of a change in the conditions of the original notification to allow shipment to a new reclaimer in accordance with Subsection R315-261-4(a)(25)(iii) and obtain another EPA Acknowledgment of Consent.
- (x) Hazardous secondary material generators shall keep a copy of each notification of intent to export and each EPA Acknowledgment of Consent for a period of three years following receipt of the EPA Acknowledgment of Consent. They may satisfy this

- recordkeeping requirement by retaining electronically submitted notifications or electronically generated Acknowledgements in their account on EPA's Waste Import Export Tracking System, WIETS, or its successor system, provided that such copies are readily available for viewing and production if requested by any EPA or authorized state inspector. No hazardous secondary material generator may be held liable for the inability to produce a notification or Acknowledgement for inspection under Subsection R315-261-4(a)(25) if they can demonstrate that the inability to produce such copies are due exclusively to technical difficulty with EPA's Waste Import Export Tracking System, WIETS, or its successor system for which the hazardous secondary material generator bears no responsibility.
- (xi) Hazardous secondary material generators shall file with the Administrator no later than March 1 of each year, a report summarizing the types, quantities, frequency and ultimate destination of [all]each hazardous secondary material[s] exported during the previous calendar year. Annual reports shall be submitted electronically using EPA's Waste Import Export Tracking System, WIETS, or its successor system. Such reports shall include the following information:
- (A) Name, mailing and site address, and EPA ID number, if applicable, of the hazardous secondary material generator;
 - (B) The calendar year covered by the report;
- (C) The name and site address of each reclaimer and intermediate facility;
- (D) By reclaimer and intermediate facility, for each hazardous secondary material exported, a description of the hazardous secondary material and the EPA hazardous waste number that would apply if the hazardous secondary material was managed as hazardous waste, the DOT hazard class, the name and U.S. EPA ID number, where applicable, for each transporter used, the total amount of hazardous secondary material shipped and the number of shipments pursuant to each notification;
- (E) A certification signed by the hazardous secondary material generator which states: "I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and [all]each attached document[s], and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment."
- (xii) [All]Each person[s] claiming an exclusion under Subsection R315-261-4(a)(25) shall provide notification as required by Section R315-260-42.
- (26) Solvent-contaminated wipes that are sent for cleaning and reuse are not solid wastes from the point of generation, provided that
- (i) The solvent-contaminated wipes, when accumulated, stored, and transported, are contained in non-leaking, closed containers that are labeled "Excluded Solvent-Contaminated Wipes." The containers shall be able to contain free liquids, should free liquids occur. During accumulation, a container is considered closed [when]if there is complete contact between the fitted lid and the rim, except when it is necessary to add or remove solvent-contaminated wipes. When the container is full, or when the solvent-contaminated wipes are no longer being accumulated, or when the container is being transported, the container shall be sealed with [all]the lids properly and securely affixed to the container and [all]any openings tightly bound or closed sufficiently to prevent leaks and emissions;
- (ii) The solvent-contaminated wipes may be accumulated by the generator for up to 180 days from the start date of accumulation for each container prior to being sent for cleaning;

- (iii) At the point of being sent for cleaning on-site or at the point of being transported off-site for cleaning, the solvent-contaminated wipes shall contain no free liquids as defined in Section R315-260-10.
- (iv) Free liquids removed from the solvent-contaminated wipes or from the container holding the wipes shall be managed according to the applicable [regulations]rules found in Rules R315-260 through R315-266, R315-268, R315-270, and R315-273;
- (v) Generators shall maintain at their site the following documentation:
- (A) Name and address of the laundry or dry cleaner that is receiving the solvent-contaminated wipes;
- (B) Documentation that the 180-day accumulation time limit in Subsection R315-261-4(a)(26)(ii) is being met;
- (C) Description of the process the generator is using to ensure the solvent-contaminated wipes contain no free liquids at the point of being laundered or dry cleaned on-site or at the point of being transported off-site for laundering or dry cleaning;
- (vi) The solvent-contaminated wipes are sent to a laundry or dry cleaner whose discharge, if any, is regulated under sections 301 and 402 or section 307 of the Clean Water Act.
- (27) Hazardous secondary material that is generated and then transferred to another person for the purpose of remanufacturing is not a solid waste, provided that:
- (i) The hazardous secondary material consists of one or more of the following spent solvents: Toluene, xylenes, ethylbenzene, 1,2,4-trimethylbenzene, chlorobenzene, n-hexane, cyclohexane, methyl tertbutyl ether, acetonitrile, chloroform, chloromethane, dichloromethane, methyl isobutyl ketone, N_N-dimethylformamide, tetrahydrofuran, n-butyl alcohol, ethanol, [and/]or methanol;
- (ii) The hazardous secondary material originated from using one or more of the solvents listed in Subsection R315-261-4(a)(27)(i) in a commercial grade for reacting, extracting, purifying, or blending chemicals, or for rinsing out the process lines associated with these functions; in the pharmaceutical manufacturing, NAICS 325412; basic organic chemical manufacturing, NAICS 325199; plastics and resins manufacturing, NAICS 325211; and[/or] the paints and coatings manufacturing sectors, NAICS 325510.
- (iii) The hazardous secondary material generator sends the hazardous secondary material spent solvents listed in Subsection R315-261-4(a)(27)(i) to a remanufacturer in the pharmaceutical manufacturing, NAICS 325412; basic organic chemical manufacturing, NAICS 325199; plastics and resins manufacturing, NAICS 325211; [and/]or the paints and coatings manufacturing sectors, NAICS 325510.
- (iv) After remanufacturing one or more of the solvents listed in Subsection R315-261-4(a)(27)(i), the use of the remanufactured solvent shall be limited to reacting, extracting, purifying, or blending chemicals, or for rinsing out the process lines associated with these functions, in the pharmaceutical manufacturing, NAICS 325412; basic organic chemical manufacturing, NAICS 325199; plastics and resins manufacturing, NAICS 325211; and the paints and coatings manufacturing sectors, NAICS 325510; or to using them as ingredients in a product. These allowed uses correspond to chemical functional uses enumerated under the Chemical Data Reporting Rule of the Toxic Substances Control Act, 40 CFR parts 704, 710-711, including Industrial Function Codes U015, solvents consumed in a reaction to produce other chemicals, and U030, solvents become part of the mixture:
- (v) After remanufacturing one or more of the solvents listed in Subsection R315-261-4(a)(27)(i), the use of the remanufactured solvent does not involve cleaning or degreasing oil, grease, or similar material from textiles, glassware, metal surfaces, or other articles.

- [f]These disallowed continuing uses correspond to chemical functional uses in Industrial Function Code U029 under the Chemical Data Reporting Rule of the Toxics Substances Control Act.[]; and
- (vi) Both the hazardous secondary material generator and the remanufacturer shall:
- (A) Notify the Director and update the notification every two years per Section R315-260-42;
- (B) Develop and maintain an up-to-date remanufacturing plan which identifies:
- (I) The name, address and EPA ID number of the generator[(]s[)] and the remanufacturer[(]s[)],
- (II) The types and estimated annual volumes of spent solvents to be remanufactured,
- (III) The processes and industry sectors that generate the spent solvents,
- (IV) The specific uses and industry sectors for the remanufactured solvents, and
- (V) A certification from the remanufacturer stating "on behalf of (insert remanufacturer facility name), I certify that this facility is a remanufacturer under pharmaceutical manufacturing, NAICS 325412; basic organic chemical manufacturing, NAICS 325199; plastics and resins manufacturing, NAICS 325211; and/or the paints and coatings manufacturing sectors, NAICS 325510; and will accept the spent solvent(s) for the sole purpose of remanufacturing into commercialgrade solvent(s) that will be used for reacting, extracting, purifying, or blending chemicals, or for rinsing out the process lines associated with these functions, or for use as product ingredient(s). I also certify that the remanufacturing equipment, vents, and tanks are equipped with and are operating air emission controls in compliance with the appropriate Clean Air Act regulations under 40 CFR part 60, part 61 or part 63, or, absent such Clean Air Act standards for the particular operation or piece of equipment covered by the remanufacturing exclusion, are in compliance with the appropriate standards in Sections R315-261-1030 through 1035, 1050 through 1064 and 1080 through 1089";
- (C) Maintain records of shipments and confirmations of receipts for a period of three years from the dates of the shipments;
- (D) Prior to remanufacturing, store the hazardous spent solvents in tanks or containers that meet technical standards found in Sections R315-261-17- through 179 and 190 through 200, with the tanks and containers being labeled or otherwise having an immediately available record of the material being stored;
- (E) During remanufacturing, and during storage of the hazardous secondary materials prior to remanufacturing, the remanufacturer certifies that the remanufacturing equipment, vents, and tanks are equipped with and are operating air emission controls in compliance with the appropriate Clean Air Act regulations under 40 CFR part 60, part 61 or part 63; or, absent such Clean Air Act standards for the particular operation or piece of equipment covered by the remanufacturing exclusion, are in compliance with the appropriate standards in Sections R315-261-1030 through 1035, 1050 through 1064 and 1080 through 1089; and
- (F) Meet the requirements prohibiting speculative accumulation per Subsection R315-261-1(c)(8).
- (b) Solid wastes which are not hazardous wastes. The following solid wastes are not hazardous wastes:
- (1) Household waste, including household waste that has been collected, transported, stored, treated, disposed, recovered[, e.g.,] such as refuse-derived fuel, or reused. "Household waste" means any material, including garbage, trash and sanitary wastes in septic tanks, derived from households, including single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds and day-use recreation areas. A resource

recovery facility managing municipal solid waste shall not be deemed to be treating, storing, disposing of, or otherwise managing hazardous wastes for the purposes of regulation under this subtitle, if such facility:

- (i) Receives and burns only
- (A) Household waste, from single and multiple dwellings, hotels, motels, and other residential sources, and
- (B) Solid waste from commercial or industrial sources that does not contain hazardous waste; and
- (ii) Such facility does not accept hazardous wastes and the owner or operator of such facility has established contractual requirements or other appropriate notification or inspection procedures to assure that hazardous wastes are not received at or burned in such facility.
- (2) Solid wastes generated by any of the following and which are returned to the soils as fertilizers:
 - (i) The growing and harvesting of agricultural crops.
 - (ii) The raising of animals, including animal manures.
 - (3) Mining overburden returned to the mine site.
- (4)(i) Fly ash waste, bottom ash waste, slag waste, and flue gas emission control waste generated primarily from the combustion of coal or other fossil fuels, except as provided by Section R315-266-112 for facilities that burn or process hazardous waste.
- (ii) The following wastes generated primarily from processes that support the combustion of coal or other fossil fuels that are codisposed with the wastes in Subsection R315-261-4(b)(4)(i), except as provided by Section R315-266-112 for facilities that burn or process hazardous waste:
- (A) Coal pile run-off. For purposes of Subsection R315-261-4(b)(4), coal pile run-off means any precipitation that drains off coal piles.
- (B) Boiler cleaning solutions. For purposes of Subsection R315-261-4(b)(4), boiler cleaning solutions means water solutions and chemical solutions used to clean the fire-side and water-side of the boiler.
- (C) Boiler blowdown. For purposes of Subsection R315-261-4(b)(4), boiler blowdown means water purged from boilers used to generate steam.
- (D) Process water treatment and demineralizer regeneration wastes. For purposes of Subsection R315-261-4(b)(4), process water treatment and demineralizer regeneration wastes means sludges, rinses, and spent resins generated from processes to remove dissolved gases, suspended solids, and dissolved chemical salts from combustion system process water.
- (E) Cooling tower blowdown. For purposes of Subsection R315-261-4(b)(4), cooling tower blowdown means water purged from a closed cycle cooling system. Closed cycle cooling systems include cooling towers, cooling ponds, or spray canals.
- (F) Air heater and precipitator washes. For purposes of Subsection R315-261-4(b)(4), air heater and precipitator washes means wastes from cleaning air preheaters and electrostatic precipitators.
- (G) Effluents from floor and yard drains and sumps. For purposes of Subsection R315-261-4(b)(4), effluents from floor and yard drains and sumps means wastewaters, such as wash water, collected by or from floor drains, equipment drains, and sumps located inside the power plant building; and wastewaters, such as rain runoff, collected by yard drains and sumps located outside the power plant building.
- (H) Wastewater treatment sludges. For purposes of Subsection R315-261-4(b)(4), wastewater treatment sludges refers to sludges generated from the treatment of wastewaters specified in Subsections R315-261-4(b)(4)(ii)(A) through (F).

- (5) Drilling fluids, produced waters, and other wastes associated with the exploration, development, or production of crude oil, natural gas or geothermal energy.
- (6)(i) Wastes which fail the test for the Toxicity Characteristic because chromium is present or are listed in Sections R315-261-30 through R316-261-35 due to the presence of chromium, which do not fail the test for the Toxicity Characteristic for any other constituent or are not listed due to the presence of any other constituent, and which do not fail the test for any other characteristic, if it is shown by a waste generator or by waste generators that:
- (A) The chromium in the waste is exclusively, or nearly exclusively, trivalent chromium; and
- (B) The waste is generated from an industrial process which uses trivalent chromium exclusively, [{]or nearly exclusively[}], and the process does not generate hexavalent chromium; and
- (C) The waste is typically and frequently managed in non-oxidizing environments.
- (ii) Specific wastes which meet the standard in Subsections R315-261-4(b)(6)(i)(A), (B), and (C), so long as they do not fail the test for the toxicity characteristic for any other constituent, and do not exhibit any other characteristic, are:
- (A) Chrome, [{|blue|}], trimmings generated by the following subcategories of the leather tanning and finishing industry; hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.
- (B) Chrome, [{]blue[}], shavings generated by the following subcategories of the leather tanning and finishing industry: Hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.
- (C) Buffing dust generated by the following subcategories of the leather tanning and finishing industry; hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue.
- (D) Sewer screenings generated by the following subcategories of the leather tanning and finishing industry: Hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.
- (E) Wastewater treatment sludges generated by the following subcategories of the leather tanning and finishing industry: Hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.
- (F) Wastewater treatment sludges generated by the following subcategories of the leather tanning and finishing industry: Hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; and through-the-blue.
- (G) Waste scrap leather from the leather tanning industry, the shoe manufacturing industry, and other leather product manufacturing industries.
- (H) Wastewater treatment sludges from the production of TiO2 pigment using chromium-bearing ores by the chloride process.
- (7) Solid waste from the extraction, beneficiation, and processing of ores and minerals, including coal, phosphate rock, and overburden from the mining of uranium ore, except as provided by Section R315-266-112 for facilities that burn or process hazardous waste.
- (i) For purposes of Subsection R315-261-4(b)(7) beneficiation of ores and minerals is restricted to the following activities; crushing; grinding; washing; dissolution; crystallization; filtration; sorting; sizing; drying; sintering; pelletizing; briquetting; calcining to remove water, [and/or-]carbon dioxide, or both; roasting, autoclaving, [and/or-]chlorination, or both in preparation for leaching, [elexcept where the roasting, [and/]or autoclaving, [and/]or

chlorination[3][4] or leaching, or any combination of these, sequence produces a final or intermediate product that does not undergo further beneficiation or processing[3]; gravity concentration; magnetic separation; electrostatic separation; flotation; ion exchange; solvent extraction; electrowinning; precipitation; amalgamation; and heap, dump, vat, tank, and in situ leaching.

- (ii) For the purposes of Subsection R315-261-4(b)(7), solid waste from the processing of ores and minerals includes only the following wastes as generated:
 - (A) Slag from primary copper processing;
 - (B) Slag from primary lead processing;
 - (C) Red and brown muds from bauxite refining;
 - (D) Phosphogypsum from phosphoric acid production;
 - (E) Slag from elemental phosphorus production;
 - (F) Gasifier ash from coal gasification;
 - (G) Process wastewater from coal gasification;
- (H) Calcium sulfate wastewater treatment plant sludge from primary copper processing;
 - (I) Slag tailings from primary copper processing;
 - (J) Fluorogypsum from hydrofluoric acid production;
 - (K) Process wastewater from hydrofluoric acid production;
- (L) Air pollution control dust[/] or sludge from iron blast furnaces;
 - (M) Iron blast furnace slag;
 - (N) Treated residue from roasting[/] or leaching of chrome
- (O) Process wastewater from primary magnesium processing by the anhydrous process;
 - (P) Process wastewater from phosphoric acid production;
- (Q) Basic oxygen furnace and open hearth furnace air pollution control dust[/] or sludge from carbon steel production;
- $\begin{tabular}{ll} \begin{tabular}{ll} (R) & Basic oxygen furnace and open hearth furnace slag from carbon steel production; \end{tabular}$
- $\textbf{(S)} \ \ Chloride \ process \ waste solids \ from \ titanium \ tetrachloride \ production;}$
 - (T) Slag from primary zinc processing.
- (iii) A residue derived from co-processing mineral processing secondary materials with normal beneficiation raw materials or with normal mineral processing raw materials remains excluded under Subsection R315-261-4(b) if the owner or operator:
- (A) Processes at least 50 percent by weight normal beneficiation raw materials or normal mineral processing raw materials; and.
- (B) Legitimately reclaims the secondary mineral processing materials.
- (8) Cement kiln dust waste, except as provided by Section R315-266-112 for facilities that burn or process hazardous waste.
- (9) Solid waste which consists of discarded arsenical-treated wood or wood products which fails the test for the Toxicity Characteristic for Hazardous Waste Codes D004 through D017 and which is not a hazardous waste for any other reason if the waste is generated by persons who utilize the arsenical-treated wood and wood products for these materials' intended end use.
- (10) Petroleum-contaminated media and debris that fail the test for the Toxicity Characteristic of Section R315-261-24, Hazardous Waste Codes D018 through D043 only, and are subject to the corrective action [regulations]rules under Section R[315-]311-202-1 which adopts 40 CFR 280 by reference.
- (11) Injected groundwater that is hazardous only because it exhibits the Toxicity Characteristic, Hazardous Waste Codes D018 through D043 only, in Section R315-261-24 that is reinjected through an underground injection well pursuant to free phase hydrocarbon

recovery operations undertaken at petroleum refineries, petroleum marketing terminals, petroleum bulk plants, petroleum pipelines, and petroleum transportation spill sites until January 25, 1993. This extension applies to recovery operations in existence, or for which contracts have been issued, on or before March 25, 1991. For groundwater returned through infiltration galleries from such operations at petroleum refineries, marketing terminals, and bulk plants, until October 2, 1991. New operations involving injection wells, beginning after March 25, 1991, will qualify for this compliance date extension, until January 25, 1993, only if:

- (i) Operations are performed pursuant to a written state agreement that includes a provision to assess the groundwater and the need for further remediation once the free phase recovery is completed; and
- (ii) A copy of the written agreement has been submitted to: Waste Identification Branch (5304), U.S. Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460 and the Division of Waste Management and Radiation Control, PO Box 144880, Salt Lake City, UT 84114-4880.
- (12) Used chlorofluorocarbon refrigerants from totally enclosed heat transfer equipment, including mobile air conditioning systems, mobile refrigeration, and commercial and industrial air conditioning and refrigeration systems that use chlorofluorocarbons as the heat transfer fluid in a refrigeration cycle, provided the refrigerant is reclaimed for further use.
- (13) Non-terne plated used oil filters that are not mixed with wastes listed in Sections R315-261-30 through R315-261-35 if these oil filters have been gravity hot-drained using one of the following methods:
- (i) Puncturing the filter anti-drain back valve or the filter dome end and hot-draining;
 - (ii) Hot-draining and crushing;
 - (iii) Dismantling and hot-draining; or
- (iv) Any other equivalent hot-draining method that will remove used oil.
- (14) Used oil re-refining distillation bottoms that are used as feedstock to manufacture asphalt products.
- (15) Leachate or gas condensate collected from landfills where certain solid wastes have been disposed, provided that:
- (i) The solid wastes disposed would meet one or more of the listing descriptions for Hazardous Waste Codes K169, K170, K171, K172, K174, K175, K176, K177, K178 and K181 if these wastes had been generated after the effective date of the listing;
- (ii) The solid wastes described in Subsection R315-261-4(b)(15)(i) were disposed prior to the effective date of the listing;
- (iii) The leachate or gas condensate do not exhibit any characteristic of hazardous waste nor are derived from any other listed hazardous waste;
- (iv) Discharge of the leachate or gas condensate, including leachate or gas condensate transferred from the landfill to a POTW by truck, rail, or dedicated pipe, is subject to regulation under sections 307(b) or 402 of the Clean Water Act.
- (v) As of February 13, 2001, leachate or gas condensate derived from K169-K172 is no longer exempt if it is stored or managed in a surface impoundment prior to discharge. As of November 21, 2003, leachate or gas condensate derived from K176, K177, and K178 is no longer exempt if it is stored or managed in a surface impoundment prior to discharge. After February 26, 2007, leachate or gas condensate derived from K181 will no longer be exempt if it is stored or managed in a surface impoundment prior to discharge. There is one exception: if the surface impoundment is used to temporarily store leachate or gas condensate in response to an emergency situation[, e.g.,] such as

shutdown of wastewater treatment system, provided the impoundment has a double liner, and provided the leachate or gas condensate is removed from the impoundment and continues to be managed in compliance with the conditions of Subsection R315-261-4(b)(15)(v) after the emergency ends.

- (16) Reserved
- (17) Reserved
- (18) Solvent-contaminated wipes, except for wipes that are hazardous waste due to the presence of trichloroethylene, that are sent for disposal are not hazardous wastes from the point of generation provided that
- (i) The solvent-contaminated wipes, when accumulated, stored, and transported, are contained in non-leaking, closed containers that are labeled "Excluded Solvent-Contaminated Wipes." The containers shall be able to contain free liquids, should free liquids occur. During accumulation, a container is considered closed [when]if there is complete contact between the fitted lid and the rim, except when it is necessary to add or remove solvent-contaminated wipes. When the container is full, or when the solvent-contaminated wipes are no longer being accumulated, or when the container is being transported, the container shall be sealed with [all]the lids properly and securely affixed to the container and [all]any openings tightly bound or closed sufficiently to prevent leaks and emissions;
- (ii) The solvent-contaminated wipes may be accumulated by the generator for up to 180 days from the start date of accumulation for each container prior to being sent for disposal;
- (iii) At the point of being transported for disposal, the solvent-contaminated wipes shall contain no free liquids as defined in Section R315-260-10.
- (iv) Free liquids removed from the solvent-contaminated wipes or from the container holding the wipes shall be managed according to the applicable [regulations]rules found in Rules R315-260 through R315-266, R315-268, R315-270, and R315-273;
- (v) Generators shall maintain at their site the following documentation:
- (A) Name and address of the landfill or combustor that is receiving the solvent-contaminated wipes;
- (B) Documentation that the 180 day accumulation time limit in Subsection R315-261-4(b)(18)(ii) is being met;
- (C) Description of the process the generator is using to ensure solvent-contaminated wipes contain no free liquids at the point of being transported for disposal;
 - (vi) The solvent-contaminated wipes are sent for disposal
 - (A) To a solid waste landfill that:
 - (I) is regulated under R315-301 through R315-320
 - (II) is a Class I or V Landfill; and
 - (III) has a composite liner; or
- (B) To a hazardous waste landfill regulated under Rules R315-260 through R315-266, R315-268, and R315-270; or
- (C) To a municipal waste combustor or other combustion facility regulated under section 129 of the Clean Air Act or to a hazardous waste combustor, boiler, or industrial furnace regulated under Rule R315-264, Rule R315-265, or Sections R315-266-100 through R315-266-112.
- (c) Hazardous wastes which are exempted from certain [regulations]rules. A hazardous waste which is generated in a product or raw material storage tank, a product or raw material transport vehicle or vessel, a product or raw material pipeline, or in a manufacturing process unit or an associated non-waste-treatment-manufacturing unit, is not subject to regulation under Rules R315-262 through R315-265, R315-268, R315-270, and R315-124 or to the notification requirements of section 3010 of RCRA until it exits the unit in which it was generated,

unless the unit is a surface impoundment, or unless the hazardous waste remains in the unit more than 90 days after the unit ceases to be operated for manufacturing, or for storage or transportation of product or raw materials.

- (d)(1) Samples. Except as provided in Subsections R315-261-4(d)(2) and (4), a sample of solid waste or a sample of water, soil, or air, which is collected for the sole purpose of testing to determine its characteristics or composition, is not subject to any requirements of Rules R315-261 through R315-266, R315-268 or R315-270 or R315-124 or to the notification requirements of Section 3010 of RCRA, $\lceil when \rceil$ if:
- (i) The sample is being transported to a laboratory for the purpose of testing; or
- (ii) The sample is being transported back to the sample collector after testing; or
- (iii) The sample is being stored by the sample collector before transport to a laboratory for testing; or
 - (iv) The sample is being stored in a laboratory before testing;
- (v) The sample is being stored in a laboratory after testing but before it is returned to the sample collector; or
- (vi) The sample is being stored temporarily in the laboratory after testing for a specific purpose [{] for example, until conclusion of a court case or enforcement action where further testing of the sample may be necessary[}].
- (2) In order to qualify for the exemption in Subsections R315-261-4(d)(1) (i) and (ii), a sample collector shipping samples to a laboratory and a laboratory returning samples to a sample collector shall:
- (i) Comply with U.S. Department of Transportation (DOT), U.S. Postal Service (USPS), or any other applicable shipping requirements; or
- (ii) Comply with the following requirements if the sample collector determines that DOT, USPS, or other shipping requirements do not apply to the shipment of the sample:
- (A) Assure that the following information accompanies the sample:
- (I) The sample collector's name, mailing address, and telephone number;
- (II) The laboratory's name, mailing address, and telephone number;
 - (III) The quantity of the sample;
 - (IV) The date of shipment; and
 - (V) A description of the sample.
- (B) Package the sample so that it does not leak, spill, or vaporize from its packaging.
- (3) This exemption does not apply if the laboratory determines that the waste is hazardous but the laboratory is no longer meeting any of the conditions stated in Subsection R315-261-4(d)(1).
- (4) In order to qualify for the exemption in Subsections R315-261-4(d)(1)(i) and (ii), the mass of a sample that will be exported to a foreign laboratory or that will be imported to a U.S. laboratory from a foreign source [must]shall additionally not exceed 25 kg.
- (e)(1) Treatability Study Samples. Except as provided in Subsections R315-261-4(e)(2) and (4), persons who generate or collect samples for the purpose of conducting treatability studies as defined in Section R315-260-10, are not subject to any requirement of Rules R315-261 through 263 or to the notification requirements of Section 3010 of RCRA, nor are such samples included in the quantity determinations of Section R315-261-5 and Subsection R315-262-34(d) [when]if:
- (i) The sample is being collected and prepared for transportation by the generator or sample collector; or

- (ii) The sample is being accumulated or stored by the generator or sample collector prior to transportation to a laboratory or testing facility; or
- (iii) The sample is being transported to the laboratory or testing facility for the purpose of conducting a treatability study.
- (2) The exemption in Subsection R315-261-4(e)(1) is applicable to samples of hazardous waste being collected and shipped for the purpose of conducting treatability studies provided that:
- (i) The generator or sample collector uses, [{]in "treatability studies"[}], no more than 10,000 kg of media contaminated with nonacute hazardous waste, 1000 kg of non-acute hazardous waste other than contaminated media, 1 kg of acute hazardous waste, 2500 kg of media contaminated with acute hazardous waste for each process being evaluated for each generated waste stream; and
- (ii) The mass of each sample shipment does not exceed $10,000\,\mathrm{kg}$; the $10,000\,\mathrm{kg}$ quantity may be [all-]media contaminated with non-acute hazardous waste, or may include 2500 kg of media contaminated with acute hazardous waste, $1000\,\mathrm{kg}$ of hazardous waste, and $1\,\mathrm{kg}$ of acute hazardous waste; and
- (iii) The sample shall be packaged so that it will not leak, spill, or vaporize from its packaging during shipment and the requirements of Subsections R315-261-4(e)(2)(iii)(A) or (B) are met.
- (A) The transportation of each sample shipment complies with U.S. Department of Transportation (DOT), U.S. Postal Service (USPS), or any other applicable shipping requirements; or
- (B) If the DOT, USPS, or other shipping requirements do not apply to the shipment of the sample, the following information shall accompany the sample:
- (I) The name, mailing address, and telephone number of the originator of the sample;
- (II) The name, address, and telephone number of the facility that will perform the treatability study;
 - (III) The quantity of the sample;
 - (IV) The date of shipment; and
- $\mbox{(V) A description of the sample, including its EPA Hazardous} \label{eq:continuous} \mbox{Vaste Number.}$
- (iv) The sample is shipped to a laboratory or testing facility which is exempt under Subsection R315-261-4(f) or has an appropriate RCRA permit or interim status.
- (v) The generator or sample collector maintains the following records for a period ending three years after completion of the treatability study:
 - (A) Copies of the shipping documents;
- (B) A copy of the contract with the facility conducting the treatability study;
 - (C) Documentation showing:
 - (I) The amount of waste shipped under this exemption;
- (II) The name, address, and EPA identification number of the laboratory or testing facility that received the waste;
 - (III) The date the shipment was made; and
- (IV) Whether or not unused samples and residues were returned to the generator.
- (vi) The generator reports the information required under Subsection R315-261-4(e)(2)(v)(C) in its biennial report.
- (3) The Director may grant requests on a case-by-case basis for up to an additional two years for treatability studies involving bioremediation. The Director may grant requests on a case-by-case basis for quantity limits in excess of those specified in Subsections R315-261-4(e)(2)(i) and (ii) and Subsection R315-261-4(f)(4), for up to an additional 5000 kg of media contaminated with non-acute hazardous waste, 500 kg of non-acute hazardous waste, 2500 kg of media

contaminated with acute hazardous waste and 1 kg of acute hazardous waste:

- (i) In response to requests for authorization to ship, store and conduct treatability studies on additional quantities in advance of commencing treatability studies. Factors to be considered in reviewing such requests include the nature of the technology; the type of process, [e.g.,]batch versus continuous; size of the unit undergoing testing, particularly in relation to scale-up considerations; the time[/] or quantity of material required to reach steady state operating conditions; or test design considerations such as mass balance calculations.
- (ii) In response to requests for authorization to ship, store and conduct treatability studies on additional quantities after initiation or completion of initial treatability studies, [when]if: There has been an equipment or mechanical failure during the conduct of a treatability study; there is a need to verify the results of a previously conducted treatability study; there is a need to study and analyze alternative techniques within a previously evaluated treatment process; or there is a need to do further evaluation of an ongoing treatability study to determine final specifications for treatment.
- (iii) The additional quantities and timeframes allowed in Subsections R315-261-4(e)(3)(i) and (ii) are subject to [all the provisions in-]Subsections R315-261-4(e)(1) and R315-261-4(e)(2)(iii) through R315-261-4(e)(2)(vi). The generator or sample collector shall apply to the Director and provide in writing the following information:
- (A) The reason why the generator or sample collector requires additional time or quantity of sample for treatability study evaluation and the additional time or quantity needed;
- (B) Documentation accounting for [all]any samples of hazardous waste from the waste stream which have been sent for or undergone treatability studies including the date each previous sample from the waste stream was shipped, the quantity of each previous shipment, the laboratory or testing facility to which it was shipped, what treatability study processes were conducted on each sample shipped, and the available results on each treatability study;
- (C) A description of the technical modifications or change in specifications which will be evaluated and the expected results;
- (D) If such further study is being required due to equipment or mechanical failure, the applicant shall include information regarding the reason for the failure or breakdown and also include what procedures or equipment improvements have been made to protect against further breakdowns; and
- (E) Such other information that the Director considers necessary.
- (4) In order to qualify for the exemption in Subsection R315-261-4(e)(1)(i), the mass of a sample that will be exported to a foreign laboratory or testing facility or that will be imported to a U.S. laboratory or testing facility from a foreign source [$\frac{must}{shall}$] additionally no exceed 25 kg.
- (f) Samples Undergoing Treatability Studies at Laboratories and Testing Facilities. Samples undergoing treatability studies and the laboratory or testing facility conducting such treatability studies, to the extent such facilities are not otherwise subject to RCRA requirements, are not subject to any requirement of Rules R315-261 through R315-266, R315-268, and R315-270, or to the notification requirements of Section 3010 of RCRA provided that the conditions of Subsection R315-261-4(f)(1) through (11) are met. A mobile treatment unit (MTU) may qualify as a testing facility subject to Subsections R315-261-4(f)(1) through (11). Where a group of MTUs are located at [the same]a site, the limitations specified in Subsections R315-261-4(f)(1) through (11) apply to the entire group of MTUs collectively as if the group were one MTU.

- (1) No less than 45 days before conducting treatability studies, the facility notifies the Director, in writing that it intends to conduct treatability studies under Subsection R315-261-4(f).
- (2) The laboratory or testing facility conducting the treatability study has an EPA identification number.
- (3) No more than a total of 10,000 kg of "as received" media contaminated with non-acute hazardous waste, 2500 kg of media contaminated with acute hazardous waste or 250 kg of other "as received" hazardous waste is subject to initiation of treatment in [all] Itreatability studies in any single day. "As received" waste refers to the waste as received in the shipment from the generator or sample collector.
- (4) The quantity of "as received" hazardous waste stored at the facility for the purpose of evaluation in treatability studies does not exceed 10,000 kg, the total of which can include 10,000 kg of media contaminated with non-acute hazardous waste, 2500 kg of media contaminated with acute hazardous waste, 1000 kg of non-acute hazardous wastes other than contaminated media, and 1 kg of acute hazardous waste. This quantity limitation does not include treatment materials, including nonhazardous solid waste, added to "as received" hazardous waste.
- (5) No more than 90 days have elapsed since the treatability study for the sample was completed, or no more than one year, two years for treatability studies involving bioremediation, have elapsed since the generator or sample collector shipped the sample to the laboratory or testing facility, whichever date first occurs. Up to 500 kg of treated material from a particular waste stream from treatability studies may be archived for future evaluation up to five years from the date of initial receipt. Quantities of materials archived are counted against the total storage limit for the facility.
- (6) The treatability study does not involve the placement of hazardous waste on the land or open burning of hazardous waste.
- (7) The facility maintains records for three years following completion of each study that show compliance with the treatment rate limits and the storage time and quantity limits. The following specific information shall be included for each treatability study conducted:
- $\hbox{(i) The name, address, and EPA identification number of the generator or sample collector of each waste sample;}\\$
 - (ii) The date the shipment was received;
 - (iii) The quantity of waste accepted;
 - (iv) The quantity of "as received" waste in storage each day;
- (v) The date the treatment study was initiated and the amount of "as received" waste introduced to treatment each day;
 - (vi) The date the treatability study was concluded;
- (vii) The date any unused sample or residues generated from the treatability study were returned to the generator or sample collector or, if sent to a designated facility, the name of the facility and the EPA identification number.
- (8) The facility keeps, on-site, a copy of the treatability study contract and [all]any shipping papers associated with the transport of treatability study samples to and from the facility for a period ending three years from the completion date of each treatability study.
- (9) The facility prepares and submits a report to the Director, by March 15 of each year, that includes the following information for the previous calendar year:
- (i) The name, address, and EPA identification number of the facility conducting the treatability studies;
- (ii) The types, [-()]by process[--)], of treatability studies conducted;
- (iii) The names and addresses of persons for whom studies have been conducted, including their EPA identification numbers;
 - (iv) The total quantity of waste in storage each day;

- $\ensuremath{(v)}$ The quantity and types of waste subjected to treatability studies;
 - (vi) When each treatability study was conducted;
- (vii) The final disposition of residues and unused sample from each treatability study.
- (10) The facility determines whether any unused sample or residues generated by the treatability study are hazardous waste under Section R315-261-3 and, if so, are subject to Rules R315-261 through R315-268 and R315-270, unless the residues and unused samples are returned to the sample originator under the Subsection R3315-261-4(e) exemption.
- (11) The facility notifies the Director, by letter when the facility is no longer planning to conduct any treatability studies at the site.
- (g) Dredged material that is not a hazardous waste. Dredged material that is subject to the requirements of a permit that has been issued under 404 of the Federal Water Pollution Control Act, [{]33 U.S.C. 1344[}], or section 103 of the Marine Protection, Research, and Sanctuaries Act of 1972, [{]33 U.S.C. 1413[}], is not a hazardous waste. For Subsection R315-261-4(g), the following definitions apply:
- (1) The term dredged material has the [$\frac{1}{2}$] meaning as defined in 40 CFR 232.2;
 - (2) The term permit means:
- (i) A permit issued by the U.S. Army Corps of Engineers (Corps) or an approved State under section 404 of the Federal Water Pollution Control Act. [6]33 U.S.C. 1344[7];
- (ii) A permit issued by the Corps under section 103 of the Marine Protection, Research, and Sanctuaries Act of 1972_{2} [4]33 U.S.C. 1413[7]; or
- (iii) In the case of Corps civil works projects, the administrative equivalent of the permits referred to in Subsections R315-261-4(g)(2)(i) and (ii), as provided for in Corps regulations.
- (h) Carbon dioxide stream injected for geologic sequestration. Carbon dioxide streams that are captured and transported for purposes of injection into an underground injection well subject to the requirements for Class VI Underground Injection Control wells, including the requirements in Rule R317-7, are not a hazardous waste, provided the following conditions are met:
- (1) Transportation of the carbon dioxide stream shall be in compliance with U.S. Department of Transportation requirements, including the pipeline safety laws, 49 U.S.C. 60101 et seq. and regulations, 49 CFR Parts 190-199, of the U.S. Department of Transportation, and pipeline safety regulations adopted and administered by a state authority pursuant to a certification under 49 U.S.C. 60105, as applicable.
- (2) Injection of the carbon dioxide stream shall be in compliance with the applicable requirements for Class VI Underground Injection Control wells, including the applicable requirements in Rule R317-7:
- (3) No hazardous wastes shall be mixed with, or otherwise co-injected with, the carbon dioxide stream; and
- (4)(i) Any generator of a carbon dioxide stream, who claims that a carbon dioxide stream is excluded under Subsection R315-261-4(h), shall have an authorized representative, as defined in Section R315-260-10, sign a certification statement worded as follows: I certify under penalty of law that the carbon dioxide stream that I am claiming to be excluded under Subsection R315-261.4(h) has not been mixed with hazardous wastes, and I have transported the carbon dioxide stream in compliance with, or have contracted with a pipeline operator or transporter to transport the carbon dioxide stream in compliance with, Department of Transportation requirements, including the pipeline safety laws, 49 U.S.C. 60101 et seq., and regulations, 49 CFR Parts 190-

- 199, of the U.S. Department of Transportation, and the pipeline safety regulations adopted and administered by a state authority pursuant to a certification under 49 U.S.C. 60105, as applicable, for injection into a well subject to the requirements for the Class VI Underground Injection Control Program of Rule R317-7.
- (ii) Any Class VI Underground Injection Control well owner or operator, who claims that a carbon dioxide stream is excluded under Subsection R315-261-4(h), shall have an authorized representative, as defined in Section R315-260-10, sign a certification statement worded as follows: I certify under penalty of law that the carbon dioxide stream that I am claiming to be excluded under Subsection R315-261-4(h) has not been mixed with, or otherwise co-injected with, hazardous waste at the Underground Injection Control (UIC) Class VI permitted facility, and that injection of the carbon dioxide stream is in compliance with the applicable requirements for UIC Class VI wells, including the applicable requirements in Rule R317-7.
- (iii) The signed certification statement shall be kept on-site for no less than three years, and shall be made available within 72 hours of a written request from the Director. The signed certification statement shall be renewed every year that the exclusion is claimed, by having an authorized representative, as defined in Section R315-260-10, annually prepare and sign a new copy of the certification statement within one year of the date of the previous statement. The signed certification statement shall also be readily accessible on the facility's publicly-available Web site, if such Web site exists, as a public notification with the title of "Carbon Dioxide Stream Certification" at the time the exclusion is claimed.
 - (i) Reserved
- (j)(1) Airbag waste at the airbag waste handler or during transport to an airbag waste collection facility or designated facility is not subject to regulation under Rules R315-262 through 268, R315-270 or R315-124, and is not subject to the notification requirements of section 3010 of RCRA provided that:
- (i) The airbag waste is accumulated in a quantity of no more than 250 airbag modules or airbag inflators, for no longer than 180 days;
- (ii) The airbag waste is packaged in a container designed to address the risk posed by the airbag waste and labeled "Airbag Waste -- Do Not Reuse;"
 - (iii) The airbag waste is sent directly to either
- (A) An airbag waste collection facility in the United States under the control of a vehicle manufacturer or their authorized representative, or under the control of an authorized party administering a remedy program in response to a recall under the National Highway Traffic Safety Administration, or
 - (B) A designated facility as defined in Section R315-260-10;
- (iv) The transport of the airbag waste complies with [all]applicable U.S. Department of Transportation regulations in 49 CFR part 171 through 180 during transit;
- (v) The airbag waste handler maintains at the handler facility for no less than three years records of [all]each off-site shipment[s] of airbag waste and [all]each confirmation[s] of receipt from the receiving facility. For each shipment, these records [must]shall, at a minimum, contain the name of the transporter and date of the shipment; name and address of receiving facility; and the type and quantity of airbag waste, [i.e.]that is, airbag modules or airbag inflators, in the shipment. Confirmations of receipt [must]shall include the name and address of the receiving facility; the type and quantity of the airbag waste, [i.e.]that is, airbag modules and airbag inflators, received; and the date which it was received. Shipping records and confirmations of receipt [must]shall be made available for inspection and may be satisfied by routine business records[-e.g.,] such as electronic or paper financial records,

- bills of lading, copies of DOT shipping papers, or electronic confirmations of receipt.
- (2) Once the airbag waste arrives at an airbag waste collection facility or designated facility, it becomes subject to [all_]applicable hazardous waste [regulations]rules, and the facility receiving airbag waste is considered the hazardous waste generator for the purposes of the hazardous waste [regulations]rules and [must]shall comply with the requirements of Rule R315-262.
- (3) Reuse in vehicles of defective airbag modules or defective airbag inflators subject to a recall under the National Highway Traffic Safety Administration is considered sham recycling and prohibited under Subsection R315-261-2(g).

R315-261-6. Requirements for Recyclable Materials.

- (a)(1) Hazardous wastes that are recycled are subject to the requirements for generators, transporters, and storage facilities of Subsections R315-261-6(b) and (c), except for the materials listed in Subsections R315-261-6(a)(2) and (a)(3). Hazardous wastes that are recycled shall be known as "recyclable materials."
- (2) The following recyclable materials are not subject to the requirements of Section R315-261-6 but are regulated under Sections R315-266-20 through R315-266-23, Section R315-266-70, Section R315-266-80, Sections R315-266-100 through R315-266-112[, Sections R315-266-200 through 206, and Sections R315-266-210, 220, 225, 230,235, 240, 245, 250, 255, 260, 310, 315, 320, 325, 330, 335, 340, 345,350, 355, and 360] and [all applicable provisions in-]Rules R315-268, R315-270, and R315-124.
- (i) Recyclable materials used in a manner constituting disposal, Sections R315-266-20 through 23;
- (ii) Hazardous wastes burned, as defined in Subsection R315-266-100(a), in boilers and industrial furnaces that are not regulated under Sections R315-264-340 through 345, 347 and 351; Sections R315-370, 373, 375, 377, and 381 through 383; and Section R315-266-100 through 112;
- (iii) Recyclable materials from which precious metals are reclaimed, Section R315-266-70;
- (iv) Spent lead-acid batteries that are being reclaimed, Section R315-266-80.
- (3) The following recyclable materials are not subject to regulation under Rules R315-262 through R315-268, R315-270, and R315-124, and are not subject to the notification requirements of section 3010 of RCRA:
- (i) Industrial ethyl alcohol that is reclaimed except that exports and imports of such recyclable materials [must]shall comply with the requirements of Sections R315-262-80 through R315-262-84.
- (ii) Scrap metal that is not excluded under Subsection R315-261-4(a)(13);
- (iii) Fuels produced from the refining of oil-bearing hazardous waste along with normal process streams at a petroleum refining facility if such wastes result from normal petroleum refining, production, and transportation practices, this exemption does not apply to fuels produced from oil recovered from oil-bearing hazardous waste, where such recovered oil is already excluded under Subsection R315-261-4(a)(12);
- (iv)(A) Hazardous waste fuel produced from oil-bearing hazardous wastes from petroleum refining, production, or transportation practices, or produced from oil reclaimed from such hazardous wastes, where such hazardous wastes are reintroduced into a process that does not use distillation or does not produce products from crude oil so long as the resulting fuel meets the used oil specification under Subsection R315-15-1.2(c) and so long as no other hazardous wastes are used to produce the hazardous waste fuel;

- (B) Hazardous waste fuel produced from oil-bearing hazardous waste from petroleum refining production, and transportation practices, where such hazardous wastes are reintroduced into a refining process after a point at which contaminants are removed, so long as the fuel meets the used oil fuel specification under Subsection R315-15-1.2(c); and
- (C) Oil reclaimed from oil-bearing hazardous wastes from petroleum refining, production, and transportation practices, which reclaimed oil is burned as a fuel without reintroduction to a refining process, so long as the reclaimed oil meets the used oil fuel specification under Subsection R315-15-1.2(c).
- (4) Used oil that is recycled and is also a hazardous waste solely because it exhibits a hazardous characteristic is not subject to the requirements of Rules R315-260 through 268, but is regulated under Rule R315-15. Used oil that is recycled includes any used oil which is reused, following its original use, for any purpose, including the purpose for which the oil was originally used. Such term includes, but is not limited to, oil which is re-refined, reclaimed, burned for energy recovery, or reprocessed.
- (5) Hazardous waste that is exported or imported for purpose of recovery is subject to the requirements of Sections R315-262-80 through 84.
- (b) Generators and transporters of recyclable materials are subject to the applicable requirements of Rules R315-262 and 263 and the notification requirements under section 3010 of RCRA, except as provided in Subsection R315-261-6(a).
- (c)(1) Owners and operators of facilities that store recyclable materials before they are recycled are regulated under [all applicable provisions of]Rules R315-264 and R315-265, and under Rules R315-266, R315-268, R315-270, and R315-124 and the notification requirements under section 3010 of RCRA, except as provided in Subsection R315-261-6(a). The recycling process itself is exempt from regulation except as provided in Subsection R315-261-6(d).
- (2) Owners or operators of facilities that recycle recyclable materials without storing them before they are recycled are subject to the following requirements, except as provided in R315-261-6(a):
 - (i) Notification requirements under section 3010 of RCRA;
- (ii) Sections R315-265-71 and 72 dealing with the use of the manifest and manifest discrepancies;
 - (iii) Subsection R315-261-6(d); and
- (iv) Section R315-265-75, addressing biennial reporting requirements.
- (d) Owners or operators of facilities subject to permitting requirements under Section 19-6-108 with hazardous waste management units that recycle hazardous wastes are subject to the requirements of Sections R315-264-1030 through 1036; and Sections R315-264-1050 through 1065; [40-CFR-]Sections R315-265[-]-1030 through R315-265-1035[-, which are adopted and incorporated by reference]; or 40 CFR 265.1050 through 1064, which are adopted and incorporated by reference.

R315-261-7. Residues of Hazardous Waste in Empty Containers.

- (a)(1) Any hazardous waste remaining in either: an empty container; or an inner liner removed from an empty container, as defined in Subsection R315-261-7(b), is not subject to regulation under Rules R315-261 through R315-266, R315-268, R315-270 or R315-124 or to the notification requirements of section 3010 of RCRA.
- (2) Any hazardous waste in either a container that is not empty or an inner liner removed from a container that is not empty, as defined in Subsection R315-261-7(b), is subject to regulation under Rules R315-261 through R315-266, R315-268, R315-270, and R315-124 and to the notification requirements of section 3010 of RCRA.

- (b)(1) A container or an inner liner removed from a container that has held any hazardous waste, except a waste that is a compressed gas or that is identified as an acute hazardous waste listed in Section R315-261-31 or Subsection R315-261-33(e) is empty if:
- (i) [All]The wastes have been removed that can be removed using the practices commonly employed to remove materials from that type of container[,-e.g.,] such as pouring, pumping, and aspirating, and
- (ii) No more than 2.5 centimeters, one inch, of residue remain on the bottom of the container or inner liner, or
- (iii)(A) No more than three percent by weight of the total capacity of the container remains in the container or inner liner if the container is less than or equal to 119 gallons in size; or
- (B) No more than 0.3 percent by weight of the total capacity of the container remains in the container or inner liner if the container is greater than 119 gallons in size.
- (2) A container that has held a hazardous waste that is a compressed gas is empty [when]if the pressure in the container approaches atmospheric.
- (3) A container or an inner liner removed from a container that has held an acute hazardous waste listed in Section R315-261-31 or Subsection R315-261-33(e) is empty if:
- (i) The container or inner liner has been triple rinsed using a solvent capable of removing the commercial chemical product or manufacturing chemical intermediate;
- (ii) The container or inner liner has been cleaned by another method that has been shown in the scientific literature, or by tests conducted by the generator, to achieve equivalent removal; or
- (iii) In the case of a container, the inner liner that prevented contact of the commercial chemical product or manufacturing chemical intermediate with the container, has been removed.
- (c) Containers of hazardous waste pharmaceuticals are subject to Section R315-266-507 for determining if they are considered empty, in lieu of Section R315-261-7, except as provided by Subsections R315-266-507(c) and R315-266-507(d).

R315-261-33. Lists of Hazardous Wastes - Discarded Commercial Chemical Products, Off-Specification Species, Container Residues, and Spill Residues Thereof.

The following materials or items are hazardous wastes if [and when-]they are discarded or intended to be discarded as described in Subsection R315-261-2(a)(2)(i), [when]if they are mixed with waste oil or used oil or other material and applied to the land for dust suppression or road treatment, [when]if they are otherwise applied to the land in lieu of their original intended use or [when]if they are contained in products that are applied to the land in lieu of their original intended use, or [when]if, in lieu of their original intended use, they are produced for use as, or a component of, a fuel, distributed for use as a fuel, or burned as a fuel

- (a) Any commercial chemical product, or manufacturing chemical intermediate having the generic name listed in Subsections R315-261-33(e) or (f).
- (b) Any off-specification commercial chemical product or manufacturing chemical intermediate which, if it met specifications, would have the generic name listed in Subsection R315-261-33(e) or (f).
- (c) Any residue remaining in a container or in an inner liner removed from a container that has held any commercial chemical product or manufacturing chemical intermediate having the generic name listed in Subsection R315-261-33(e) or R315-261-33(f), unless the container is empty as defined in Subsection R315-261-7(b) or Section R315-266-507. Unless the residue is being beneficially used or reused, or legitimately recycled or reclaimed; or being accumulated, stored, transported or treated prior to such use, re-use, recycling or

reclamation, the Director considers the residue to be intended for discard, and thus, a hazardous waste. An example of a legitimate re-use of the residue would be where the residue remains in the container and the container is used to hold the [same-]commercial chemical product or manufacturing chemical intermediate it previously held. An example of the discard of the residue would be where the drum is sent to a drum reconditioner who reconditions the drum but discards the residue.

- (d) Any residue or contaminated soil, water or other debris resulting from the cleanup of a spill into or on any land or water of any commercial chemical product or manufacturing chemical intermediate having the generic name listed in Subsection R315-261-33(e) or (f), or any residue or contaminated soil, water or other debris resulting from the cleanup of a spill, into or on any land or water, of any offspecification chemical product and manufacturing chemical intermediate which, if it met specifications, would have the generic name listed in Subsection R315-261-33(e) or (f). The phrase "commercial chemical product or manufacturing chemical intermediate having the generic name listed in..." refers to a chemical substance which is manufactured or formulated for commercial or manufacturing use which consists of the commercially pure grade of the chemical, any technical grades of the chemical that are produced or marketed, and [all]each formulation[s] in which the chemical is the sole active ingredient. It does not refer to a material, such as a manufacturing process waste, that contains any of the substances listed in Subsection R315-261-33(e) or (f). Where a manufacturing process waste is deemed to be a hazardous waste because it contains a substance listed in Subsection R315-261-33(e) or (f), such waste shall be listed in either Sections R315-261-31 or 32 or shall be identified as a hazardous waste by the characteristics set forth in Sections R315-261-20 through 24.
- (e) The commercial chemical products, manufacturing chemical intermediates or off-specification commercial chemical products or manufacturing chemical intermediates referred to in Subsections R315-261-33(a) through (d), are identified as acute hazardous wastes (H). For the convenience of the regulated community the primary hazardous properties of these materials have been indicated by the letters T (Toxicity), and R (Reactivity). Absence of a letter indicates that the compound only is listed for acute toxicity. Wastes are first listed in alphabetical order by substance and then listed again in numerical order by Hazardous Waste Number. These wastes and their corresponding EPA Hazardous Waste Numbers are:

TABLE

Hazardous waste	Chemical abstracts	
No.	No.	Substance
NO.	NO.	Substance
P023	107-20-0	Acetaldehyde, chloro-
P002	591-08-2	Acetamide, N-(aminothioxomethyl)-
P057	640-19-7	Acetamide, 2-fluoro-
P058	62-74-8	Acetic acid, fluoro-, sodium salt
P002	591-08-2	1-Acetyl-2-thiourea
P003	107-02-8	Acrolein
P070	116-06-3	Aldicarb
P203	1646-88-4	Aldicarb sulfone.
P004	309-00-2	Aldrin
P005	107-18-6	Allyl alcohol
P006	20859-73-8	Aluminum phosphide (R,T)
P007	2763-96-4	5-(Aminomethyl)-3-isoxazolol
P008	504-24-5	4-Aminopyridine
P009	131-74-8	Ammonium picrate (R)
P119	7803-55-6	Ammonium vanadate
P099	506-61-6	Argentate(1-), bis(cyano-C)-,
		potassium
P010	7778-39-4	Arsenic acid H3 AsO4
P012	1327-53-3	Arsenic oxide As2 03
P011	1303-28-2	Arsenic oxide As2 05
P011	1303-28-2	Arsenic pentoxide

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P012
          1327-53-3 Arsenic trioxide
P038
          692-42-2
                     Arsine, diethyl-
P036
          696-28-6
                     Arsonous dichloride, phenyl-
P054
          151-56-4
                     Aziridine
P067
          75-55-8
                     Aziridine, 2-methyl-
                     Barium cyanide
P013
          542-62-1
P024
          106-47-8
                     Benzenamine, 4-chloro-
P077
          100-01-6
                     Benzenamine, 4-nitro-
          100-44-7
P028
                     Benzene, (chloromethyl)-
P042
          51-43-4
                     1.2-Benzenediol. 4-(1-hvdroxv-2-
                     (methylamino)ethyl)-, (R)-
P046
          122-09-8
                     Benzeneethanamine, alpha, alpha-
                     dimethyl-
P014
          108-98-5
                     Benzenethiol
P127
                     7-Benzofuranol, 2,3-dihydro-2,2-
          1563-66-2
                     dimethyl-,methylcarbamate.
P188
          57-64-7
                     Benzoic acid, 2-hydroxy-, compd.
                     with (3aS-cis)-1,2,3,3a,8,8a-
                     hexahydro-1,3a,8-trimethylpyrrolo(2,3-
                     b)indol-5-ylmethylcarbamate
                     ester (1:1).
P001
        (1)81-81-2
                     2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-
                     oxo-1-phenylbutyl)-, and salts, [when] if
                     present at concentrations greater than
                     0.3%
P028
          100-44-7
                     Benzyl chloride
P015
          7440-41-7
                     Beryllium powder
P017
          598-31-2
                     Bromoacetone
          357-57-3
P018
                     Brucine
P045
          39196-18-4 2-Butanone, 3,3-dimethyl-1-
                     (methylthio)-, 0-
                     methylamino)carbonyl) oxime
P021
          592-01-8
                     Calcium cyanide
                     Calcium cyanide Ca(CN)2
P021
          592-01-8
P189
          55285-14-8 Carbamic acid, ((dibutylamino)-
                     thio)methyl-, 2,3-dihydro-2,2-
                     dimethyl- 7-benzofuranyl ester.
P191
          644-64-4
                     Carbamic acid, dimethyl-, 1-
                     ((dimethyl-amino)carbonyl)-
                     5-methyl-1H- pyrazol-3-yl ester.
                     Carbamic acid, dimethyl-,
P192
          119-38-0
                     3-methyl-1- (1-methylethyl)-1H-
                     pyrazol-5-yl ester.
                     Carbamic acid, methyl-, 3-methylphenyl
P190
          1129-41-5
                     ester.
P127
          1563-66-2
                     Carbofuran.
P022
          75-15-0
                     Carbon disulfide
P095
                     Carbonic dichloride
          75-44-5
P189
          55285-14-8 Carbosulfan.
P023
          107-20-0
                     Chloroacetaldehyde
P024
          106-47-8
                     p-Chloroaniline
P026
          5344-82-1
                     1-(o-Chlorophenyl)thiourea
P027
          542-76-7
                     3-Chloropropionitrile
P029
          544-92-3
                     Copper cyanide
P029
          544-92-3
                     Copper cyanide Cu(CN)
          64-00-6
P202
                     m-Cumenvl methylcarbamate.
                     Cyanides (soluble cyanide salts), not
P030
                     otherwise specified
P031
          460-19-5
                     Cyanogen
P033
          506-77-4
                     Cyanogen chloride
          506-77-4
P033
                     Cyanogen chloride (CN)Cl
P034
          131-89-5
                     2-Cyclohexyl-4,6-dinitrophenol
          542-88-1
                     Dichloromethyl ether
P016
P036
          696-28-6
                     Dichlorophenvlarsine
          60-57-1
P037
                     Dieldrin
P038
          692-42-2
                     Diethylarsine
          311-45-5
                     Diethyl-p-nitrophenyl phosphate
P041
P040
          297-97-2
                     0,0-Diethyl 0-pyrazinyl
                     phosphorothioate
P043
          55-91-4
                     Diisopropylfluorophosphate (DFP)
P004
          309-00-2
                     1.4.5.8-Dimethanonaphthalene.
                     1.2.3.4.10.10-hexa- chloro-
                     1,4,4a,5,8,8a,
                     hexahydro-, (lalpha, 4alpha, 4abeta,
                     5alpha,8alpha,8abeta)-
P060
          465-73-6
                     1,4,5,8-Dimethanonaphthalene,
                     1,2,3,4,10,10-hexa- chloro-
                     1,4,4a,5,8,8ahexahydro-, (1alpha,
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		4alpha, 4abeta, 5beta, 8beta,8abeta)-			heptachloro- 3a,4,7,7a-tetrahydro-
P037	60-57-1	2,7:3,6-Dimethanonaphth(2,3-b)oxirene,	P199	2032-65-7	Methiocarb.
		3,4,5,6,9,9-hexachloro-	P066	16752-77-5	
		1a,2,2a,3,6,6a,7,7a-octahydro-,	P068	60-34-4	Methyl hydrazine
		(1aalpha, 2beta, 2aalpha, 3beta,	P064		Methyl isocyanate
	(4)=0 00 0	6beta, 6aalpha,7beta, 7aalpha)-	P069	75-86-5	2-Methyllactonitrile
P051	(1)72-20-8	2,7:3,6-Dimethanonaphth	P071	298-00-0	Methyl parathion
		(2,3-b)oxirene, 3,4,5,6,9,9-	P190	1129-41-5	
		hexachloro- 1a,2,2a,3,6,6a,7,7a-	P128	315-8-4	Mexacarbate.
		octahydro-, (laalpha, 2beta, 2abeta,	P072	86-88-4	alpha-Naphthylthiourea
		3alpha, 6alpha, 6abeta, 7beta,	P073		Nickel carbonyl
		7aalpha)-, and metabolites	P073		Nickel carbonyl Ni(CO)4, (T-4)-
P044	60-51-5	Dimethoate	P074	557-19-7	Nickel cyanide
P046	122-09-8	alpha,alpha-Dimethylphenethylamine	P074	557-19-7	Nickel cyanide Ni(CN)2
P191	644-64-4	Dimetilan.	P075	(1)54-11-5	Nicotine, and salts, this listing does
P047	. ,	4,6-Dinitro-o-cresol, and salts			not include patches, gums and lozenges
P048	51-28-5	2,4-Dinitrophenol			that are FDA approved over-the-counter nicotine replacement therapies
P020 P085	88-85-7 152-16-9	Dinoseb	P076	10102 42 0	Nitric oxide
P111		Diphosphoramide, octamethyl- Diphosphoric acid, tetraethyl ester	P076 P077	10102-43-9	p-Nitroaniline
P039	107-49-3 298-04-4	Disulfoton	P077		Nitrogen dioxide
P049	541-53-7	Dithiobiuret	P076		Nitrogen dioxide Nitrogen oxide NO
P185		1,3-Dithiolane-2-carboxaldehyde, 2,4-	P078		Nitrogen oxide NO2
F103	20419-73-0	dimethyl-, 0- ((methylamino)-	P081	55-63-0	Nitroglycerine (R)
		carbonvl)oxime.	P082	62-75-9	N-Nitrosodimethylamine
P050	115-29-7	Endosulfan	P084		N-Nitrosomethylvinylamine
P088	145-73-3	Endothall	P085	152-16-9	Octamethylpyrophosphoramide
P051	72-20-8	Endrin	P087		Osmium oxide OsO4, (T-4)-
P051	72-20-8	Endrin, and metabolites	P087		Osmium tetroxide
P042	51-43-4	Epinephrine	P088		7-Oxabicyclo(2.2.1)heptane-2,3-
P031	460-19-5	Ethanedinitrile	1000	143-73-3	dicarboxylic acid
P194		Ethanimidothioic acid, 2-	P194	23135-22-0	
1154	23133-22-0	(dimethylamino)-N-	P089	56-38-2	Parathion
		(((methylamino) carbonyl)oxy)-2-oxo-,	P034	131-89-5	Phenol, 2-cyclohexyl-4,6-dinitro-
		methyl ester.	P048	51-28-5	Phenol, 2,4-dinitro-
P066	16752_77_5	Ethanimidothioic acid, N-	P047	(1)534-52-1	Phenol, 2-methyl-4,6-dinitro-, and salts
1 000	10/32-//-3	(((methylamino)carbonyl)oxy)-,	P020	88-85-7	Phenol, 2-(1-methylpropyl)-4,6-
		methyl ester	1020	00-03-7	dinitro-
P101	107-12-0	Ethyl cyanide	P009	131-74-8	Phenol, 2,4,6-trinitro-, ammonium salt
P054	151-56-4	Ethyleneimine	1003	131-74-0	(R)
P097	52-85-7	Famphur	P128	315-18-4	Phenol, 4-(dimethylamino)-3,5-
P056		Fluorine	1120	313-10-4	dimethyl-,
P057	640-19-7	Fluoroacetamide			methylcarbamate (ester).
P058	62-74-8	Fluoroacetic acid, sodium salt	P199	2032-65-7	Phenol, (3,5-dimethyl-4-(methylthio)-,
P198		Formetanate hydrochloride.	1 133	2032-03-7	methylcarbamate
P197		Formparanate.	P202	64-00-6	Phenol, 3-(1-methylethyl)-, methyl
P065	628-86-4	Fulminic acid, mercury(2+) salt (R,T)	1 202	04-00-0	carbamate.
P059	76-44-8	Heptachlor	P201	2631-37-0	Phenol, 3-methyl-5-(1-methylethyl)-,
P062	757-58-4	Hexaethyl tetraphosphate	1201	2001 07 0	methyl
P116	79-19-6	Hydrazinecarbothioamide			carbamate.
P068	60-34-4	Hydrazine, methyl-	P092	62-38-4	Phenylmercury acetate
P063	74-90-8	Hydrocyanic acid	P093	103-85-5	Phenylthiourea
P063	74-90-8	Hydrogen cyanide	P094	298-02-2	Phorate
P096		Hydrogen phosphide	P095	75-44-5	Phosgene
P060	465-73-6	Isodrin	P096	7803-51-2	Phosphine
P192	119-38-0	Isolan.	P041	311-45-5	Phosphoric acid, diethyl 4-nitrophenyl
P202	64-00-6	3-Isopropylphenyl N-methylcarbamate.		011 10 0	ester
P007		3(2H)-Isoxazolone, 5-(aminomethyl)-	P039	298-04-4	Phosphorodithioic acid, 0,0-diethyl S-
P196	15339-36-3			230 0	(2- (ethylthio)ethyl) ester
. 250	10005 00 0	bis(dimethylcarbamodithioato-S,S')-,	P094	298-02-2	Phosphorodithioic acid, 0,0-diethyl S-
P196	15339-36-3	Manganese dimethyldithiocarbamate.	1031	230 02 2	((ethylthio)methyl) ester
P092	62-38-4	Mercury, (acetato-0)phenyl-	P044	60-51-5	Phosphorodithioic acid, 0,0-dimethyl
P065		Mercury fulminate (R,T)	1011	00 01 0	S-(2- (methylamino)-2-oxoethyl) ester
P082	62-75-9	Methanamine, N-methyl-N-nitroso-	P043	55-91-4	Phosphorofluoridic acid, bis(1-
P064	624-83-9	Methane, isocyanato-	1010	00 51 1	methylethyl) ester
P016	542-88-1	Methane, oxybis(chloro-	P089	56-38-2	Phosphorothioic acid, 0,0-diethyl 0-
P112		Methane, tetranitro- (R)	1003	00 00 E	(4-nitrophenyl) ester
P118	75-70-7	Methanethiol, trichloro-	P040	297-97-2	Phosphorothioic acid, 0,0-diethyl 0-
P198		Methanimidamide, N,N-dimethyl-N'-(3-	1010	237 37 2	pyrazinyl ester
1130	25422-55-5	(((methylamino)-carbonyl)oxy)phenyl)-,	P097	52-85-7	Phosphorothioic acid, 0-(4-
		monohydrochloride.	1037	32-03-7	((dimethylamino)sulfonyl)phenyl) 0,0-
P197	17702-57 7	Methanimidamide, N,N-dimethyl-N'-(2-			dimethyl ester
1 13/	1//02-3/-/	methyl-	P071	298-00-0	Phosphorothioic acid, 0,0,-dimethyl 0-
		4-(((methylamino)carbonyl)oxy)phenyl)-	10/1	230-00-0	(4-nitrophenyl) ester
P050	115-29-7	6,9-Methano-2,4,3-benzodioxathiepin,	P204	57-47-6	Physostigmine.
1 030	110-63-1	6,7,8,9,10,10- hexachloro-	P188	57-64-7	Physostigmine salicylate.
		1,5,5a,6,9,9a-hexahydro-, 3-oxide	P110	78-00-2	Plumbane, tetraethyl-
P059	76-44-8	4,7-Methano-1H-indene, 1,4,5,6,7,8,8-	P098	76-00-2 151-50-8	Potassium cyanide
1 009	, 0-44-0	+,/-methano-in-indene, 1,4,0,0,/,0,0=	ru90	131-30-0	rocassium cyanitue

NOTICES OF PROPOSED RULES

P098	151-50-8	Potassium cyanide K(CN)	P001	(1)81-81-2	Warfarin, and salts, [when] if present at
P099	506-61-6	Potassium silver cyanide		` '	concentrations greater than 0.3%
P201	2631-37-0	Promecarb	P002	591-08-2	Acetamide, -(aminothioxomethyl)-
P070	116-06-3	Propanal, 2-methyl-2-(methylthio)-, 0-	P002		1-Acetyl-2-thiourea
		((methylamino)carbonyl)oxime	P003		Acrolein
P203	1646-88-4	Propanal, 2-methyl-2-(methyl-	P003	107-02-8	2-Propenal
		sulfonyl)-, 0- ((methylamino)carbonyl)	P004	309-00-2	Aldrin
		oxime.	P004	309-00-2	1,4,5,8-Dimethanonaphthalene,
P101	107-12-0	Propanenitrile			1,2,3,4,10,10-hexa-chloro-
P027	542-76-7	Propanenitrile, 3-chloro-			1,4,4a,5,8,8a,- hexahydro-, (lalpha,
P069	75-86-5	Propanenitrile, 2-hydroxy-2-methyl-			4alpha, 4abeta, 5alpha,
P081	55-63-0	1,2,3-Propanetriol, trinitrate (R)			8alpha,8abeta)-
P017	598-31-2	2-Propanone, 1-bromo-	P005	107-18-6	Allyl alcohol
P102	107-19-7	Propargyl alcohol	P005	107-18-6	2-Propen-1-ol
P003	107-02-8	2-Propenal	P006	20859-73-8	Aluminum phosphide (R,T)
P005	107-18-6	2-Propen-1-ol	P007		5-(Aminomethyl)-3-isoxazolol
P067	75-55-8	1,2-Propylenimine	P007		3(2H)-Isoxazolone, 5-(aminomethyl)-
P102	107-19-7	2-Propyn-1-ol	P008	504-24-5	
					4-Aminopyridine
P008	504-24-5	4-Pyridinamine	P008		4-Pyridinamine
P075	(1)54-11-5	Pyridine, 3-(1-methyl-2-pyrrolidinyl)-	P009	131-74-8	Ammonium picrate (R)
		, (S)-, and salts <u>, this listing does</u>	P009	131-74-8	Phenol, 2,4,6-trinitro-, ammonium salt
		not include patches, gums and lozenges			(R)
		that are FDA approved over-the-counter	P010	7778-39-4	Arsenic acid H3 AsO4
		nicotine replacement therapies	P011		Arsenic oxide As2 05
P204	57-47-6	Pyrrolo(2,3-b) indol-5-ol,	P011		Arsenic pentoxide
F204	37-47-0				
		1,2,3,3a,8,8a-hexahydro-1,3a,8-	P012		Arsenic oxide As2 03
		trimethyl-, methylcarbamate (ester),	P012		Arsenic trioxide
		(3aS-cis)	P013	542-62-1	Barium cyanide
P114	12039-52-0	Selenious acid, dithallium(1+) salt	P014	108-98-5	Benzenethiol
P103	630-10-4	Selenourea	P014	108-98-5	Thiophenol
P104	506-64-9	Silver cyanide	P015		Beryllium powder
P104	506-64-9	Silver cyanide Ag(CN)	P016	542-88-1	Dichloromethyl ether
					•
P105		Sodium azide	P016		Methane, oxybis(chloro-
P106	143-33-9	Sodium cyanide	P017	598-31-2	Bromoacetone
P106	143-33-9	Sodium cyanide Na(CN)	P017	598-31-2	2-Propanone, 1-bromo-
P108	(1)57-24-9	Strychnidin-10-one, and salts	P018	357-57-3	Brucine
P018	357-57-3	Strychnidin-10-one, 2,3-dimethoxy-	P018	357-57-3	Strychnidin-10-one, 2,3-dimethoxy-
P108	(1)57-24-9	Strychnine, and salts	P020	88-85-7	Dinoseb
P115	7446-18-6	Sulfuric acid, dithallium(1+) salt	P020	88-85-7	Phenol, 2-(1-methylpropyl)-4,6-
P109		Tetraethyldithiopyrophosphate			dinitro-
P110	78-00-2	Tetraethyl lead	P021	592-01-8	Calcium cyanide
P111	107-49-3	Tetraethyl pyrophosphate	P021	592-01-8	Calcium cyanide Ca(CN)2
P112	509-14-8	Tetranitromethane (R)	P022	75-15-0	Carbon disulfide
P062	757-58-4	Tetraphosphoric acid, hexaethyl ester	P023	107-20-0	Acetaldehyde, chloro-
P113		Thallic oxide	P023	107-20-0	Chloroacetaldehyde
P113		Thallium oxide T12 03	P024	106-47-8	Benzenamine, 4-chloro-
P114		Thallium(I) selenite	P024	106-47-8	p-Chloroaniline
P115		Thallium(I) sulfate	P026		1-(o-Chlorophenyl)thiourea
P109	3689-24-5	Thiodiphosphoric acid, tetraethyl	P026	5344-82-1	Thiourea, (2-chlorophenyl)-
		ester	P027	542-76-7	3-Chloropropionitrile
P045	39196-18-4	Thiofanox	P027	542-76-7	Propanenitrile, 3-chloro-
P049	541-53-7	Thioimidodicarbonic diamide ((H2	P028	100-44-7	Benzene, (chloromethyl)-
1043	341-33-7			100-44-7	
DO1 4	100 00 5	N)C(S))2 NH	P028		Benzyl chloride
P014		Thiophenol	P029	544-92-3	Copper cyanide
P116	79-19-6	Thiosemicarbazide	P029	544-92-3	Copper cyanide Cu(CN)
P026	5344-82-1	Thiourea, (2-chlorophenyl)-	P030		Cyanides (soluble cyanide salts), not
P072	86-88-4	Thiourea, 1-naphthalenyl-			otherwise specified
P093	103-85-5	Thiourea, phenyl-	P031	460-19-5	Cyanogen
P185	26419-73-8		P031	460-19-5	Ethanedinitrile
P123	8001-35-2		P033	506-77-4	Cyanogen chloride
P118	75-70-7	Trichloromethanethiol	P033	506-77-4	Cyanogen chloride (CN)Cl
P119	7803-55-6	Vanadic acid, ammonium salt	P034	131-89-5	2-Cyclohexyl-4,6-dinitrophenol
P120	1314-62-1	Vanadium oxide V2 05	P034	131-89-5	Phenol, 2-cyclohexyl-4,6-dinitro-
P120	1314-62-1	Vanadium pentoxide	P036	696-28-6	Arsonous dichloride, phenyl-
P084	4549-40-0	Vinylamine, N-methyl-N-nitroso-	P036	696-28-6	Dichlorophenylarsine
P001	(1)81-81-2	Warfarin, and salts, [when]if present at	P037	60-57-1	Dieldrin
	. ,	concentrations greater than 0.3%	P037	60-57-1	2,7:3,6-Dimethanonaphth(2,3-b)oxirene,
P205	137-30-4	Zinc, bis(dimethylcarbamodithioato-	1007	00 J/-I	3,4,5,6,9,9-hexachloro-
1 200	137-30-4	, ,			
D101	FF7 04 4	\$,\$')-,			1a,2,2a,3,6,6a,7,7a-octahydro-,
P121	557-21-1	Zinc cyanide			(1aalpha, 2beta, 2aalpha, 3beta,
P121	557-21-1	Zinc cyanide Zn(CN)2			6beta,6aalpha,7beta, 7aalpha)-
P122	1314-84-7	Zinc phosphide Zn3 P2, [when] if present at	P038	692-42-2	Arsine, diethyl-
		concentrations greater than 10% (R,T)	P038	692-42-2	Diethylarsine
P205	137-30-4	Ziram.	P039	298-04-4	Disulfoton
P001	(1)81-81-2	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-	P039	298-04-4	Phosphorodithioic acid, 0,0-diethyl S-
1001	(1)01-01-2		7039	230-04-4	
		0X0-			(2- (ethylthio)ethyl) ester
		1-phenylbutyl)-, and salts, [when] <u>if</u> present	P040	297-97-2	0,0-Diethyl 0-pyrazinyl
		at concentrations greater than 0.3%			phosphorothioate

P040	297-97-2	Phosphorothioic acid, 0,0-diethyl 0-	P071	298-00-0	Phosphorothioic acid, 0,0,-dimethyl 0-
		pyrazinyl ester			(4-nitrophenyl) ester
P041	311-45-5	Diethyl-p-nitrophenyl phosphate	P072	86-88-4	alpha-Naphthylthiourea
P041	311-45-5	Phosphoric acid, diethyl 4-nitrophenyl	P072	86-88-4	Thiourea, 1-naphthalenyl-
FU41	311-43-3				
		ester	P073		Nickel carbonyl
P042	51-43-4	1,2-Benzenediol, 4-(1-hydroxy-2-	P073	13463-39-3	Nickel carbonyl Ni(CO)4, (T-4)-
		(methylamino)ethyl)-, (R)-	P074	557-19-7	Nickel cyanide
P042	51-43-4	Epinephrine	P074	557-19-7	Nickel cyanide Ni(CN)2
P043	55-91-4	Diisopropylfluorophosphate (DFP)	P075	(1)54-11-5	Nicotine, and salts, this listing does
			F0/ 5	(1)34-11-3	
P043	55-91-4	Phosphorofluoridic acid, bis(1-			not include patches, gums and lozenges
		methylethyl) ester			that are FDA approved over-the-counter
P044	60-51-5	Dimethoate			<u>nicotine replacement therapies</u>
P044	60-51-5	Phosphorodithioic acid, 0,0-dimethyl	P075	(1)54-11-5	Pyridine, 3-(1-methyl-2-pyrrolidinyl)-
		S-(2-(methyl amino)-2-oxoethyl) ester		` '	, S)-, and salts, this listing does not
DO4E	20106 10 /				
P045	39190-10-4	2-Butanone, 3,3-dimethyl-1-			include patches, gums and lozenges that
		(methylthio)-,			are FDA approved over-the-counter
		O-((methylamino)carbonyl) oxime			<u>nicotine replacement therapies</u>
P045	39196-18-4	Thiofanox	P076	10102-43-9	Nitric oxide
P046	122-09-8	Benzeneethanamine, alpha,alpha-	P076		Nitrogen oxide NO
	122 05 0	dimethyl-	P077	100-01-6	Benzenamine, 4-nitro-
DO 4.C	100 00 0	•			
P046	122-09-8	alpha,alpha-Dimethylphenethylamine	P077	100-01-6	p-Nitroaniline
P047	(1)534-52-1	4,6-Dinitro-o-cresol, and salts	P078		Nitrogen dioxide
P047	(1)534-52-1	Phenol, 2-methyl-4,6-dinitro-, and salts	P078	10102-44-0	Nitrogen oxide NO2
P048	51-28-5	2,4-Dinitrophenol	P081	55-63-0	Nitroglycerine (R)
P048	51-28-5	Phenol, 2,4-dinitro-	P081	55-63-0	1,2,3-Propanetriol, trinitrate (R)
P049	541-53-7	Dithiobiuret	P082	62-75-9	Methanamine, -methyl-N-nitroso-
P049	541-53-7	Thioimidodicarbonic diamide ((H2	P082	62-75-9	N-Nitrosodimethylamine
		N)C(S))2 NH	P084	4549-40-0	N-Nitrosomethylvinylamine
P050	115-29-7	Endosul fan	P084	4549-40-0	Vinylamine, -methyl-N-nitroso-
P050	115-29-7	6,9-Methano-2,4,3-benzodioxathiepin,	P085	152-16-9	Diphosphoramide, octamethyl-
		6,7,8,9,10,10-hexachloro-	P085	152-16-9	Octamethylpyrophosphoramide
					0 10 1 1
		1,5,5a,6,9,9a-	P087		Osmium oxide OsO4, (T-4)-
		hexahydro-, 3-oxide	P087		Osmium tetroxide
P051	(1)72-20-8	2,7:3,6-Dimethanonaphth (2,3-	P088	145-73-3	Endothall
		b)oxirene, 3,4,5,6,9,9-hexachloro-	P088	145-73-3	7-0xabicyclo(2.2.1)heptane-2,3-
		1a,2,2a,3,6,6a,7,7a-octahydro-,			dicarboxylic acid
		(laalpha, 2beta, 2abeta, 3alpha,	P089	56-38-2	Parathion
		6alpha, 6abeta,7beta, 7aalpha)-, and	P089	56-38-2	Phosphorothioic acid, 0,0-diethyl 0-
		metabolites			(4-nitrophenyl) ester
P051	72-20-8	Endrin	P092	62-38-4	Mercury, (acetato-0)phenyl-
P051	72-20-8	Endrin, and metabolites	P092	62-38-4	Phenylmercury acetate
P054	151-56-4	Aziridine	P093	103-85-5	Phenylthiourea
P054	151-56-4	Ethyleneimine	P093	103-85-5	Thiourea, phenyl-
P056	7782-41-4				
		Fluorine	P094	298-02-2	Phorate
P057	640-19-7	Acetamide, 2-fluoro-	P094	298-02-2	Phosphorodithioic acid, 0,0-diethyl S-
P057	640-19-7	Fluoroacetamide			((ethylthio)methyl) ester
P058	62-74-8	Acetic acid, fluoro-, sodium salt	P095	75-44-5	Carbonic dichloride
P058	62-74-8	Fluoroacetic acid, sodium salt	P095	75-44-5	Phosgene
P059	76-44-8	Heptachlor	P096	7803-51-2	Hydrogen phosphide
P059	76-44-8	4,7-Methano-1H-indene, 1,4,5,6,7,8,8-	P096	7803-51-2	Phosphine
1 003	70 11 0	heptachloro-3a,4,7,7a-tetrahydro-	P097	52-85-7	Famphur
DOCO	4CF 72 C				•
P060	465-73-6	1,4,5,8-Dimethanonaphthalene,	P097	52-85-7	Phosphorothioic acid, 0-(4-
		1,2,3,4,10,10-hexa-chloro-			((dimethylamino)sulfonyl)phenyl) 0,0-
		1,4,4a,5,8,8a-hexahydro-, (1alpha,			dimethyl ester
		4alpha,4abeta,5beta, 8beta,8abeta)-	P098	151-50-8	Potassium cyanide
P060	465-73-6	Isodrin	P098	151-50-8	Potassium cyanide K(CN)
P062	757-58-4	Hexaethyl tetraphosphate	P099	506-61-6	Argentate(1-), bis(cyano-C)-,
P062	757-58-4	Tetraphosphoric acid, hexaethyl ester	. 055	000 01 0	potassium
			D000	EOC 61 6	•
P063	74-90-8	Hydrocyanic acid	P099	506-61-6	Potassium silver cyanide
P063	74-90-8	Hydrogen cyanide	P101	107-12-0	Ethyl cyanide
P064	624-83-9	Methane, isocyanato-	P101	107-12-0	Propanenitrile
P064	624-83-9	Methyl isocyanate	P102	107-19-7	Propargyl alcohol
P065	628-86-4	Fulminic acid, mercury(2+) salt (R,T)	P102	107-19-7	2-Propyn-1-ol
P065	628-86-4	Mercury fulminate (R,T)	P103	630-10-4	Selenourea
P066		Ethanimidothioic acid, N-	P104	506-64-9	Silver cyanide
P000	10/32-//-3				
		(((methylamino)carbonyl)oxy)-, methyl	P104	506-64-9	Silver cyanide Ag(CN)
		ester	P105	26628-22-8	Sodium azide
P066	16752-77-5	Methomyl	P106	143-33-9	Sodium cyanide
P067	75-55-8	Aziridine, 2-methyl-	P106	143-33-9	Sodium cyanide Na(CN)
P067	75-55-8	1,2-Propylenimine	P108		Strychnidin-10-one, and salts
P068	60-34-4	Hydrazine, methyl-	P108		Strychnine, and salts
P068	60-34-4	Methyl hydrazine	P109		Tetraethyldithiopyrophosphate
P069	75-86-5	2-Methyllactonitrile	P109	3689-24-5	Thiodiphosphoric acid, tetraethyl
P069	75-86-5	Propanenitrile, 2-hydroxy-2-methyl-			ester
P070	116-06-3	Aldicarb	P110	78-00-2	Plumbane, tetraethyl-
P070	116-06-3	Propanal, 2-methyl-2-(methylthio)-, 0-	P110	78-00-2	Tetraethyl lead
•	00 0	((methylamino)carbonyl)oxime	P111	107-49-3	Diphosphoric acid, tetraethyl ester
P071	298-00-0	Methyl parathion	P111	107-49-3	Tetraethyl pyrophosphate
. 5/ 1	250-00-0		1111	101-49-0	. cc. accing i pg i opinospinate

NOTICES OF PROPOSED RULES

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P112
          509-14-8
                     Methane, tetranitro-(R)
P112
          509-14-8
                     Tetranitromethane (R)
          1314-32-5
P113
                     Thallic oxide
P113
          1314-32-5 Thallium oxide T12 03
P114
          12039-52-0 Selenious acid, dithallium(1+) salt
P114
          12039-52-0 Tetraethyldithiopyrophosphate
P115
          7446-18-6 Thiodiphosphoric acid, tetraethyl
                     ester
          7446-18-6
                     Plumbane, tetraethyl-
Tetraethyl lead
P115
P116
          79-19-6
          79-19-6
P116
                     Thiosemicarbazide
P118
          75-70-7
                     Methanethiol, trichloro-
          75-70-7
                      Trichloromethanethiol
P118
P119
          7803-55-6
                     Ammonium vanadate
P119
          7803-55-6
                     Vanadic acid, ammonium salt
P120
          1314-62-1
                     Vanadium oxide V205
          1314-62-1
P120
                     Vanadium pentoxide
P121
          557-21-1
                     Zinc cyanide
P121
          557-21-1
                     Zinc cyanide Zn(CN)2
P122
          1314-84-7
                     Zinc phosphide Zn3 P2, [when]if present at
                      concentrations greater than 10% (R,T)
P123
          8001-35-2
                     Toxaphene
P127
          1563-66-2
                     7-Benzofuranol, 2,3-dihydro-2,2-
                     dimethyl-.
                     methylcarbamate.
          1563-66-2
P127
                     Carbofuran
P128
          315-8-4
                     Mexacarbate
P128
          315-18-4
                     Phenol, 4-(dimethylamino)-3,5-
                      dimethyl-, methylcarbamate (ester)
P185
          26419-73-8 1,3-Dithiolane-2-carboxaldehyde, 2,4-
                     dimethyl-, 0-((methylamino)-
                     carbonvl)oxime.
P185
          26419-73-8 Tirpate
                     Benzoic acid, 2-hydroxy-, compd. with
P188
          57-64-7
                      (3aS-cis)-1,2,3,3a,8,8a-hexahydro-
                     1,3a,8-trimethylpyrrolo(2,3-b)indol-5-
                     yl methylcarbamate ester (1:1)
P188
          57-64-7
                     Physostigmine salicylate
P189
          55285-14-8 Carbamic acid, ((dibutylamino)-
                     thio)methyl-, 2,3-dihydro-2,2-
                     dimethyl-7-benzofuranyl ester
P189
          55285-14-8 Carbosulfan
P190
          1129-41-5 Carbamic acid, methyl-, 3-methylphenyl
P190
          1129-41-5 Metolcarb
          644-64-4
                     Carbamic acid, dimethyl-, 1-
P191
                      ((dimethy)-
                     amino)carbonyl)-5-methyl-1H-pyrazol-3-
                      vl ester
                     Dimetilan
P191
          644-64-4
P192
          119-38-0
                     Carbamic acid, dimethyl-, 3-methyl-1-
                      (1-methylethyl)-1H-pyrazol-5-yl ester
P192
          119-38-0
P194
          23135-22-0 Ethanimidthioic acid, 2-
                      (dimethylamino)-N- (((methylamino)
                     carbonyl)oxy)-2-oxo-, methyl ester
P194
          23135-22-0 Oxamvl
P196
          15339-36-3 Manganese.
                     bis(dimethylcarbamodithioato-S,S')-,
P196
          15339-36-3 Manganese dimethyldithiocarbamate
P197
          17702-57-7 Formparanate
P197
          17702-57-7 Methanimidamide, N,N-dimethyl-N'-(2-
                     methyl-4-
                      (((methylamino)carbonyl)oxy)phenyl)-
          23422-53-9 Formetanate hydrochloride
P198
P198
          23422-53-9 Methanimidamide, N,N-dimethyl-N'-(3-
                      (((methylamino)-carbonyl)oxy)phenyl)-
                     monohydrochloride
          2032-65-7
P199
                     Methiocarb
          2032-65-7 Phenol, (3,5-dimethyl-4-(methylthio)-,
P199
                     methv1carbamate
P201
          2631-37-0 Phenol, 3-methyl-5-(1-methylethyl)-,
                      methyl carbamate
P201
          2631-37-0
                     Promecarb
          64-00-6
                     m-Cumenyl methylcarbamate
P202
                     3-Isopropylphenyl N-methylcarbamate
P202
          64-00-6
          64-00-6
                     Phenol, 3-(1-methylethyl)-, methyl
P202
                      carbamate
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P203
          1646-88-4 Aldicarb sulfone
          1646-88-4 Propanal, 2-methyl-2-(methyl-
P203
                      sulfonyl)-, 0- ((methylamino)carbonyl)
                      oxime
P204
          57-47-6
                      Physostigmine
P204
          57-47-6
                      Pyrrolo(2,3-b) indol-5-ol,
                      1,2,3,3a,8,8a-hexahydro-1,3a,8-
                      trimethyl-, methylcarbamate (ester),
                      (3aS-cis)-
P205
          137-30-4
                     Zinc, bis(dimethylcarbamodithioato-
                      S.S')-.
P205
          137-30-4
                     Ziram
                      Nerve, Military, and Chemical Agents'
P999
                      [(i.e.] that is, CX, GA, GB, GD, H, HD, HL, HN-
                      1, HN-2, HN-3, HT, L, T, and VX.[\frac{1}{2}]
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Note (1) CAS Number given for parent compound only.

(f) The commercial chemical products, manufacturing chemical intermediates, or off-specification commercial chemical products referred to in Subsections R315-261-33(a) through (d), are identified as toxic wastes (T), unless otherwise designated. For the convenience of the regulated community, the primary hazardous properties of these materials have been indicated by the letters T (Toxicity), R (Reactivity), I (Ignitability) and C (Corrosivity). Absence of a letter indicates that the compound is only listed for toxicity. Wastes are first listed in alphabetical order by substance and then listed again in numerical order by Hazardous Waste Number. These wastes and their corresponding EPA Hazardous Waste Numbers are:

TABLE

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Hazardous Chemical
           abstracts
waste
No.
           No.
                       Substance
U394
          30558-43-1 A2213.
U001
          75-07-0
                     Acetaldehyde (I)
          75-87-6
                     Acetaldehyde, trichloro-
11034
U187
          62-44-2
                     Acetamide, N-(4-ethoxyphenyl)-
U005
          53-96-3
                     Acetamide, N-9H-fluoren-2-yl-
       (1)94-75-7
                     Acetic acid, (2,4-dichlorophenoxy)-,
U240
                     salts and esters
U112
          141-78-6
                     Acetic acid ethyl ester (I)
          301-04-2
U144
                     Acetic acid. lead(2+) salt
11214
          563-68-8
                     Acetic acid, thallium(1+) salt
          93-76-5
see F027
                     Acetic acid, (2,4,5-trichlorophenoxy)-
11002
          67-64-1
                     Acetone (I)
U003
          75-05-8
                     Acetonitrile (I,T)
          98-86-2
                     Acetophenone
U004
U005
          53-96-3
                     2-Acetylaminofluorene
U006
          75-36-5
                     Acetyl chloride (C,R,T)
U007
          79-06-1
                     Acrvlamide
11008
          79-10-7
                     Acrylic acid (I)
          107-13-1
11009
                     Acrylonitrile
U011
          61-82-5
                     Amitrole
U012
          62-53-3
                     Aniline (I,T)
U136
          75-60-5
                     Arsinic acid, dimethyl-
U014
          492-80-8
                     Auramine
          115-02-6
U015
                     Azaserine
                     Azirino(2',3':3,4)pyrrolo(1,2-
U010
          50-07-7
                      a)indole-4,7-dione, 6-amino-8-
                      (((aminocarbonyl)oxy) methyl)-
                      1,1a,2,8,8a,8b-hexahydro-8a-
                     methoxy-5-methyl-, (laS-(laalpha,
                     8beta, 8aalpha,8balpha))-
U280
          101-27-9
                     Barban.
U278
          22781-23-3 Bendiocarb.
U364
          22961-82-6 Bendiocarb phenol.
U271
          17804-35-2 Benomyl.
U157
          56-49-5
                     Benz(j)aceanthrylene, 1,2-dihydro-3-
                      methyl-
U016
          225-51-4
                     Benz(c)acridine
U017
          98-87-3
                     Benzal chloride
U192
          23950-58-5 Benzamide, 3,5-dichloro-N-(1,1-
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		dimethyl-2-propynyl)-	U197	106-51-4	p-Benzoquinone
U018	56-55-3	Benz (a) anthracene	U023	98-07-7	Benzotrichloride (C,R,T)
U094	57 - 97 - 6	Benz(a)anthracene, 7,12-dimethyl-	U085		2,2'-Bioxirane
		the state of the s			(1,1'-Biphenyl)-4,4'-diamine
U012	62-53-3	Benzenamine (I,T)	U021	92-87-5	
U014	492-80-8	Benzenamine, 4,4'-	U073	91-94-1	(1,1'-Biphenyl)-4,4'-diamine, 3,3'-
		carbonimidoylbis(N,N-dimethyl-			dichloro-
U049	3165-93-3	Benzenamine, 4-chloro-2-methyl-,	U091	119-90-4	(1,1'-Biphenyl)-4,4'-diamine, 3,3'-
		hydrochloride			dimethoxy-
U093	60-11-7	Benzenamine, N,N-dimethyl-4-	U095	119-93-7	(1,1'-Biphenyl)-4,4'-diamine, 3,3'-
		(phenylazo)-			dimethyl-
U328	95-53-4	Benzenamine, 2-methyl-	U225	75-25-2	Bromoform
U353	106-49-0	Benzenamine, 4-methyl-	U030		4-Bromophenyl phenyl ether
	101-14-4	Benzenamine, 4,4'-methylenebis(2-	U128	87-68-3	1,3-Butadiene, 1,1,2,3,4,4-hexachloro-
U158	101-14-4				
		chloro-	U172		1-Butanamine, N-butyl-N-nitroso-
U222	636-21-5	Benzenamine, 2-methyl-, hydrochloride	U031		1-Butanol (I)
U181	99-55-8	Benzenamine, 2-methyl-5-nitro-	U159		2-Butanone (I,T)
U019	71-43-2	Benzene (I,T)	U160	1338-23-4	2-Butanone, peroxide (R,T)
U038	510-15-6	Benzeneacetic acid, 4-chloro-alpha-(4-	U053	4170-30-3	2-Butenal
		chlorophenyl)-alpha-hydroxy-, ethyl	U074	764-41-0	2-Butene, 1,4-dichloro- (I,T)
		ester	U143	303-34-4	2-Butenoic acid, 2-methyl-, 7-((2,3-
U030	101-55-3	Benzene, 1-bromo-4-phenoxy-			dihydroxy- 2-(1-methoxyethyl)-3-
U035	305-03-3	Benzenebutanoic acid, 4-(bis(2-			methyl-1-oxobutoxy)methyl)- 2,3,5,7a-
0000	000 00 0	chloroethyl)amino)-			tetrahydro-1H-pyrrolizin-1-yl ester,
U037	108-90-7	Benzene, chloro-			
			11021	71 26 2	(1S- (1alpha(Z),7(2S*,3R*),7aalpha))-
U221		Benzenediamine, ar-methyl-	U031	71-36-3	n-Butyl alcohol (I)
U028	117-81-7	1,2-Benzenedicarboxylic acid, bis(2-	U136	75-60-5	Cacodylic acid
		ethylhexyl) ester	U032		Calcium chromate
U069	84-74-2	1,2-Benzenedicarboxylic acid, dibutyl	U372	10605-21-7	Carbamic acid, 1H-benzimidazol-2-yl,
		ester			methyl ester.
U088	84-66-2	1,2-Benzenedicarboxylic acid, diethyl	U271	17804-35-2	Carbamic acid, (1-
		ester			((butylamino)carbonyl)-
U102	131-11-3	1,2-Benzenedicarboxylic acid, dimethyl			1H-benzimidazol-2-yl)-, methyl ester.
0102	131-11-3	· · · · · · · · · · · · · · · · · · ·	U280	101 27 0	
11107	117 04 0	ester	0200	101-27-9	Carbamic acid, (3-chlorophenyl)-, 4-
U107	117-84-0	1,2-Benzenedicarboxylic acid, dioctyl			chloro-2-butynyl ester.
		ester	U238	51-79-6	Carbamic acid, ethyl ester
U070	95-50-1	Benzene, 1,2-dichloro-	U178	615-53-2	Carbamic acid, methylnitroso-, ethyl
U071	541-73-1	Benzene, 1,3-dichloro-			ester
U072	106-46-7	Benzene, 1,4-dichloro-	U373	122-42-9	Carbamic acid, phenyl-, 1-methylethyl
U060	72-54-8	Benzene, 1,1'-(2,2-dichloroethylidene)			ester.
		bis (4-chloro-	U409	23564-05-8	Carbamic acid, (1,2-phenylenebis
U017	98-87-3	Benzene, (dichloromethyl)-	0105	20001 00 0	(iminocarbonothioyl))bis-, dimethyl
U223					ester.
		Benzene, 1,3-diisocyanatomethyl- (R,T)	11007	70 44 7	
U239	1330-20-7	Benzene, dimethyl- (I)	U097		Carbamic chloride, dimethyl-
U201	108-46-3	1,3-Benzenediol	U389		Carbamothioic acid, bis(1-
U127	118-74-1	Benzene, hexachloro-			methylethyl)-, S-
U056	110-82-7	Benzene, hexahydro- (I)			(2,3,3-trichloro-2-propenyl) ester.
U220	108-88-3	Benzene, methyl-	U387	52888-80-9	Carbamothioic acid, dipropyl-, S-
U105	121-14-2	Benzene, 1-methyl-2,4-dinitro-			(phenylmethyl) ester.
U106	606-20-2	Benzene, 2-methyl-1,3-dinitro-	U114	(1)111-54-6	Carbamodithioic acid, 1,2-
U055	98-82-8	Benzene, (1-methylethyl)- (I)		(1)111 0. 0	ethanediylbis-,
U169	98-95-3	Benzene, nitro-			salts and esters
			U062	2202 16 4	Carbamothioic acid, bis(1-
U183	608-93-5	Benzene, pentachloro-	0002		The state of the s
U185	82-68-8	Benzene, pentachloronitro-			methylethyl)-, S- (2,3-dichloro-2-
U020	98-09-9	Benzenesulfonic acid chloride (C,R)			propenyl) ester
U020	98-09-9	Benzenesulfonyl chloride (C,R)	U279	63-25-2	Carbary1.
U207	95-94-3	Benzene, 1,2,4,5-tetrachloro-	U372	10605-21-7	Carbendazim.
U061	50-29-3	Benzene, 1,1'-(2,2,2-	U367	1563-38-8	Carbofuran phenol.
		trichloroethylidene) bis(4-chloro-	U215	6533-73-9	Carbonic acid, dithallium(1+) salt
U247	72-43-5	Benzene, 1,1'-(2,2,2-	U033		Carbonic difluoride
		trichloroethylidene)	U156	79-22-1	Carbonochloridic acid, methyl ester
		bis (4- methoxy-	0100	,,	(I,T)
U023	98-07-7	Benzene, (trichloromethyl)-	U033	353-50-4	Carbon oxyfluoride (R.T)
					,
U234	99-35-4	Benzene, 1,3,5-trinitro-	U211	56-23-5	Carbon tetrachloride
U021	92-87-5	Benzidine	U034	75-87-6	Chloral
U278	22781-23-3	1,3-Benzodioxol-4-ol, 2,2-dimethyl-,	U035		Chlorambucil
		methyl carbamate.	U036	57-74-9	Chlordane, alpha and gamma isomers
U364	22961-82-6	1,3-Benzodioxol-4-ol, 2,2-dimethyl-,	U026	494-03-1	Chlornaphazin
U203	94-59-7	1,3-Benzodioxole, 5-(2-propenyl)-	U037	108-90-7	Chlorobenzene
U141	120-58-1	1,3-Benzodioxole, 5-(1-propenyl)-	U038	510-15-6	Chlorobenzilate
U367		7-Benzofuranol, 2,3-dihydro-2,2-	U039	59-50-7	p-Chloro-m-cresol
5507	1000 00 0	dimethyl-	U042		2-Chloroethyl vinyl ether
U090	94-58-6		U044	67-66-3	Chloroform
		1,3-Benzodioxole, 5-propyl-			
U064	189-55-9	Benzo(rst)pentaphene	U046		Chloromethyl methyl ether
U248	(1)81-81-2	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-	U047	91-58-7	beta-Chloronaphthalene
		oxo-1-phenyl-butyl)-, and salts, [when] <u>if</u>	U048	95-57-8	o-Chlorophenol
		present at concentrations of 0.3% or	U049		4-Chloro-o-toluidine, hydrochloride
		less	U032	13765-19-0	Chromic acid H2 CrO4, calcium salt
U022	50-32-8	Benzo(a)pyrene	U050	218-01-9	Chrysene

NOTICES OF PROPOSED RULES

U051		Creosote	U117	60-29-7	Ethane, 1,1'-oxybis-(I)
U052	1319-77-3	Cresol (Cresylic acid)	U025	111-44-4	Ethane, 1,1'-oxybis(2-chloro-
U053	4170-30-3	Crotonaldehyde	U184	76-01-7	Ethane, pentachloro-
U055	98-82-8	Cumene (I)	U208	630-20-6	Ethane, 1,1,1,2-tetrachloro-
U246	506-68-3	Cyanogen bromide (CN)Br	U209	79-34-5	Ethane, 1,1,2,2-tetrachloro-
U197	106-51-4	2,5-Cyclohexadiene-1,4-dione	U218	62-55-5	Ethanethioamide
U056	110-82-7	Cyclohexane (I)	U226	71-55-6	Ethane, 1,1,1-trichloro-
U129	58-89-9	Cyclohexane, 1,2,3,4,5,6-hexachloro-,	U227	79-00-5	Ethane, 1,1,2-trichloro-
		(1alpha,2alpha,3beta,4alpha, 5alpha,	U410	59669-26-0	Ethanimidothioic acid, N,N'-
		6beta)-			(thiobis((methylimino)carbonyloxy))bis-,
U057	108-94-1	Cyclohexanone (I)			dimethyl ester
U130	77-47-4	1,3-Cyclopentadiene, 1,2,3,4,5,5-	U394	30558-43-1	Ethanimidothioic acid, 2-
0100		hexachloro-		00000 10 1	(dimethylamino)-N-
U058	50-18-0	Cyclophosphamide			hydroxy-2-oxo-, methyl ester.
U240	(1)94-75-7	2,4-D, salts and esters	U359	110-80-5	Ethanol, 2-ethoxy-
U059		Daunomycin	U173		Ethanol, 2,2'-(nitrosoimino)bis-
U060	72-54-8	DDD	U395		Ethanol, 2,2'-oxybis-, dicarbamate.
U061	50-29-3	DDT	U004	98-86-2	Ethanone, 1-phenyl-
U062	2303-16-4	Diallate	U043	75-01-4	Ethene, chloro-
U063	53-70-3	Dibenz(a,h)anthracene	U042	110-75-8	Ethene, (2-chloroethoxy)-
U064	189-55-9	Dibenzo(a,i)pyrene	U078	75-35-4	Ethene, 1,1-dichloro-
U066	96-12-8	1,2-Dibromo-3-chloropropane	U079	156-60-5	Ethene, 1,2-dichloro-, (E)-
U069	84-74-2	Dibutyl phthalate	U210	127-18-4	Ethene, tetrachloro-
U070	95-50-1	o-Dichlorobenzene	U228	79-01-6	Ethene, trichloro-
U071	541-73-1	m-Dichlorobenzene	U112	141-78-6	Ethyl acetate (I)
U071	106-46-7	p-Dichlorobenzene	U113	140-88-5	Ethyl acrylate (I)
U072	91-94-1	3,3'-Dichlorobenzidine	U238	51-79-6	Ethyl carbamate (urethane)
U074			U117	60-29-7	Ethyl ether (I)
	764-41-0	1,4-Dichloro-2-butene (I,T) Dichlorodifluoromethane			. ,
U075 U078	75-71-8 75-35-4	1,1-Dichloroethylene	U114	(1)111-34-0	Ethylenebisdithiocarbamic acid, salts
		•	11067	106 02 4	and esters
U079	156-60-5	1,2-Dichloroethylene	U067	106-93-4	Ethylene dibromide
U025	111-44-4	Dichloroethyl ether	U077	107-06-2	Ethylene dichloride
U027	108-60-1	Dichloroisopropyl ether	U359	110-80-5	Ethylene glycol monoethyl ether
U024	111-91-1	Dichloromethoxy ethane	U115	75-21-8	Ethylene oxide (I,T)
U081	120-83-2	2,4-Dichlorophenol	U116	96-45-7	Ethylenethiourea
U082	87-65-0	2,6-Dichlorophenol	U076	75-34-3	Ethylidene dichloride
U084	542-75-6	1,3-Dichloropropene	U118	97-63-2	Ethyl methacrylate
U085		1,2:3,4-Diepoxybutane (I,T)	U119	62-50-0	Ethyl methanesulfonate
U108	123-91-1	1,4-Diethyleneoxide	U120	206-44-0	Fluoranthene
U028	117-81-7	Diethylhexyl phthalate	U122	50-00-0	Formal dehyde
U395	5952-26-1	Diethylene glycol, dicarbamate.	U123	64-18-6	Formic acid (C,T)
U086	1615-80-1	N,N'-Diethylhydrazine	U124	110-00-9	Furan (I)
U087	3288-58-2	0,0-Diethyl S-methyl dithiophosphate	U125	98-01-1	2-Furancarboxaldehyde (I)
U088	84-66-2	Diethyl phthalate	U147	108-31-6	2,5-Furandione
U089	56-53-1	Diethylstilbesterol	U213	109-99-9	Furan, tetrahydro-(I)
U090	94-58-6	Dihydrosafrole	U125	98-01-1	Furfural (I)
U091	119-90-4	3,3'-Dimethoxybenzidine	U124	110-00-9	Furfuran (I)
U092	124-40-3	Dimethylamine (I)	U206	18883-66-4	Glucopyranose, 2-deoxy-2-(3-methyl-3-
U093	60-11-7	p-Dimethylaminoazobenzene			nitrosoureido)-, D-
U094	57-97-6	7,12-Dimethylbenz(a)anthracene	U206	18883-66-4	D-Glucose, 2-deoxy-2-
U095	119-93-7	3,3'-Dimethylbenzidine			(((methylnitrosoamino)-
U096	80-15-9	alpha,alpha-			carbonyl)amino)-
		Dimethylbenzylhydroperoxide (R)	U126	765-34-4	Glycidylaldehyde
U097	79-44-7	Dimethylcarbamoyl chloride	U163	70-25-7	Guanidine, N-methyl-N'-nitro-N-
U098	57-14-7	1,1-Dimethylhydrazine			nitroso-
U099	540-73-8	1,2-Dimethylhydrazine	U127	118-74-1	Hexachlorobenzene
U101	105-67-9	2,4-Dimethylphenol	U128	87-68-3	Hexachlorobutadiene
U102	131-11-3	Dimethyl phthalate	U130	77-47-4	Hexachlorocyclopentadiene
U103	77-78-1	Dimethyl sulfate	U131	67-72-1	Hexachloroethane
U105	121-14-2	2,4-Dinitrotoluene	U132	70-30-4	Hexachlorophene
U106	606-20-2	2,6-Dinitrotoluene	U243	1888-71-7	Hexachloropropene
U107	117-84-0	Di-n-octyl phthalate	U133	302-01-2	Hydrazine (R,T)
U108	123-91-1	1,4-Dioxane	U086	1615-80-1	Hydrazine, 1,2-diethyl-
U109	122-66-7	1,2-Diphenylhydrazine	U098	57-14-7	Hydrazine, 1,1-dimethyl-
U110	142-84-7	Dipropylamine (I)	U099	540-73-8	Hydrazine, 1,2-dimethyl-
U111	621-64-7	Di-n-propylnitrosamine	U109	122-66-7	Hydrazine, 1,2-diphenyl-
U041	106-89-8	Epichlorohydrin	U134	7664-39-3	Hydrofluoric acid (C,T)
U001	75-07-0	Ethanal (I)	U134	7664-39-3	Hydrogen fluoride (C,T)
U404	121-44-8	Ethanamine, N,N-diethyl-	U135	7783-06-4	Hydrogen sulfide
U174	55-18-5	Ethanamine, N-ethyl-N-nitroso-	U135	7783-06-4	Hydrogen sulfide H2 S
U155	91-80-5	1,2-Ethanediamine, N,N-dimethyl-N'-2-	U096	80-15-9	Hydroperoxide, 1-methyl-1-phenylethyl-
		pyridinyl-N'-(2-thienylmethyl)-			(R)
U067	106-93-4	Ethane, 1,2-dibromo-	U116	96-45-7	2-Imidazolidinethione
U076	75-34-3	Ethane, 1,1-dichloro-	U137	193-39-5	Indeno(1,2,3-cd)pyrene
U077	107-06-2	Ethane, 1,2-dichloro-	U190	85-44-9	1,3-Isobenzofurandione
U131	67-72-1	Ethane, hexachloro-	U140	78-83-1	Isobutyl alcohol (I,T)
U024	111-91-1	Ethane, 1,1'-(methylenebis(oxy))bis(2-	U141	120-58-1	Isosafrole
		chloro-	U142	143-50-0	Kepone

	111.40	202 24 4			70 46 0	0 N::
1353-32-6	U143	303-34-4	Lasiocarpine	U171	79-46-9	2-Nitropropane (I,T)
1446 133-2-7- Lead subcreate	U144	301-04-2	Lead acetate	U172	924-16-3	N-Nitrosodi-n-butylamine
1333-37-6	U146	1335-32-6	Lead, bis(acetato-0)tetrahydroxytri-	U173	1116-54-7	N-Nitrosodiethanolamine
1333-35-6	U145	7446-27-7	Lead phosphate	U174	55-18-5	N-Nitrosodiethvlamine
19.00 19.0		1335-32-6				<u> </u>
1965 1965						
1947 198-31-5 Maintenant 1987 1987 1987 1987 Maintenant 1987 198						-
1948 123-331						
1997-75	U147	108-31-6	Maleic anhydride	U179	100-75-4	N-Nitrosopiperidine
148-86.3 Methans Met	U148	123-33-1	Maleic hydrazide	U180	930-55-2	N-Nitrosopyrrolidine
148-86.3 Methans Met	U149	109-77-3	Malononitrile	U181	99-55-8	5-Nitro-o-toluidine
1915 18-95-76 Netharry oliverile (1, 7)						
1915 1915			·			
			The state of the s	0030	30-10-0	
1922 1923 1925						
1905 74-97-3	U092	124-40-3	Methanamine, N-methyl- (I)	U115	75-21-8	Oxirane (I,T)
1905 1907-20 19	U029	74-83-9	Methane, bromo-	U126	765-34-4	Oxiranecarboxyaldehyde
1905 1907-20 19	U045	74-87-3	Methane, chloro- (I, T)	U041	106-89-8	Oxirane, (chloromethyl)-
1966 74-9-9-1	U046	107-30-2		U182	123-63-7	
1980 75-90-2						
1975 75-71-8 Mechane, incloar-16 1975 197						
19.8 74-88-4 Methanes, iodo-						
	U075			U185		Pentachloronitrobenzene (PCNB)
	U138	74-88-4	Methane, iodo-	See F027	87-86-5	Pentachlorophenol
	U119	62-50-0	Methanesulfonic acid, ethyl ester	U161	108-10-1	Pentanol, 4-methyl-
1953 74-93-1 Methamethiol (I, T)			The state of the s			
1036 57.449 4.7-Methano-ll-Indenee 1026 120-83.2 Pencol. 2.4-dichloro-	U044	67-66-3	Methane, trichloro-	U048	95-57-8	Phenol, 2-chloro-
1,24,5,6,7,8,8-	U121	75-69-4	Methane, trichlorofluoro-	U039	59-50-7	Phenol, 4-chloro-3-methyl-
1,24,5,6,7,8,8-	U036	57-74-9	4.7-Methano-1H-indene.	U081	120-83-2	Phenol, 2.4-dichloro-
1915 91-80-5		67 56 1	The state of the s	0009	30-33-1	
143-50-0						
Cyclobuta(cd)pentalen-2-	U155	91-80-5	Methapyrilene	U101	105-67-9	Phenol, 2,4-dimethyl-
	U142	143-50-0	1,3,4-Metheno-2H-	U052	1319-77-3	Phenol, methyl-
			cvclobuta(cd)pentalen-2-	U132	70-30-4	Phenol, 2.2'-methylenebis(3.4.6-
				11/11	11/1 26 1	
	110.47	70 40 5	_	0411	114-20-1	
No.						
1016	U154	67-56-1	Methyl alcohol (I)	U170	100-02-7	Phenol, 4-nitro-
1016	U029	74-83-9	Methyl bromide	See F027	87-86-5	Phenol, pentachloro-
				See F027		
U150 79-22-1 Methyl chlorocarbonate (I,T) See F027 88-06-2 Phenol. 2,4,6-trichloro- U150 148-82-3 L-Phenylalanine, 4-(bis(2- U157 56-49-5 3-Methyl chol anthrene U150 148-82-3 L-Phenylalanine, 4-(bis(2- U157 56-49-5 3-Methyl chol anthrene U150 T46-27-7 Phosphoric acid, lead(2+) salt (2:3) U150 U150 T46-27-7 Phosphoric acid, lead(2+) salt (2:3) U150 T46-27-7 Phosphoric acid, lead(2+) salt (2:3) U150						
17-55-6 Methyl chloroform						
U158 101-14-4 4,4-Methylenebis(2-chloroaniline)						
101-14-4			=	U150	148-82-3	
	U157	56-49-5	3-Methylcholanthrene			chloroethyl)amino)-
	U158	101-14-4	4,4'-Methylenebis(2-chloroaniline)	U145	7446-27-7	Phosphoric acid, lead(2+) salt (2:3)
	U068	74-95-3	Methylene bromide	U087	3288-58-2	Phosphorodithioic acid, 0.0-diethyl S-
U150			=	0007	0200 00 2	
U138 74-88-4 Methyl ethyl ketone peroxide (R,T) U190 85-44-9 Phthalic anhydride U138 74-88-4 Methyl iodide U191 109-06-8 2-Picoline U191 109-06-8 2-Picoline U191 U192 23950-88-5 Pronamide U192 U192 23950-88-5 Pronamide U193 U194 U194 U195 U				11190	131/1 90 3	
U131 109-06-8 2-Picoline U191 109-06-8 2-Picoline U101 108-10-1 Methyl isobutyl ketone (I) U179 100-75-4 Piperidine, 1-nitroso- U162 80-62-6 Methyl isobutyl ketone (I) U179 100-75-8 Piperidine, 1-nitroso- U164 108-10-1 4-Methyl-2-pentanone (I) U194 107-10-8 1-Propanamine (I,T) U164 55-04-2 Methyl thiouracil U111 621-64-7 1-Propanamine, N-nitroso-N-propyl- U100 108-04-7 1-Propanamine, N-propyl- (I) U109 U1						
108-10-1						
U162 80-62-6 Methyl methacrylate (I, T)	U138	74-88-4	Methyl iodide	U191	109-06-8	2-Picoline
U161 108-10-1 4-Methyl-2-pentanone (I) U194 107-10-8 1-Propanamine (I,T) U164 56-04-2 Methylthiouracil U111 621-64-7 1-Propanamine, N-nitroso-N-propyl- (1) U105 56-07-7 Mitomycin C U110 142-84-7 1-Propanamine, N-propyl- (1) U105 20830-81-3 5,12-Naphthacenedione, 8-acetyl-10-	U161	108-10-1	Methyl isobutyl ketone (I)	U179	100-75-4	Piperidine, 1-nitroso-
U161 108-10-1 4-Methyl-2-pentanone (I) U194 107-10-8 1-Propanamine (I,T) U164 56-04-2 Methyl-thiouracil U111 621-64-7 1-Propanamine, N-nitroso-N-propyl- (I) U105 50-07-7 Mitomycin C U110 142-84-7 1-Propanamine, N-propyl- (I) U105 20830-81-3 5,12-Naphthacenedione, 8-acetyl-10-	U162	80-62-6	Methyl methacrylate (I,T)	U192	23950-58-5	Pronamide
U164 56-04-2 Methylthiouracil U111 621-64-7 1-Propanamine, N-nitroso-N-propyl- U100 50-07-7 Mitomycin C U110 142-84-7 1-Propanamine, N-propyl- (1) U1059 20830-81-3 5,12-Naphthacenedione, 8-acetyl-10-	U161	108-10-1		U194	107-10-8	1-Propagamine (I.T)
U110						· · · · · · · · · · · · · · · · · · ·
U059 20830-81-3 5,12-Maphthacenedione, 8-acetyl-10-						
((3-amino-2,3,6-trideoxy)-alpha-L-lyxo-hexopyranosyl)oxy)-7,8,9,10-lyxo-hexopyranosyl)oxy)-7,8,9,10-lyxo-hexopyranosyl)oxy)-7,8,9,10-lyxo-hexopyranosyl)oxy)-7,8,9,10-lyxo-hexopyranosyl)oxy)-7,8,9,10-lyxo-hexopyranosyl)oxy)-7,8,9,10-lyxo-hexopyranosyl)oxy)-7,8,9,10-lyxo-hexopyranosyl)oxy)-7,8,9,10-lyxo-hexopyranosyl)oxy)-7,8,9,10-lyxo-hexopyranosyl)oxy)-7,8,9,10-lyxo-hexopyranosyl)oxy)-7,8,9,10-lyxo-hexopyranosyl)oxy)-7,8,9,10-lyxo-hexopyranosyl)oxy)-7,8,9,10-lyxo-hexopyranosyl)oxy)-7,8,9,10-lyxo-hexopyranosyl)oxy)-7,8,9,10-lyxo-hexopyranosyl)oxy)-7,8,9,10-lyxo-hexopyranosyl)oxy)-7,8,9,10-lyxo-hexopyranosyl)oxy)-7,8,9,10-lyxo-hexopyranosyl)oxy)-7,9-46-9 Propane, 1,2-dichloro-lix,T) U167 134-32-7 1-Naphthalenamine U193 1120-71-4 1,3-Propane, 2,2'-oxybis(2-chloro-lix,T) U168 91-59-8 2-Naphthalenamine See F027 93-72-1 Propanoic acid, 2-(2,4,5-trichlorophenoxy)-chlorophenoxy)-chlorophenoxy-chlorophenoxy-chlorophenoxy-chlorophenoxy-chlorophenoxy-lix,Topanol, 2,3-dibromo-phosphate (3:1) U165 91-20-3 Naphthalene U140 78-83-1 1-Propanol, 2,3-dibromo-phosphate (3:1) U166 130-15-4 1,4-Naphthalenedisul fonic acid, 3,3'-lyaria-chlorophosyl						
1yxo-hexopyranosyl)oxyl-7,8,9,10-	0059	20830-81-3				
tetrahydro-6,8,11-trihydroxy-1- methoxy-, (8S-cis)- U167 134-32-7 1-Naphthalenamine U193 1120-71-4 1,3-Propane sultone U168 91-59-8 2-Naphthalenamine See F027 93-72-1 Propanoic acid, 2-(2,4,5- U166 91-20-3 Naphthalene U197 108-72-1 Naphthalenedione U198 126-72-7 1-Propanoic 2-3-dibromo-, phosphate U198 130-15-4 1,4-Naphthalenedisulfonic acid, 3,3'- U168 130-15-4 1,4-Naphthalenedisulfonic acid, 3,3'- U169 63-25-2 1-Naphthalenol, methylcarbamate. U152 126-98-7 2-Propenoic acid, 2-methyl- (I,T) U160 130-15-4 1,4-Naphthalenedione U008 79-10-7 2-Propenoic acid, 2-methyl- (I,T) U160 130-15-4 1,4-Naphthalenedione U008 79-10-7 2-Propenoic acid, 2-methyl- (I,T) U160 130-15-4 1,4-Naphthalenedione U008 79-10-7 2-Propenoic acid, 2-methyl- (I,T) U160 130-15-4 1,4-Naphthalenedione U008 79-10-7 2-Propenoic acid, 2-methyl- (I,T) U160 130-15-4 1,4-Naphthalenol, methylcarbamate. U113 140-88-5 2-Propenoic acid, 2-methyl-, ethyl U169 98-95-3 Nitrobenzee (I,T) U160 2-Propenoic acid, 2-methyl-, methyl			((3-amino-2,3,6-trideoxy)-alpha-L-	U083	78-87-5	Propane, 1,2-dichloro-
methoxy-, (8S-cis)-			lyxo-hexopyranosyl)oxy)-7,8,9,10-	U149	109-77-3	Propanedinitrile
methoxy-, (8S-cis)-			tetrahydro-6.8.11-trihydroxy-1-	U171	79-46-9	Propane, 2-nitro- (I.T)
U167						
U168 91-59-8 2-Naphthalenamine See F027 93-72-1 Propanoic acid, 2-(2,4,5-trichlorophenoxy) - trichlorophenoxy - tri	11167	12/1 22 7				
U026						•
U165 91-20-3 Naphthalene Naphthalene				See F027	93-/2-1	
U165 91-20-3 Naphthalene U140 78-83-1 1-Propanol, 2-methyl- (I,T)	U026	494-03-1	Naphthalenamine, N,N'-bis(2-			trichlorophenoxy)-
U047 91-58-7 Naphthalene, 2-chloro-			chloroethyl)-	U235	126-72-7	1-Propanol, 2,3-dibromo-, phosphate
U047 91-58-7 Naphthalene, 2-chloro-	U165	91-20-3	• ,			
U166 130-15-4 1,4-Naphthalenedione U002 67-64-1 2-Propanone (I) U236 72-57-1 2,7-Naphthalenedisulfonic acid, 3,3'-				11140	78_83_1	• •
U236						
((3,3'- dimethyl(1,1'-biphenyl)-4,4'-						
diyl)bis(azo)bis(5-amino-4-hydroxy)-,	U236	/2-57-1				
tetrasodium salt U009 107-13-1 2-Propenenitrile U279 63-25-2 1-Naphthalenol, methylcarbamate. U152 126-98-7 2-Propenenitrile, 2-methyl- (I,T) U166 130-15-4 1,4-Naphthoquinone U008 79-10-7 2-Propenoic acid (I) U167 134-32-7 alpha-Naphthylamine U113 140-88-5 2-Propenoic acid, ethyl ester (I) U168 91-59-8 beta-Naphthylamine U118 97-63-2 2-Propenoic acid, 2-methyl-, ethyl U217 10102-45-1 Nitric acid, thallium(1+) salt ester U169 98-95-3 Nitrobenzene (I,T) U162 80-62-6 2-Propenoic acid, 2-methyl-, methyl			((3,3'- dimethyl(1,1'-biphenyl)-4,4'-	U084	542-75-6	1-Propene, 1,3-dichloro-
tetrasodium salt U009 107-13-1 2-Propenenitrile U279 63-25-2 1-Naphthalenol, methylcarbamate. U152 126-98-7 2-Propenenitrile, 2-methyl- (I,T) U166 130-15-4 1,4-Naphthoquinone U008 79-10-7 2-Propenoic acid (I) U167 134-32-7 alpha-Naphthylamine U113 140-88-5 2-Propenoic acid, ethyl ester (I) U168 91-59-8 beta-Naphthylamine U118 97-63-2 2-Propenoic acid, 2-methyl-, ethyl U217 10102-45-1 Nitric acid, thallium(1+) salt U169 98-95-3 Nitrobenzene (I,T) U162 80-62-6 2-Propenoic acid, 2-methyl-, methyl			diyl)bis(azo)bis(5-amino-4-hydroxy)-,	U243	1888-71-7	1-Propene, 1,1,2,3,3,3-hexachloro-
U279 63-25-2 1-Naphthalenol, methylcarbamate. U152 126-98-7 2-Propenenitrile, 2-methyl- (I,T) U166 130-15-4 1,4-Naphthoquinone U008 79-10-7 2-Propenoic acid (I) U167 134-32-7 alpha-Naphthylamine U113 140-88-5 2-Propenoic acid, ethyl ester (I) U168 91-59-8 beta-Naphthylamine U118 97-63-2 2-Propenoic acid, 2-methyl-, ethyl U217 10102-45-1 Nitric acid, thallium(1+) salt ester U169 98-95-3 Nitrobenzene (I,T) U162 80-62-6 2-Propenoic acid, 2-methyl-, methyl			0, 1, 1			
U166 130-15-4 1,4-Naphthoquinone U008 79-10-7 2-Propenoic acid (I) U167 134-32-7 alpha-Naphthylamine U113 140-88-5 2-Propenoic acid, ethyl ester (I) U168 91-59-8 beta-Naphthylamine U118 97-63-2 2-Propenoic acid, 2-methyl-, ethyl U217 10102-45-1 Nitric acid, thallium(1+) salt ester U169 98-95-3 Nitrobenzene (I,T) U162 80-62-6 2-Propenoic acid, 2-methyl-, methyl	11270	63-25.2				•
U167 134-32-7 alpha-Naphthylamine U113 140-88-5 2-Propenoic acid, ethyl ester (I) U168 91-59-8 beta-Naphthylamine U118 97-63-2 2-Propenoic acid, 2-methyl-, ethyl U217 10102-45-1 Nitric acid, thallium(1+) salt ester U169 98-95-3 Nitrobenzene (I,T) U162 80-62-6 2-Propenoic acid, 2-methyl-, methyl		03-23-2				
U168 91-59-8 beta-Naphthylamine U118 97-63-2 2-Propenoic acid, 2-methyl-, ethyl U217 10102-45-1 Nitric acid, thallium(1+) salt ester U169 98-95-3 Nitrobenzene (I,T) U162 80-62-6 2-Propenoic acid, 2-methyl-, methyl		120 15 4		HUUK	/9-10-/	/-rcopenoic acid (I)
U217 10102-45-1 Nitric acid, thallium(1+) salt ester U169 98-95-3 Nitrobenzene (I,T) U162 80-62-6 2-Propenoic acid, 2-methyl-, methyl	11167					
U169 98-95-3 Nitrobenzene (I,T) U162 80-62-6 2-Propenoic acid, 2-methyl-, methyl		134-32-7	alpha-Naphthylamine	U113	140-88-5	2-Propenoic acid, ethyl ester (I)
U169 98-95-3 Nitrobenzene (I,T) U162 80-62-6 2-Propenoic acid, 2-methyl-, methyl		134-32-7	alpha-Naphthylamine	U113	140-88-5	2-Propenoic acid, ethyl ester (I)
	U168	134-32-7 91-59-8	alpha-Naphthylamine beta-Naphthylamine	U113	140-88-5	2-Propenoic acid, ethyl ester (I) 2-Propenoic acid, 2-methyl-, ethyl
ester (1,1)	U168 U217	134-32-7 91-59-8 10102-45-1	alpha-Naphthylamine beta-Naphthylamine Nitric acid, thallium(1+) salt	U113 U118	140-88-5 97-63-2	2-Propenoic acid, ethyl ester (I) 2-Propenoic acid, 2-methyl-, ethyl ester
	U168 U217 U169	134-32-7 91-59-8 10102-45-1 98-95-3	alpha-Naphthylamine beta-Naphthylamine Nitric acid, thallium(1+) salt Nitrobenzene (I,T)	U113 U118	140-88-5 97-63-2	2-Propenoic acid, ethyl ester (I) 2-Propenoic acid, 2-methyl-, ethyl ester 2-Propenoic acid, 2-methyl-, methyl

U373 122-42-9	Propham.	U249	1314-84-7	Zinc phosphide Zn3 P2, [when] <u>if</u> present at
U411 114-26-1	Propoxur.			concentrations of 10% or less
U387 52888-80	-9 Prosulfocarb.	U001	75-07-0	Acetaldehyde (I)
U194 107-10-8	n-Propylamine (I,T)	U001	75-07-0	Ethanal (I)
U083 78-87-5	Propylene dichloride	U002	67-64-1	Acetone (I)
U148 123-33-1	3,6-Pyridazinedione, 1,2-dihydro-	U002		2-Propanone (I)
U196 110-86-1	Pyridine	U003		Acetonitrile (I,T)
U191 109-06-8	Pyridine, 2-methyl-	U004		Acetophenone
U237 66-75-1	2,4-(1H,3H)-Pyrimidinedione, 5-(bis(2-	U004		Ethanone, 1-phenyl-
0237 00-73-1		U005		
U164 F6 04 0	chloroethyl)amino)-			Acetamide, -9H-fluoren-2-yl-
U164 56-04-2	4(1H)-Pyrimidinone, 2,3-dihydro-6-	U005		2-Acetylaminofluorene
	methyl-2-	U006		Acetyl chloride (C,R,T)
	thioxo-	U007		Acrylamide
U180 930-55-2	Pyrrolidine, 1-nitroso-	U007		2-Propenamide
U200 50-55-5	Reserpine	U008	3 79-10-7	Acrylic acid (I)
U201 108-46-3	Resorcinol	U008	3 79-10-7	2-Propenoic acid (I)
U203 94-59-7	Safrole	U009	107-13-1	Acrylonitrile
U204 7783-00-	3 Selenious acid	U009	107-13-1	2-Propenenitrile
	3 Selenium dioxide	U010	50-07-7	Azirino(2',3':3,4)pyrrolo(1,2-
	1 Selenium sulfide			a)indole-4,7-dione, 6-amino-8-
	4 Selenium sulfide SeS2 (R,T)			(((aminocarbonyl) oxy)methyl)-
U015 115-02-6				1,1a,2,8,8a,8b-hexahydro-8a-
See F027 93-72-1	• • • • • • • • • • • • • • • • • • • •			methoxy-5-methyl-, (1aS-(1aalpha,
	-4 Streptozotocin	11010	50.07.7	8beta, 8aalpha,8balpha))-
U103 77-78-1	Sulfuric acid, dimethyl ester	U010		Mitomycin C
	3 Sulfur phosphide (R)	U011		Amitrole
See F027 93-76-5	2,4,5-T	U011		1H-1,2,4-Triazol-3-amine
U207 95-94-3	1,2,4,5-Tetrachlorobenzene	U012		Aniline (I,T)
U208 630-20-6	1,1,1,2-Tetrachloroethane	U012		Benzenamine (I,T)
U209 79-34-5	1,1,2,2-Tetrachloroethane	U014	492-80-8	Auramine
U210 127-18-4	Tetrachloroethylene	U014	492-80-8	Benzenamine, 4,4'-
See F027 58-90-2	2,3,4,6-Tetrachlorophenol			carbonimidoylbis(N,N-dimethyl-
U213 109-99-9	Tetrahydrofuran (I)	U015	115-02-6	Azaserine
U214 563-68-8	Thallium(I) acetate	U015	115-02-6	L-Serine, diazoacetate (ester)
	9 Thallium(I) carbonate	U016		Benz(c)acridine
	Thallium(I) chloride	U017		Benzal chloride
	thallium chloride T1C1	U017		Benzene, (dichloromethyl)-
	-1 Thallium(I) nitrate	U018		Benz(a) anthracene
	Thioacetamide	U019		
				Benzene (I,T)
	-O Thiodicarb.	U020		Benzenesulfonic acid chloride (C,R)
U153 74-93-1	Thiomethanol (I,T)	U020		Benzenesulfonyl chloride (C,R)
U244 137-26-8		U021		Benzidine
	N)C(S))2 S2, tetramethyl-	U021		(1,1'-Biphenyl)-4,4'-diamine
	-8 Thiophanate-methyl.	U022		Benzo(a)pyrene
U219 62-56-6	Thiourea	U023		Benzene, (trichloromethyl)-
U244 137-26-8	Thiram	U023		Benzotrichloride (C,R,T)
U220 108-88-3	Toluene	U024	111-91-1	Dichloromethoxy ethane
U221 25376-45	-8 Toluenediamine	U024	111-91-1	Ethane, 1,1'-(methylenebis(oxy))bis(2-
U223 26471-62	-5 Toluene diisocyanate (R,T)			chloro-
U328 95-53-4	o-Toluidine	U025	111-44-4	Dichloroethyl ether
U353 106-49-0	p-Toluidine	U025	111-44-4	Ethane, 1,1'-oxybis(2-chloro-
U222 636-21-5	•	U026		Chlornaphazin
	5 Triallate.	U026		Naphthalenamine, N,N'-bis(2-
U011 61-82-5				chloroethyl)-
U226 71-55-6	1,1,1-Trichloroethane	U027	108-60-1	Dichloroisopropyl ether
U227 79-00-5	1,1,2-Trichloroethane	U027		Propane, 2,2'-oxybis(2-chloro-
U228 79-01-6	Trichloroethylene	U028		1,2-Benzenedicarboxylic acid, bis(2-
	Trichloromonofluoromethane	0028) 117-01-7	ethylhexyl) ester
	2,4,5-Trichlorophenol	11020	117 01 7	0 0,
See F027 95-95-4		U028		Diethylhexyl phthalate
See F027 88-06-2	2,4,6-Trichlorophenol	U029		Methane, bromo-
U404 121-44-8	Triethylamine.	U029		Methyl bromide
U234 99-35-4	1,3,5-Trinitrobenzene (R,T)	U030		Benzene, 1-bromo-4-phenoxy-
U182 123-63-7	1,3,5-Trioxane, 2,4,6-trimethyl-	U030		4-Bromophenyl phenyl ether
U235 126-72-7	Tris(2,3-dibromopropyl) phosphate	U031		1-Butanol (I)
U236 72-57-1	Trypan blue	U031	71-36-3	n-Butyl alcohol (I)
U237 66-75-1	Uracil shallard	U032	2 13765-19-0	Calcium chromate
U176 759-73-9	Urea, N-ethyl-N-nitroso-	U032	13765-19-0	Chromic acid H2 CrO4, calcium salt
U177 684-93-5	Urea, N-methyl-N-nitroso-	U033	353-50-4	Carbonic difluoride
U043 75-01-4	Vinyl chloride	U033		Carbon oxyfluoride (R,T)
U248 (1)81-81-2	Warfarin, and salts, [when] if present at			Acetaldehyde, trichloro-
(-/51 51 1	concentrations of 0.3% or less	U034		Chloral
U239 1330-20-		U035		Benzenebutanoic acid, 4-(bis(2-
U200 50-55-5	Yohimban-16-carboxylic acid, 11,17-	0055	, 505-05-5	chloroethyl)amino)-
5200 JU-JJ=J	dimethoxy-18-((3,4,5-	U035	305-03-3	Chlorambucil
	trimethoxybenzoyl) oxy)-, methyl	U036		Chlordane, alpha and gamma isomers
	ester, (3beta,16beta, 17alpha,18beta,	U036	57-74-9	4,7-Methano-1H-indene,
	20a1pha) -			1,2,4,5,6,7,8,8-octachloro-
				2,3,3a,4,7,7a-hexahydro-

U037	108-90-7	Benzene, chloro-	U073	91-94-1	3,3'-Dichlorobenzidine
U037	108-90-7	Chlorobenzene	U074	764-41-0	2-Butene, 1,4-dichloro-(I,T)
U038	510-15-6	Benzeneacetic acid, 4-chloro-alpha-(4-	U074	764-41-0	1,4-Dichloro-2-butene (I,T)
0030	310-13-0	chlorophenyl)-alpha-hydroxy-, ethyl	U075	75-71-8	Dichlorodifluoromethane
		ester	U075	75-71-8	Methane, dichlorodifluoro-
11020	E10 1E 6	Chlorobenzilate			
U038	510-15-6		U076	75-34-3	Ethane, 1,1-dichloro-
U039	59-50-7	p-Chloro-m-cresol	U076	75-34-3	Ethylidene dichloride
U039	59-50-7	Phenol, 4-chloro-3-methyl-	U077	107-06-2	Ethane, 1,2-dichloro-
U041	106-89-8	Epichlorohydrin	U077	107-06-2	Ethylene dichloride
U041	106-89-8	Oxirane, (chloromethyl)-	U078	75-35-4	1,1-Dichloroethylene
U042	110-75-8	2-Chloroethyl vinyl ether	U078	75-35-4	Ethene, 1,1-dichloro-
U042	110-75-8	Ethene, (2-chloroethoxy)-	U079	156-60-5	1,2-Dichloroethylene
U043	75-01-4	Ethene, chloro-	U079	156-60-5	Ethene, 1,2-dichloro-, (E)-
U043	75-01-4	Vinyl chloride	U080	75-09-2	Methane, dichloro-
U044	67-66-3	Chloroform	U080	75-09-2	Methylene chloride
U044	67-66-3	Methane, trichloro-	U081	120-83-2	2,4-Dichlorophenol
U045	74-87-3	Methane, chloro- (I,T)	U081	120-83-2	Phenol, 2,4-dichloro-
U045	74-87-3	Methyl chloride (I,T)	U082	87-65-0	2,6-Dichlorophenol
U046	107-30-2	Chloromethyl methyl ether	U082	87-65-0	Phenol, 2,6-dichloro-
U046	107-30-2	Methane, chloromethoxy-	U083	78-87-5	Propane, 1,2-dichloro-
U047	91-58-7	beta-Chloronaphthalene	U083	78-87-5	Propylene dichloride
U047	91-58-7	Naphthalene, 2-chloro-	U084	542-75-6	1,3-Dichloropropene
U048	95-57-8	o-Chlorophenol	U084	542-75-6	1-Propene, 1,3-dichloro-
U048	95-57-8	Phenol, 2-chloro-	U085		2,2'-Bioxirane
U049	3165-93-3	Benzenamine, 4-chloro-2-methyl-,	U085		1,2:3,4-Diepoxybutane (I,T)
		hydrochloride	U086		N,N'-Diethylhydrazine
U049	3165-93-3	4-Chloro-o-toluidine, hydrochloride	U086	1615-80-1	Hydrazine, 1,2-diethyl-
U050	218-01-9	Chrysene	U087	3288-58-2	0,0-Diethyl S-methyl dithiophosphate
U051		Creosote	U087	3288-58-2	Phosphorodithioic acid, 0,0-diethyl S-
U052	1319-77-3	Cresol (Cresylic acid)			methyl ester
U052	1319-77-3	Phenol, methyl-	U088	84-66-2	1,2-Benzenedicarboxylic acid, diethyl
U053	4170-30-3				ester
U053		Crotonaldehyde	U088	84-66-2	Diethyl phthalate
U055	98-82-8	Benzene, (1-methylethyl)-(I)	U089	56-53-1	Diethylstilbesterol
U055	98-82-8	Cumene (I)	U089	56-53-1	Phenol, 4,4'-(1,2-diethyl-1,2-
U056	110-82-7	Benzene, hexahydro-(I)	0009	30-33-1	ethenediyl)bis-, (E)-
U056	110-82-7	Cyclohexane (I)	U090	94-58-6	1,3-Benzodioxole, 5-propyl-
U057	108-94-1	Cyclohexanone (I)	U090	94-58-6	Dihydrosafrole
U058	50-18-0	Cyclophosphamide	U091	119-90-4	(1,1'-Biphenyl)-4,4'-diamine, 3,3'-
U058	50-18-0	2H-1,3,2-Oxazaphosphorin-2-amine, N,N-			dimethoxy-
		bis(2-chloroethyl)tetrahydro-, 2-oxide	U091	119-90-4	3,3'-Dimethoxybenzidine
U059		Daunomycin	U092	124-40-3	Dimethylamine (I)
U059	20830-81-3	5,12-Naphthacenedione, 8-acetyl-10-	U092	124-40-3	Methanamine, -methyl-(I)
		((3-	U093	60-11-7	Benzenamine, N,N-dimethyl-4-
		amino-2,3,6-trideoxy)-alpha-L-lyxo-			(phenylazo)-
		hexopyranosyl)oxy)-7,8,9,10-	U093	60-11-7	p-Dimethylaminoazobenzene
		tetrahydro-6,8,11-trihydroxy-1-	U094	57-97-6	Benz(a)anthracene, 7,12-dimethyl-
		methoxy-, (8S-cis)-	U094	57-97-6	7,12-Dimethylbenz(a)anthracene
U060	72-54-8	Benzene, 1,1'-(2,2-	U095	119-93-7	(1,1'-Biphenyl)-4,4'-diamine, 3,3'-
0000	,, ,, ,,	dichloroethylidene)bis(4-chloro-	0030	115 50 7	dimethyl-
U060	72-54-8	DDD	U095	119-93-7	3,3'-Dimethylbenzidine
U061	50-29-3	Benzene, 1,1'-(2,2,2-	U096	80-15-9	alpha,alpha-
0001	30-29-3	trichloroethylidene)bis(4-chloro-	0090	00-13-9	
11061	EO 20 2	, ,	11006	00 15 0	Dimethylbenzylhydroperoxide (R)
U061	50-29-3	DDT	U096	80-15-9	Hydroperoxide, 1-methyl-1-phenylethyl-
U062	2303-16-4	Carbamothioic acid, bis(1-	11007	70 44 7	(R)
		methylethyl)-, S- (2,3-di chloro-2-	U097	79-44-7	Carbamic chloride, dimethyl-
		propenyl) ester	U097	79-44-7	Dimethylcarbamoyl chloride
U062	2303-16-4	Diallate	U098	57-14-7	1,1-Dimethylhydrazine
U063	53-70-3	Dibenz(a,h)anthracene	U098	57-14-7	Hydrazine, 1,1-dimethyl-
U064	189-55-9	Benzo(rst)pentaphene	U099	540-73-8	1,2-Dimethylhydrazine
U064	189-55-9	Dibenzo(a,i)pyrene	U099	540-73-8	Hydrazine, 1,2-dimethyl-
U066	96-12-8	1,2-Dibromo-3-chloropropane	U101	105-67-9	2,4-Dimethylphenol
U066	96-12-8	Propane, 1,2-dibromo-3-chloro-	U101	105-67-9	Phenol, 2,4-dimethyl-
U067	106-93-4	Ethane, 1,2-dibromo-	U102	131-11-3	1,2-Benzenedicarboxylic acid, dimethyl
U067	106-93-4	Ethylene dibromide			ester
U068	74-95-3	Methane, dibromo-	U102	131-11-3	Dimethyl phthalate
U068	74-95-3	Methylene bromide	U103	77-78-1	Dimethyl sulfate
U069	84-74-2	1,2-Benzenedicarboxylic acid, dibutyl	U103	77-78-1	Sulfuric acid, dimethyl ester
0003	UT-/4-2	ester	U105	121-14-2	Benzene, 1-methyl-2,4-dinitro-
11060	01 71 2				
U069	84-74-2	Dibutyl phthalate	U105	121-14-2	2,4-Dinitrotoluene
U070	95-50-1	Benzene, 1,2-dichloro-	U106	606-20-2	Benzene, 2-methyl-1,3-dinitro-
U070	95-50-1	o-Dichlorobenzene	U106	606-20-2	2,6-Dinitrotoluene
U071	541-73-1	Benzene, 1,3-dichloro-	U107	117-84-0	1,2-Benzenedicarboxylic acid, dioctyl
U071	541-73-1	m-Dichlorobenzene			ester
U072	106-46-7	Benzene, 1,4-dichloro-	U107	117-84-0	Di-n-octyl phthalate
U072		- Dishlambarasa	U108	123-91-1	1,4-Diethyleneoxide
00,2	106-46-7	p-Dichlorobenzene	0100	ILO JI I	1,4-Diethyreneoxide
U073	106-46-7 91-94-1	(1,1'-Biphenyl)-4,4'-diamine, 3,3'-	U108	123-91-1	1,4-Dioxane
		•			-

U109	122-66-7	Hydrazine, 1,2-diphenyl-	U144	301-04-2	Lead acetate
U110	142-84-7	Dipropylamine (I)	U145	7446-27-7	Lead phosphate
U110	142-84-7	1-Propanamine, N-propyl-(I)	U145	7446-27-7	
U111	621-64-7	Di-n-propylnitrosamine	U146	1335-32-6	Lead, bis(acetato-0)tetrahydroxytri-
U111	621-64-7	1-Propanamine, N-nitroso-N-propyl-	U146	1335-32-6	Lead subacetate
U112	141-78-6	Acetic acid ethyl ester (I)	U147	108-31-6	2,5-Furandione
		Ethyl acetate (I)			
U112	141-78-6	• • • • • • • • • • • • • • • • • • • •	U147	108-31-6	Maleic anhydride
U113	140-88-5	Ethyl acrylate (I)	U148	123-33-1	Maleic hydrazide
U113	140-88-5	2-Propenoic acid, ethyl ester (I)	U148	123-33-1	3,6-Pyridazinedione, 1,2-dihydro-
U114	(1)111-54-6	Carbamodithioic acid, 1,2-	U149	109-77-3	Malononitrile
		ethanediylbis-, salts and esters	U149	109-77-3	Propanedinitrile
U114	(1)111-54-6	Ethylenebisdithiocarbamic acid, salts	U150	148-82-3	Melphalan
		and esters	U150	148-82-3	L-Phenylalanine, 4-(bis(2-
U115	75-21-8	Ethylene oxide (I,T)			chloroethyl)amino)-
U115	75-21-8	Oxirane (I,T)	U151	7439-97-6	Mercury
U116	96-45-7	Ethylenethiourea	U152	126-98-7	Methacrylonitrile (I,T)
U116	96-45-7	2-Imidazolidinethione	U152	126-98-7	2-Propenenitrile, 2-methyl- (I,T)
U117	60-29-7	Ethane, 1,1'-oxybis-(I)	U153	74-93-1	Methanethiol (I,T)
U117	60-29-7	Ethyl ether (I)	U153	74-93-1	Thiomethanol (I,T)
U118	97-63-2	Ethyl methacrylate	U154	67-56-1	Methanol (I)
U118	97-63-2	2-Propenoic acid, 2-methyl-, ethyl	U154	67-56-1	Methyl alcohol (I)
	60 50 0	ester	U155	91-80-5	1,2-Ethanediamine, N,N-dimethyl-N'-2-
U119	62-50-0	Ethyl methanesulfonate			pyridinyl-N'-(2-thienylmethyl)-
U119	62-50-0	Methanesulfonic acid, ethyl ester	U155	91-80-5	Methapyrilene
U120	206-44-0	Fluoranthene	U156	79-22-1	Carbonochloridic acid, methyl ester
U121	75-69-4	Methane, trichlorofluoro-			(I,T)
U121	75-69-4	Trichloromonofluoromethane	U156	79-22-1	Methyl chlorocarbonate (I,T)
U122	50-00-0	Formaldehyde	U157	56-49-5	Benz(j)aceanthrylene, 1,2-dihydro-3-
U123	64-18-6	Formic acid (C,T)			methyl-
U124	110-00-9	Furan (I)	U157	56-49-5	3-Methylcholanthrene
U124	110-00-9	Furfuran (I)	U158	101-14-4	Benzenamine, 4,4'-methylenebis(2-
U125	98-01-1	2-Furancarboxaldehyde (I)			chloro-
U125	98-01-1	Furfural (I)	U158	101-14-4	4,4'-Methylenebis(2-chloroaniline)
U126	765-34-4	Glycidylaldehyde	U159	78-93-3	2-Butanone (I,T)
U126	765-34-4	Oxiranecarboxyaldehyde	U159	78-93-3	Methyl ethyl ketone (MEK) (I,T)
U127	118-74-1	Benzene, hexachloro-	U160	1338-23-4	2-Butanone, peroxide (R,T)
			U160		
U127	118-74-1	Hexachlorobenzene		1338-23-4	Methyl ethyl ketone peroxide (R,T)
U128	87-68-3	1,3-Butadiene, 1,1,2,3,4,4-hexachloro-	U161	108-10-1	Methyl isobutyl ketone (I)
U128	87-68-3	Hexachlorobutadiene	U161	108-10-1	4-Methyl-2-pentanone (I)
U129	58-89-9	Cyclohexane, 1,2,3,4,5,6-hexachloro-,	U161	108-10-1	Pentanol, 4-methyl-
		(1alpha,2alpha,3beta,4alpha,5alpha,	U162	80-62-6	Methyl methacrylate (I,T)
		6beta)-	U162	80-62-6	2-Propenoic acid, 2-methyl-, methyl
U129	58-89-9	Lindane			ester (I,T)
U130	77-47-4	1,3-Cyclopentadiene, 1,2,3,4,5,5-	U163	70-25-7	Guanidine, -methyl-N'-nitro-N-nitroso-
		hexachloro-	U163	70-25-7	MNNG
U130	77-47-4	Hexachlorocyclopentadiene	U164	56-04-2	Methylthiouracil
U131	67-72-1	Ethane, hexachloro-	U164	56-04-2	4(1H)-Pyrimidinone, 2,3-dihydro-6-
U131	67-72-1	Hexachloroethane			methyl-2-thioxo-
U132	70-30-4	Hexachlorophene	U165	91-20-3	Naphthalene
U132	70-30-4	Phenol, 2,2'-methylenebis(3,4,6-		130-15-4	1,4-Naphthalenedione
OIOL	70 00 1	trichloro-	IIInn		
U133	302-01-2		U166		
U134	302-01-2		U166	130-15-4	1,4-Naphthoquinone
	7664 20 2	Hydrazine (R,T)	U166 U167	130-15-4 134-32-7	1,4-Naphthoquinone 1-Naphthalenamine
		Hydrazine (R,T) Hydrofluoric acid (C,T)	U166 U167 U167	130-15-4 134-32-7 134-32-7	1,4-Naphthoquinone 1-Naphthalenamine alpha-Naphthylamine
U134	7664-39-3	Hydrazine (R,T) Hydrofluoric acid (C,T) Hydrogen fluoride (C,T)	U166 U167 U167 U168	130-15-4 134-32-7 134-32-7 91-59-8	1,4-Naphthoquinone 1-Naphthalenamine alpha-Naphthylamine 2-Naphthalenamine
U134 U135	7664-39-3 7783-06-4	Hydrazine (R,T) Hydrofluoric acid (C,T) Hydrogen fluoride (C,T) Hydrogen sulfide	U166 U167 U167 U168 U168	130-15-4 134-32-7 134-32-7 91-59-8 91-59-8	1,4-Naphthoquinone 1-Naphthalenamine alpha-Naphthylamine 2-Naphthalenamine beta-Naphthylamine
U134 U135 U135	7664-39-3 7783-06-4 7783-06-4	Hydrazine (R,T) Hydrofluoric acid (C,T) Hydrogen fluoride (C,T) Hydrogen sulfide Hydrogen sulfide H2S	U166 U167 U167 U168 U168 U169	130-15-4 134-32-7 134-32-7 91-59-8 91-59-8 98-95-3	1,4-Naphthoquinone 1-Naphthalenamine alpha-Naphthylamine 2-Naphthalenamine beta-Naphthylamine Benzene, nitro-
U134 U135 U135 U136	7664-39-3 7783-06-4 7783-06-4 75-60-5	Hydrazine (R,T) Hydrofluoric acid (C,T) Hydrogen fluoride (C,T) Hydrogen sulfide Hydrogen sulfide H2S Arsinic acid, dimethyl-	U166 U167 U167 U168 U168 U169 U169	130-15-4 134-32-7 134-32-7 91-59-8 91-59-8 98-95-3 98-95-3	1,4-Naphthoquinone 1-Naphthalenamine alpha-Naphthylamine 2-Naphthalenamine beta-Naphthylamine Benzene, nitro- Nitrobenzene (I,T)
U134 U135 U135 U136 U136	7664-39-3 7783-06-4 7783-06-4 75-60-5 75-60-5	Hydrazine (R,T) Hydrofluoric acid (C,T) Hydrogen fluoride (C,T) Hydrogen sulfide Hydrogen sulfide H2S Arsinic acid, dimethyl- Cacodylic acid	U166 U167 U167 U168 U168 U169 U169 U170	130-15-4 134-32-7 134-32-7 91-59-8 91-59-8 98-95-3 98-95-3 100-02-7	1,4-Naphthoquinone 1-Naphthalenamine alpha-Naphthylamine 2-Naphthalenamine beta-Naphthylamine Benzene, nitro- Nitrobenzene (I,T) p-Nitrophenol
U134 U135 U135 U136	7664-39-3 7783-06-4 7783-06-4 75-60-5	Hydrazine (R,T) Hydrofluoric acid (C,T) Hydrogen fluoride (C,T) Hydrogen sulfide Hydrogen sulfide H2S Arsinic acid, dimethyl- Cacodylic acid Indeno(1,2,3-cd)pyrene	U166 U167 U167 U168 U168 U169 U169	130-15-4 134-32-7 134-32-7 91-59-8 91-59-8 98-95-3 98-95-3 100-02-7 100-02-7	1,4-Naphthoquinone 1-Naphthalenamine alpha-Naphthylamine 2-Naphthalenamine beta-Naphthylamine Benzene, nitro- Nitrobenzene (I,T) p-Nitrophenol Phenol, 4-nitro-
U134 U135 U135 U136 U136	7664-39-3 7783-06-4 7783-06-4 75-60-5 75-60-5	Hydrazine (R,T) Hydrofluoric acid (C,T) Hydrogen fluoride (C,T) Hydrogen sulfide Hydrogen sulfide H2S Arsinic acid, dimethyl- Cacodylic acid	U166 U167 U167 U168 U168 U169 U169 U170	130-15-4 134-32-7 134-32-7 91-59-8 91-59-8 98-95-3 98-95-3 100-02-7	1,4-Naphthoquinone 1-Naphthalenamine alpha-Naphthylamine 2-Naphthalenamine beta-Naphthylamine Benzene, nitro- Nitrobenzene (I,T) p-Nitrophenol
U134 U135 U135 U136 U136 U137	7664-39-3 7783-06-4 7783-06-4 75-60-5 75-60-5 193-39-5	Hydrazine (R,T) Hydrofluoric acid (C,T) Hydrogen fluoride (C,T) Hydrogen sulfide Hydrogen sulfide H2S Arsinic acid, dimethyl- Cacodylic acid Indeno(1,2,3-cd)pyrene	U166 U167 U167 U168 U168 U169 U169 U170	130-15-4 134-32-7 134-32-7 91-59-8 91-59-8 98-95-3 98-95-3 100-02-7 100-02-7	1,4-Naphthoquinone 1-Naphthalenamine alpha-Naphthylamine 2-Naphthalenamine beta-Naphthylamine Benzene, nitro- Nitrobenzene (I,T) p-Nitrophenol Phenol, 4-nitro-
U134 U135 U135 U136 U136 U137 U138	7664-39-3 7783-06-4 7783-06-4 75-60-5 75-60-5 193-39-5 74-88-4	Hydrazine (R,T) Hydrofluoric acid (C,T) Hydrogen fluoride (C,T) Hydrogen sulfide Hydrogen sulfide H2S Arsinic acid, dimethyl- Cacodylic acid Indeno(1,2,3-cd)pyrene Methane, iodo-	U166 U167 U167 U168 U168 U169 U169 U170 U170	130-15-4 134-32-7 134-32-7 91-59-8 91-59-8 98-95-3 98-95-3 100-02-7 100-02-7 79-46-9	1,4-Naphthoquinone 1-Naphthalenamine alpha-Naphthylamine 2-Naphthalenamine beta-Naphthylamine Benzene, nitro- Nitrobenzene (I,T) p-Nitrophenol Phenol, 4-nitro- 2-Nitropropane (I,T)
U134 U135 U135 U136 U136 U137 U138 U138	7664-39-3 7783-06-4 7783-06-4 75-60-5 75-60-5 193-39-5 74-88-4 74-88-4	Hydrazine (R,T) Hydrofluoric acid (C,T) Hydrogen fluoride (C,T) Hydrogen sulfide Hydrogen sulfide H2S Arsinic acid, dimethyl- Cacodylic acid Indeno(1,2,3-cd)pyrene Methane, iodo- Methyl iodide	U166 U167 U167 U168 U168 U169 U170 U170 U171	130-15-4 134-32-7 134-32-7 91-59-8 91-59-8 98-95-3 100-02-7 100-02-7 79-46-9 79-46-9	1,4-Naphthoquinone 1-Naphthalenamine alpha-Naphthylamine 2-Naphthalenamine beta-Naphthylamine Benzene, nitro- Nitrobenzene (I,T) p-Nitrophenol Phenol, 4-nitro- 2-Nitropropane (I,T) Propane, 2-nitro- (I,T)
U134 U135 U135 U136 U136 U137 U138 U138 U140 U140	7664-39-3 7783-06-4 7783-06-4 75-60-5 75-60-5 193-39-5 74-88-4 74-88-4 78-83-1	Hydrazine (R,T) Hydrofluoric acid (C,T) Hydrogen fluoride (C,T) Hydrogen sulfide Hydrogen sulfide H2S Arsinic acid, dimethyl- Cacodylic acid Indeno(1,2,3-cd)pyrene Methane, iodo- Methyl iodide Isobutyl alcohol (I,T) 1-Propanol, 2-methyl- (I,T)	U166 U167 U168 U168 U169 U169 U170 U170 U171 U171 U171	130-15-4 134-32-7 134-32-7 91-59-8 91-59-8 98-95-3 100-02-7 100-02-7 79-46-9 79-46-9 924-16-3 924-16-3	1,4-Naphthoquinone 1-Naphthalenamine alpha-Naphthylamine 2-Naphthalenamine beta-Naphthylamine Benzene, nitro- Nitrobenzene (I,T) p-Nitrophenol Phenol, 4-nitro- 2-Nitropropane (I,T) Propane, 2-nitro- (I,T) 1-Butanamine, N-butyl-N-nitroso- N-Nitrosodi-n-butylamine
U134 U135 U135 U136 U136 U137 U138 U138 U140 U140 U141	7664-39-3 7783-06-4 7783-06-4 75-60-5 75-60-5 193-39-5 74-88-4 78-83-1 18-83-1 120-58-1	Hydrazine (R,T) Hydrofluoric acid (C,T) Hydrogen fluoride (C,T) Hydrogen sulfide Hydrogen sulfide H2S Arsinic acid, dimethyl- Cacodylic acid Indeno(1,2,3-cd)pyrene Methane, iodo- Methyl iodide Isobutyl alcohol (I,T) 1-Propanol, 2-methyl- (I,T) 1,3-Benzodioxole, 5-(1-propenyl)-	U166 U167 U167 U168 U168 U169 U170 U170 U171 U171 U171 U172 U172	130-15-4 134-32-7 134-32-7 91-59-8 98-95-3 98-95-3 100-02-7 100-02-7 79-46-9 924-16-3 924-16-3 1116-54-7	1,4-Naphthoquinone 1-Naphthalenamine alpha-Naphthylamine 2-Naphthalenamine beta-Naphthylamine Benzene, nitro- Nitrobenzene (I,T) p-Nitrophenol Phenol, 4-nitro- 2-Nitropropane (I,T) Propane, 2-nitro- (I,T) 1-Butanamine, N-butyl-N-nitroso- N-Nitrosodi-n-butylamine Ethanol, 2,2'-(nitrosoimino)bis-
U134 U135 U135 U136 U136 U137 U138 U138 U140 U140 U141	7664-39-3 7783-06-4 7783-06-4 75-60-5 75-60-5 193-39-5 74-88-4 74-88-4 78-83-1 120-58-1	Hydrazine (R,T) Hydrofluoric acid (C,T) Hydrogen fluoride (C,T) Hydrogen sulfide Hydrogen sulfide H2S Arsinic acid, dimethyl- Cacodylic acid Indeno(1,2,3-cd)pyrene Methane, iodo- Methyl iodide Isobutyl alcohol (I,T) 1-Propanol, 2-methyl- (I,T) 1,3-Benzodioxole, 5-(1-propenyl)- Isosafrole	U166 U167 U168 U168 U169 U169 U170 U171 U171 U171 U172 U172 U173 U173	130-15-4 134-32-7 134-32-7 91-59-8 91-59-8 98-95-3 98-95-3 100-02-7 100-02-7 79-46-9 924-16-3 924-16-3 1116-54-7 1116-54-7	1,4-Naphthoquinone 1-Naphthalenamine alpha-Naphthylamine 2-Naphthalenamine beta-Naphthylamine Benzene, nitro- Nitrobenzene (I,T) p-Nitrophenol Phenol, 4-nitro- 2-Nitropropane (I,T) Propane, 2-nitro- (I,T) 1-Butanamine, N-butyl-N-nitroso- N-Nitrosodi-n-butylamine Ethanol, 2,2'-(nitrosoimino)bis- N-Nitrosodiethanolamine
U134 U135 U135 U136 U136 U137 U138 U138 U140 U140 U141 U141	7664-39-3 7783-06-4 7783-06-4 75-60-5 75-60-5 193-39-5 74-88-4 74-88-4 78-83-1 120-58-1 120-58-1 143-50-0	Hydrazine (R,T) Hydrofluoric acid (C,T) Hydrogen fluoride (C,T) Hydrogen sulfide Hydrogen sulfide H2S Arsinic acid, dimethyl- Cacodylic acid Indeno(1,2,3-cd)pyrene Methane, iodo- Methyl iodide Isobutyl alcohol (I,T) 1-Propanol, 2-methyl- (I,T) 1,3-Benzodioxole, 5-(1-propenyl)- Isosafrole Kepone	U166 U167 U168 U168 U169 U169 U170 U171 U171 U171 U172 U172 U173 U173 U174	130-15-4 134-32-7 134-32-7 91-59-8 91-59-8 98-95-3 98-95-3 100-02-7 100-02-7 79-46-9 924-16-3 924-16-3 924-16-3 1116-54-7 55-18-5	1,4-Naphthoquinone 1-Naphthalenamine alpha-Naphthylamine 2-Naphthalenamine beta-Naphthylamine Benzene, nitro- Nitrobenzene (I,T) p-Nitrophenol Phenol, 4-nitro- 2-Nitropropane (I,T) Propane, 2-nitro- (I,T) 1-Butanamine, N-butyl-N-nitroso- N-Nitrosodi-n-butylamine Ethanol, 2,2'-(nitrosoimino)bis- N-Nitrosodiethanolamine Ethanamine, -ethyl-N-nitroso-
U134 U135 U135 U136 U136 U137 U138 U138 U140 U140 U141	7664-39-3 7783-06-4 7783-06-4 75-60-5 75-60-5 193-39-5 74-88-4 74-88-4 78-83-1 120-58-1	Hydrazine (R,T) Hydrofluoric acid (C,T) Hydrogen fluoride (C,T) Hydrogen sulfide Hydrogen sulfide H2S Arsinic acid, dimethyl- Cacodylic acid Indeno(1,2,3-cd)pyrene Methane, iodo- Methyl iodide Isobutyl alcohol (I,T) 1-Propanol, 2-methyl- (I,T) 1,3-Benzodioxole, 5-(1-propenyl)- Isosafrole Kepone 1,3,4-Metheno-2H-	U166 U167 U168 U168 U169 U169 U170 U171 U171 U171 U172 U172 U173 U173 U174	130-15-4 134-32-7 134-32-7 91-59-8 91-59-8 98-95-3 100-02-7 100-02-7 79-46-9 924-16-3 924-16-3 1116-54-7 1116-54-7 55-18-5 55-18-5	1,4-Naphthoquinone 1-Naphthalenamine alpha-Naphthylamine 2-Naphthalenamine beta-Naphthylamine Benzene, nitro- Nitrobenzene (I,T) p-Nitrophenol Phenol, 4-nitro- 2-Nitropropane (I,T) Propane, 2-nitro- (I,T) 1-Butanamine, N-butyl-N-nitroso- N-Nitrosodi-n-butylamine Ethanol, 2,2'-(nitrosoimino)bis- N-Nitrosodiethanolamine Ethanamine, -ethyl-N-nitroso- N-Nitrosodiethylamine
U134 U135 U135 U136 U136 U137 U138 U138 U140 U140 U141 U141	7664-39-3 7783-06-4 7783-06-4 75-60-5 75-60-5 193-39-5 74-88-4 74-88-4 78-83-1 120-58-1 120-58-1 143-50-0	Hydrazine (R,T) Hydrofluoric acid (C,T) Hydrogen fluoride (C,T) Hydrogen sulfide Hydrogen sulfide H2S Arsinic acid, dimethyl- Cacodylic acid Indeno(1,2,3-cd)pyrene Methane, iodo- Methyl iodide Isobutyl alcohol (I,T) 1-Propanol, 2-methyl- (I,T) 1,3-Benzodioxole, 5-(1-propenyl)- Isosafrole Kepone 1,3,4-Metheno-2H- cyclobuta(cd)pentalen-2-one,	U166 U167 U168 U168 U169 U169 U170 U171 U171 U171 U172 U172 U173 U173 U174 U174 U176	130-15-4 134-32-7 134-32-7 91-59-8 91-59-8 98-95-3 100-02-7 100-02-7 79-46-9 924-16-3 924-16-3 1116-54-7 1116-54-7 55-18-5 55-18-5 759-73-9	1,4-Naphthoquinone 1-Naphthalenamine alpha-Naphthylamine 2-Naphthalenamine beta-Naphthylamine Benzene, nitro- Nitrobenzene (I,T) p-Nitrophenol Phenol, 4-nitro- 2-Nitropropane (I,T) Propane, 2-nitro- (I,T) 1-Butanamine, N-butyl-N-nitroso- N-Nitrosodi-n-butylamine Ethanol, 2,2'-(nitrosoimino)bis- N-Nitrosodiethhanolamine Ethanamine, -ethyl-N-nitroso- N-Nitrosodiethylamine N-Nitrosod-Nethylurea
U134 U135 U135 U136 U136 U137 U138 U138 U140 U140 U141 U141	7664-39-3 7783-06-4 7783-06-4 75-60-5 75-60-5 193-39-5 74-88-4 74-88-4 78-83-1 120-58-1 120-58-1 143-50-0	Hydrazine (R,T) Hydrofluoric acid (C,T) Hydrogen fluoride (C,T) Hydrogen sulfide Hydrogen sulfide H2S Arsinic acid, dimethyl- Cacodylic acid Indeno(1,2,3-cd)pyrene Methane, iodo- Methyl iodide Isobutyl alcohol (I,T) 1-Propanol, 2-methyl- (I,T) 1,3-Benzodioxole, 5-(1-propenyl)- Isosafrole Kepone 1,3,4-Metheno-2H- cyclobuta(cd)pentalen-2-one, 1,1a,3,3a,4,5,5,5a,5b,6-	U166 U167 U168 U168 U169 U169 U170 U170 U171 U171 U172 U172 U173 U173 U174 U174 U176 U176	130-15-4 134-32-7 134-32-7 91-59-8 91-59-8 98-95-3 100-02-7 100-02-7 79-46-9 924-16-3 924-16-3 1116-54-7 1116-54-7 55-18-5 55-18-5 759-73-9 759-73-9	1,4-Naphthoquinone 1-Naphthalenamine alpha-Naphthylamine 2-Naphthalenamine beta-Naphthylamine Benzene, nitro- Nitrobenzene (I,T) p-Nitrophenol Phenol, 4-nitro- 2-Nitropropane (I,T) Propane, 2-nitro- (I,T) 1-Butanamine, N-butyl-N-nitroso- N-Nitrosodi-n-butylamine Ethanol, 2,2'-(nitrosoimino)bis- N-Nitrosodiethylamine Ethanamine, -ethyl-N-nitroso- N-Nitrosodiethylamine N-Nitrosod-ethylurea Urea, N-ethyl-N-nitroso-
U134 U135 U135 U136 U136 U137 U138 U138 U140 U141 U141 U141 U142 U142	7664-39-3 7783-06-4 7783-06-4 75-60-5 75-60-5 193-39-5 74-88-4 74-88-4 78-83-1 120-58-1 120-58-1 143-50-0 143-50-0	Hydrazine (R,T) Hydrofluoric acid (C,T) Hydrogen fluoride (C,T) Hydrogen sulfide Hydrogen sulfide H2S Arsinic acid, dimethyl- Cacodylic acid Indeno(1,2,3-cd)pyrene Methane, iodo- Methyl iodide Isobutyl alcohol (I,T) 1-Propanol, 2-methyl- (I,T) 1,3-Benzodioxole, 5-(1-propenyl)- Isosafrole Kepone 1,3,4-Metheno-2H- cyclobuta(cd)pentalen-2-one, 1,1a,3,3a,4,5,5,5a,5b,6- decachlorooctahydro-	U166 U167 U168 U168 U169 U169 U170 U171 U171 U172 U172 U173 U173 U174 U174 U176 U176 U176	130-15-4 134-32-7 134-32-7 91-59-8 91-59-8 98-95-3 98-95-3 100-02-7 100-02-7 79-46-9 924-16-3 924-16-3 9116-54-7 1116-54-7 55-18-5 759-73-9 684-93-5	1,4-Naphthaquinone 1-Naphthalenamine alpha-Naphthylamine 2-Naphthalenamine beta-Naphthylamine Benzene, nitro- Nitrobenzene (I,T) p-Nitrophenol Phenol, 4-nitro- 2-Nitropropane (I,T) Propane, 2-nitro- (I,T) 1-Butanamine, N-butyl-N-nitroso- N-Nitrosodi-n-butylamine Ethanol, 2,2'-(nitrosoimino)bis- N-Nitrosodiethanolamine Ethanamine, -ethyl-N-nitroso- N-Nitrosodiethylamine N-Nitrosod-N-ethylurea Urea, N-ethyl-N-nitroso- N-Nitroso-N-methylurea
U134 U135 U135 U136 U136 U137 U138 U138 U140 U140 U141 U141	7664-39-3 7783-06-4 7783-06-4 75-60-5 75-60-5 193-39-5 74-88-4 74-88-4 78-83-1 120-58-1 120-58-1 143-50-0	Hydrazine (R,T) Hydrofluoric acid (C,T) Hydrogen fluoride (C,T) Hydrogen sulfide Hydrogen sulfide H2S Arsinic acid, dimethyl- Cacodylic acid Indeno(1,2,3-cd)pyrene Methane, iodo- Methyl iodide Isobutyl alcohol (I,T) 1-Propanol, 2-methyl- (I,T) 1,3-Benzodioxole, 5-(1-propenyl)- Isosafrole Kepone 1,3,4-Metheno-2H- cyclobuta(cd)pentalen-2-one, 1,1a,3,3a,4,5,5,5a,5b,6- decachloroctahydro- 2-Butenoic acid, 2-methyl-, 7-((2,3-	U166 U167 U168 U168 U169 U169 U170 U171 U171 U172 U172 U172 U173 U173 U174 U174 U176 U176 U177	130-15-4 134-32-7 134-32-7 91-59-8 98-95-3 98-95-3 100-02-7 100-02-7 79-46-9 924-16-3 1116-54-7 1116-54-7 55-18-5 55-18-5 759-73-9 684-93-5 684-93-5	1,4-Naphthaquinone 1-Naphthalenamine alpha-Naphthylamine 2-Naphthalenamine beta-Naphthylamine Benzene, nitro- Nitrobenzene (I,T) p-Nitrophenol Phenol, 4-nitro- 2-Nitropropane (I,T) Propane, 2-nitro- (I,T) 1-Butanamine, N-butyl-N-nitroso- N-Nitrosodi-n-butylamine Ethanol, 2,2'-(nitrosoimino)bis- N-Nitrosodiethanolamine Ethanamine, -ethyl-N-nitroso- N-Nitrosodiethylamine N-Nitroso-N-ethylurea Urea, N-ethyl-N-nitroso- N-Nitroso-N-methylurea Urea, N-methyl-N-nitroso-
U134 U135 U135 U136 U136 U137 U138 U138 U140 U141 U141 U141 U142 U142	7664-39-3 7783-06-4 7783-06-4 75-60-5 75-60-5 193-39-5 74-88-4 74-88-4 78-83-1 120-58-1 120-58-1 143-50-0 143-50-0	Hydrazine (R,T) Hydrofluoric acid (C,T) Hydrogen fluoride (C,T) Hydrogen sulfide Hydrogen sulfide H2S Arsinic acid, dimethyl- Cacodylic acid Indeno(1,2,3-cd)pyrene Methane, iodo- Methyl iodide Isobutyl alcohol (I,T) 1-Propanol, 2-methyl- (I,T) 1,3-Benzodioxole, 5-(1-propenyl)- Isosafrole Kepone 1,3,4-Metheno-2H- cyclobuta(cd)pentalen-2-one, 1,1a,3,3a,4,5,5,5a,5b,6- decachlorooctahydro- 2-Butenoic acid, 2-methyl-, 7-((2,3- dihydroxy-2-(1-methoxyethyl)-3-	U166 U167 U168 U168 U169 U169 U170 U171 U171 U172 U172 U173 U173 U174 U174 U176 U176 U176	130-15-4 134-32-7 134-32-7 91-59-8 91-59-8 98-95-3 98-95-3 100-02-7 100-02-7 79-46-9 924-16-3 924-16-3 9116-54-7 1116-54-7 55-18-5 759-73-9 684-93-5	1,4-Naphthaquinone 1-Naphthalenamine alpha-Naphthylamine 2-Naphthalenamine beta-Naphthylamine Benzene, nitro- Nitrobenzene (I,T) p-Nitrophenol Phenol, 4-nitro- 2-Nitropropane (I,T) Propane, 2-nitro- (I,T) 1-Butanamine, N-butyl-N-nitroso- N-Nitrosodi-n-butylamine Ethanol, 2,2'-(nitrosoimino)bis- N-Nitrosodiethanolamine Ethanamine, -ethyl-N-nitroso- N-Nitrosodiethylamine N-Nitroso-N-ethylurea Urea, N-ethyl-N-nitroso- N-Nitroso-N-methylurea Urea, N-methyl-N-nitroso- Carbamic acid, methylnitroso-, ethyl
U134 U135 U135 U136 U136 U137 U138 U138 U140 U141 U141 U141 U142 U142	7664-39-3 7783-06-4 7783-06-4 75-60-5 75-60-5 193-39-5 74-88-4 74-88-4 78-83-1 120-58-1 120-58-1 143-50-0 143-50-0	Hydrazine (R,T) Hydrofluoric acid (C,T) Hydrogen fluoride (C,T) Hydrogen sulfide Hydrogen sulfide H2S Arsinic acid, dimethyl- Cacodylic acid Indeno(1,2,3-cd)pyrene Methane, iodo- Methyl iodide Isobutyl alcohol (I,T) 1-Propanol, 2-methyl- (I,T) 1,3-Benzodioxole, 5-(1-propenyl)- Isosafrole Kepone 1,3,4-Metheno-2H- cyclobuta(cd)pentalen-2-one, 1,1a,3,3a,4,5,5,5a,5b,6- decachlorooctahydro- 2-Butenoic acid, 2-methyl-, 7-((2,3- dihydroxy-2-(1-methoxyethyl)-3- methyl-1-oxobutoxy)methyl)-2,3,5,7a-	U166 U167 U168 U168 U169 U169 U170 U171 U171 U172 U172 U173 U173 U174 U176 U176 U177 U177	130-15-4 134-32-7 134-32-7 91-59-8 91-59-8 98-95-3 100-02-7 100-02-7 100-02-7 100-02-7 1116-54-9 924-16-3 1116-54-7 1116-54-7 1116-54-7 155-18-5 759-73-9 684-93-5 684-93-5 615-53-2	1,4-Naphthaquinone 1-Naphthalenamine alpha-Naphthylamine 2-Naphthalenamine beta-Naphthylamine Benzene, nitro- Nitrobenzene (I,T) p-Nitrophenol Phenol, 4-nitro- 2-Nitropropane (I,T) Propane, 2-nitro- (I,T) 1-Butanamine, N-butyl-N-nitroso- N-Nitrosodi-n-butylamine Ethanol, 2,2'-(nitrosoimino)bis- N-Nitrosodiethanolamine Ethanamine, -ethyl-N-nitroso- N-Nitrosodiethylamine N-Nitroso-N-ethyl-N-nitroso- N-Nitroso-N-ethyl-N-nitroso- N-Nitroso-N-methyl-N-nitroso- N-Nitroso-N-methyl-N-nitroso- Carbamic acid, methylnitroso-, ethyl ester
U134 U135 U135 U136 U136 U137 U138 U138 U140 U141 U141 U141 U142 U142	7664-39-3 7783-06-4 7783-06-4 75-60-5 75-60-5 193-39-5 74-88-4 74-88-4 78-83-1 120-58-1 120-58-1 143-50-0 143-50-0	Hydrazine (R,T) Hydrofluoric acid (C,T) Hydrogen fluoride (C,T) Hydrogen sulfide Hydrogen sulfide H2S Arsinic acid, dimethyl- Cacodylic acid Indeno(1,2,3-cd)pyrene Methane, iodo- Methyl iodide Isobutyl alcohol (I,T) 1-Propanol, 2-methyl- (I,T) 1,3-Benzodioxole, 5-(1-propenyl)- Isosafrole Kepone 1,3,4-Metheno-2H- cyclobuta(cd)pentalen-2-one, 1,1a,3,3a,4,5,5,5a,5b,6- decachlorooctahydro- 2-Butenoic acid, 2-methyl-, 7-((2,3- dihydroxy-2-(1-methoxyehyl)-3- methyl-1-oxobutoxy)methyl)-2,3,5,7a- tetrahydro-1H-pyrrolizin-1-yl	U166 U167 U168 U168 U169 U169 U170 U171 U171 U172 U172 U173 U173 U174 U174 U176 U176 U177 U177 U178	130-15-4 134-32-7 134-32-7 91-59-8 91-59-8 98-95-3 98-95-3 100-02-7 70-46-9 79-46-9 924-16-3 924-16-3 1116-54-7 1116-54-7 55-18-5 55-18-5 759-73-9 684-93-5 684-93-5 615-53-2	1,4-Naphthoquinone 1-Naphthalenamine alpha-Naphthylamine 2-Naphthalenamine beta-Naphthylamine Benzene, nitro- Nitrobenzene (I,T) p-Nitrophenol Phenol, 4-nitro- 2-Nitropropane (I,T) Propane, 2-nitro- (I,T) 1-Butanamine, N-butyl-N-nitroso- N-Nitrosodi-n-butylamine Ethanol, 2,2'-(nitrosoimino)bis- N-Nitrosodiethylamine Ethanamine, -ethyl-N-nitroso- N-Nitrosodiethylamine N-Nitrosodiethylamine N-Nitroso-N-ethylurea Urea, N-ethyl-N-nitroso- N-Nitroso-N-methylurea Urea, N-methyl-N-nitroso- Carbamic acid, methylnitroso-, ethyl ester N-Nitroso-N-methylurethane
U134 U135 U135 U136 U136 U137 U138 U138 U140 U141 U141 U141 U142 U142	7664-39-3 7783-06-4 7783-06-4 75-60-5 75-60-5 193-39-5 74-88-4 74-88-4 78-83-1 120-58-1 120-58-1 143-50-0 143-50-0	Hydrazine (R,T) Hydrofluoric acid (C,T) Hydrogen fluoride (C,T) Hydrogen sulfide Hydrogen sulfide H2S Arsinic acid, dimethyl- Cacodylic acid Indeno(1,2,3-cd)pyrene Methane, iodo- Methyl iodide Isobutyl alcohol (I,T) 1-Propanol, 2-methyl- (I,T) 1,3-Benzodioxole, 5-(1-propenyl)- Isosafrole Kepone 1,3,4-Metheno-2H- cyclobuta(cd)pentalen-2-one, 1,1a,3,3a,4,5,5,5a,5b,6- decachlorooctahydro- 2-Butenoic acid, 2-methyl-, 7-((2,3- dihydroxy-2-(1-methoxyethyl)-3- methyl-1-oxobutoxy)methyl)-2,3,5,7a- tetrahydro-IH-pyrrolizin-1-yl ester, (1S- (1alpha(Z),7(2S*,3R*),	U166 U167 U168 U168 U169 U169 U170 U171 U171 U172 U172 U173 U173 U174 U174 U176 U176 U177 U177 U178	130-15-4 134-32-7 134-32-7 91-59-8 91-59-8 98-95-3 98-95-3 100-02-7 100-02-7 100-02-7 19-46-9 924-16-3 924-16-3 924-16-3 1116-54-7 155-18-5 759-73-9 684-93-5 684-93-5 684-93-5 615-53-2 100-75-4	1,4-Naphthaquinone 1-Naphthalenamine alpha-Naphthylamine 2-Naphthalenamine beta-Naphthylamine Benzene, nitro- Nitrobenzene (I,T) p-Nitrophenol Phenol, 4-nitro- 2-Nitropropane (I,T) Propane, 2-nitro- (I,T) 1-Butanamine, N-butyl-N-nitroso- N-Nitrosodi-n-butylamine Ethanol, 2,2'-(nitrosoimino)bis- N-Nitrosodiethanolamine Ethanamine, -ethyl-N-nitroso- N-Nitrosodiethylamine N-Nitrosod-N-ethylurea Urea, N-ethyl-N-nitroso- N-Nitroso-N-methylurea Urea, N-methyl-N-nitroso- Carbamic acid, methylnitroso-, ethyl ester N-Nitroso-N-methylurethane N-Nitroso-N-methylurethane N-Nitrosopiperidine
U134 U135 U135 U136 U136 U137 U138 U138 U140 U141 U141 U142 U142	7664-39-3 7783-06-4 7783-06-4 75-60-5 75-60-5 193-39-5 74-88-4 74-88-4 78-83-1 120-58-1 120-58-1 143-50-0 143-50-0	Hydrazine (R,T) Hydrofluoric acid (C,T) Hydrogen fluoride (C,T) Hydrogen sulfide Hydrogen sulfide H2S Arsinic acid, dimethyl- Cacodylic acid Indeno(1,2,3-cd)pyrene Methane, iodo- Methyl iodide Isobutyl alcohol (I,T) 1-Propanol, 2-methyl- (I,T) 1,3-Benzodioxole, 5-(1-propenyl)- Isosafrole Kepone 1,3,4-Metheno-2H- cyclobuta(cd)pentalen-2-one, 1,1a,3,3a,4,5,55,5b,6- decachloroctahydro- 2-Butenoic acid, 2-methyl-, 7-((2,3- dihydroxy-2-(1-methoxyethyl)-3- methyl-1-oxobutoxy)methyl)-2,3,5,7a- tetrahydro-1H-pyrrolizin-1-yl ester, (IS- (1alpha(Z),7(2S*,3R*), 7aalpha))-	U166 U167 U168 U168 U169 U169 U169 U170 U171 U171 U172 U172 U173 U173 U174 U174 U176 U176 U177 U178 U178 U178	130-15-4 134-32-7 134-32-7 91-59-8 98-95-3 98-95-3 100-02-7	1,4-Naphthaquinone 1-Naphthalenamine alpha-Naphthylamine 2-Naphthalenamine beta-Naphthylamine Benzene, nitro- Nitrobenzene (I,T) p-Nitrophenol Phenol, 4-nitro- 2-Nitropropane (I,T) Propane, 2-nitro- (I,T) 1-Butanamine, N-butyl-N-nitroso- N-Nitrosodi-n-butylamine Ethanol, 2,2'-(nitrosoimino)bis- N-Nitrosodiethanolamine Ethanamine, -ethyl-N-nitroso- N-Nitrosodiethylamine N-Nitroso-N-ethylurea Urea, N-ethyl-N-nitroso- N-Nitroso-N-methylurea Urea, N-methyl-N-nitroso- Carbamic acid, methylnitroso-, ethyl ester N-Nitroso-N-methylurethane N-Nitroso-N-methylurethane N-Nitrosopiperidine Piperidine, 1-nitroso-
U134 U135 U136 U136 U137 U138 U138 U140 U141 U141 U142 U142 U142	7664-39-3 7783-06-4 7783-06-4 75-60-5 75-60-5 193-39-5 74-88-4 74-88-4 78-83-1 120-58-1 120-58-1 143-50-0 143-50-0	Hydrazine (R,T) Hydrofluoric acid (C,T) Hydrogen fluoride (C,T) Hydrogen sulfide Hydrogen sulfide H2S Arsinic acid, dimethyl- Cacodylic acid Indeno(1,2,3-cd)pyrene Methane, iodo- Methyl iodide Isobutyl alcohol (I,T) 1-Propanol, 2-methyl- (I,T) 1,3-Benzodioxole, 5-(1-propenyl)- Isosafrole Kepone 1,3,4-Metheno-2H- cyclobuta(cd)pentalen-2-one, 1,1a,3,3a,4,5,5,5a,5b,6- decachlorooctahydro- 2-Butenoic acid, 2-methyl-, 7-((2,3- dihydroxy-2-(1-methoxyethyl)-3- methyl-1-oxobutoxy)methyl)-2,3,5,7a- tetrahydro-IH-pyrrolizin-1-yl ester, (IS- (lalpha(Z),7(2S*,3R*), 7aalpha))- Lasiocarpine	U166 U167 U168 U168 U169 U169 U170 U170 U171 U171 U172 U172 U172 U173 U174 U174 U176 U176 U177 U177 U178 U178 U178 U179 U179 U180	130-15-4 134-32-7 134-32-7 91-59-8 91-59-8 98-95-3 98-95-3 100-02-7 100-02-7 79-46-9 924-16-3 924-16-3 924-16-3 1116-54-7 55-18-5 759-73-9 759-73-9 684-93-5 684-93-5 615-53-2 615-53-2 615-53-2 100-75-4 930-55-2	1,4-Naphthaquinone 1-Naphthalenamine alpha-Naphthylamine 2-Naphthalenamine beta-Naphthylamine Benzene, nitro- Nitrobenzene (I,T) p-Nitrophenol Phenol, 4-nitro- 2-Nitropropane (I,T) Propane, 2-nitro- (I,T) 1-Butanamine, N-butyl-N-nitroso- N-Nitrosodi-n-butylamine Ethanol, 2,2'-(nitrosoimino)bis- N-Nitrosodiethanolamine Ethanamine, -ethyl-N-nitroso- N-Nitrosodiethylamine N-Nitroso-N-ethylurea Urea, N-ethyl-N-nitroso- N-Nitroso-N-methylurea Urea, N-methyl-N-nitroso- Carbamic acid, methylnitroso-, ethyl ester N-Nitroso-N-methylurethane N-Nitrosopiperidine Piperidine, 1-nitroso- N-Nitrosopyrrolidine
U134 U135 U135 U136 U136 U137 U138 U138 U140 U141 U141 U142 U142	7664-39-3 7783-06-4 7783-06-4 75-60-5 75-60-5 193-39-5 74-88-4 74-88-4 78-83-1 120-58-1 120-58-1 143-50-0 143-50-0	Hydrazine (R,T) Hydrofluoric acid (C,T) Hydrogen fluoride (C,T) Hydrogen sulfide Hydrogen sulfide H2S Arsinic acid, dimethyl- Cacodylic acid Indeno(1,2,3-cd)pyrene Methane, iodo- Methyl iodide Isobutyl alcohol (I,T) 1-Propanol, 2-methyl- (I,T) 1,3-Benzodioxole, 5-(1-propenyl)- Isosafrole Kepone 1,3,4-Metheno-2H- cyclobuta(cd)pentalen-2-one, 1,1a,3,3a,4,5,55,5b,6- decachloroctahydro- 2-Butenoic acid, 2-methyl-, 7-((2,3- dihydroxy-2-(1-methoxyethyl)-3- methyl-1-oxobutoxy)methyl)-2,3,5,7a- tetrahydro-1H-pyrrolizin-1-yl ester, (IS- (1alpha(Z),7(2S*,3R*), 7aalpha))-	U166 U167 U168 U168 U169 U169 U169 U170 U171 U171 U172 U172 U173 U173 U174 U174 U176 U176 U177 U178 U178 U178	130-15-4 134-32-7 134-32-7 91-59-8 98-95-3 98-95-3 100-02-7	1,4-Naphthaquinone 1-Naphthalenamine alpha-Naphthylamine 2-Naphthalenamine beta-Naphthylamine Benzene, nitro- Nitrobenzene (I,T) p-Nitrophenol Phenol, 4-nitro- 2-Nitropropane (I,T) Propane, 2-nitro- (I,T) 1-Butanamine, N-butyl-N-nitroso- N-Nitrosodi-n-butylamine Ethanol, 2,2'-(nitrosoimino)bis- N-Nitrosodiethanolamine Ethanamine, -ethyl-N-nitroso- N-Nitrosodiethylamine N-Nitroso-N-ethylurea Urea, N-ethyl-N-nitroso- N-Nitroso-N-methylurea Urea, N-methyl-N-nitroso- Carbamic acid, methylnitroso-, ethyl ester N-Nitroso-N-methylurethane

U181	99-55-8	December 2 math. I E mitus	U222	626 21 5	Danasanina O mathul hudusahlasida
		Benzenamine, 2-methyl-5-nitro-		636-21-5	Benzenamine, 2-methyl-, hydrochloride
U181	99-55-8	5-Nitro-o-toluidine	U222		o-Toluidine hydrochloride
U182	123-63-7	1,3,5-Trioxane, 2,4,6-trimethyl-	U223		Benzene, 1,3-diisocyanatomethyl- (R,T)
U182	123-63-7	Paraldehyde	U223	26471-62-5	Toluene diisocyanate (R,T)
U183	608-93-5	Benzene, pentachloro-	U225	75-25-2	Bromoform
U183	608-93-5	Pentachlorobenzene	U225	75-25-2	Methane, tribromo-
U184	76-01-7	Ethane, pentachloro-	U226	71-55-6	Ethane, 1,1,1-trichloro-
U184	76-01-7	Pentachloroethane	U226		Methyl chloroform
U185	82-68-8	Benzene, pentachloronitro-	U226		1,1,1-Trichloroethane
U185	82-68-8	Pentachloronitrobenzene (PCNB)	U227		Ethane, 1,1,2-trichloro-
U186					
	504-60-9	1-Methylbutadiene (I)	U227		1,1,2-Trichloroethane
U186	504-60-9	1,3-Pentadiene (I)	U228		Ethene, trichloro-
U187	62-44-2	Acetamide, -(4-ethoxyphenyl)-	U228		Trichloroethylene
U187	62-44-2	Phenacetin	U234	99-35-4	Benzene, 1,3,5-trinitro-
U188	108-95-2	Phenol	U234	99-35-4	1,3,5-Trinitrobenzene (R,T)
U189	1314-80-3	Phosphorus sulfide (R)	U235	126-72-7	1-Propanol, 2,3-dibromo-, phosphate
U189	1314-80-3	Sulfur phosphide (R)			(3:1)
U190	85-44-9	1,3-Isobenzofurandione	U235	126-72-7	Tris(2,3-dibromopropyl) phosphate
U190	85-44-9	Phthalic anhydride	U236		2,7-Naphthalenedisulfonic acid, 3,3'-
			0230	12-31-1	
U191	109-06-8	2-Picoline			((3,3'-dimethyl(1,1'-biphenyl)-4,4'-
U191	109-06-8	Pyridine, 2-methyl-			diyl)bis(azo)bis(5-amino-4-hydroxy)-,
U192	23950-58-5	Benzamide, 3,5-dichloro-N-(1,1-			tetrasodium salt
		dimethyl-2-propynyl)-	U236		Trypan blue
U192	23950-58-5	Pronamide	U237	66-75-1	2,4-(1H,3H)-Pyrimidinedione, 5-(bis(2-
U193	1120-71-4	1,2-0xathiolane, 2,2-dioxide			chloroethyl)amino)-
U193		1,3-Propane sultone	U237		Uracil shallard
U194	107-10-8	1-Propanamine (I,T)	U238		Carbamic acid, ethyl ester
U194	107-10-8	n-Propylamine (I,T)	U238	51-79-6	Ethyl carbamate (urethane)
					The state of the s
U196	110-86-1	Pyridine	U239		Benzene, dimethyl- (I,T)
U197	106-51-4	p-Benzoquinone	U239		Xylene (I)
U197	106-51-4	2,5-Cyclohexadiene-1,4-dione	U240	(1)94-75-7	Acetic acid, (2,4-dichlorophenoxy)-,
U200	50-55-5	Reserpine			salts and esters
U200	50-55-5	Yohimban-16-carboxylic acid, 11,17-	U240	(1)94-75-7	2,4-D, salts and esters
		dimethoxy-18-((3,4,5-	U243	1888-71-7	Hexachloropropene
		trimethoxybenzoyl)oxy)-, methyl	U243		1-Propene, 1,1,2,3,3,3-hexachloro-
		ester, (3beta, 16beta, 17al pha, 18beta,	U244		Thioperoxydicarbonic diamide
			0244	137-20-0	
11001	100 46 2	20alpha) -	11044	127 06 0	((H2N)C(S))2 S2, tetramethyl-
U201	108-46-3	1,3-Benzenediol	U244		Thiram
U201	108-46-3	Resorcinol	U246		Cyanogen bromide (CN)Br
U203	94-59-7	1,3-Benzodioxole, 5-(2-propenyl)-	U247	72-43-5	Benzene, 1,1'-(2,2,2-
U203	94-59-7	Safrole			trichloroethylidene)bis(4- methoxy-
U204	7783-00-8	Selenious acid	U247	72-43-5	Methoxychlor
U204	7783-00-8	Selenium dioxide	U248	(1)81-81-2	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-
U205		Selenium sulfide			oxo-1-phenyl-butyl)-, and salts, [when]if
U205		Selenium sulfide SeS2 (R,T)			present at concentrations of 0.3% or
U206					·
0200	10003-00-4	Glucopyranose, 2-deoxy-2-(3-methyl-3-	110.40	(1)01 01 0	less
		nitrosoureido)-, D-	U248	(1)81-81-2	Warfarin, and salts, [when] if present at
U206	18883-66-4	D-Glucose, 2-deoxy-2-			concentrations of 0.3% or less
		(((methylnitrosoamino)-	U249	1314-84-7	Zinc phosphide Zn3 P2, [when] if present at
		carbonyl)amino)-			concentrations of 10% or less
U206	18883-66-4	Streptozotocin	U271	17804-35-2	Benomyl
U207	95-94-3	Benzene, 1,2,4,5-tetrachloro-	U271	17804-35-2	Carbamic acid, (1-
U207	95-94-3	1,2,4,5-Tetrachlorobenzene			((butylamino)carbonyl)-
U208	630-20-6	Ethane, 1,1,1,2-tetrachloro-			1H-benzimidazol-2-yl)-, methyl ester
U208	630-20-6	1,1,1,2-Tetrachloroethane	U278	22781-23-3	
U209	79-34-5	Ethane, 1,1,2,2-tetrachloro-	U278		1,3-Benzodioxol-4-ol, 2,2-dimethyl-,
			02/0		
U209	79-34-5	1,1,2,2-Tetrachloroethane	11070		methyl carbamate
U210	127-18-4	Ethene, tetrachloro-	U279		Carbaryl
U210	127-18-4	Tetrachloroethylene	U279		1-Naphthalenol, methylcarbamate
U211	56-23-5	Carbon tetrachloride	U280	101-27-9	Barban
U211	56-23-5	Methane, tetrachloro-	U280	101-27-9	Carbamic acid, (3-chlorophenyl)-, 4-
U213	109-99-9	Furan, tetrahydro-(I)			chloro-2-butynyl ester
U213	109-99-9	Tetrahydrofuran (I)	U328	95-53-4	Benzenamine, 2-methyl-
U214	563-68-8	Acetic acid, thallium(1+) salt	U328		o-Toluidine
U214	563-68-8	Thallium(I) acetate	U353		Benzenamine, 4-methyl-
U215	6533-73-9	Carbonic acid, dithallium(1+) salt	U353		p-Toluidine
		* * *			•
U215	6533-73-9	Thallium(I) carbonate	U359		Ethanol, 2-ethoxy-
U216		Thallium(I) chloride	U359		Ethylene glycol monoethyl ether
U216		Thallium chloride T1C1	U364		Bendiocarb phenol
U217		Nitric acid, thallium(1+) salt	U364		1,3-Benzodioxol-4-ol, 2,2-dimethyl-,
U217	10102-45-1	Thallium(I) nitrate	U367	1563-38-8	7-Benzofuranol, 2,3-dihydro-2,2-
U218		Ethanethioamide			dimethyl-
0210	62-55-5			1560 00 0	
		Thioacetamide	U367	1563-38-8	Carbofuran phenol
U218	62-55-5 62-55-5				
U218 U219	62-55-5 62-55-5 62-56-6	Thiourea	U367 U372	10605-21-7	Carbamic acid, 1H-benzimidazol-2-yl,
U218 U219 U220	62-55-5 62-55-5 62-56-6 108-88-3	Thiourea Benzene, methyl-	U372	10605-21-7	Carbamic acid, 1H-benzimidazol-2-yl, methyl ester
U218 U219 U220 U220	62-55-5 62-55-5 62-56-6 108-88-3 108-88-3	Thiourea Benzene, methyl- Toluene	U372 U372	10605-21-7 10605-21-7	Carbamic acid, 1H-benzimidazol-2-yl, methyl ester Carbendazim
U218 U219 U220 U220 U221	62-55-5 62-55-5 62-56-6 108-88-3 108-88-3 25376-45-8	Thiourea Benzene, methyl- Toluene Benzenediamine, ar-methyl-	U372	10605-21-7 10605-21-7	Carbamic acid, 1H-benzimidazol-2-yl, methyl ester Carbendazim Carbamic acid, phenyl-, 1-methylethyl
U218 U219 U220 U220	62-55-5 62-55-5 62-56-6 108-88-3 108-88-3 25376-45-8	Thiourea Benzene, methyl- Toluene	U372 U372	10605-21-7 10605-21-7	Carbamic acid, 1H-benzimidazol-2-yl, methyl ester Carbendazim

U373	122-42-9	Propham
U387		Carbamothioic acid, dipropyl-, S-
		(phenylmethyl) ester
U387		Prosulfocarb
U389	2303-17-5	Carbamothioic acid, bis(1-
		methylethyl)-, S- (2,3,3-trichloro-2-
		propenyl) ester
U389	2303-17-5	Triallate
U394	30558-43-1	
U394	30558-43-1	Ethanimidothioic acid, 2-
		(dimethylamino)-N-
11205	E0E0 06 1	hydroxy-2-oxo-, methyl ester
U395 U395	5952-26-1 5952-26-1	Diethylene glycol, dicarbamate Ethanol, 2,2'-oxybis-, dicarbamate
U395 U404	121-44-8	Ethanamine, N,N-diethyl-
U404	121-44-8	Triethylamine
U404 U409		Carbamic acid, (1,2-phenylenebis
0409	25504-05-0	(iminocarbonothioyl))bis-, dimethyl
		ester
U409	23564-05-8	Thiophanate-methyl
U410		Ethanimidothioic acid, N,N'-
0110	03003 20 0	(thiobis((methylimino)carbonyloxy))
		bis-, dimethyl ester
U410	59669-26-0	Thiodicarb
U411	114-26-1	Phenol, 2-(1-methylethoxy)-,
		methylcarbamate
U411	114-26-1	Propoxur
See F027	93-76-5	Acetic acid, (2,4,5-trichlorophenoxy)-
See F027	7-86-5	Pentachlorophenol
See F027	87-86-5	Phenol, pentachloro-
See F027	58-90-2	Phenol, 2,3,4,6-tetrachloro-
See F027	95-95-4	Phenol, 2,4,5-trichloro-
See F027	88-06-2	Phenol, 2,4,6-trichloro-
See F027	93-72-1	Propanoic acid, 2-(2,4,5-
		trichlorophenoxy)-
See F027	93-72-1	Silvex (2,4,5-TP)
See F027	93-76-5	2,4,5-T
See F027	58-90-2	2,3,4,6-Tetrachlorophenol
See F027	95-95-4	2,4,5-Trichlorophenol
See F027	88-06-2	2,4,6-Trichlorophenol

KEY: hazardous waste

Date of Enactment or Last Substantive Amendment: [October 15, 2019]2020

Authorizing, and Implemented or Interpreted Law: 19-6-105; 19-6-106

NOTICE OF PROPOSED RULE					
TYPE OF RULE: Amendment					
Utah Admin. Code Ref (R no.):	R315-262	Filing No. 52924			

Agency Information

1. Department:	Environmental Quality
Agency:	Waste Management and Radiation Control, Waste Management
Building:	MASOB
Street address:	195 N 1950 W
City, state:	Salt Lake City, UT
Mailing address:	PO Box 144880
City, state, zip:	Salt Lake City, UT 84114-4880
Contact person(s	s):

Name:	Phone:	Email:
Thomas Ball	801- 536- 0251	tball@utah.gov
Rusty Lundberg	801- 536- 4257	rlundberg@utah.gov

Please address questions regarding information on this notice to the agency.

General Information

2. Rule or section catchline:

R315-262. Hazardous Waste Generator Requirements

3. Purpose of the new rule or reason for the change:

Under the current rules for management of hazardous waste, a small portion of pharmaceuticals are regulated as hazardous wastes when disposed. Hospitals, clinics, nursing homes, and other facilities that generate hazardous waste pharmaceuticals have experienced difficulty complying with the framework of the hazardous waste rules. To respond to these concerns and facilitate compliance among healthcare facilities, the Environmental Protection Agency (EPA) has finalized a tailored, sectorspecific regulatory framework for managing hazardous waste pharmaceuticals at healthcare facilities and reverse distributors (facilities that receive and accumulate prescription pharmaceuticals for the purpose of facilitating manufacturer credit). On February 22, 2019, the EPA published the final rule in the Federal Register (84 FR 5816). The final rule entitled, Management Standards for Hazardous Waste Pharmaceuticals and Amendment to the P075 Listing for Nicotine, applies to healthcare facilities that generate, accumulate, or otherwise handle hazardous waste pharmaceuticals and reverse distributors engaged in the management of prescription hazardous waste pharmaceuticals.

As stated above the rule provides a new set of sectorspecific standards for healthcare facilities (for both humans and animals) and reverse distributors for management of their hazardous waste pharmaceuticals in lieu of the existing hazardous waste generator regulations. The final rule promulgates Sections R315-266-500 through R315-266-510. Healthcare facilities and reverse distributors must manage their hazardous waste pharmaceuticals under this new set of rules in lieu of operating under Rule R315-262 as they have been. These operating standards include a prohibition on disposing of hazardous waste pharmaceuticals in the sewer, called sewering. The new rules also include a conditional exemption for hazardous waste pharmaceuticals that are also identified as controlled substances by the Drug Enforcement Administration (DEA). Further, the rules redefine when containers that held hazardous waste pharmaceuticals are considered empty. Healthcare facilities that are very small quantity generators (VSQGs) must comply with the sewer prohibition for their hazardous waste pharmaceuticals under the new rules and have the option of complying with Sections R315-266-500 through R315-266-510 in lieu of operating under the conditional exemption found in Section R315-262-14. Additionally, the final rule amends the P075 acute hazardous waste listing for nicotine and salts to indicate that U.S. Food and Drug Administration (FDA)-approved over-the counter (OTC) nicotine replacement therapies (NRTs) are not included in the listing.

These rule changes became effective at the Federal level on August 21, 2019. (EDITOR'S NOTE: The proposed amendment to Rule R315-266 is under Filing No. 52927 in this issue, August 1, 2020, of the Bulletin.)

4. Summary of the new rule or change:

Subsection R315-262-10(n) is added. This rule states that reverse distributors are subject to Sections R315-266-500 through R315-266-510 for the management of hazardous waste pharmaceuticals in lieu of Rule R315-262.

Subsection R315-262-10(o) is added. This rule requires healthcare facilities determine whether they are subject to Sections R315-266-500 through R315-266-510 and if they are, the rule states that healthcare facilities are subject to Sections R315-266-500 through R315-266-510 for the management of hazardous waste pharmaceuticals in lieu of Rule R315-262. The rule also exempts healthcare facilities that are very small quantity generators from most of Sections R315-266-500 through R315-266-510.

Subsection R315-262-13(c)(9) is added. This rule excludes hazardous waste pharmaceuticals that are managed in accordance with Sections R315-266-500 through R315-266-510 or that are also a Drug Enforcement Administration controlled substance from being counted by a generator as part of the amount of hazardous waste generated each month.

Subsection R315-262-14(a)(5)(ix) is amended and is no longer reserved. This amendment allows healthcare facilities that are VSQGs to ship potentially creditable hazardous waste pharmaceuticals to a reverse distributor.

Subsection R315-262-14(a)(5)(x) is amended and is no longer reserved. This amendment allows healthcare facilities that are VSQGs to ship hazardous waste pharmaceuticals to another healthcare facility that meets the conditions in new Subsections R315-266-502(I) and R315-266-503(b).

In addition to the amendments listed above, nonsubstantive changes were made to correct typographical errors and to the format and the wording throughout the amended rule to correct format and wording that was not consistent with the current Rulewriting Manual for Utah Rulewriters.

Fiscal Information

5. Aggregate anticipated cost or savings to:

A) State budget:

The operates one hospital. This hospital is not currently listed as a generator of hazardous waste which could mean that the hospital does not generate any hazardous waste or is a VSQG of hazardous waste. However, this hospital could be subject to the new rules because it falls under the definition of healthcare facility as contained in the rules.

Adoption of these new rules could result in no change to the state budget if the hospital does not generate any hazardous waste.

If the hospital were to generate hazardous waste, then the estimated cost due to the adoption of this rule is approximately \$85 per year. The estimated savings due to the adoption of this rule is approximately \$245 per year and would result in an overall cost savings of approximately \$160 per year.

Data to assist in making this determination was obtained from the EPA document entitled "Regulatory Impact Analysis for EPA's Final Regulations for the Management of Hazardous Waste Pharmaceuticals" dated October 2018.

B) Local governments:

It is not anticipated that adoption of these rule changes will have any effect on local governments because no local governments in the operate healthcare facilities or reverse distributors.

C) Small businesses ("small business" means a business employing 1-49 persons):

There are approximately 7,437 facilities in the that are healthcare facilities and reverse distributors as defined by this rule. Approximately 6,956 of these facilities are small businesses that would potentially be affected by this rule. Not all healthcare facilities and reverse distributors are generators of hazardous waste so it is not possible to determine exactly how many of these businesses will be affected by this rule adoption. Based on information obtained from EPA, it is estimated that approximately 904 of these facilities are generators of hazardous waste. The estimated cost to small businesses due to the adoption of this rule is approximately \$85 per year. The estimated savings to small businesses due to the adoption of this rule is approximately \$245 per year resulting in an overall cost savings of approximately \$160 per year.

Data to assist in making this determination was obtained from the EPA document entitled "Regulatory Impact Analysis for EPA's Final Regulations for the Management of Hazardous Waste Pharmaceuticals" dated October 2018.

D) Non-small businesses ("non-small business" means a business employing 50 or more persons):

As stated previously, there are approximately 7,437 facilities in the that are healthcare facilities and reverse distributors as defined by this rule. Approximately 476 of these facilities are non-small businesses that would potentially be affected by this rule. Not all healthcare facilities and reverse distributors are generators of hazardous waste so it is not possible to determine exactly how many of these businesses will be affected by this rule adoption. Based on information obtained from EPA, it is estimated that approximately 62 of these facilities are generators of hazardous waste. The estimated cost to non-small businesses due to the adoption of this rule is approximately \$85 per year. The estimated savings to non-small businesses due to the adoption of this rule is approximately \$245 per year resulting in an overall cost savings of approximately \$160 per year.

Data to assist in making this determination was obtained from the EPA document entitled "Regulatory Impact Analysis for EPA's Final Regulations for the Management of Hazardous Waste Pharmaceuticals" dated October 2018.

E) Persons other than small businesses, non-small businesses, state, or local government entities ("person" means any individual, partnership, corporation, association, governmental entity, or public or private organization of any character other than an *agency*):

The Division believes that all facilities that could be impacted fiscally by this rule are captured in the four previous categories. It is anticipated if there are any persons other than small businesses, non-small businesses, state, or local governments that are healthcare facilities or reverse distributors, that these persons would see a cost savings with the adoption of this rule similar to the savings discussed previously.

F) Compliance costs for affected persons:

It is not anticipated that there will be any additional compliance costs for affected persons due to the adoption of this rule other than those mentioned above.

G) Regulatory Impact Summary Table (This table only includes fiscal impacts that could be measured. If there are inestimable fiscal impacts, they will not be included in this table. Inestimable impacts will be included in narratives above.)

Regulatory Impact Table

Fiscal Cost	FY2021	FY2022	FY2023
State Government	\$85	\$85	\$85
Local Governments	\$0	\$0	\$0
Small Businesses	\$76,840	\$76,840	\$76,840
Non-Small Businesses	\$5,270	\$5,270	\$5,270

Other Persons	\$0	\$0	\$0
Total Fiscal Cost	\$82,195	\$82,195	\$82,195
Fiscal Benefits			
State Government	\$245	\$245	\$245
Local Governments	\$0	\$0	\$0
Small Businesses	\$221,480	\$221,480	\$221,480
Non-Small Businesses	\$15,190	\$15,190	\$15,190
Other Persons	\$0	\$0	\$0
Total Fiscal Benefits	\$236,915	\$236,915	\$236,915
Net Fiscal Benefits	\$154,720	\$154,720	\$154,720

H) Department head approval of regulatory impact analysis:

The Executive Director of the Department of Environmental Quality, L. Scott Baird, has reviewed and approved this fiscal analysis.

6. A) Comments by the department head on the fiscal impact this rule may have on businesses:

It is not anticipated that these rule changes will have a negative fiscal impact on any healthcare facility or reverse distributor involved in the management of hazardous waste pharmaceuticals. This rule simplifies requirements and provides regulatory flexibilities and thereby improves regulatory clarity for healthcare facilities and provides more regulatory certainty for reverse distributors. The simplification and clarity provided by these rule changes will reduce the regulatory burden on these facilities, increase compliance, and result in better protection of human health and the environment.

B) Name and title of department head commenting on the fiscal impacts:

L. Scott Baird, Executive Director

Citation Information

7. This rule change is authorized or mandated by state law, and implements or interprets the following state and federal laws. State code or constitution citations (required):

Section 19-6-104 | Section 19-6-105 | Section 19-6-106

Public Notice Information

9. The public may submit written or oral comments to the agency identified in box 1. (The public may also

request a hearing by submitting a written request to the agency. The agency is required to hold a hearing if it receives requests from ten interested persons or from an association having not fewer than ten members. Additionally, the request must be received by the agency not more than 15 days after the publication of this rule in the Utah State Bulletin. See Section 63G-3-302 and Rule R15-1 for more information.)

A) Comments will be accepted 08/31/2020 until:

10. This rule change MAY 09/14/2020 become effective on:

NOTE: The date above is the date on which this rule MAY become effective. It is NOT the effective date. After the date designated in Box 10, the agency must submit a Notice of Effective Date to the Office of Administrative Rules to make this rule effective. Failure to submit a Notice of Effective Date will result in this rule lapsing and will require the agency to start the rulemaking process over.

Agency Authorization Information

Agency head	Ty L. Howard,	Date:	07/09/2020
or designee,	Director		
and title:			

R315. Environmental Quality, Waste Management and Radiation Control, Waste Management.

R315-262. Hazardous Waste Generator Requirements. R315-262-10. General -- Purpose, Scope, and Applicability.

- (a) The $[\frac{regulations}{regulations}]$ in Rule R315-262 establish standards for generators of hazardous waste as defined by Section R315-260-10.
- (1) A person who generates a hazardous waste as defined by Rule R315-261 is subject to [all—]the applicable independent requirements in [the sections listed below:]Subsections R315-262-10(a)(1)(i) through R315-262-10(a)(1)(iii).
- (i) Independent requirements of a very small quantity generator $[\cdot]$:
- (A) Subsections R315-262-11(a) through $\underline{R315-262-11}(d)$ Hazardous waste determination and recordkeeping; and
 - (B) Section R315-262-13 Generator category determination.
- (ii) Independent requirements of a small quantity generator[-]:
- (A) Section R315-262-11 Hazardous waste determination and recordkeeping;
 - (B) Section R315-262-13 Generator category determination;
- (C) Section R315-262-18 EPA identification numbers and renotification for small quantity generators and large quantity generators;
- (D) Sections R315-262-20 through R315-262-27--Manifest requirements applicable to small and large quantity generators;
- (E) Sections R315-262-30 through R315-262-34--Pretransport requirements applicable to small and large quantity generators;
 - (F) Section R315-262-40 Recordkeeping;
- (G) Section R315-262-44 Recordkeeping for small quantity generators; and
- (H) Sections R315-262-80 through R315-262-84--Transboundary movements of hazardous waste for recovery or disposal.

- (iii) Independent requirements of a large quantity generator[-]:
- (A) Section R315-262-11 Hazardous waste determination and recordkeeping;
 - (B) Section R315-262-13 Generator category determination;
- (C) Section R315-262-18 EPA identification numbers and renotification for small quantity generators and large quantity generators;
- (D) Sections R315-262-20 through R315-262-27--Manifest requirements applicable to small and large quantity generators;
- (E) Sections R315-262-30 through R315-262-34--Pretransport requirements applicable to small and large quantity generators;
- (F) Sections R315-262-40 through R315-262-44--Recordkeeping and reporting applicable to small and large quantity generators, except Section R315-262-44; and
- (G) Sections R315-262-80 through R315-262-84--Transboundary movements of hazardous waste for recovery or disposal.
- (2) A generator that accumulates hazardous waste on site is a person that stores hazardous waste; such generator is subject to the applicable requirements of Rule R315-124, R315-264 through R315-266, R315-270 and section 3010 of RCRA, unless it is one of the following:
- (i) [A]a very small quantity generator that meets the conditions for exemption in Section R315-262-14;
- (ii) $[A]\underline{a}$ small quantity generator that meets the conditions for exemption in Sections R315-262-15 and R315-262-16; or
- (iii) [A]a large quantity generator that meets the conditions for exemption in Sections R315-262-15 and R315-262-17.
- (3) A generator shall not transport, offer its hazardous waste for transport, or otherwise cause its hazardous waste to be sent to a facility that is not a designated facility, as defined in Section R315-260-10, or not otherwise authorized to receive the generator's hazardous waste.
- (b) Determining generator category. A generator shall use Section R315-262-13 to determine which provisions of Rule R315-262 are applicable to the generator based on the quantity of hazardous waste generated per calendar month.
 - (c) Reserved.
- (d) Any person who exports or imports hazardous wastes shall comply with Section R315-262-18 and Sections R315-262-80 through R315-262-84.
- (e) Any person who imports hazardous waste into the United States shall comply with the standards applicable to generators established in Rule R315-262.
- (f) A farmer who generates waste pesticides which are hazardous waste and who complies with [all of]the requirements of Section R315-262-70 is not required to comply with other standards in Rule R315-262 or Rules R315-[-]270, R315-264, R315-265, or R315-268 with respect to such pesticides.
- (1) A generator's violation of an independent requirement is subject to penalty and injunctive relief under Sections 19-6-112 and 19-6-113.
- (2) _A generator's noncompliance with a condition for exemption in Rule R315-262 is not subject to penalty or injunctive relief under Sections 19-6-112 and 19-6-113 as a violation of a Rule R315-262 condition for exemption. Noncompliance by any generator with an applicable condition for exemption from storage permit and operations requirements means that the facility is a storage facility operating without an exemption from the permit, interim status, and operations requirements in Rules R315-124, R315-264 through R315-266, and R315-270, and the notification requirements of section 3010 of RCRA. Without an exemption, any violations of such storage requirements are

subject to penalty and injunctive relief under Sections 19-6-112 and 19-6-113.

- (h) An owner or operator who initiates a shipment of hazardous waste from a treatment, storage, or disposal facility shall comply with the generator standards established in Rule R315-262.
- Note 1: [The provisions of]Section R315-262-34 [are]is applicable to the on-site accumulation of hazardous waste by generators. Therefore, [the provisions of]Section R315-262-34 only appl[y]ies to owners or operators who are shipping hazardous waste which they generated at that facility.
- Note 2: A generator who treats, stores, or disposes of hazardous waste on-site shall comply with the applicable standards and permit requirements set forth in Rules R315-264, R315-265, R315-266, R315-268, and R315-270.
 - (i) Reserved.
 - (j) Reserved.
 - (k) Reserved.
- (1) The laboratories owned by an eligible academic entity that chooses to be subject to the requirements of Sections R315-262-200 through R315-262-216 are not subject to, for purposes of Subsection R315-262-10(1), the terms "laboratory" and "eligible academic entity" shall have the meaning as defined in Section R315-262-200:
- (1) [\mp]the independent requirements of Section R315-262-11 or the [$\frac{\text{regulations}}{\text{rules}}$] in Section R315-262-15 for large quantity generators and small quantity generators, except as provided in Sections R315-262-200 through R315-262-216[$\frac{1}{1}$]; and
- (2) [\mp]the conditions of Section R315-262-14, for very small quantity generators, except as provided in Sections R315-262-200 through R315-262-216.
- (m) Generators of lamps, as defined in Section R315-273-9, using a drum-top crusher, as defined in Section R315-273-9, shall meet the requirements of Subsection R315-273-13(d)(3), except for the registration requirement; and Subsections R315-273-13(d)(4) and R315-273-13(d)(5).
- (n) Reverse distributors, as defined in Section R315-266-500, are subject to Sections R315-266-500 through R315-266-510 for the management of hazardous waste pharmaceuticals in lieu of Rule R315-262.
- (o) Each healthcare facility, as defined in Section R315-266-500, shall determine whether it is subject to Sections R315-266-500 through R315-266-510 for the management of hazardous waste pharmaceuticals, based on the total hazardous waste it generates per calendar month, including both hazardous waste pharmaceuticals and non-pharmaceutical hazardous waste. A healthcare facility that generates more than 100 kg, 220 pounds, of hazardous waste per calendar month, or more than 1 kg, 2.2 pounds, of acute hazardous waste per calendar month, or more than 100 kg, 220 pounds, per calendar month of any residue or contaminated soil, water, or other debris, resulting from the clean-up of a spill, into or on any land or water, of any acute hazardous wastes listed in Section R315-261-31 or Subsection R315-261-33(e), is subject to Sections R315-266-500 through R315-266-510 for the management of hazardous waste pharmaceuticals in lieu of Rule R315-262. A healthcare facility that is a very small quantity generator when counting its hazardous waste, including both its hazardous waste pharmaceuticals and its non-pharmaceutical hazardous waste, remains subject to Section R315-262-14 and is not subject to Sections R315-266-500 through R315-266-510, except for Sections R315-266-505 and R315-266-507 and the optional provisions of Section R315-266-504.

Note: A generator who treats, stores, or disposes of hazardous waste on-site shall comply with the applicable standards and permit

requirements set forth in Rules R315-264, R315-265, R315-266, R315-268, and R315-270.

R315-262-13. General -- Generator Category Determination.

- A generator shall determine its generator category. A generator's category is based on the amount of hazardous waste generated each month and may change from month to month. This section sets forth procedures to determine whether a generator is a very small quantity generator, a small quantity generator, or a large quantity generator for a particular month, as defined in Section R315-260-10.
- (a) Generators of either acute hazardous waste or non-acute hazardous waste. A generator who either generates acute hazardous waste or non-acute hazardous waste in a calendar month shall determine its generator category for that month by doing the following:
- (1) $[C]\underline{c}$ ounting the total amount of hazardous waste generated in the calendar month;
- (2) [S]subtracting from the total any amounts of waste exempt from counting as described in Subsections R315-262-13(c) and R315-262-13(d); and
- (3) $[\mathbf{D}]\underline{\mathbf{d}}$ etermining the resulting generator category for the hazardous waste generated using Table 1 below.
- (b) Generators of both acute and non-acute hazardous wastes. A generator who generates both acute hazardous waste and non-acute hazardous waste in [the same]a calendar month shall determine its generator category for that month by doing the following:
- (1) $[\mbox{\ensuremath{\mathfrak{C}}}]$ counting separately the total amount of acute hazardous waste and the total amount of non-acute hazardous waste generated in the calendar month;
- (2) [S]subtracting from each total any amounts of waste exempt from counting as described in Subsections R315-262-13(c) and (d):
- (3) $[\underline{\Theta}]\underline{d}$ etermining separately the resulting generator categories for the quantities of acute and non-acute hazardous waste generated using Table 1 below; and
- (4) [C]comparing the resulting generator categories from Subsection R315-262-13(b)(3) and applying the more stringent generator category to the accumulation and management of both non-acute hazardous waste and acute hazardous waste generated for that month.

TABLE 1 to Section R315-262-13

Generator Categories Based on Quantity of Waste Generated in a Calendar Month

-	hazardous waste	residues from a cleanup of acute	Generator category
>1kg	Any amount	Any amount	Large quantity generator
Any amount	> or = 1,000kg	Any amount	Large quantity generator
Any amount	Any Amount	>100kg	Large quantity generator
< or = 1 kg	>100 kg and < 1,000 kg	< or = 100 kg	Small quantity Generator
< or = 1 kg	< or = 100 kg	< or = 100 kg	Very small quantity generator

- (c) When making the monthly quantity-based determinations required by Rule R315-262, the generator shall include [all]each hazardous waste that it generates, except hazardous waste that:
- (1) [$\overline{\text{H}}$ is exempt from regulation under Subsections R315-261-4(c) through $\overline{\text{R315-261-4}}$ (f), $\overline{\text{R315-261-6}}$ (a)(3), R315-261-7(a)(1), or Section R315-261-8;
- (2) [‡]is managed immediately upon generation only in onsite elementary neutralization units, wastewater treatment units, or totally enclosed treatment facilities as defined in Section R315-260-10;
- (3) [Π <u>is</u> recycled, without prior storage or accumulation, only in an on-site process subject to regulation under Subsection R315-261-6(c)(2);
- (4) [4] is used oil managed under the requirements of Subsection R315-261-6(a)(4) and Section R315-15;
- (5) [I]is spent lead-acid batteries managed under the requirements of Section R315-266-80;
- (6) [$\overline{\textbf{H}}$ js universal waste managed under Section R315-261-9 and Rule R315-273;
- (7) [$\overline{\text{H}}\underline{\text{is}}$ a hazardous waste that is an unused commercial chemical product, listed in Sections R315-261-30 through R315-261-35 or exhibiting one or more characteristics in Sections R315-261-20 through R315-261-24, that is generated solely as a result of a laboratory clean-out conducted at an eligible academic entity pursuant to Section R315-262-213. For purposes of [$\frac{\text{this provision}}{\text{Subsection R315-262-202}}$], the term eligible academic entity shall have the meaning as defined in Section R315-262-200;[$\frac{\text{-sr}}{\text{-gr}}$]
- (8) [4]is managed as part of an episodic event in compliance with the conditions of Sections R315-262-230 through R315-262-233[-]; or
- (9) is a hazardous waste pharmaceutical, as defined in Section R315-266-500, that is subject to or managed in accordance with Sections R315-266-500 through R315-266-510 or is a hazardous waste pharmaceutical that is also a Drug Enforcement Administration controlled substance and is conditionally exempt under Section R315-266-506.
- (d) In determining the quantity of hazardous waste generated in a calendar month, a generator need not include:
- [H]hazardous waste [when]if it is removed from on-site accumulation, so long as the hazardous waste was previously counted once;
- (2) [H]hazardous waste generated by on-site treatment, [{]including reclamation[}], of the generator's hazardous waste, so long as the hazardous waste that is treated was previously counted once; and
- (3) [H]hazardous waste spent materials that are generated, reclaimed, and subsequently reused on site, so long as such spent materials have been previously counted once.
- (e) Based on the generator category as determined under Section R315-262-13, the generator shall meet the applicable independent requirements listed in Section R315-262-10. A generator's category also determines which of the provisions of Sections R315-262-14, R315-262-15, R315-262-16 or R315-262-17 shall be met to obtain an exemption from the storage facility permit, interim status, and operating requirements when accumulating hazardous waste.
 - (f) Mixing hazardous wastes with solid wastes.
 - (1) Very small quantity generator wastes.
- (i) Hazardous wastes generated by a very small quantity generator may be mixed with solid wastes. Very small quantity generators may mix [a portion or all of] its hazardous waste with solid waste and remain subject to Section R315-262-14 even though the resultant mixture exceeds the quantity limits identified in the definition of very small quantity generator at Section R315-260-10, unless the

- mixture exhibits one or more of the characteristics of hazardous waste identified in Sections R315-261-20 through R315-261-24.
- (ii) If the resulting mixture exhibits a characteristic of hazardous waste, this resultant mixture is a newly-generated hazardous waste. The very small quantity generator shall count both the resultant mixture amount plus the other hazardous waste generated in the calendar month to determine whether the total quantity exceeds the very small quantity generator calendar month quantity limits identified in the definition of generator categories found in Section R315-260-10. If so, to remain exempt from the permitting, interim status, and operating standards, the very small quantity generator shall meet the conditions for exemption applicable to either a small quantity generator or a large quantity generator. The very small quantity generator shall also comply with the applicable independent requirements for either a small quantity generator or a large quantity generator.
- (iii) If a very small quantity generator's wastes are mixed with used oil, the mixture is subject to Rule R315-15. Any material produced from such a mixture by processing, blending, or other treatment is also regulated under Rule R315-15.
- (2) Small quantity generator and large quantity generator wastes.
- (i) Hazardous wastes generated by a small quantity generator or large quantity generator may be mixed with solid waste. These mixtures are subject to the following: the mixture rule in Subsections R315-261-3(a)(2)(iv), R315-261-3(b)(2) and R315-261-3(b)(3), and R315-261-3(g)(2)(i); the prohibition of dilution rule at Subsection R315-268-3(a); the land disposal restriction requirements of Section R315-268-40 if a characteristic hazardous waste is mixed with a solid waste so that it no longer exhibits the hazardous characteristic; and the hazardous waste determination requirement at Section R315-262-11.
- (ii) If the resulting mixture is found to be a hazardous waste, this resultant mixture is a newly-generated hazardous waste. A small quantity generator shall count both the resultant mixture amount plus the other hazardous waste generated in the calendar month to determine whether the total quantity exceeds the small quantity generator calendar monthly quantity limits identified in the definition of generator categories found in Section R315-260-10. If so, to remain exempt from the permitting, interim status, and operating standards, the small quantity generator shall meet the conditions for exemption applicable to a large quantity generator. The small quantity generator shall also comply with the applicable independent requirements for a large quantity generator.

R315-262-14. General -- Conditions For Exemption for a Very Small Quantity Generator.

- (a) Provided that the very small quantity generator meets [all] the conditions for exemption listed in Section R315-262-14, hazardous waste generated by the very small quantity generator is not subject to the requirements of Rules R315-124, R315-262_ [{]except Sections R315-262-10 through R315-262-14[]], through R315-268[$_7$] and R315-270, and the notification requirements of section 3010 of RCRA and the very small quantity generator may accumulate hazardous waste on site without complying with such requirements. The conditions for exemption are as follows:
- (1) In a calendar month the very small quantity generator generates less than or equal to the amounts specified in the definition of "very small quantity generator" in Section R315-260-10;
- (2) The very small quantity generator complies with Subsections R315-262-11(a) through R315-262-11(d);
- (3) If the very small quantity generator accumulates at any time greater than 1 kilogram, [{]2.2 lbs[}], of acute hazardous waste or 100 kilograms, [{]220 lbs[}], of any residue or contaminated soil, water,

or other debris resulting from the cleanup of a spill, into or on any land or water, of any acute hazardous waste listed in Section R315-261-31 or Subsection R315-261-33(e), [all]the quantities of that acute hazardous waste are subject to the following additional conditions for exemption:

- (i) [S]such waste is held on site for no more than 90 days beginning on the date when the accumulated wastes exceed the amounts provided in Subsection R315-262-14(a)(3); and
- (ii) $[\mp]\underline{t}$ he conditions for exemption in Subsections R315-262-17(a) through R315-262-17(g).
- (4) If the very small quantity generator accumulates at any time 1,000 kilograms, [6]2,200 lbs[7], or greater of non-acute hazardous waste, [all]the quantities of that hazardous waste are subject to the following additional conditions for exemption:
- (i) [S]such waste is held on site for no more than 180 days, or 270 days, if applicable, beginning on the date when the accumulated waste exceed the amounts provided in Subsection R315-262-14(a)(4);
- (ii) [\(\frac{\text{T}the}{\text{pl}}\) e quantity of waste accumulated on site never exceeds 6,000 kilograms, \([\(\frac{1}{3}\),200 \(\text{lbs}[\(\frac{1}{2}\)]\); and
- (iii) [\mp]the conditions for exemption in Subsections R315-262-16(b)(2) through R315-262-16(f).
- (5) A very small quantity generator that accumulates hazardous waste in amounts less than or equal to the limits in Subsections R315-262-14(a)(3) and R315-262-14(a)(4) shall either treat or dispose of its hazardous waste in an on-site facility or ensure delivery to an off-site treatment, storage, or disposal facility, either of which, if located in the U.S., is:
 - (i) [P]permitted under Rule R315-270;
 - (ii) [I]in interim status under Rules R315-265 and R315-270;
- (iii) [A]authorized to manage hazardous waste by a state with a hazardous waste management program approved under 40 CFR 271;
- (iv) [P]permitted, licensed, or registered by a state to manage municipal solid waste and, if managed in a municipal solid waste landfill is subject to Rules R315-301 through R315-320;
- (v) [P]permitted, licensed, or registered by a state to manage non-municipal non-hazardous waste and, if managed in a non-municipal non-hazardous waste disposal unit, is subject to the requirements in Rules R315-301 through R315-320 or 40 CFR 257.5 through 257.30;
 - (vi) [A]a facility which:
- (A) $[B]\underline{b}$ eneficially uses or reuses, or legitimately recycles or reclaims its waste; or
- (B) [<u>T]treats</u> its waste prior to beneficial use or reuse, or legitimate recycling or reclamation;
- (vii) [F]for universal waste managed under Rule R315-273, a universal waste handler or destination facility subject to the requirements of Rule R315-273;
- (viii) [A]<u>a</u> large quantity generator under the control of the same person as the very small quantity generator, provided the following conditions are met:
- (A) The very small quantity generator and the large quantity generator are under the control of the same person as defined in Section R315-260-10. "Control," for the purposes of Subsection R315-262-14(a)(5)(viii), means the power to direct the policies of the generator, whether by the ownership of stock, voting rights, or otherwise, except that contractors who operate generator facilities on behalf of a different person as defined in Section R315-260-10 shall not be deemed to "control" such generators.
- (B) The very small quantity generator marks its container[$\{|s|\}$] of hazardous waste with:
 - (1) The words "Hazardous Waste"; and
- (2) An indication of the hazards of the contents, examples include, but are not limited to:

- (I) the applicable hazardous waste characteristic[{]s[}], [i.e.,]ignitable, corrosive, reactive, toxic;
- (II) hazard communication consistent with the Department of Transportation requirements at 49 CFR part 172 subpart E, labeling, or subpart F, placarding;
- (III) a hazard statement or pictogram consistent with the Occupational Safety and Health Administration Hazard Communication Standard at 29 CFR 1910.1200; or
- (IV) a chemical hazard label consistent with the National Fire Protection Association code 704.
- (ix) [Reserved]A reverse distributor, as defined in Section R315-266-500, if the hazardous waste pharmaceutical is a potentially creditable hazardous waste pharmaceutical generated by a healthcare facility, as defined in Section R315-266-500.
- (x) [Reserved]A healthcare facility, as defined in Section R315-266-500, that meets the conditions in Subsections R315-266-502(l) and R315-266-503(b), as applicable, to accept non-creditable hazardous waste pharmaceuticals and potentially creditable hazardous waste pharmaceuticals from an off-site healthcare facility that is a very small quantity generator.
- (xi) For airbag waste, an airbag waste collection facility or a designated facility subject to the requirements of Subsection R315-261-4(i).
- (b) The placement of bulk or non-containerized liquid hazardous waste or hazardous waste containing free liquids, [{]whether or not sorbents have been added[}], in any landfill is prohibited.
- (c) A very small quantity generator experiencing an episodic event may generate and accumulate hazardous waste in accordance with Sections R315-262-230 through R315-262-233 in lieu of Sections R315-262-15, R315-262-16, and R315-262-17.

KEY: hazardous waste, generators

Date of Enactment or Last Substantive Amendment: [April 13,] 2020

Authorizing, and Implemented or Interpreted Law: 19-6-105; 19-6-106

NOTICE OF PROPOSED RULE				
TYPE OF RULE: Amendment Utah Admin. Code R315-264-1 Filing No. Filing No. 52925				

Agency Information

1. Department:	Environmental Quality			
Agency:	Waste Management and Radiation Control, Waste Management			
Building:	MASOB	MASOB		
Street address:	195 N 1	195 N 1950 W		
City, state:	Salt Lake City, UT			
Mailing address:	PO Box 144880			
City, state, zip:	Salt Lake City, UT 84114-4880			
Contact person(s	s):			
Name:	Phone: Email:			
Thomas Ball	801- 536- 0251 tball@utah.gov			

Rusty Lundberg	536-	rlundberg@utah.gov
	4257	

Please address questions regarding information on this notice to the agency.

General Information

2. Rule or section catchline:

R315-264-1. General - Purpose, Scope and Applicability

3. Purpose of the new rule or reason for the change:

Under the current rules for management of hazardous waste, a small portion of pharmaceuticals are regulated as hazardous wastes when disposed. Hospitals, clinics, nursing homes, and other facilities that generate hazardous waste pharmaceuticals have experienced difficulty complying with the framework of the hazardous waste rules. To respond to these concerns and facilitate compliance among healthcare facilities, the Environmental Protection Agency (EPA) has finalized a tailored, sectorspecific regulatory framework for managing hazardous waste pharmaceuticals at healthcare facilities and reverse distributors (facilities that receive and accumulate prescription pharmaceuticals for the purpose of facilitating manufacturer credit). On February 22, 2019, the EPA published the final rule in the Federal Register (84 FR 5816). The final rule entitled, Management Standards for Hazardous Waste Pharmaceuticals and Amendment to the P075 Listing for Nicotine, applies to healthcare facilities that generate, accumulate, or otherwise handle hazardous waste pharmaceuticals and reverse distributors engaged in the management of prescription hazardous waste pharmaceuticals.

As stated above the rule provides a new set of sectorspecific standards for healthcare facilities (for both humans and animals) and reverse distributors for management of their hazardous waste pharmaceuticals in lieu of the existing hazardous waste generator regulations. The final rule promulgates Sections R315-266-500 through R315-266-510. Healthcare facilities and reverse distributors must manage their hazardous waste pharmaceuticals under this new set of rules in lieu of operating under Rule R315-262 as they have been. These operating standards include a prohibition on disposing of hazardous waste pharmaceuticals in the sewer, called The new rules also include a conditional exemption for hazardous waste pharmaceuticals that are also identified as controlled substances by the Drug Enforcement Administration (DEA). Further, the rules redefine when containers that held hazardous waste Healthcare pharmaceuticals are considered empty. facilities that are very small quantity generators (VSQGs) must comply with the sewer prohibition for their hazardous waste pharmaceuticals under the new rules and have the option of complying with Sections R315-266-500 through R315-266-510 in lieu of operating under the conditional exemption found in Section R315-262-14. Additionally, the final rule amends the P075 acute hazardous waste listing for nicotine and salts to indicate that U.S. Food and Drug Administration (FDA)-approved over-the counter (OTC) nicotine replacement therapies (NRTs) are not included in the listing.

These rule changes became effective at the Federal level on August 21, 2019. (EDITOR'S NOTE: The proposed amendment to Rule R315-262 is under Filing No. 52924 and the proposed amendment to Rule R315-266 is under Filing No. 52927 in this issue, August 1, 2020, of the Bulletin.)

4. Summary of the new rule or change:

Subsection R315-264-1(g)(13) is added. This rule states that the requirements of Rule R315-264 do not apply to reverse distributors accumulating potentially creditable hazardous waste pharmaceuticals and evaluated hazardous waste pharmaceuticals. The rule states that these reverse distributors are subject to Sections R315-266-500 through R315-266-510.

In addition to the amendments listed above, nonsubstantive changes were made to correct typographical errors and to the format and the wording throughout the amended rule to correct format and wording that was not consistent with the current Rulewriting Manual for Utah Rulewriters.

Fiscal Information

5. Aggregate anticipated cost or savings to:

A) State budget:

The operates one hospital. This hospital is not currently listed as a generator of hazardous waste which could mean that the hospital does not generate any hazardous waste or is a VSQG of hazardous waste. However, this hospital could be subject to the new rules because it falls under the definition of healthcare facility as contained in the rules.

Adoption of these new rules could result in no change to the state budget if the hospital does not generate any hazardous waste.

If the hospital were to generate hazardous waste, then the estimated cost due to the adoption of this rule is approximately \$85 per year. The estimated savings due to the adoption of this rule is approximately \$245 per year and would result in an overall cost savings of approximately \$160 per year.

Data to assist in making this determination was obtained from the EPA document entitled "Regulatory Impact Analysis for EPA's Final Regulations for the Management of Hazardous Waste Pharmaceuticals" dated October 2018.

B) Local governments:

It is not anticipated that adoption of these rule changes will have any effect on local governments because no local

governments in the operate healthcare facilities or reverse distributors.

C) Small businesses ("small business" means a business employing 1-49 persons):

There are approximately 7,437 facilities in the that are healthcare facilities and reverse distributors as defined by this rule. Approximately 6,956 of these facilities are small businesses that would potentially be affected by this rule. Not all healthcare facilities and reverse distributors are generators of hazardous waste so it is not possible to determine exactly how many of these businesses will be affected by this rule adoption. Based on information obtained from EPA, it is estimated that approximately 904 of these facilities are generators of hazardous waste. The estimated cost to small businesses due to the adoption of this rule is approximately \$85 per year. The estimated savings to small businesses due to the adoption of this rule is approximately \$245 per year resulting in an overall cost savings of approximately \$160 per year.

Data to assist in making this determination was obtained from the EPA document entitled "Regulatory Impact Analysis for EPA's Final Regulations for the Management of Hazardous Waste Pharmaceuticals" dated October 2018.

D) Non-small businesses ("non-small business" means a business employing 50 or more persons):

As stated previously, there are approximately 7,437 facilities in the that are healthcare facilities and reverse distributors as defined by this rule. Approximately 476 of these facilities are non-small businesses that would potentially be affected by this rule. Not all healthcare facilities and reverse distributors are generators of hazardous waste so it is not possible to determine exactly how many of these businesses will be affected by this rule adoption. Based on information obtained from EPA, it is estimated that approximately 62 of these facilities are generators of hazardous waste. The estimated cost to non-small businesses due to the adoption of this rule is approximately \$85 per year. The estimated savings to non-small businesses due to the adoption of this rule is approximately \$245 per year resulting in an overall cost savings of approximately \$160 per year.

Data to assist in making this determination was obtained from the EPA document entitled "Regulatory Impact Analysis for EPA's Final Regulations for the Management of Hazardous Waste Pharmaceuticals" dated October 2018.

E) Persons other than small businesses, non-small businesses, state, or local government entities ("person" means any individual, partnership, corporation, association, governmental entity, or public or private organization of any character other than an *agency*):

The Division believes that all facilities that could be impacted fiscally by this rule are captured in the four previous categories. It is anticipated if there are any persons other than small businesses, non-small businesses, state, or local governments that are healthcare facilities or reverse distributors, that these persons would see a cost savings with the adoption of this rule similar to the savings discussed previously.

F) Compliance costs for affected persons:

It is not anticipated that there will be any additional compliance costs for affected persons due to the adoption of this rule other than those mentioned above.

G) Regulatory Impact Summary Table (This table only includes fiscal impacts that could be measured. If there are inestimable fiscal impacts, they will not be included in this table. Inestimable impacts will be included in narratives above.)

Regulatory Impact Table

Fiscal Cost	FY2021	FY2022	FY2023
State Government	\$85	\$85	\$85
Local Governments	\$0	\$0	\$0
Small Businesses	\$76,840	\$76,840	\$76,840
Non-Small Businesses	\$5,270	\$5,270	\$5,270
Other Persons	\$0	\$0	\$0
Total Fiscal Cost	\$82,195	\$82,195	\$82,195
Fiscal Benefits			
State Government	\$245	\$245	\$245
Local Governments	\$0	\$0	\$0
Small Businesses	\$221,480	\$221,480	\$221,480
Non-Small Businesses	\$15,190	\$15,190	\$15,190
Other Persons	\$0	\$0	\$0
Total Fiscal Benefits	\$236,915	\$236,915	\$236,915
Net Fiscal Benefits	\$154,720	\$154,720	\$154,720

H) Department head approval of regulatory impact analysis:

The Executive Director of the Department of Environmental Quality, L. Scott Baird, has reviewed and approved this fiscal analysis.

6. A) Comments by the department head on the fiscal impact this rule may have on businesses:

It is not anticipated that these rule changes will have a negative fiscal impact on any healthcare facility or reverse distributor involved in the management of hazardous waste pharmaceuticals. This rule simplifies requirements and provides regulatory flexibilities and thereby improves regulatory clarity for healthcare facilities and provides more regulatory certainty for reverse distributors. The simplification and clarity provided by these rule changes will reduce the regulatory burden on these facilities, increase compliance, and result in better protection of human health and the environment.

B) Name and title of department head commenting on the fiscal impacts:

L. Scott Baird, Executive Director

Citation Information

7. This rule change is authorized or mandated by state law, and implements or interprets the following state and federal laws. State code or constitution citations (required):

Section 19-6-104 | Section 19-6-105 | Section 19-6-106

Public Notice Information

9. The public may submit written or oral comments to the agency identified in box 1. (The public may also request a hearing by submitting a written request to the agency. The agency is required to hold a hearing if it receives requests from ten interested persons or from an association having not fewer than ten members. Additionally, the request must be received by the agency not more than 15 days after the publication of this rule in the Utah State Bulletin. See Section 63G-3-302 and Rule R15-1 for more information.)

A) Comments will be accepted 08/31/2020 until:

10. This rule change MAY 09/07/2020 become effective on:

NOTE: The date above is the date on which this rule MAY become effective. It is NOT the effective date. After the date designated in Box 10, the agency must submit a Notice of Effective Date to the Office of Administrative Rules to make this rule effective. Failure to submit a Notice of Effective Date will result in this rule lapsing and will require the agency to start the rulemaking process over.

Agency Authorization Information

Agency head	Ty L. Howard,	Date:	07/09/2020
or designee,	Director		
and title:			

R315. Environmental Quality, Waste Management and Radiation Control, Waste Management.

R315-264. Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities.

R315-264-1. General -- Purpose, Scope and Applicability.

- (a) The purpose of Rule R315-264 is to establish minimum [State of Utah] standards [which] that define the acceptable management of hazardous waste.
- (b) The standards in Rule R315-264 apply to <u>each_owner[s]</u> and operator[s] of [all-]facilities [which]that treat, store, or dispose of hazardous waste, except as specifically provided otherwise in Rules R315-264 or R315-261.
 - (c) Reserved
- (d) The requirements of Rule R315-264 apply to a person disposing of hazardous waste by means of underground injection subject to a permit issued under an Underground Injection Control (UIC) program approved or promulgated under the Safe Drinking Water Act only to the extent they are required by 40 CFR 144.14. Rule R315-264 applies to the above-ground treatment or storage of hazardous waste before it is injected underground.
- (e) The requirements of Rule R315-264 apply to [the]each owner or operator of a POTW [which]that treats, stores, or disposes of hazardous waste only to the extent they are included in a RCRA permit by rule granted to such a person under Rule R315-270.
 - (f) Reserved
- (g) The requirements of Rule R315-264 do not apply to the following:
- (1) The owner or operator of a facility permitted under Rules R315-301 through R315-320 to manage municipal or industrial solid waste, if the only hazardous waste the facility treats, stores, or disposes of is excluded from regulation under Rule R315-264 by Section R315-262-14[$\frac{1}{5}$].
- (2) The owner or operator of a facility managing recyclable materials described in Subsections R315-261-6(a)(2), R315-261-6(a)(3), and R315-261-6(a)(4), except to the extent they are referred to in Rule R315-15 or Sections R315-266-20 through R315-266-23, R315-266-70, R315-266-80, or R315-266-100 through R315-266-112.
- (3) A generator accumulating waste on site in compliance with Section R315-262-14, R315-262-15, R315-262-16, or R315-262-17 $\left[\frac{1}{5}\right]_{2}$
- (4) A farmer disposing of waste pesticides from his own use in compliance with Section R315-262-70[; or].
- (5) The owner or operator of a totally enclosed treatment facility, as defined in Section R315-260-10.
- (6) The owner or operator of an elementary neutralization unit or a wastewater treatment unit as defined in Section R315-260-10, provided that if the owner or operator is diluting hazardous ignitable (D001) wastes, other than the D001 High TOC Subcategory defined in Section R315-268-40, or reactive (D003) waste, to remove the characteristic before land disposal, the owner[/-] or operator shall comply with the requirements set out in Subsection R315-264-17(b).
 - (7) Reserved.
- (8)(i) Except as provided in Subsection R315-264-1(g)(8)(ii), a person engaged in treatment or containment activities during immediate response to any of the following situations:
 - (A) [A]a discharge of a hazardous waste;
- (B) $[\underline{A}]\underline{a}n$ imminent and substantial threat of a discharge of hazardous waste; \underline{or}
- (C) [A]a discharge of a material [which]that, [when]if discharged, becomes a hazardous waste.
- (ii) An owner or operator of a facility otherwise regulated by Rule R315-264 shall comply with [aH]the applicable requirements of

Sections R315-264-30 through <u>R315-264-</u>35, <u>R315-264-</u>37 and <u>R315-</u>264-50 through R315-264-56.

- (iii) Any person who is covered by Subsection R315-264-1(g)(8)(i) and who continues or initiates hazardous waste treatment or containment activities after the immediate response is over is subject to [all]the applicable requirements of Rule R315-264 and 40 CFR 122 and 123 and Rule R315-124 for those activities.
- (iv) In the case of an explosives or munitions emergency response, if a Federal, State, Tribal or local official acting within the scope of his or her official responsibilities, or an explosives or munitions emergency response specialist, determines that immediate removal of the material or waste is necessary to protect human health or the environment, that official or specialist may authorize the removal of the material or waste by transporters who do not have EPA identification numbers and without the preparation of a manifest. In the case of emergencies involving military munitions, the responding military emergency response specialist's organizational unit shall retain records for three years identifying the dates of the response, the responsible persons responding, the type and description of material addressed, and its disposition.
- (9) A transporter storing manifested shipments of hazardous waste in containers meeting the requirements of Section R315-262-30 at a transfer facility for a period of ten days or less.
- (10) The addition of absorbent material to waste in a container, as defined in Section R315-260-10, or the addition of waste to absorbent material in a container, provided that these actions occur at the time waste is first placed in the container; and Subsections R315-264-17(b), R315-264-171, and R315-264-172 are complied with.
- (11) Universal waste handlers and universal waste transporters, as defined in Section R315-260-10, handling the wastes listed below. These handlers are subject to regulation under Rule R315-273, [when]if handling the [below listed]following universal wastes[-]:
 - (i) [B]batteries as described in Section R315-273-2;
 - (ii) [P]pesticides as described in Section R315-273-3;
- (iii) $[M]\underline{m}$ ercury-containing equipment as described in Section R315-273-4;
 - (iv) [L]amps as described in Section R315-273-5;
 - (v) [A]antifreeze as described in Subsection R315-272-6(a);

and 6(b).

- (vi) [A]aerosol cans as described in Subsection R315-273-
- (12) Reserved.
- (13) Reverse distributors accumulating potentially creditable hazardous waste pharmaceuticals and evaluated hazardous waste pharmaceuticals, as defined in Section R315-266-500. Reverse distributors are subject to regulation under Sections R315-266-500 through R315-266-510 in lieu of Rule R315-264 for the accumulation of potentially creditable hazardous waste pharmaceuticals and evaluated hazardous waste pharmaceuticals.
- (h) The requirements of Rule R315-264 apply to <u>each</u> owner[s] or operator[s] of [all-]facilities [which]that treat, store, or dispose of hazardous wastes referred to in Rule R315-268.
 - (i) Reserved.
- (j) The requirements of Sections R315-264-10 through R315-264-19, R315-264-30 through R315-264-37, R315-264-50 through R315-264-56, and R315-264-101 do not apply to remediation waste management sites. However, some remediation waste management sites may be a part of a facility that is subject to a traditional hazardous waste permit because the facility is also treating, storing or disposing of hazardous wastes that are not remediation wastes. In these cases, Sections R315-264-10 through R315-264-19, R315-264-30 through R315-264-37, R315-264-50 through R315-264-56, and R315-264-101

- do apply to the facility subject to the traditional hazardous waste permit. Instead of the requirements of Sections R315-264-10 through R315-264-19, R315-264-30 through R315-264-37, and R315-264-50 through R315-264-56, owners or operators of remediation waste management sites shall do the following:
- (1) Obtain an EPA identification number by applying to the [Administrator] Director using EPA Form 8700-12[$\frac{1}{7}$].
- (2) Obtain a detailed chemical and physical analysis of a representative sample of the hazardous remediation wastes to be managed at the site. At a minimum, the analysis shall contain [all of] the information which shall be known to treat, store or dispose of the waste according to Rules R315-264 and R315-268, and shall be kept accurate and up to date[$\frac{1}{7}$].
- (3) Prevent people who are unaware of the danger from entering, and minimize the possibility for unauthorized people or livestock to enter onto the active portion of the remediation waste management site, unless the owner or operator can demonstrate to the Director that:
- (i) [P]physical contact with the waste, structures, or equipment within the active portion of the remediation waste management site shall not injure people or livestock who may enter the active portion of the remediation waste management site; and
- (ii) [D]disturbance of the waste or equipment by people or livestock who enter onto the active portion of the remediation waste management site, shall not cause a violation of the requirements of Rule R315-264[†].
- (4) Inspect the remediation waste management site for malfunctions, deterioration, operator errors, and discharges that may be causing, or may lead to, a release of hazardous waste constituents to the environment, or a threat to human health. The owner or operator shall conduct these inspections often enough to identify problems in time to correct them before they harm human health or the environment, and shall remedy the problem before it leads to a human health or environmental hazard. Where a hazard is imminent or has already occurred, the owner [-f] or operator shall take remedial action immediately [-f].
- (5) Provide personnel with classroom or on-the-job training on how to perform their duties in a way that ensures the remediation waste management site complies with the requirements of Rule R315-264, and on how to respond effectively to emergencies[;].
- (6) Take precautions to prevent accidental ignition or reaction of ignitable or reactive waste, and prevent threats to human health and the environment from ignitable, reactive and incompatible waste[;].
- (7) For remediation waste management sites subject to regulation under Sections R315-264-170 through R315-264-179, R315-264-190 through R315-264-200, R315-264-220 through R315-264-232, R315-264-250 through R315-264-259, R315-264-270 [\pm]through R315-264-300 through R315-264-317, R315-264-340 through R315-264-351, and R315-264-600 through R315-264-603, the owner[/] or operator shall design, construct, operate, and maintain a unit within a 100-year floodplain to prevent washout of any hazardous waste by a 100-year flood, unless the owner[/] or operator can meet the demonstration of Subsection R315-264-18(b)[\pm].
- (8) Not place any non-containerized or bulk liquid hazardous waste in any salt dome formation, salt bed formation, underground mine or cave[;].
- (9) Develop and maintain a construction quality assurance program for [all]each surface impoundment[s], waste pile[s] and landfill unit[s] that are required to comply with Subsections R315-264-221(c) and R315-264-221(d), R315-264-251(c) and R315-264-301(c) and R315-264-301(d) at the remediation waste

management site, according to the requirements of Section R315-264-19[‡].

- (10) Develop and maintain procedures to prevent accidents and a contingency and emergency plan to control accidents that occur. These procedures shall address proper design, construction, maintenance, and operation of remediation waste management units at the site. The goal of the plan shall be to minimize the possibility of, and the hazards from a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water that could threaten human health or the environment. The plan shall explain specifically how to treat, store and dispose of the hazardous remediation waste in question, and shall be implemented immediately whenever a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment[‡].
- (11) Designate at least one employee, either on the facility premises or on call, [{]that is, available to respond to an emergency by reaching the facility quickly[}], to coordinate [all-]emergency response measures. This emergency coordinator shall be thoroughly familiar with [all aspects of-]the facility's contingency plan, [all-]operations and activities at the facility, the location and characteristics of waste handled, the location of [all]the records within the facility, and the facility layout. In addition, this person shall have the authority to commit the resources needed to carry out the contingency plan[†].
- (12) Develop, maintain and implement a plan to meet the requirements in Subsections R315-264-1(j)(2) through R315-264-1(j)(6) and R315-264-1(j)(9) through R315-264-1(j)(10)[$\frac{1}{2}$ and $\frac{1}{2}$.
- (13) Maintain records documenting compliance with Subsections R315-264-1(j)(1) through R315-264-1(j)(12).

KEY: hazardous waste, TSD facilities

Date of Enactment or Last Substantive Amendment: [April 13,] 2020

Authorizing, and Implemented or Interpreted Law: 19-6-105; 19-6-106

NOTICE OF PROPOSED RULE					
TYPE OF RULE: Ar	TYPE OF RULE: Amendment				
Utah Admin. Code Ref (R no.):	R315-265-1	Filing No. 52926			

Agency Information

1. Department:	Environmental Quality			
Agency:	Waste Management and Radiation Control, Waste Management			
Building:	MASOB	MASOB		
Street address:	195 N 1950 W			
City, state:	Salt Lake City, UT			
Mailing address:	PO Box 144880			
City, state, zip:	Salt Lake City, UT 84114-4880			
Contact person(s	Contact person(s):			
Name:	Phone: Email:			
Thomas Ball	801- 536- 0251 tball@utah.gov			

Rusty Lundberg	801- 536- 4257	rlundberg@utah.gov	
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Please address questions regarding information on this notice to the agency.

General Information

2. Rule or section catchline:

R315-265-1. Incorporation, General – Purpose, Scope, and Applicability

3. Purpose of the new rule or reason for the change:

Under the current rules for management of hazardous waste, a small portion of pharmaceuticals are regulated as hazardous wastes when disposed. Hospitals, clinics, nursing homes, and other facilities that generate hazardous waste pharmaceuticals have experienced difficulty complying with the framework of the hazardous waste rules. To respond to these concerns and facilitate compliance among healthcare facilities, the Environmental Protection Agency (EPA) has finalized a tailored, sectorspecific regulatory framework for managing hazardous waste pharmaceuticals at healthcare facilities and reverse distributors (facilities that receive and accumulate prescription pharmaceuticals for the purpose of facilitating manufacturer credit). On February 22, 2019, the EPA published the final rule in the Federal Register (84 FR 5816). The final rule entitled, Management Standards for Hazardous Waste Pharmaceuticals and Amendment to the P075 Listing for Nicotine, applies to healthcare facilities that generate, accumulate, or otherwise handle hazardous waste pharmaceuticals and reverse distributors engaged in the management of prescription hazardous waste pharmaceuticals.

As stated above the rule provides a new set of sectorspecific standards for healthcare facilities (for both humans and animals) and reverse distributors for management of their hazardous waste pharmaceuticals in lieu of the existing hazardous waste generator regulations. The final rule promulgates Sections R315-266-500 through R315-266-510. Healthcare facilities and reverse distributors must manage their hazardous waste pharmaceuticals under this new set of rules in lieu of operating under Rule R315-262 as they have been. These operating standards include a prohibition on disposing of hazardous waste pharmaceuticals in the sewer, called The new rules also include a conditional exemption for hazardous waste pharmaceuticals that are also identified as controlled substances by the Drug Enforcement Administration (DEA). Further, the rules redefine when containers that held hazardous waste pharmaceuticals are considered empty. Healthcare facilities that are very small quantity generators (VSQGs) must comply with the sewer prohibition for their hazardous waste pharmaceuticals under the new rules and have the option of complying with Sections R315-266-500 through R315-266-510 in lieu of operating under the conditional exemption found in Section R315-262-14. Additionally, the final rule amends the P075 acute hazardous waste listing for nicotine and salts to indicate that U.S. Food and Drug Administration (FDA)-approved over-the counter (OTC) nicotine replacement therapies (NRTs) are not included in the listing.

These rule changes became effective at the Federal level on August 21, 2019. (EDITOR'S NOTE: The proposed amendment to Rule R315-262 is under Filing No. 52924 and the proposed amendment to Rule R315-266 is under Filing No. 52927 in this issue, August 1, 2020, of the Bulletin.)

4. Summary of the new rule or change:

Subsection R315-265-1(c)(16) is added. This rule states that the requirements of Rule R315-265 do not apply to reverse distributors accumulating potentially creditable hazardous waste pharmaceuticals and evaluated hazardous waste pharmaceuticals. The rule states that these reverse distributors are subject to Sections R315-266-500 through R315-266-510.

In addition to the amendments listed above, nonsubstantive changes were made to correct typographical errors and to the format and the wording throughout the amended rule to correct format and wording that was not consistent with the current Rulewriting Manual for Utah Rulewriters.

Fiscal Information

5. Aggregate anticipated cost or savings to:

A) State budget:

The operates one hospital. This hospital is not currently listed as a generator of hazardous waste which could mean that the hospital does not generate any hazardous waste or is a VSQG of hazardous waste. However, this hospital could be subject to the new rules because it falls under the definition of healthcare facility as contained in the rules.

Adoption of these new rules could result in no change to the state budget if the hospital does not generate any hazardous waste.

If the hospital were to generate hazardous waste, then the estimated cost due to the adoption of this rule is approximately \$85 per year. The estimated savings due to the adoption of this rule is approximately \$245 per year and would result in an overall cost savings of approximately \$160 per year.

Data to assist in making this determination was obtained from the EPA document entitled "Regulatory Impact Analysis for EPA's Final Regulations for the Management of Hazardous Waste Pharmaceuticals" dated October 2018.

B) Local governments:

It is not anticipated that adoption of these rule changes will have any effect on local governments because no local governments in the operate healthcare facilities or reverse distributors.

C) Small businesses ("small business" means a business employing 1-49 persons):

There are approximately 7,437 facilities in the that are healthcare facilities and reverse distributors as defined by this rule. Approximately 6,956 of these facilities are small businesses that would potentially be affected by this rule. Not all healthcare facilities and reverse distributors are generators of hazardous waste so it is not possible to determine exactly how many of these businesses will be affected by this rule adoption. Based on information obtained from EPA, it is estimated that approximately 904 of these facilities are generators of hazardous waste. The estimated cost to small businesses due to the adoption of this rule is approximately \$85 per year. The estimated savings to small businesses due to the adoption of this rule is approximately \$245 per year resulting in an overall cost savings of approximately \$160 per year.

Data to assist in making this determination was obtained from the EPA document entitled "Regulatory Impact Analysis for EPA's Final Regulations for the Management of Hazardous Waste Pharmaceuticals" dated October 2018.

D) Non-small businesses ("non-small business" means a business employing 50 or more persons):

As stated previously, there are approximately 7,437 facilities in the that are healthcare facilities and reverse distributors as defined by this rule. Approximately 476 of these facilities are non-small businesses that would potentially be affected by this rule. Not all healthcare facilities and reverse distributors are generators of hazardous waste so it is not possible to determine exactly how many of these businesses will be affected by this rule adoption. Based on information obtained from EPA, it is estimated that approximately 62 of these facilities are generators of hazardous waste. The estimated cost to non-small businesses due to the adoption of this rule is approximately \$85 per year. The estimated savings to non-small businesses due to the adoption of this rule is approximately \$245 per year resulting in an overall cost savings of approximately \$160 per year.

Data to assist in making this determination was obtained from the EPA document entitled "Regulatory Impact Analysis for EPA's Final Regulations for the Management of Hazardous Waste Pharmaceuticals" dated October 2018.

E) Persons other than small businesses, non-small businesses, state, or local government entities ("person" means any individual, partnership, corporation,

association, governmental entity, or public or private organization of any character other than an *agency*):

The Division believes that all facilities that could be impacted fiscally by this rule are captured in the four previous categories. It is anticipated if there are any persons other than small businesses, non-small businesses, state, or local governments that are healthcare facilities or reverse distributors, that these persons would see a cost savings with the adoption of this rule similar to the savings discussed previously.

F) Compliance costs for affected persons:

It is not anticipated that there will be any additional compliance costs for affected persons due to the adoption of this rule other than those mentioned above.

G) Regulatory Impact Summary Table (This table only includes fiscal impacts that could be measured. If there are inestimable fiscal impacts, they will not be included in this table. Inestimable impacts will be included in narratives above.)

Regulatory Impact Table

Fiscal Cost	FY2021	FY2022	FY2023
State Government	\$85	\$85	\$85
Local Governments	\$0	\$0	\$0
Small Businesses	\$76,840	\$76,840	\$76,840
Non-Small Businesses	\$5,270	\$5,270	\$5,270
Other Persons	\$0	\$0	\$0
Total Fiscal Cost	\$82,195	\$82,195	\$82,195
Fiscal Benefits			
State Government	\$245	\$245	\$245
Local Governments	\$0	\$0	\$0
Small Businesses	\$221,480	\$221,480	\$221,480
Non-Small Businesses	\$15,190	\$15,190	\$15,190
Other Persons	\$0	\$0	\$0
Total Fiscal Benefits	\$236,915	\$236,915	\$236,915
Net Fiscal Benefits	\$154,720	\$154,720	\$154,720

H) Department head approval of regulatory impact analysis:

The Executive Director of the Department of Environmental Quality, L. Scott Baird, has reviewed and approved this fiscal analysis.

6. A) Comments by the department head on the fiscal impact this rule may have on businesses:

It is not anticipated that these rule changes will have a negative fiscal impact on any healthcare facility or reverse distributor involved in the management of hazardous waste pharmaceuticals. This rule simplifies requirements and provides regulatory flexibilities and thereby improves regulatory clarity for healthcare facilities and provides more regulatory certainty for reverse distributors. The simplification and clarity provided by these rule changes will reduce the regulatory burden on these facilities, increase compliance, and result in better protection of human health and the environment.

B) Name and title of department head commenting on the fiscal impacts:

L. Scott Baird, Executive Director

Citation Information

7. This rule change is authorized or mandated by state law, and implements or interprets the following state and federal laws. State code or constitution citations (required):

Section 19-6-104 | Section 19-6-105 | Section 19-6-106

Public Notice Information

9. The public may submit written or oral comments to the agency identified in box 1. (The public may also request a hearing by submitting a written request to the agency. The agency is required to hold a hearing if it receives requests from ten interested persons or from an association having not fewer than ten members. Additionally, the request must be received by the agency not more than 15 days after the publication of this rule in the Utah State Bulletin. See Section 63G-3-302 and Rule R15-1 for more information.)

A) Comments will be accepted 08/31/2020 until:

10. This rule change MAY 09/07/2020 become effective on:

NOTE: The date above is the date on which this rule MAY become effective. It is NOT the effective date. After the date designated in Box 10, the agency must submit a Notice of Effective Date to the Office of Administrative Rules to make this rule effective. Failure to submit a Notice of Effective Date will result in this rule lapsing and will require the agency to start the rulemaking process over.

Agency Authorization Information

Agency head	Ty L. Howard,	Date:	07/09/2020
or designee,	Director		
and title:			

R315. Environmental Quality, Waste Management and Radiation Control, Waste Management.

R315-265. Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities. R315-265-1. Incorporation, General -- Purpose, Scope, and Applicability.

40 CFR 265.270 through 265.282, 265.300 through 265.316, 265.340 through 265.352, 265.370 through 265.383, 265.400 through 265.406, 265.430, 265.440 through 265.445, 265.1050 through 265.1064, 265.1100 through 265.1102, 265.1200 through 265.1202, 265.1300 through 265.1316 and Appendices I and III through VI of 40 CFR 265, 2015 edition, as amended by 81 FR 85827, are adopted and incorporated by reference except that "Director" is substituted for [all]references to "Regional Administrator", and for [all]references to "EPA" or "Environmental Protection Agency" except for references to "EPA identification number" and where EPA is used in reference to actions under Subsection R315-268-42(b) and in Subsection R315-265-71(a)(3).

- (a) The purpose of Rule R315-265 is to establish minimum standards that define the acceptable management of hazardous waste during the period of interim status and until certification of final closure or, if the facility is subject to post-closure requirements, until post-closure responsibilities are fulfilled.
- (b) Except as provided in Subsection R315-265-1080(b), the standards of Rule R315-265, and of Sections R315-264-552, R315-264-553, and R315-264-554, apply to owners and operators of facilities that treat, store or dispose of hazardous waste who have fully complied with the requirements for interim status under section 3005(e) of RCRA and Section R315-270-10 until either a permit is issued under Rule R315-270 or until applicable Rule R315-265 closure and post-closure responsibilities are fulfilled, and to those owners and operators of facilities in existence on November 19, 1980 who have failed to provide timely notification as required by section 3010(a) of RCRA, failed to file Part A of the permit application as required by Subsections R315-270-10 (e) and R315-270-10(g), or both. These standards apply to [all] Itreatment, storage and disposal of hazardous waste at these facilities after the effective date of these [regulations]rules, except as specifically provided otherwise in Rule R315-265 or Rule R315-261.

Comment: As stated in section 3005(a) of RCRA, after the effective date of regulations under that section, [i.e.,]which are Rules R315-270 and R315-124, the treatment, storage and disposal of hazardous waste is prohibited except in accordance with a permit. Section 3005(e) of RCRA provides for the continued operation of an existing facility that meets certain conditions, until final administrative disposition of the owner's and operator's permit application is made.

- (c) The requirements of Rule R315-265 do not apply to the following:
- (1) A person disposing of hazardous waste by means of ocean disposal subject to a permit issued under the Marine Protection, Research, and Sanctuaries Act[+].

Comment: [These-]Rule R315-265 [regulations-]does apply to the treatment or storage of hazardous waste before it is loaded onto an ocean vessel for incineration or disposal at sea, as provided in Subsection R315-265-1(b).

- (2) Reserved.
- (3) The owner or operator of a POTW [which]that treats, stores, or disposes of hazardous waste[$\frac{1}{2}$].

Comment: The owner or operator of a facility under Subsections R315-265-1(c)(1) through $\underline{R315-265-1(c)}(3)$ is subject to the requirements of Rule R315-264 to the extent they are included in a permit by rule granted to such a person under 40 CFR 122, or are required by 40 CFR 144.14.

- (4) Reserved.
- (5) The owner or operator of a facility permitted under Rules R315-301 through R315-320 to manage municipal or industrial solid waste, if the only hazardous waste the facility treats, stores, or disposes of is excluded from regulation under Rule R315-265 by Section R315-262-14[‡].
- (6) The owner or operator of a facility managing recyclable materials described in Subsections R315-261-6(a)(2), R315-261- $\frac{6(a)}{3}$, and R315-261- $\frac{6(a)}{3}$, and R315- $\frac{261-6(a)}{3}$, except to the extent they are referred to in Rule R315- $\frac{279}{15}$ or Sections R315-266-20 through R315- $\frac{266-23}{3}$, R315-266-70, R315-266-80, or R315-266-100 through R315- $\frac{266-112}{3}$.
- (7) A generator accumulating waste on site in compliance with applicable conditions for exemption in Sections R315-262-14 through R315-262-17 and Sections R315-262-200 through R315-262-216 and R315-262-230 through R315-262-233, except to the extent the requirements of Rule R315-265 are included in those sections[\frac{1}{2}].
- (8) A farmer disposing of waste pesticides from his own use in compliance with Section R315-262-70[; or].
- (9) The owner or operator of a totally enclosed treatment facility, as defined in Section R315-260-10.
- (10) The owner or operator of an elementary neutralization unit or a wastewater treatment unit as defined in Section R315-260-10, provided that if the owner or operator is diluting hazardous ignitable (D001) wastes, [{]other than the D001 High TOC Subcategory defined in Section R315-268-40, Table Treatment Standards for Hazardous Wastes[]-], or reactive (D003) waste, to remove the characteristic before land disposal, the owner[/] or operator shall comply with the requirements set out in Subsection R315-265-17(b).
- (11)(i) Except as provided in Subsection R315-265-1(c)(11)(ii), a person engaged in treatment or containment activities during immediate response to any of the following situations:
 - (A) [A]a discharge of a hazardous waste;
- (B) [A]an imminent and substantial threat of a discharge of a nazardous waste; or
- (C) [A]a discharge of a material [which]that, [when]if discharged, becomes a hazardous waste.
- (ii) An owner or operator of a facility otherwise regulated by this Rule R315-265 shall comply with [all]the applicable requirements of Sections R315-265-30 through R315-265-37 and Sections R315-265-50 through R315-265-56.
- (iii) Any person who is covered by Subsection R315-265-1(c)(11)(i) and who continues or initiates hazardous waste treatment or containment activities after the immediate response is over is subject to [all]the applicable requirements of [this]Rule R315-265 and Rule R315-124 for those activities.
- (12) A transporter storing manifested shipments of hazardous waste in containers meeting the requirements of Section R315-262-30 at a transfer facility for a period of ten days or less.
- (13) The addition of absorbent material to waste in a container, as defined in Section R315-260-10, or the addition of waste to the absorbent material in a container provided that these actions occur at the time waste is first placed in the containers; and Subsection R315-265-17(b), Sections R315-265-171, and R315-265-172 are complied with.
- (14) Universal waste handlers and universal waste transporters, as defined in Section R315-260-10, handling the wastes

listed below. These handlers are subject to regulation under Rule R315-273, [when]if handling the [below listed]following universal wastes[-]:

- (i) [B]batteries as described in Section R315-273-2;
- (ii) [P]pesticides as described in Section R315-273-3;
- (iii) $[M]\underline{m}$ ercury-containing equipment as described in Section R315-273-4;[-and]
 - (iv) [L] lamps as described in Section R315-273-5;
 - (v) [A]antifreeze as described in Subsection R315-273-6(a);

and

6(b).

(vi) [A]aerosol cans as described in Subsection R315-273-

(15) Reserved

- (16) Reverse distributors accumulating potentially creditable hazardous waste pharmaceuticals and evaluated hazardous waste pharmaceuticals, as defined in Section R315-266-500. Reverse distributors are subject to regulation under Sections R315-266-500 through R315-266-510 in lieu of Rule R315-265 for the accumulation of potentially creditable hazardous waste pharmaceuticals and evaluated hazardous waste pharmaceuticals.
- (d) The following hazardous wastes shall not be managed at facilities subject to regulation under Rule R315-265.
- (1) EPA Hazardous Waste Nos. $F[\Theta]\underline{0}20$, $F[\Theta]\underline{0}21$, $F[\Theta]\underline{0}22$, $F[\Theta]\underline{0}23$, $F[\Theta]\underline{0}26$, or $F[\Theta]\underline{0}27$ unless:
- (i) [Ŧ]the wastewater treatment sludge is generated in a surface impoundment as part of the plant's wastewater treatment system;
 - (ii) [T]the waste is stored in tanks or containers;
- (iii) [T]the waste is stored or treated in waste piles that meet the requirements of Subsection R315-264-250(c) as well as [all-] other applicable requirements of Sections R315-265-250 through R315-265-260:
- (iv) $[\mp]$ the waste is burned in incinerators that are certified pursuant to the standards and procedures in 40 CFR 265.352, which is adopted by reference; or
- (v) [Ŧ]the waste is burned in facilities that thermally treat the waste in a device other than an incinerator and that are certified pursuant to the standards and procedures in 40 CFR 265.383, which is adopted and incorporated by reference.
- (e) The requirements of Rule R315-265 apply to owners or operators of [all-]facilities which treat, store or dispose of hazardous waste referred to in Rule R315-268, and the Rule R315-268 standards are considered material conditions or requirements of the Rule R315-265 interim status standards.

KEY: hazardous waste, TSD facilities, interim status Date of Enactment or Last Substantive Amendment: [April 13,] 2020

Authorizing, and Implemented or Interpreted Law: 19-6-105; 19-6-106

NOTICE OF PROPOSED RULE					
TYPE OF RULE: Amendment					
Utah Admin. Code Ref (R no.):	R315-266	Filing No. 52927			

Agency Information

1. Department:	Environmental Quality		
Agency:	Waste Management and Radiation Control, Waste Management		
Building:	MASOB		

Street address:	195 N 1	195 N 1950 W		
City, state:	Salt Lak	Salt Lake City, UT		
Mailing address:	PO Box	PO Box 144880		
City, state, zip:	Salt Lak	Salt Lake City, UT 84114-4880		
Contact person(s):				
Name:	Phone:	Email:		
Thomas Ball	801- 536- 0251	tball@utah.gov		
Rusty Lundberg	801- rlundberg@utah.gov 536- 4257			
Please address of	uestions	regarding information on this		

Please address questions regarding information on this notice to the agency.

General Information

2. Rule or section catchline:

R315-266. Standards for the Management of Specific Hazardous Wastes and Specific Types of Hazardous Waste Management Facilities

3. Purpose of the new rule or reason for the change:

Under the current rules for management of hazardous waste, a small portion of pharmaceuticals are regulated as hazardous wastes when disposed. Hospitals, clinics, nursing homes, and other facilities that generate hazardous waste pharmaceuticals have experienced difficulty complying with the framework of the hazardous waste rules. To respond to these concerns and facilitate compliance among healthcare facilities, the Environmental Protection Agency (EPA) has finalized a tailored, sectorspecific regulatory framework for managing hazardous waste pharmaceuticals at healthcare facilities and reverse distributors (facilities that receive and accumulate prescription pharmaceuticals for the purpose of facilitating manufacturer credit). On February 22, 2019, the EPA published the final rule in the Federal Register (84 FR 5816). The final rule entitled, Management Standards for Hazardous Waste Pharmaceuticals and Amendment to the P075 Listing for Nicotine, applies to healthcare facilities that generate, accumulate, or otherwise handle hazardous waste pharmaceuticals and reverse distributors engaged in the management of prescription hazardous waste pharmaceuticals.

As stated above the rule provides a new set of sector-specific standards for healthcare facilities (for both humans and animals) and reverse distributors for management of their hazardous waste pharmaceuticals in lieu of the existing hazardous waste generator regulations. The final rule promulgates Sections R315-266-500 through R315-266-510. Healthcare facilities and reverse distributors must manage their hazardous waste pharmaceuticals under this new set of rules in lieu of operating under Rule R315-262 as they have been. These operating standards include a prohibition on disposing of hazardous waste pharmaceuticals in the sewer, called

The new rules also include a conditional exemption for hazardous waste pharmaceuticals that are also identified as controlled substances by the Drug Enforcement Administration (DEA). Further, the rules redefine when containers that held hazardous waste pharmaceuticals are considered empty. Healthcare facilities that are very small quantity generators (VSQGs) must comply with the sewer prohibition for their hazardous waste pharmaceuticals under the new rules and have the option of complying with Sections R315-266-500 through R315-266-510 in lieu of operating under the conditional exemption found in Section R315-262-14. Additionally, the final rule amends the P075 acute hazardous waste listing for nicotine and salts to indicate that U.S. Food and Drug Administration (FDA)-approved over-the counter (OTC) nicotine replacement therapies (NRTs) are not included in the listing.

These rule changes became effective at the Federal level on August 21, 2019. (EDITOR'S NOTE: The proposed amendment to Rule R315-262 is under Filing No. 52924 in this issue, August 1, 2020, of the Bulletin.)

4. Summary of the new rule or change:

Sections R315-266-500 through R315-266-510 are added. These sections contain new rules for the management of hazardous waste pharmaceuticals by healthcare facilities and reverse distributors.

To facilitate the addition of Sections R315-266-500 through R315-266-510, Sections R315-266-203 through R315-266-214 were renumbered as Sections R315-266-600 through R315-266-611. These sections contain appendices to Rule R315-266 and need to remain at the end of the rule.

In addition to the amendments listed above, nonsubstantive changes were made to correct typographical errors and to the format and the wording throughout the amended rule to correct format and wording that was not consistent with the current Rulewriting Manual for Utah Rulewriters.

Fiscal Information

5. Aggregate anticipated cost or savings to:

A) State budget:

The operates one hospital. This hospital is not currently listed as a generator of hazardous waste which could mean that the hospital does not generate any hazardous waste or is a VSQG of hazardous waste. However, this hospital could be subject to the new rules because it falls under the definition of healthcare facility as contained in the rules.

Adoption of these new rules could result in no change to the state budget if the hospital does not generate any hazardous waste. If the hospital were to generate hazardous waste the estimated cost due to the adoption of this rule is approximately \$85 per year. The estimated savings due to the adoption of this rule is approximately \$245 per year and would result in an overall cost savings of approximately \$160 per year.

Data to assist in making this determination was obtained from the EPA document entitled "Regulatory Impact Analysis for EPA's Final Regulations for the Management of Hazardous Waste Pharmaceuticals" dated October 2018.

B) Local governments:

It is not anticipated that adoption of these rule changes will have any effect on local governments because no local governments in the operate healthcare facilities or reverse distributors.

C) Small businesses ("small business" means a business employing 1-49 persons):

There are approximately 7,437 facilities in the that are healthcare facilities and reverse distributors as defined by this rule. Approximately 6,956 of these facilities are small businesses that would potentially be affected by this rule. Not all healthcare facilities and reverse distributors are generators of hazardous waste so it is not possible to determine exactly how many of these businesses will be affected by this rule adoption. Based on information obtained from EPA, it is estimated that approximately 904 of these facilities are generators of hazardous waste. The estimated cost to small businesses due to the adoption of this rule is approximately \$85 per year. The estimated savings to small businesses due to the adoption of this rule is approximately \$245 per year resulting in an overall cost savings of approximately \$160 per year.

Data to assist in making this determination was obtained from the EPA document entitled "Regulatory Impact Analysis for EPA's Final Regulations for the Management of Hazardous Waste Pharmaceuticals" dated October 2018.

D) Non-small businesses ("non-small business" means a business employing 50 or more persons):

As stated previously, there are approximately 7,437 facilities in the that are healthcare facilities and reverse distributors as defined by this rule. Approximately 476 of these facilities are non-small businesses that would potentially be affected by this rule. Not all healthcare facilities and reverse distributors are generators of hazardous waste so it is not possible to determine exactly how many of these businesses will be affected by this rule adoption. Based on information obtained from EPA, it is estimated that approximately 62 of these facilities are generators of hazardous waste. The estimated cost to non-small businesses due to the adoption of this rule is approximately \$85 per year. The estimated savings to non-small businesses due to the adoption of this rule is

approximately \$245 per year resulting in an overall cost savings of approximately \$160 per year.

Data to assist in making this determination was obtained from the EPA document entitled "Regulatory Impact Analysis for EPA's Final Regulations for the Management of Hazardous Waste Pharmaceuticals" dated October 2018.

E) Persons other than small businesses, non-small businesses, state, or local government entities ("person" means any individual, partnership, corporation, association, governmental entity, or public or private organization of any character other than an *agency*):

The Division believes that all facilities that could be impacted fiscally by this rule are captured in the four previous categories. It is anticipated if there are any persons other than small businesses, non-small businesses, state, or local governments that are healthcare facilities or reverse distributors, that these persons would see a cost savings with the adoption of this rule similar to the savings discussed previously.

F) Compliance costs for affected persons:

It is not anticipated that there will be any additional compliance costs for affected persons due to the adoption of this rule other than those mentioned above.

G) Regulatory Impact Summary Table (This table only includes fiscal impacts that could be measured. If there are inestimable fiscal impacts, they will not be included in this table. Inestimable impacts will be included in narratives above.)

Regulatory Impact Table

Fiscal Cost	FY2021	FY2022	FY2023
State Government	\$85	\$85	\$85
Local Governments	\$0	\$0	\$0
Small Businesses	\$76,840	\$76,840	\$76,840
Non-Small Businesses	\$5,270	\$5,270	\$5,270
Other Persons	\$0	\$0	\$0
Total Fiscal Cost	\$82,195	\$82,195	\$82,195
Fiscal Benefits			
State Government	\$245	\$245	\$245
Local Governments	\$0	\$0	\$0
Small Businesses	\$221,480	\$221,480	\$221,480

Non-Small Businesses	\$15,190	\$15,190	\$15,190
Other Persons	\$0	\$0	\$0
Total Fiscal Benefits	\$236,915	\$236,915	\$236,915

H) Department head approval of regulatory impact analysis:

The Executive Director of the Department of Environmental Quality, L. Scott Baird, has reviewed and approved this fiscal analysis.

6. A) Comments by the department head on the fiscal impact this rule may have on businesses:

It is not anticipated that these rule changes will have a negative fiscal impact on any healthcare facility or reverse distributor involved in the management of hazardous waste pharmaceuticals. This rule simplifies requirements and provides regulatory flexibilities and thereby improves regulatory clarity for healthcare facilities and provides more regulatory certainty for reverse distributors. The simplification and clarity provided by these rule changes will reduce the regulatory burden on these facilities, increase compliance, and result in better protection of human health and the environment.

B) Name and title of department head commenting on the fiscal impacts:

L. Scott Baird. Executive Director

Citation Information

7. This rule change is authorized or mandated by state law, and implements or interprets the following state and federal laws. State code or constitution citations (required):

Section 19-6-104 | Section 19-6-105 | Section 19-6-106

Public Notice Information

9. The public may submit written or oral comments to the agency identified in box 1. (The public may also request a hearing by submitting a written request to the agency. The agency is required to hold a hearing if it receives requests from ten interested persons or from an association having not fewer than ten members. Additionally, the request must be received by the agency not more than 15 days after the publication of this rule in the Utah State Bulletin. See Section 63G-3-302 and Rule R15-1 for more information.)

A)	Comments	will	be	accepted	08/31/2020
unt	til:				

10. This rule change	MAY	09/07/2020
become effective on:		

NOTE: The date above is the date on which this rule MAY become effective. It is NOT the effective date. After the date designated in Box 10, the agency must submit a Notice of Effective Date to the Office of Administrative Rules to make this rule effective. Failure to submit a Notice of Effective Date will result in this rule lapsing and will require the agency to start the rulemaking process over.

Agency Authorization Information

Agency head	Ty L. Howard,	Date:	07/09/2020
or designee,	Director		
and title:			

R315. Environmental Quality, Waste Management and Radiation Control, Waste Management.

R315-266. Standards for the Management of Specific Hazardous Wastes and Specific Types of Hazardous Waste Management Facilities.

R315-266-500. Hazardous Waste Pharmaceuticals -- Definitions for Sections R315-266-500 through R315-266-510.

- (a) The following definitions apply to Sections R315-266-500 through R315-266-510:
- (1) "Evaluated hazardous waste pharmaceutical" means a prescription hazardous waste pharmaceutical that has been evaluated by a reverse distributor in accordance with Subsection R315-266-510(a)(3) and will not be sent to another reverse distributor for further evaluation or verification of manufacture credit.
- (2) "Hazardous waste pharmaceutical" means a pharmaceutical that is a solid waste, as defined in Section R315-261-2, and exhibits one or more characteristics identified in Sections R315-261-20 through R315-261-24 or is listed in Sections R315-261-30 through R315-261-35. A pharmaceutical is not a solid waste, as defined in Section R315-261-2, and therefore not a hazardous waste pharmaceutical, if it is legitimately used or reused, for example, lawfully donated for its intended purpose, or reclaimed. An over-the-counter pharmaceutical, dietary supplement, or homeopathic drug is not a solid waste, as defined in Section R315-261-2, and therefore not a hazardous waste pharmaceutical, if it has a reasonable expectation of being legitimately used or reused, for example, lawfully redistributed for its intended purpose, or reclaimed.
- (3) "Healthcare facility" means any person that is lawfully authorized to:
- (i) provide preventative, diagnostic, therapeutic, rehabilitative, maintenance or palliative care, and counseling, service, assessment or procedure with respect to the physical or mental condition, or functional status, of a human or animal or that affects the structure or function of the human or animal body; or
- (ii) distribute, sell, or dispense pharmaceuticals, including over-the-counter pharmaceuticals, dietary supplements, homeopathic drugs, or prescription pharmaceuticals. This definition includes, but is not limited to, wholesale distributors, third-party logistics providers that serve as forward distributors, military medical logistics facilities, hospitals, psychiatric hospitals, ambulatory surgical centers, health clinics, physicians' offices, optical and dental providers, chiropractors, long-term care facilities, ambulance services, pharmacies, long-term care pharmacies, mail-order pharmacies, retailers of pharmaceuticals, veterinary clinics, and veterinary hospitals. This definition does not include pharmaceutical manufacturers, reverse distributors, or reverse logistics centers.

- (4) "Household waste pharmaceutical" means a pharmaceutical that is a solid waste, as defined in Section R315-261-2, but is excluded from being a hazardous waste under Subsection R315-261-4(b)(1).
- (5) "Long-term care facility" means a licensed entity that provides assistance with activities of daily living, including managing and administering pharmaceuticals to one or more individuals at the facility. This definition includes, but is not limited to, hospice facilities, nursing facilities, skilled nursing facilities, and the nursing and skilled nursing care portions of continuing care retirement communities. Not included within the scope of this definition are group homes, independent living communities, assisted living facilities, and the independent and assisted living portions of continuing care retirement communities.
- (6) "Non-creditable hazardous waste pharmaceutical" means a prescription hazardous waste pharmaceutical that does not have a reasonable expectation to be eligible for manufacturer credit or a nonprescription hazardous waste pharmaceutical that does not have a reasonable expectation to be legitimately used or reused or reclaimed. This includes but is not limited to, investigational drugs, free samples of pharmaceuticals received by healthcare facilities, residues of pharmaceuticals remaining in empty containers, contaminated personal protective equipment, floor sweepings, and clean-up material from the spills of pharmaceuticals.
- (7) Non-hazardous waste pharmaceutical means a pharmaceutical that is a solid waste, as defined in Section R315-261-2, and is not listed in Sections R315-261-30 through R315-261-35, and does not exhibit a characteristic identified in Sections R315-261-20 through R315-261-24.
- (8) "Non-pharmaceutical hazardous waste" means a solid waste, as defined in Section R315-261-2, that is listed in Sections R315-261-30 through R315-261-35, or exhibits one or more characteristics identified in Sections R315-261-20 through R315-261-24, but is not a pharmaceutical, as defined in Section R315-266-500.
- (9) "Pharmaceutical" means any drug or dietary supplement for use by humans or other animals; any electronic nicotine delivery system, such as electronic cigarette or vaping pen; or any liquid nicotine, e-liquid, packaged for retail sale for use in electronic nicotine delivery systems, such as pre-filled cartridges or vials. This definition includes, but is not limited to, dietary supplements, as defined by the Federal Food, Drug and Cosmetic Act; prescription drugs, as defined by 21 CFR 203.3(y); over-the-counter drugs; homeopathic drugs; compounded drugs; investigational new drugs; pharmaceuticals remaining in nonempty containers; personal protective equipment contaminated with pharmaceuticals; and clean-up material from spills of pharmaceuticals. This definition does not include dental amalgam or sharps.
- (10) "Potentially creditable hazardous waste pharmaceutical" means a prescription hazardous waste pharmaceutical that has a reasonable expectation to receive manufacturer credit and is:
- (i) in original manufacturer packaging, except pharmaceuticals that were subject to a recall;
 - (ii) undispensed; and
- (iii) unexpired or less than one-year past expiration date. The term does not include evaluated hazardous waste pharmaceuticals or nonprescription pharmaceuticals including, but not limited to, over-the-counter drugs, homeopathic drugs, and dietary supplements.
- (11) "Reverse distributor" means any person that receives and accumulates prescription pharmaceuticals that are potentially creditable hazardous waste pharmaceuticals for the purpose of facilitating or verifying manufacturer credit. Any person, including forward distributors, third-party logistics providers, and pharmaceutical manufacturers, that processes prescription pharmaceuticals for the

facilitation or verification of manufacturer credit is considered a reverse distributor.

R315-266-501. Hazardous Waste Pharmaceuticals -- Applicability.

- (a) A healthcare facility that is a very small quantity generator when counting its hazardous waste, including both its hazardous waste pharmaceuticals and its non-pharmaceutical hazardous waste, remains subject to Section R315-262-14 and is not subject to Sections R315-266-500 through R315-266-510, except for Sections R315-266-505 and R315-266-507 and the optional provisions of Section R315-266-504.
- (b) A healthcare facility that is a very small quantity generator when counting its hazardous waste, including both its hazardous waste pharmaceuticals and its non-pharmaceutical hazardous waste, has the option of complying with Subsection R315-266-501(d) for the management of its hazardous waste pharmaceuticals as an alternative to complying with Section R315-262-14 and the optional provisions of Section R315-266-504.
- (c) A healthcare facility or reverse distributor remains subject to the applicable hazardous waste rules with respect to the management of its non-pharmaceutical hazardous waste.
- (d) With the exception of healthcare facilities identified in Subsection R315-266-501(a), a healthcare facility is subject to the following in lieu of Rules R315-262 through R315-265:
- (1) Sections R315-266-502 and R315-266-505 through R315-266-508 with respect to the management of:
 - (i) non-creditable hazardous waste pharmaceuticals; and
- (ii) potentially creditable hazardous waste pharmaceuticals if they are not destined for a reverse distributor.
- (2) Subsections R315-266-502(a), R315-266-503, R315-266-505 through R315-266-507 and R315-266-509 with respect to the management of potentially creditable hazardous waste pharmaceuticals that are prescription pharmaceuticals and are destined for a reverse distributor.
- (e) A reverse distributor is subject to Sections R315-266-505 through R315-266-510 in lieu of Rules R315-262 through R315-265 with respect to the management of hazardous waste pharmaceuticals.
- (f) Hazardous waste pharmaceuticals generated or managed by entities other than healthcare facilities and reverse distributors, that is pharmaceutical manufacturers and reverse logistics centers, are not subject to Sections R315-266-500 through R315-266-510. Other generators are subject to Rule R315-262 for the generation and accumulation of hazardous wastes, including hazardous waste pharmaceuticals.
- (g) The following are not subject to Rules R315-260 through R315-273, except as specified:
- (1) Pharmaceuticals that are not solid waste, as defined by Section R315-261-2, because they are legitimately used or reused, for example, lawfully donated for their intended purpose, or reclaimed.
- (2) Over-the-counter pharmaceuticals, dietary supplements, or homeopathic drugs that are not solid wastes, as defined by Section R315-261-2, because they have a reasonable expectation of being legitimately used or reused, for example, lawfully redistributed for their intended purpose, or reclaimed.
- (3) Pharmaceuticals being managed in accordance with a recall strategy that has been approved by the Food and Drug Administration in accordance with 21 CFR part 7 subpart C. Sections R315-266-500 through R315-266-510 do apply to the management of the recalled hazardous waste pharmaceuticals after the Food and Drug Administration approves the destruction of the recalled items.
- (4) Pharmaceuticals being managed in accordance with a recall corrective action plan that has been accepted by the Consumer Product Safety Commission in accordance with 16 CFR part 1115.

- Sections R315-266-500 through R315-266-510 do apply to the management of the recalled hazardous waste pharmaceuticals after the Consumer Product Safety Commission approves the destruction of the recalled items.
- (5) Pharmaceuticals stored according to a preservation order, or during an investigation or judicial proceeding until after the preservation order, investigation, or judicial proceeding has concluded or a decision is made to discard the pharmaceuticals or both.
- (6) Investigational new drugs for which an investigational new drug application is in effect in accordance with the Food and Drug Administration's regulations in 21 CFR part 312. Sections R315-266-500 through R315-266-510 do apply to the management of the investigational new drug after the decision is made to discard the investigational new drug or the Food and Drug Administration approves the destruction of the investigational new drug, if the investigational new drug is a hazardous waste.
- (7) Household waste pharmaceuticals, including those that have been collected by an authorized collector, as defined by the Drug Enforcement Administration, provided the authorized collector complies with the conditional exemption in Subsections R315-266-506(a)(2) and R315-266-506(b).

R315-266-502. Hazardous Waste Pharmaceuticals -- Standards for Healthcare Facilities Managing Non-Creditable Hazardous Waste Pharmaceuticals.

- (a) Notification and withdrawal from Sections R315-266-500 through R315-266-510 for healthcare facilities managing hazardous waste pharmaceuticals.
- (1) Notification. A healthcare facility shall notify the Director, using the Site Identification Form, EPA Form 8700-12, that it is a healthcare facility operating under Sections R315-266-500 through R315-266-510. A healthcare facility is not required to fill out Box 10.B., Waste Codes for Federally Regulated Hazardous Waste, of the Site Identification Form with respect to its hazardous waste pharmaceuticals. A healthcare facility shall submit a separate notification, Site Identification Form, for each site or EPA identification number.
- (i) A healthcare facility that already has an EPA identification number shall notify the Director, using the Site Identification Form, EPA Form 8700-12, that it is a healthcare facility as part of its next Biennial Report, if it is required to submit one; or if not required to submit a Biennial Report, within 60 days of the effective date of Sections R315-266-500 through R315-266-510, or within 60 days of becoming subject to Sections R315-266-500 through R315-266-510.
- (ii) A healthcare facility that does not have an EPA identification number shall obtain one by notifying the Director, using the Site Identification Form, EPA Form 8700-12, that it is a healthcare facility as part of its next Biennial Report, if it is required to submit one; or if not required to submit a Biennial Report, within 60 days of the effective date of Sections R315-266-500 through R315-266-510, or within 60 days of becoming subject to Sections R315-266-500 through R315-266-510.
- (iii) A healthcare facility shall keep a copy of its notification on file for as long as the healthcare facility is subject to Sections R315-266-500 through R315-266-510.
- (2) Withdrawal. A healthcare facility that operated under Sections R315-266-500 through R315-266-510 but is no longer subject to Sections R315-266-500 through R315-266-510, because it is a very small quantity generator under Section R315-262-14, and elects to withdraw from Sections R315-266-500 through R315-266-510, shall notify the Director using the Site Identification Form, EPA Form 8700-12, that it is no longer operating under Sections R315-266-500 through R315-266-510. Ahealthcare facility is not required to fill out Box 10.B.,

- Waste Codes for Federally Regulated Hazardous Waste, of the Site Identification Form with respect to its hazardous waste pharmaceuticals. A healthcare facility shall submit a separate notification, Site Identification Form, for each EPA identification number.
- (i) A healthcare facility shall submit the Site Identification Form notifying that it is withdrawing from Sections R315-266-500 through R315-266-510 before it begins operating under the conditional exemption of Section R315-262-14.
- (ii) A healthcare facility shall keep a copy of its withdrawal on file for three years from the date of signature on the notification of its withdrawal.
- (b) Training of personnel managing non-creditable hazardous waste pharmaceuticals at healthcare facilities. A healthcare facility shall ensure that any personnel that manage non-creditable hazardous waste pharmaceuticals are thoroughly familiar with proper waste handling and emergency procedures relevant to their responsibilities during normal facility operations and emergencies.
- (c) Hazardous waste determination for non-creditable pharmaceuticals. A healthcare facility that generates a solid waste that is a non-creditable pharmaceutical shall determine whether that pharmaceutical is a hazardous waste pharmaceutical, for example, it exhibits a characteristic identified in Sections R315-261-20 through R315-261-24 or is listed in Sections R315-261-30 through R315-261-35, in order to determine whether the waste is subject to Sections R315-266-500 through R315-266-510. A healthcare facility may choose to manage its non-hazardous waste pharmaceuticals as non-creditable hazardous waste pharmaceuticals under Sections R315-266-500 through R315-266-510.
- (d) Standards for containers used to accumulate noncreditable hazardous waste pharmaceuticals at healthcare facilities.
- waste pharmaceuticals in a container that is structurally sound, compatible with its contents, and that lacks evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.
- (2) A healthcare facility that manages ignitable or reactive non-creditable hazardous waste pharmaceuticals, or that mixes or commingles incompatible non-creditable hazardous waste pharmaceuticals shall manage the container so that it does not have the potential to:
- (i) generate extreme heat or pressure, fire or explosion, or violent reaction;
- (ii) produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health;
- (iii) produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions;
- (iv) damage the structural integrity of the container of noncreditable hazardous waste pharmaceuticals; or
- (v) through other like means threaten human health or the environment.
- (3) A healthcare facility shall keep containers of noncreditable hazardous waste pharmaceuticals closed and secured in a manner that prevents unauthorized access to its contents.
- (4) A healthcare facility may accumulate non-creditable hazardous waste pharmaceuticals and non-hazardous non-creditable waste pharmaceuticals in a container, except that non-creditable hazardous waste pharmaceuticals prohibited from being combusted because of the dilution prohibition of Subsection R315-268-3(c) shall be accumulated in separate containers and labeled with applicable hazardous waste numbers, in other words the hazardous waste codes.
- (e) Labeling containers used to accumulate non-creditable hazardous waste pharmaceuticals at healthcare facilities. A healthcare

- facility shall label or clearly mark each container of non-creditable hazardous waste pharmaceuticals with the phrase "Hazardous Waste Pharmaceuticals".
- (f) Maximum accumulation time for non-creditable hazardous waste pharmaceuticals at healthcare facilities.
- (1) A healthcare facility may accumulate non-creditable hazardous waste pharmaceuticals on site for one year or less without a permit or having interim status.
- (2) A healthcare facility that accumulates non-creditable hazardous waste pharmaceuticals on-site shall demonstrate the length of time that the non-creditable hazardous waste pharmaceuticals have been accumulating, starting from the date it first becomes a waste. A healthcare facility may make this demonstration by any of the following methods:
- (i) marking or labeling the container of non-creditable hazardous waste pharmaceuticals with the date that the non-creditable hazardous waste pharmaceuticals became a waste;
- (ii) maintaining an inventory system that identifies the date the non-creditable hazardous waste pharmaceuticals being accumulated first became a waste; or
- (iii) placing the non-creditable hazardous waste pharmaceuticals in a specific area and identifying the earliest date that any of the non-creditable hazardous waste pharmaceuticals in the area became a waste.
- (g) Land disposal restrictions for non-creditable hazardous waste pharmaceuticals. The non-creditable hazardous waste pharmaceuticals generated by a healthcare facility are subject to the land disposal restrictions of Rule R315-268. A healthcare facility that generates non-creditable hazardous waste pharmaceuticals shall comply with the land disposal restrictions in accordance with Subsection R315-268-7(a) requirements, except that it is not required to identify the hazardous waste numbers, in other words the hazardous waste codes, on the land disposal restrictions notification.
- (h) Procedures for healthcare facilities for managing rejected shipments of non-creditable hazardous waste pharmaceuticals. A healthcare facility that sends a shipment of non-creditable hazardous waste pharmaceuticals to a designated facility with the understanding that the designated facility can accept and manage the waste, and later receives that shipment back as a rejected load in accordance with the manifest discrepancy provisions of Section R315-264-72 or R315-265-72 may accumulate the returned non-creditable hazardous waste pharmaceuticals on site for up to an additional 90 days provided the rejected or returned shipment is managed in accordance with Subsections R315-266-502(d) and R315-266-502(e). Upon receipt of the returned shipment, the healthcare facility shall:
 - (1) sign either:
- (i) item 18c of the original manifest, if the original manifest was used for the returned shipment; or
- (ii) item 20 of the new manifest, if a new manifest was used for the returned shipment;
 - (2) provide the transporter a copy of the manifest;
- (3) within 30 days of receipt of the rejected shipment, send a copy of the manifest to the designated facility that returned the shipment to the healthcare facility; and
- (4) within 90 days of receipt of the rejected shipment, transport or offer for transport the returned shipment in accordance with the shipping standards of Subsection R315-266-508(a).
- (i) Reporting by healthcare facilities for non-creditable hazardous waste pharmaceuticals.
- (1) Biennial reporting by healthcare facilities. Healthcare facilities are not subject to biennial reporting requirements under Section R315-262-41, with respect to non-creditable hazardous waste

- pharmaceuticals managed under Sections R315-266-500 through R315-266-510.
- (2) Exception reporting by healthcare facilities for a missing copy of the manifest.
- (i) For shipments from a healthcare facility to a designated facility:
- (A) If a healthcare facility does not receive a copy of the manifest with the signature of the owner or operator of the designated facility within 60 days of the date the non-creditable hazardous waste pharmaceuticals were accepted by the initial transporter, the healthcare facility shall submit:
- (I) a legible copy of the original manifest, indicating that the healthcare facility has not received confirmation of delivery, to the Director; and
- (II) a handwritten or typed note on the manifest itself, or on an attached sheet of paper, stating that the return copy was not received and explaining the efforts taken to locate the non-creditable hazardous waste pharmaceuticals and the results of those efforts.
 - (B) Reserved.
- (ii) For shipments rejected by the designated facility and shipped to an alternate facility.
- (A) If a healthcare facility does not receive a copy of the manifest for a rejected shipment of the non-creditable hazardous waste pharmaceuticals that is forwarded by the designated facility to an alternate facility, using appropriate manifest procedures, with the signature of the owner or operator of the alternate facility, within 60 days of the date the non-creditable hazardous waste was accepted by the initial transporter forwarding the shipment of non-creditable hazardous waste pharmaceuticals from the designated facility to the alternate facility, the healthcare facility shall submit:
- (I) A legible copy of the original manifest, indicating that the healthcare facility has not received confirmation of delivery, to the Director; and
- (II) A handwritten or typed note on the manifest itself, or on an attached sheet of paper, stating that the return copy was not received and explaining the efforts taken to locate the non-creditable hazardous waste pharmaceuticals and the results of those efforts.
 - (B) Reserved.
- (3) Additional reports. The Director may require healthcare facilities to furnish additional reports concerning the quantities and disposition of non-creditable hazardous waste pharmaceuticals.
- (j) Recordkeeping by healthcare facilities for non-creditable hazardous waste pharmaceuticals.
- (1) A healthcare facility shall keep a copy of each manifest signed in accordance with Subsection R315-262-23(a) for three years or until it receives a signed copy from the designated facility which received the non-creditable hazardous waste pharmaceuticals. This signed copy shall be retained as a record for at least three years from the date the waste was accepted by the initial transporter.
- (2) A healthcare facility shall keep a copy of each exception report for a period of at least three years from the date of the report.
- (3) A healthcare facility shall keep records of any test results, waste analyses, or other determinations made to support its hazardous waste determinations consistent with Subsection R315-262-11(f), for at least three years from the date the waste was last sent to on-site or off-site treatment, storage or disposal. A healthcare facility that manages its non-creditable non-hazardous waste pharmaceuticals as non-creditable hazardous waste pharmaceuticals is not required to keep documentation of hazardous waste determinations.
- (4) The periods of retention referred to in Section R315-266-502 are extended automatically during the course of any unresolved

- enforcement action regarding the regulated activity, or as requested by the Director.
- (5) Records shall be readily available upon request by an inspector.
- (k) Response to spills of non-creditable hazardous waste pharmaceuticals at healthcare facilities. A healthcare facility shall immediately contain any spills of non-creditable hazardous waste pharmaceuticals and manage the spill clean-up materials as non-creditable hazardous waste pharmaceuticals in accordance with the requirements of Sections R315-266-500 through R315-266-510.
- (l) Accepting non-creditable hazardous waste pharmaceuticals from an off-site healthcare facility that is a very small quantity generator. A healthcare facility may accept non-creditable hazardous waste pharmaceuticals from an off-site healthcare facility that is a very small quantity generator under Section R315-262-14, without a permit or without having interim status, provided the receiving healthcare facility:
- (1) is under the control of the same person, as defined in Section R315-260-10, as the very small quantity generator healthcare facility that is sending the non-creditable hazardous waste pharmaceuticals off-site, "control," for the purposes of Section R315-266-502, means the power to direct the policies of the healthcare facility, whether by the ownership of stock, voting rights, or otherwise, except that contractors who operate healthcare facilities on behalf of a different person as defined in Section R315-260-10 shall not be deemed to "control" such healthcare facilities, or has a contractual or other documented business relationship whereby the receiving healthcare facility supplies pharmaceuticals to the very small quantity generator healthcare facility;
- (2) is operating under Sections R315-266-500 through R315-266-510 for the management of its non-creditable hazardous waste pharmaceuticals;
- (3) manages the non-creditable hazardous waste pharmaceuticals that it receives from off site in compliance with Sections R315-266-500 through R315-266-510; and
- (4) keeps records of the non-creditable hazardous waste pharmaceuticals shipments it receives from off site for three years from the date that the shipment is received.

R315-266-503. Hazardous Waste Pharmaceuticals -- Standards for Healthcare Facilities Managing Potentially Creditable Hazardous Waste Pharmaceuticals.

- (a) Hazardous waste determination for potentially creditable pharmaceuticals. A healthcare facility that generates a solid waste that is a potentially creditable pharmaceutical shall determine whether the potentially creditable pharmaceutical is a potentially creditable hazardous waste pharmaceutical, for example, it is listed in Sections R315-261-30 through R315-261-35 or exhibits a characteristic identified in Sections R315-261-20 through R315-261-24. A healthcare facility may choose to manage its potentially creditable non-hazardous waste pharmaceuticals as potentially creditable hazardous waste pharmaceuticals under Sections R315-266-500 through R315-266-510.
- (b) Accepting potentially creditable hazardous waste pharmaceuticals from an off-site healthcare facility that is a very small quantity generator. A healthcare facility may accept potentially creditable hazardous waste pharmaceuticals from an off-site healthcare facility that is a very small quantity generator under Section R315-262-14, without a permit or without having interim status, provided the receiving healthcare facility:
- (1) is under the control of the same person, as defined in Section R315-260-10, as the very small quantity generator healthcare facility that is sending the potentially creditable hazardous waste

- pharmaceuticals off site, or has a contractual or other documented business relationship whereby the receiving healthcare facility supplies pharmaceuticals to the very small quantity generator healthcare facility;
- (2) is operating under Sections R315-266-500 through R315-266-510 for the management of its potentially creditable hazardous waste pharmaceuticals;
- (3) manages the potentially creditable hazardous waste pharmaceuticals that it receives from off site in compliance with Sections R315-266-500 through R315-266-510; and
- (4) keeps records of the potentially creditable hazardous waste pharmaceuticals shipments it receives from off site for three years from the date that the shipment is received.
- (c) Prohibition. Healthcare facilities are prohibited from sending hazardous wastes other than potentially creditable hazardous waste pharmaceuticals to a reverse distributor.
- (d) Biennial Reporting by healthcare facilities. Healthcare facilities are not subject to biennial reporting requirements under Section R315-262-41 with respect to potentially creditable hazardous waste pharmaceuticals managed under Sections R315-266-500 through R315-266-510.
 - (e) Recordkeeping by healthcare facilities.
- (1) A healthcare facility that initiates a shipment of potentially creditable hazardous waste pharmaceuticals to a reverse distributor shall keep the following records, paper or electronic, for each shipment of potentially creditable hazardous waste pharmaceuticals for three years from the date of shipment:
 - (i) the confirmation of delivery; and
- (ii) the shipping papers prepared in accordance with 49 CFR part 172 subpart C, if applicable.
- (2) The periods of retention referred to in Section R315-266-503 are extended automatically during the course of any unresolved enforcement action regarding the regulated activity, or as requested by the Director.
- (3) Records shall be readily available upon request by an inspector.
- (f) Response to spills of potentially creditable hazardous waste pharmaceuticals at healthcare facilities. A healthcare facility shall immediately contain any spills of potentially creditable hazardous waste pharmaceuticals and manage the spill clean-up materials as noncreditable hazardous waste pharmaceuticals in accordance with Sections R315-266-500 through R315-266-510.

R315-266-504. Hazardous Waste Pharmaceuticals -- Healthcare Facilities that are Very Small Quantity Generators for Both Hazardous Waste Pharmaceuticals and Non-Pharmaceutical Hazardous Waste.

- (a) Potentially creditable hazardous waste pharmaceuticals. A healthcare facility that is a very small quantity generator for both hazardous waste pharmaceuticals and non-pharmaceutical hazardous waste may send its potentially creditable hazardous waste pharmaceuticals to a reverse distributor.
- (b) Off-site collection of hazardous waste pharmaceuticals generated by a healthcare facility that is a very small quantity generator. A healthcare facility that is a very small quantity generator for both hazardous waste pharmaceuticals and non-pharmaceutical hazardous waste may send its hazardous waste pharmaceuticals off-site to another healthcare facility, provided:
- (1) the receiving healthcare facility meets the conditions in Subsections R315-266-502(1) and R315-266-503(b), as applicable, or
- (2) the very small quantity generator healthcare facility meets the conditions in Subsection R315-262-14(a)(5)(viii) and the receiving

- large quantity generator meets the conditions in Subsection R315-262-17(f).
- (c) Long-term care facilities that are very small quantity generators. A long-term care facility that is a very small quantity generator for both hazardous waste pharmaceuticals and non-pharmaceutical hazardous waste may dispose of its hazardous waste pharmaceuticals, excluding contaminated personal protective equipment or clean-up materials, in an on-site collection receptacle of an authorized collector, as defined by the Drug Enforcement Administration, that is registered with the Drug Enforcement Administration provided the contents are collected, stored, transported, destroyed and disposed of in compliance with applicable Drug Enforcement Administration regulations for controlled substances.
- (d) Long-term care facilities with 20 beds or fewer. A long-term care facility with 20 beds or fewer is presumed to be a very small quantity generator subject to Section R315-262-14 for both hazardous waste pharmaceuticals and non-pharmaceutical hazardous waste and not subject to Sections R315-266-500 through R315-266-510, except for Sections R315-266-505 and R315-266-507 and the other optional provisions of Section R315-266-504. The Director has the responsibility to demonstrate that a long-term care facility with 20 beds or fewer generates quantities of hazardous waste that are in excess of the very small quantity generator limits as defined in Section R315-260-10. A long-term care facility with more than 20 beds that operates as a very small quantity generator under Section R315-262-14 shall demonstrate that it generates quantities of hazardous waste that are within the very small quantity generator limits as defined by Section R315-260-10.

R315-266-505. Hazardous Waste Pharmaceuticals -- Prohibition of Sewering Hazardous Waste Pharmaceuticals.

Healthcare facilities, including very small quantity generators operating under Section R315-262-14 in lieu of Sections R315-266-500 through R315-266-510, and reverse distributors are prohibited from discharging hazardous waste pharmaceuticals to a sewer system that passes through to a publicly-owned treatment works. Healthcare facilities and reverse distributors remain subject to the prohibitions in 40 CFR 403.5(b)(1).

R315-266-506. Hazardous Waste Pharmaceuticals -- Conditional Exemptions for Hazardous Waste Pharmaceuticals That Are Also Controlled Substances and Household Waste Pharmaceuticals Collected in a Take-Back Event or Program.

- (a) Conditional exemptions. Provided the conditions of Subsection R315-266-506(b) are met, the following are exempt from Rules R315-262 through R315-273:
- (1) hazardous waste pharmaceuticals that are also listed on a schedule of controlled substances by the Drug Enforcement Administration in 21 CFR part 1308; and
- (2) household waste pharmaceuticals that are collected in a take-back event or program, including those that are collected by an authorized collector, as defined by the Drug Enforcement Administration, registered with the Drug Enforcement Administration that commingles the household waste pharmaceuticals with controlled substances from an ultimate user, as defined by the Drug Enforcement Administration.
- (b) Conditions for exemption. The hazardous waste pharmaceuticals shall be:
- (1) managed in compliance with the sewer prohibition of Section R315-266-505; and
- (2) collected, stored, transported, and disposed of in compliance with applicable Drug Enforcement Administration regulations for controlled substances; and

- (3) destroyed by a method that Drug Enforcement Administration has publicly deemed in writing to meet their non-retrievable standard of destruction or combusted at one of the following:

 (i) a permitted large municipal waste combustor, subject to
- 40 CFR part 62 subpart FFF or applicable state plan for existing large municipal waste combustors, or 40 CFR part 60 subparts Eb for new large municipal waste combustors;
- (ii) a permitted small municipal waste combustor, subject to 40 CFR part 62 subpart JJJ or applicable state plan for existing small municipal waste combustors, or 40 CFR part 60 subparts AAAA for new small municipal waste combustors;
- (iii) a permitted hospital, medical and infectious waste incinerator, subject to 40 CFR part 62 subpart HHH or applicable state plan for existing hospital, medical and infectious waste incinerators, or 40 CFR part 60 subpart Ec for new hospital, medical and infectious waste incinerators;
- (iv) a permitted commercial and industrial solid waste incinerator, subject to 40 CFR part 62 subpart III or applicable state plan for existing commercial and industrial solid waste incinerators, or 40 CFR part 60 subpart CCCC for new commercial and industrial solid waste incinerators; or
- (v) a permitted hazardous waste combustor subject to 40 CFR part 63 subpart EEE.

R315-266-507. Hazardous Waste Pharmaceuticals -- Residues of Hazardous Waste Pharmaceuticals in Empty Containers.

- (a) Stock, dispensing and unit-dose containers. A stock bottle, dispensing bottle, vial, or ampule, not to exceed 1 liter or 10,000 pills; or a unit-dose container, such as a unit-dose packet, cup, wrapper, blister pack, or delivery device, is considered empty and the residues are not regulated as hazardous waste provided the pharmaceuticals have been removed from the stock bottle, dispensing bottle, vial, ampule, or the unit-dose container using the practices commonly employed to remove materials from that type of container.
- (b) Syringes. A syringe is considered empty and the residues are not regulated as hazardous waste under Sections R315-266-500 through R315-266-510 provided the contents have been removed by fully depressing the plunger of the syringe. If a syringe is not empty, the syringe shall be placed with its remaining hazardous waste pharmaceuticals into a container that is managed and disposed of as a non-creditable hazardous waste pharmaceutical under Sections R315-266-500 through R315-266-510 and any applicable federal, state, and local requirements for sharps containers and medical waste.
- (c) Intravenous (IV) bags. An IV bag is considered empty and the residues are not regulated as hazardous waste provided the pharmaceuticals in the IV bag have been fully administered to a patient. If an IV bag is not empty, the IV bag shall be placed with its remaining hazardous waste pharmaceuticals into a container that is managed and disposed of as a non-creditable hazardous waste pharmaceutical under Sections R315-266-500 through R315-266-510, unless the IV bag held non-acute hazardous waste pharmaceuticals and is empty as defined in Subsection R315-261-7(b)(1).
- (d) Other containers, including delivery devices. Hazardous waste pharmaceuticals remaining in any other type of unused, partially administered, or fully administered containers shall be managed as noncreditable hazardous waste pharmaceuticals under Sections R315-266-500 through R315-266-510, unless the container held non-acute hazardous waste pharmaceuticals and is empty as defined in Subsection R315-261-7(b)(1) or R315-261-7(b)(2). This includes, but is not limited to, residues in inhalers, aerosol cans, nebulizers, tubes of ointments, gels, or creams.

- R315-266-508. Hazardous Waste Pharmaceuticals -- Shipping Non-Creditable Hazardous Waste Pharmaceuticals from a Healthcare Facility or Evaluated Hazardous Waste Pharmaceuticals from a Reverse Distributor.
- (a) Shipping non-creditable hazardous waste pharmaceuticals or evaluated hazardous waste pharmaceuticals. A healthcare facility shall ship non-creditable hazardous waste pharmaceuticals and a reverse distributor shall ship evaluated hazardous waste pharmaceuticals off-site to a designated facility, that is, a permitted or interim status treatment, storage, or disposal facility, in compliance with:
- (1) The following pre-transport requirements, before transporting or offering for transport off-site:
- (i) Packaging. Package the waste in accordance with the applicable Department of Transportation regulations on hazardous materials under 49 CFR parts 173, 178, and 180.
- (ii) Labeling. Label each package in accordance with the applicable Department of Transportation regulations on hazardous materials under 49 CFR part 172 subpart E.
 - (iii) Marking.
- (A) Mark each package of hazardous waste pharmaceuticals in accordance with the applicable Department of Transportation (DOT) regulations on hazardous materials under 49 CFR part 172 subpart D.
- (B) Mark each container of 119 gallons or less used in such transportation with the following words and information in accordance with the requirements of 49 CFR 172.304:
- HAZARDOUS WASTE---Federal Law Prohibits Improper Disposal. If found, contact the nearest police or public safety authority or the U.S. Environmental Protection Agency.
- Healthcare Facility's or Reverse distributor's Name and Address
- <u>Healthcare Facility's or Reverse distributor's EPA Identification Number</u>
 - Manifest Tracking Number
- (C) Lab packs that will be incinerated in compliance with Subsection R315-268-42(c) are not required to be marked with EPA Hazardous Waste Numbers, except D004, D005, D006, D007, D008, D010, and D011, where applicable. A nationally recognized electronic system, such as bar coding or radio frequency identification, may be used to identify the EPA Hazardous Waste Numbers.
- (iv) Placarding. Placard or offer the initial transporter the appropriate placards according to Department of Transportation regulations for hazardous materials under 49 CFR part 172 subpart F.
- (2) The manifest requirements of Sections R315-262-20 through R315-262-27, except as follows:
- (i) A healthcare facility shipping non-creditable hazardous waste pharmaceuticals is not required to list each applicable hazardous waste number, in other words, hazardous waste codes, in Item 13 of EPA Form 8700-22.
- (ii) A healthcare facility shipping non-creditable hazardous waste pharmaceuticals shall write either the word "PHARMS" or "PHRM" in Item 13 of EPA Form 8700-22.
- hazardous waste pharmaceuticals or evaluated hazardous waste pharmaceuticals. A healthcare facility or reverse distributor that exports non-creditable hazardous waste pharmaceuticals or evaluated hazardous waste pharmaceuticals is subject to Sections R315-262-80 through R315-262-89.
- (c) Importing non-creditable hazardous waste pharmaceuticals or evaluated hazardous waste pharmaceuticals. Any person that imports non-creditable hazardous waste pharmaceuticals or evaluated hazardous waste pharmaceuticals is subject to Sections R315-

262-80 through R315-262-89. A healthcare facility or reverse distributor may not accept imported non-creditable hazardous waste pharmaceuticals or evaluated hazardous waste pharmaceuticals unless they have a permit or interim status that allows them to accept hazardous waste from off site.

R315-266-509. Hazardous Waste Pharmaceuticals -- Shipping Potentially Creditable Hazardous Waste Pharmaceuticals from a Healthcare Facility or a Reverse Distributor to a Reverse Distributor.

- (a) Shipping potentially creditable hazardous waste pharmaceuticals. A healthcare facility or a reverse distributor who transports or offers for transport potentially creditable hazardous waste pharmaceuticals off-site to a reverse distributor shall comply with applicable U.S. Department of Transportation regulations in 49 CFR part 171 through 180 for any potentially creditable hazardous waste pharmaceutical that meets the definition of hazardous material in 49 CFR 171.8. For purposes of the Department of Transportation regulations, a material is considered a hazardous waste if it is subject to the Hazardous Waste Manifest Requirements of the U.S. Environmental Protection Agency specified in Rule R315-262. Because a potentially creditable hazardous waste pharmaceutical does not require a manifest, it is not considered hazardous waste under the Department of Transportation regulations.
- (b) Delivery confirmation. Upon receipt of each shipment of potentially creditable hazardous waste pharmaceuticals, the receiving reverse distributor shall provide confirmation, paper or electronic, to the healthcare facility or reverse distributor that initiated the shipment that the shipment of potentially creditable hazardous waste pharmaceuticals has arrived at its destination and is under the custody and control of the reverse distributor.
- (c) Procedures for if delivery confirmation is not received within 35 days. If a healthcare facility or reverse distributor initiates a shipment of potentially creditable hazardous waste pharmaceuticals to a reverse distributor and does not receive delivery confirmation within 35 calendar days from the date that the shipment of potentially creditable hazardous waste pharmaceuticals was sent, the healthcare facility or reverse distributor that initiated the shipment shall contact the carrier and the intended recipient, in other word the reverse distributor, promptly to report that the delivery confirmation was not received and to determine the status of the potentially creditable hazardous waste pharmaceuticals.
- (d) Exporting potentially creditable hazardous waste pharmaceuticals. A healthcare facility or reverse distributor that sends potentially creditable hazardous waste pharmaceuticals to a foreign destination shall comply with the applicable sections of Sections R315-262-80 through R315-262-89, except the manifesting requirement of Subsection R315-262-83(c), in addition to Subsections R315-266-509(a) through R315-266-509(c).
- (e) Importing potentially creditable hazardous waste pharmaceuticals. Any person that imports potentially creditable hazardous waste pharmaceuticals into the United States is subject to Subsections R315-266-509(a) through R315-266-509(c) in lieu of Sections R315-262-80 through R315-262-89. Immediately after the potentially creditable hazardous waste pharmaceuticals enter the United States, they are subject to the applicable requirements of Sections R315-266-500 through R315-266-510.

R315-266-510. Hazardous Waste Pharmaceuticals -- Standards for the Management of Potentially Creditable Hazardous Waste Pharmaceuticals and Evaluated Hazardous Waste Pharmaceuticals at Reverse Distributors.

- A reverse distributor may accept potentially creditable hazardous waste pharmaceuticals from off site and accumulate potentially creditable hazardous waste pharmaceuticals or evaluated hazardous waste pharmaceuticals on site without a hazardous waste permit or without having interim status, provided that it complies with the following conditions:
- (a) Standards for reverse distributors managing potentially creditable hazardous waste pharmaceuticals and evaluated hazardous waste pharmaceuticals.
- (1) Notification. A reverse distributor shall notify the Director, using the Site Identification Form, EPA Form 8700-12, that it is a reverse distributor operating under Sections R315-266-500 through R315-266-510.
- (i) A reverse distributor that already has an EPA identification number shall notify the Director, using the Site Identification Form, EPA Form 8700-12, that it is a reverse distributor, as defined in Section R315-266-500, within 60 days of the effective date of Sections R315-266-500 through R315-266-510, or within 60 days of becoming subject to Sections R315-266-500 through R315-266-510.
- (ii) A reverse distributor that does not have an EPA identification number shall obtain one by notifying the Director, using the Site Identification Form, EPA Form 8700-12, that it is a reverse distributor, as defined in Section R315-266-500, within 60 days of the effective date of Sections R315-266-500 through R315-266-510, or within 60 days of becoming subject to Sections R315-266-500 through R315-266-510.
- (2) Inventory by the reverse distributor. A reverse distributor shall maintain a current inventory of the potentially creditable hazardous waste pharmaceuticals and evaluated hazardous waste pharmaceuticals that are accumulated on site.
- (i) A reverse distributor shall inventory each potentially creditable hazardous waste pharmaceutical within 30 calendar days of each waste arriving at the reverse distributor.
- (ii) The inventory shall include the identity, for example, name or national drug code, and quantity of each potentially creditable hazardous waste pharmaceutical and evaluated hazardous waste pharmaceutical.
- (iii) If the reverse distributor already meets the inventory requirements of Subsection R315-266-510(a)(2) because of other regulatory requirements, such as State Board of Pharmacy regulations, the facility is not required to provide a separate inventory pursuant to Section R315-266-510.
- (3) Evaluation by a reverse distributor that is not a manufacturer. A reverse distributor that is not a pharmaceutical manufacturer shall evaluate a potentially creditable hazardous waste pharmaceutical within 30 calendar days of the waste arriving at the reverse distributor to establish whether it is destined for another reverse distributor for further evaluation or verification of manufacturer credit or for a permitted or interim status treatment, storage, or disposal facility.
- (i) A potentially creditable hazardous waste pharmaceutical that is destined for another reverse distributor is still considered a "potentially creditable hazardous waste pharmaceutical" and shall be managed in accordance with Subsection R315-266-510(b).
- (ii) A potentially creditable hazardous waste pharmaceutical that is destined for a permitted or interim status treatment, storage or disposal facility is considered an "evaluated hazardous waste pharmaceutical" and shall be managed in accordance with Subsection R315-266-501(c).
- (4) Evaluation by a reverse distributor that is a manufacturer. A reverse distributor that is a pharmaceutical manufacturer shall evaluate a potentially creditable hazardous waste pharmaceutical to verify manufacturer credit within 30 calendar days of the waste arriving

- at the facility and following the evaluation shall manage the evaluated hazardous waste pharmaceuticals in accordance with Subsection R315-266-501(c).
- (5) Maximum accumulation time for hazardous waste pharmaceuticals at a reverse distributor.
- (i) A reverse distributor may accumulate potentially creditable hazardous waste pharmaceuticals and evaluated hazardous waste pharmaceuticals on site for 180 calendar days or less. The 180 days start after the potentially creditable hazardous waste pharmaceutical has been evaluated and applies to any hazardous waste pharmaceuticals accumulated on site, regardless of whether they are destined for another reverse distributor, that is potentially creditable hazardous waste pharmaceuticals, or a permitted or interim status treatment, storage, or disposal facility, that is evaluated hazardous waste pharmaceuticals.
- (ii) Aging pharmaceuticals. Unexpired pharmaceuticals that are otherwise creditable but are awaiting their expiration date, in other words, aging in a holding morgue, can be accumulated for up to 180 days after the expiration date, provided that the unexpired pharmaceuticals are managed in accordance with Subsection R315-266-510(a) and the container labeling and management standards in Subsections R315-266-510(c)(4)(i) through R315-266-510(c)(4)(vi).
- (6) Security at the reverse distributor facility. A reverse distributor shall prevent unknowing entry and minimize the possibility for the unauthorized entry into the portion of the facility where potentially creditable hazardous waste pharmaceuticals and evaluated hazardous waste pharmaceuticals are kept.
- (i) Examples of methods that may be used to prevent unknowing entry and minimize the possibility for unauthorized entry include, but are not limited to:
 - (A) a 24-hour continuous monitoring surveillance system;
 - (B) an artificial barrier such as a fence; or
 - (C) a means to control entry, such as keycard access.
- (ii) If the reverse distributor already meets the security requirements of Subsection R315-266-510(a)(6) because of other regulatory requirements, such as Drug Enforcement Administration or State Board of Pharmacy regulations, the facility is not required to provide separate security measures pursuant to Section R315-266-510.
- (7) Contingency plan and emergency procedures at a reverse distributor. A reverse distributor that accepts potentially creditable hazardous waste pharmaceuticals from off-site shall prepare a contingency plan and comply with the other requirements of Sections R315-262-250 through R315-262-265.
- (8) Closure of a reverse distributor. If closing an area where a reverse distributor accumulates potentially creditable hazardous waste pharmaceuticals or evaluated hazardous waste pharmaceuticals, the reverse distributor shall comply with Subsections R315-262-17(a)(8)(ii) and R315-262-17(a)(8)(iii).
 - (9) Reporting by a reverse distributor.
- (i) Unauthorized waste report. A reverse distributor shall submit an unauthorized waste report if the reverse distributor receives waste from off site that it is not authorized to receive, for example, non-pharmaceutical hazardous waste, regulated medical waste. The reverse distributor shall prepare and submit an unauthorized waste report to the Director within 45 calendar days after the unauthorized waste arrives at the reverse distributor and shall send a copy of the unauthorized waste report to the healthcare facility, or other entity, that sent the unauthorized waste. The reverse distributor shall manage the unauthorized waste in accordance with applicable rules. The unauthorized waste report shall be signed by the owner or operator of the reverse distributor, or its authorized representative, and contain the following information:

- (A) the EPA identification number, name and address of the reverse distributor;
- (B) the date the reverse distributor received the unauthorized waste;
- (C) the EPA identification number, name, and address of the healthcare facility that shipped the unauthorized waste, if available;
- (D) a description and the quantity of each unauthorized waste the reverse distributor received;
- (E) the method of treatment, storage, or disposal for each unauthorized waste; and
- (F) a brief explanation of why the waste was unauthorized, if known.
- (ii) Additional reports. The Director may require reverse distributors to furnish additional reports concerning the quantities and disposition of potentially creditable hazardous waste pharmaceuticals and evaluated hazardous waste pharmaceuticals.
- (10) Recordkeeping by reverse distributors. A reverse distributor shall keep certain records, paper or electronic, readily available upon request by an inspector. The periods of retention referred to in Section R315-266-510 are extended automatically during the course of any unresolved enforcement action regarding the regulated activity, or as requested by the Director. A reverse distributor shall keep the following records:
- (i) a copy of its notification on file for as long as the facility is subject to Sections R315-266-500 through R315-266-510;
- (ii) a copy of the delivery confirmation and the shipping papers for each shipment of potentially creditable hazardous waste pharmaceuticals that it receives, and a copy of each unauthorized waste report, for at least three years from the date the shipment arrives at the reverse distributor; and
- (iii) a copy of its current inventory for as long as the facility is subject to Sections R315-266-500 through R315-266-510.
- (b) Additional standards for reverse distributors managing potentially creditable hazardous waste pharmaceuticals destined for another reverse distributor. A reverse distributor that does not have a permit or interim status shall comply with the following conditions, in addition to the requirements in Subsection R315-266-510(a), for the management of potentially creditable hazardous waste pharmaceuticals that are destined for another reverse distributor for further evaluation or verification of manufacturer credit:
- (1) A reverse distributor that receives potentially creditable hazardous waste pharmaceuticals from a healthcare facility shall send those potentially creditable hazardous waste pharmaceuticals to another reverse distributor within 180 days after the potentially creditable hazardous waste pharmaceuticals have been evaluated or follow Subsection R315-266-510(c) for evaluated hazardous waste pharmaceuticals.
- (2) A reverse distributor that receives potentially creditable hazardous waste pharmaceuticals from another reverse distributor shall send those potentially creditable hazardous waste pharmaceuticals to a reverse distributor that is a pharmaceutical manufacturer within 180 days after the potentially creditable hazardous waste pharmaceuticals have been evaluated or follow Subsection R315-266-510(c) for evaluated hazardous waste pharmaceuticals.
- (3) A reverse distributor shall ship potentially creditable hazardous waste pharmaceuticals destined for another reverse distributor in accordance with Section R315-266-509.
- (4) Recordkeeping by reverse distributors. A reverse distributor shall keep certain records, paper or electronic, readily available upon request by an inspector for each shipment of potentially creditable hazardous waste pharmaceuticals that it initiates to another reverse distributor, for at least three years from the date of shipment.

- The periods of retention referred to in Section R315-266-510 are extended automatically during the course of any unresolved enforcement action regarding the regulated activity, or as requested by the Director. A reverse distributor shall keep the following records:
 - (i) the confirmation of delivery; and
- (ii) the DOT shipping papers prepared in accordance with 49 CFR part 172 subpart C, if applicable.
- (c) Additional standards for reverse distributors managing evaluated hazardous waste pharmaceuticals. A reverse distributor that does not have a permit or interim status shall comply with the following conditions, in addition to the requirements of Subsection R315-266-510(a), for the management of evaluated hazardous waste pharmaceuticals:
- (1) Accumulation area at the reverse distributor. A reverse distributor shall designate an on-site accumulation area where it will accumulate evaluated hazardous waste pharmaceuticals.
- (2) Inspections of on-site accumulation area. A reverse distributor shall inspect its on-site accumulation area at least once every seven days, looking at containers for leaks and for deterioration caused by corrosion or other factors, as well as for signs of diversion.
- (3) Personnel training at a reverse distributor. Personnel at a reverse distributor that handle evaluated hazardous waste pharmaceuticals are subject to the training requirements of Subsection R315-262-17(a)(7).
- (4) Labeling and management of containers at on-site accumulation areas. A reverse distributor accumulating evaluated hazardous waste pharmaceuticals in containers in an on-site accumulation area shall:
- (i) label the containers with the words, "hazardous waste pharmaceuticals";
- (ii) ensure the containers are in good condition and managed to prevent leaks;
- (iii) use containers that are made of or lined with materials which will not react with, and are otherwise compatible with, the evaluated hazardous waste pharmaceuticals, so that the ability of the container to contain the waste is not impaired;
- (iv) keep containers closed, if holding liquid or gel evaluated hazardous waste pharmaceuticals. If the liquid or gel evaluated hazardous waste pharmaceuticals are in their original, intact, sealed packaging; or repackaged, intact, sealed packaging, they are considered to meet the closed container standard;
- (v) manage any container of ignitable or reactive evaluated hazardous waste pharmaceuticals, or any container of commingled incompatible evaluated hazardous waste pharmaceuticals so that the container does not have the potential to:
- (A) generate extreme heat or pressure, fire or explosion, or violent reaction;
- (B) produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health;
- (C) produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions;
- (D) damage the structural integrity of the container of hazardous waste pharmaceuticals; or
- (E) through other like means threaten human health or the environment; and
- (vi) accumulate evaluated hazardous waste pharmaceuticals that are prohibited from being combusted because of the dilution prohibition of Subsection R315-268-3(c), for example, arsenic trioxide (P012), in separate containers from other evaluated hazardous waste pharmaceuticals at the reverse distributor.
- (5) Hazardous waste numbers. Prior to shipping evaluated hazardous waste pharmaceuticals off site, each container shall be

- marked with the applicable hazardous waste numbers, in other words hazardous waste codes. A nationally recognized electronic system, such as bar coding or radio frequency identification, may be used to identify the EPA Hazardous Waste Numbers.
- (6) Shipments. A reverse distributor shall ship evaluated hazardous waste pharmaceuticals that are destined for a permitted or interim status treatment, storage or disposal facility in accordance with the applicable shipping standards in Subsections R315-266-508(a) or R315-266-508(b).
- (7) Procedures for a reverse distributor for managing rejected shipments. A reverse distributor that sends a shipment of evaluated hazardous waste pharmaceuticals to a designated facility with the understanding that the designated facility can accept and manage the waste, and later receives that shipment back as a rejected load in accordance with the manifest discrepancy provisions of Section R315-264-72 or R315-265-72, may accumulate the returned evaluated hazardous waste pharmaceuticals on site for up to an additional 90 days in the on-site accumulation area provided the rejected or returned shipment is managed in accordance with Subsections R315-266-510(a) and R315-266-510(c). Upon receipt of the returned shipment, the reverse distributor shall:
 - (i) sign either:
- (A) item 18c of the original manifest, if the original manifest was used for the returned shipment; or
- (B) item 20 of the new manifest, if a new manifest was used for the returned shipment;
 - (ii) provide the transporter a copy of the manifest;
- (iii) within 30 days of receipt of the rejected shipment of the evaluated hazardous waste pharmaceuticals, send a copy of the manifest to the designated facility that returned the shipment to the reverse distributor; and
- (iv) within 90 days of receipt of the rejected shipment, transport or offer for transport the returned shipment of evaluated hazardous waste pharmaceuticals in accordance with the applicable shipping standards of Subsection R315-266-508(a) or R315-266-508(b).
- (8) Land disposal restrictions. Evaluated hazardous waste pharmaceuticals are subject to the land disposal restrictions of Rule R315-268. A reverse distributor that accepts potentially creditable hazardous waste pharmaceuticals from off-site shall comply with the land disposal restrictions in accordance with the requirements of Subsection R315-268-7(a).
- (9) Reporting by a reverse distributor for evaluated hazardous waste pharmaceuticals.
- (i) Biennial reporting by a reverse distributor. A reverse distributor that ships evaluated hazardous waste pharmaceuticals off-site shall prepare and submit a single copy of a biennial report to the Director by March 1 of each even numbered year in accordance with Section R315-262-41.
- (ii) Exception reporting by a reverse distributor for a missing copy of the manifest.
- (A) For shipments from a reverse distributor to a designated facility.
- (I) If a reverse distributor does not receive a copy of the manifest with the signature of the owner or operator of the designated facility within 35 days of the date the evaluated hazardous waste pharmaceuticals were accepted by the initial transporter, the reverse distributor shall contact the transporter or the owner or operator of the designated facility to determine the status of the evaluated hazardous waste pharmaceuticals.
- (II) A reverse distributor shall submit an exception report to the Director if it has not received a copy of the manifest with the

signature of the owner or operator of the designated facility within 45 days of the date the evaluated hazardous waste pharmaceutical was accepted by the initial transporter. The exception report shall include:

- (1) a legible copy of the manifest for which the reverse distributor does not have confirmation of delivery; and
- (2) a cover letter signed by the reverse distributor, or its authorized representative, explaining the efforts taken to locate the evaluated hazardous waste pharmaceuticals and the results of those efforts.
- (B) For shipments rejected by the designated facility and shipped to an alternate facility.
- (I) A reverse distributor that does not receive a copy of the manifest with the signature of the owner or operator of the alternate facility within 35 days of the date the evaluated hazardous waste pharmaceuticals were accepted by the initial transporter shall contact the transporter or the owner or operator of the alternate facility to determine the status of the hazardous waste. The 35-day time frame begins the date the evaluated hazardous waste pharmaceuticals are accepted by the transporter forwarding the hazardous waste shipment from the designated facility to the alternate facility.
- (II) A reverse distributor shall submit an Exception Report to the Director if it has not received a copy of the manifest with the signature of the owner or operator of the alternate facility within 45 days of the date the evaluated hazardous waste pharmaceuticals were accepted by the initial transporter. The 45-day timeframe begins the date the evaluated hazardous waste pharmaceuticals are accepted by the transporter forwarding the hazardous waste pharmaceutical shipment from the designated facility to the alternate facility. The Exception Report shall include:
- (1) a legible copy of the manifest for which the generator does not have confirmation of delivery; and
- (2) a cover letter signed by the reverse distributor, or its authorized representative, explaining the efforts taken to locate the evaluated hazardous waste pharmaceuticals and the results of those efforts.
- (10) Recordkeeping by a reverse distributor for evaluated hazardous waste pharmaceuticals.
- (i) A reverse distributor shall keep a log, written or electronic, of the inspections of the on-site accumulation area, required by Subsection R315-266-510(c)(2). This log shall be retained as a record for at least three years from the date of the inspection.
- (ii) A reverse distributor shall keep a copy of each manifest signed in accordance with Subsection R315-262-23(a) for three years or until it receives a signed copy from the designated facility that received the evaluated hazardous waste pharmaceutical. This signed copy shall be retained as a record for at least three years from the date the evaluated hazardous waste pharmaceutical was accepted by the initial transporter.
- (iii) A reverse distributor shall keep a copy of each biennial report for at least three years from the due date of the report.
- (iv) A reverse distributor shall keep a copy of each exception report for at least three years from the submission of the report.
- (v) A reverse distributor shall keep records to document personnel training, in accordance with Subsection R315-262-17(a)(7)(iv).
- (vi) Records shall be readily available upon request by an inspector. The periods of retention referred to in Section R315-266-510 are extended automatically during the course of any unresolved enforcement action regarding the regulated activity, or as requested by the Director.
- (d) When a reverse distributor shall have a permit. A reverse distributor is an operator of a hazardous waste treatment, storage, or disposal facility and is subject to the requirements of Rules R315-264,

- and R315-265, and the permit requirements of Rule R315-270, if the reverse distributor:
 - (1) does not meet the conditions of Section R315-266-510;
 - (2) accepts manifested hazardous waste from off site; or
- (3) treats or disposes of hazardous waste pharmaceuticals on site.

R315-266-[203]600. Appendix I to Rule R315-266 -- Tier I and Tier II Feed Rate and Emissions Screening Limits for Metals.

Appendix I of 40 CFR 266, 2015 edition, is adopted and incorporated by reference.

R315-266-[204]601. Appendix II to Rule R315-266 -- Tier I Feed Rate Screening Limits for Total Chlorine.

Т	'n	h	1	e

Terrain-adjusted	l Noncomple	x Terrain	Complex Terrain
effective stack	Urban (g/hr)	Rural (g/hr)	(g/hr)
height (m)			
4	8.2E+01	4.2E+01	1.9E+01
6	9.1E+01	4.8E+01	2.8E+01
8	1.0E+02	5.3E+01	4.1E+01
10	1.2E+02	6.2E+01	5.8E+01
12	1.3E+02	7.7E+01	7.2E+01
14	1.5E+02	9.1E+01	9.1E+01
16	1.7E+02	1.2E+02	1.1E+02
18	1.9E+02	1.4E+02	1.2E+02
20	2.1E+02	1.8E+02	1.3E+02
22	2.4E+02	2.3E+02	1.4E+02
24	2.7E+02	2.9E+02	1.6E+02
26	3.1E+02	3.7E+02	1.7E+02
28	3.5E+02	4.7E+02	1.9E+02
30	3.9E+02	5.8E+02	2.1E+02
35	5.3E+02	9.6E+02	2.6E+02
40	6.2E+02	1.4E+03	3.3E+02
45	8.2E+02	2.0E+03	4.0E+02
50	1.1E+03	2.6E+03	4.8E+02
55	1.3E+03	3.5E+03	6.2E+02
60	1.6E+03	4.6E+03	7.7E+02
65	2.0E+03	6.2E+03	9.1E+02
70	2.3E+03	7.2E+03	1.1E+03
75	2.5E+03	8.6E+03	1.2E+03
80	2.9E+03	1.0E+04	1.3E+03
85	3.3E+03	1.2E+04	1.4E+03
90	3.7E+03	1.4E+04	1.6E+03
95	4.2E+03	1.7E+04	1.8E+03
100	4.8E+03	2.1E+04	2.0E+03
105	5.3E+03	2.4E+04	2.3E+03
110	6.2E+03	2.9E+04	2.5E+03
115	7.2E+03	3.5E+04	2.8E+03
120	8.2E+03	4.1E+04	3.2E+03

R315-266-[205]602. Appendix III to Rule R315-266 -- Tier II Emission Rate Screening Limits for Free Chlorine and Hydrogen Chloride.

R315-266-[206]603. Appendix IV to Rule R315-266 -- Reference Air Concentrations*.

Table

Constituent	CAS No.	RAC (ug/m³)
Acetaldehyde	75-07-0	10
Acetonitrile	75-05-8	10
Acetophenone	98-86-2	100
Acrolein	107-02-8	20
Aldicarb	116-06-3	1
Aluminum Phosphide	20859-73-8	0.3

Allyl Alcohol	107-18-6	5
Antimony	7440-36-0	0.3
Barium	7440-39-3	50
Barium Cyanide	542-62-1	50
Bromomethane	74-83-9	0.8
Calcium Cyanide	592-01-8	30
Carbon Disulfide	75-15-0	200
Chloral	75-87-6	2
Chlorine (free)		0.4
2-Chloro-1,3-butadiene	126-99-8	3
Chromium III	16065-83-1	1000
Copper Cyanide	544-92-3	5
Cresols	1319-77-3	50
Cumene	98-82-8	1
Cyanide (free)	57-12-15	20
	460-19-5	30
Cyanogen		
Cyanogen Bromide	506-68-3	80
Di-n-butyl Phthalate	84-74-2	100
o-Dichlorobenzene	95-50-1	10
p-Dichlorobenzene	106-46-7	10
Dichlorodifluoromethane	75-71-8	200
2,4-Dichlorophenol	120-83-2	3
Diethyl Phthalate	84-66-2	800
Dimethoate	60-51-5	0.8
2,4-Dinitrophenol	51-28-5	2
Dinoseb	88-85-7	0.9
Diphenylamine	122-39-4	20
Endosul fan	115-29-1	0.05
Endrin	72-20-8	0.3
Fluorine	7782-41-4	50
Formic Acid	64-18-6	2000
Glycidyaldehyde	765-34-4	0.3
Hexachlorocyclopentadiene	77-47-4	5
Hexachlorophene	70-30-4	0.3
Hydrocyanic Acid	74-90-8	20
Hydrogen Chloride	7647-01-1	7
Hydrogen Sulfide	7783-06-4	3
Isobutyl Alcohol	78-83-1	300
•		
Lead	7439-92-1	0.09
Maleic Anhydride	108-31-6	100
Mercury	7439-97-6	0.3
Methacrylonitrile	126-98-7	0.1
Methomyl	16752-77-5	20
Methoxychlor	72-43-5	50
Methyl Chlorocarbonate	79-22-1	1000
Methyl Ethyl Ketone	78-93-3	80
Methyl Parathion	298-00-0	0.3
Nickel Cyanide	557-19-7	20
Nitric Oxide	10102-43-9	100
Nitrobenzene	98-95-3	0.8
		0.8
Pentachlorobenzene	608-93-5	
Pentachlorophenol	87-86-5	30
Pheno1	108-95-2	30
M-Phenylenediamine	108-45-2	5
Phenylmercuric Acetate	62-38-4	0.075
Phosphine	7803-51-2	0.3
Phthalic Anhydride	85-44-9	2000
Potassium Cyanide	151-50-8	50
Potassium Silver Cyanide	506-61-6	200
Pyridine	110-86-1	1
Selenious Acid	7783-60-8	3
Selenourea	630-10-4	5
Silver	7440-22-4	3
Silver Cyanide	506-64-9	100
Sodium Cyanide	143-33-9	30
Strychnine	57-24-9	0.3
1,2,4,5-Tetrachlorobenzene	95-94-3	0.3
2,3,4,6-Tetrachlorophenol	58-90-2	30
Tetraethyl Lead	78-00-2	0.0001
Tetrahydrofuran	109-99-9	10
Thallic Oxide	1314-32-5	0.3
Thallium	7440-28-0	0.5
Thallium (I) Acetate	563-68-8	0.5
Thallium (I) Carbonate	6533-73-9	0.3
Thallium (I) Chloride	7791-12-0	0.3
Thallium (I) Nitrate	10102-45-1	0.5
Thallium Selenite	12039-52-0	0.5
Thallium (I) Sulfate	7446-18-6	0.075
a.riam (1) Surruce	, 110-10-0	3.073

Thiram	137-26-8	5
Toluene	108-88-3	300
1,2,4-Trichlorobenzene	120-82-1	20
Trichloromonofluoromethane	75-69-4	300
2,4,5-Trichlorophenol	95-95-4	100
Vanadium Pentoxide	1314-62-1	20
Warfarin	81-81-2	0.3
Xylenes	1330-20-7	80
Zinc Cyanide	557-21-1	50
7inc Phosphide	1314-84-7	0.3

^{*}The RAC for other appendix VIII Rule R315-261 constituents not listed herein or in appendix V of Rule R315-266 is 0.1 $\rm ug/m^3$.

R315-266-[207] $\underline{604}$. Appendix V to Rule R315-266 -- Risk Specific Doses.

Constituent			Table	
Acrylonitrile 107-13-1 6.8E[i]=05 1.5E[i]=01 Aldrin 309-00-2 4.9E[i]=03 2.0E[i]=03 Aniline 62-53-3 7.4E[i]=06 1.4E+00 Arsenic 7440-38-2 4.3E[i]=03 2.3E[i]=03 Benz(a) anthracene 56-55-3 8.9E[i]=04 1.1E[i]=02 Benzene 71-43-2 8.3E[i]=06 1.2E+00 Benzidine 92-87-5 6.7E[i]=02 1.5E[i]=04 Benzo(a) pyrene 50-32-8 3.3E[i]=06 3.0E[i]=03 Beryllium 7440-41-7 2.4E[i]=03 4.2E[i]=03 Bis(2-chloroethyl) 111-44-4 3.3E[i]=04 3.0E[i]=03 Bis(2-chloroethyl) 117-81-7 2.4E[i]=04 3.0E[i]=04 ether Bis(chloromethyl)ether 542-88-1 6.2E[i]=04 3.0E[i]=04 ether Bis(2-ethylhexyl) 17-81-7 2.4E[i]=07 4.2E+01 -phthalate 1,3-Butadiene 106-99-0 2.8E[i]=04 3.6E[i]=04 Cadmium 7440-43-9 1.8E[i]=03 5.6E[i]=06 Chloroform 67-66-3 2.3E[i]=05 6.7E[i]=01 Chloroform 67-66-3 2.3E[i]=05 6.7E[i]=01 Chloromethane 74-04-3 3.6E[i]=06 2.8E+00 Chromium VI 7440-47-3 1.2E[i]=02 8.3E[i]=01 Chloromethane 74-047-3 1.2E[i]=02 8.3E[i]=01 Dibenz(a,h) anthracene 13-70-3 1.4E[i]=02 8.3E[i]=04 DIDENC(a,h) anthracene 106-93-4 2.2E[i]=03 1.6E[i]=03 -chloropropane 1,2-Dibromoethane 106-93-4 2.2E[i]=05 3.8E[i]=01 1,2-Dichloroethane 75-34-3 2.6E[i]=05 3.8E[i]=01 1,2-Dichloroethane 107-06-2 2.6E[i]=05 3.8E[i]=01 1,3-Dichloropropene 542-75-6 3.5E[i]=05 2.0E[i]=01 1,3-Dichloropropene 542-75-6 3.5E[i]=01 2.9E[i]=05 Dimethylnitrosamine 60-57-1 4.6E[i]=03 2.2E[i]=01 1,2-Diphenylhydrazine 122-66-7 2.2E[i]=04 4.5E[i]=01 1,2-Diphenylhydrazine 122-66-7 2.2E[i]=04 4.5E[i]=01 1,2-Diphenylhydrazine 122-66-7 2.2E[i]=04 4.5E[i]=01 1,4-Dioxane 123-91-1 1.4E[i]=04 1.0E[i]=01 Ethylene Dibromide 106-93-4 2.2E[i]=04 4.5E[i]=05 1.0E[i]=01 Heptachlor Fpoxide 1024-57-3 2.6E[i]=03 3.8E[i]=01 1.4E[i]=04 4.5E[i]=04 4.5E[i]=04 4.5E[i]=04 4.5E[i]=05 5.0E[i]=01 4.6E[i]=04 4.5E[i]=01 4.6E[i]=01 4.6	Constituent	CAS No.		
Aniline	Acrylonitrile	107-13-1	6.8E[!] <u>-</u> 05	1.5E[!] <u>-</u> 01
Arsenic 7440-38-2 4.3E[4]=03 2.3E[4]=03 Benz(a) anthracene 56-55-3 8.9E[4]=04 1.1E[4]=02 Benzene 71-43-2 8.3E[4]=06 1.2E+00 Benzidine 92-87-5 6.7E[4]=02 1.5E[4]=04 Benzo(a) pyrene 50-32-8 3.3E[4]=03 3.0E[4]=03 Beryllium 7440-41-7 2.4E[4]=03 4.2E[4]=03 Bis (2-chloroethyl) 111-44-4 3.3E[4]=04 3.0E[4]=02 Eis (chloromethyl) ether 542-88-1 6.2E[4]=03 4.2E[4]=03 Bis (2-ethylhexyl) 117-81-7 2.4E[4]=07 4.2E+01 -phthalate 1,3-Butadiene 106-99-0 2.8E[4]=04 3.6E[4]=02 Cadmium 7440-43-9 1.8E[4]=03 5.6E[4]=02 Cadmium 67-40-3-9 1.8E[4]=03 5.6E[4]=02 Chloroform 67-66-3 2.3E[4]=05 6.7E[4]=01 Chloromethane 74-87-3 3.6E[4]=05 6.7E[4]=01 Chloromethane 74-87-3 3.6E[4]=06 2.8E+00 Chromium VI 7440-47-3 1.2E[4]=02 8.3E[4]=04 DDT 50-29-3 9.7E[4]=05 1.0E[4]=01 1,2-Dibromo-3 96-12-8 6.3E[4]=03 1.6E[4]=03 -chloropropane 1,2-Dibromoethane 106-93-4 2.2E[4]=04 4.5E[4]=03 1,1-Dichloroethane 107-06-2 2.6E[4]=05 3.8E[4]=01 1,2-Diphylstilbestrol 56-53-1 1.4E[4]=02 2.0E[4]=05 3.8E[4]=01 1,2-Diphenylhydrazine 12-66-7 2.2E[4]=04 4.5E[4]=02 2,4-Dinitrotoluene 121-14-2 8.8E[4]=05 1.1E[4]=01 1,2-Diphenylhydrazine 12-66-7 2.2E[4]=04 4.5E[4]=02 Ethylene 0xide 75-21-8 1.0E[4]=06 7.1E[4]=07 Ethylene 0xide 75-21-8 1.0E[4]=00 7.1E[4]=01 Ethylene Dibromide 106-93-4 2.2E[4]=04 4.5E[4]=02 Formaldehyde 50-00-0 1.3E[4]=05 7.7E[4]=01 Heptachlor 76-44-8 1.3E[4]=00 7.7E[4]=01 Heptachlor 50-00-0 1.3E[4]=03 7.7E[4]=01 Heptachlor 60-68-3 2.0E[4]=03 3.8E[4]=01 Alpha-hexachloro 319-84-6 1.8E[4]=03 5.6E[4]=03 -cyclohexane Beta-hexachloro 319-84-6 1.8E[4]=03 5.6E[4]=02				
Benz (a) anthracene 56-55-3 8.9 E [] _ 04 1.1 E [] _ 02 Benzene 71-43-2 8.3 E [] _ 06 1.2 E + 00 Benzidine 92-87-5 6.7 E [] _ 02 1.5 E [] _ 04 Benzo(a) pyrene 50-32-8 3.3 E [] _ 03 3.0 E [] _ 03 Beryl lium 7440-41-7 2.4 E [] _ 03 4.2 E [] _ 02 Bis (2-chloroethyl) 111-44-4 3.3 E [] _ 04 3.0 E [] _ 04 Bis (2-ethylhexyl) 117-81-7 2.4 E [] _ 02 1.6 E [] _ 04 Bis (2-ethylhexyl) 117-81-7 2.4 E [] _ 02 4.2 E + 01 -phthalate 1,3-Butadiene 106-99-0 2.8 E [] _ 04 3.6 E [] _ 04 2-dmium 7440-43-9 1.8 E [] _ 03 5.6 E [] _ 03 Carbon Tetrachloride 56-23-5 1.5 E [] _ 05 6.7 E [] _ 02 Chlordane 57-74-9 3.7 E [] _ 05 6.7 E [] _ 01 Chloroform 67-66-3 2.3 E [] _ 05 4.3 E [] _ 01 Chloroform 740-63-3 1.5 E [] _ 05 4.3 E [] _ 01 DDT 7440-47-3 <t< td=""><td></td><td></td><td></td><td></td></t<>				
Benzene 71-43-2 8.3E[4]=06 1.2E+00 Benzidine 92-87-5 6.7E[4]=02 1.5E[4]=04 Benzo(a) pyrene 50-32-8 3.3E[4]=03 3.0E[4]=03 Beryllium 7440-41-7 2.4E[4]=03 4.2E[4]=03 Bis (2-chloroethyl) 111-44-4 3.3E[4]=04 3.0E[4]=02 ether Bis (chloromethyl) ether 542-88-1 6.2E[4]=02 1.6E[4]=04 Bis (2-ethylhexyl) 117-81-7 2.4E[4]=07 4.2E+01 -phthalate 1,3-Butadiene 106-99-0 2.8E[4]=04 3.6E[4]=02 Cadmium 7440-43-9 1.8E[4]=03 5.6E[4]=03 Carbon Tetrachloride 56-23-5 1.5E[4]=04 2.7E[4]=01 Chlordane 57-74-9 3.7E[4]=04 2.7E[4]=02 Chlordane 75-74-9 3.7E[4]=05 6.7E[4]=01 Chloroform 67-66-3 2.3E[4]=04 2.8E[4]=02 Chloromethane 74-87-3 3.6E[4]=05 4.3E[4]=01 Dibenz(a,h)anthracene 53-70-3 1.4E[4]=02 7.1E[4]=04 <				
Benzidine 92-87-5 6.7E[4]-02 1.5E[4]-04 Berzo(a)pyrene 50-32-8 3.3E[4]-03 3.0E[4]-03 Beryllium 7440-41-7 2.4E[4]-03 4.2E[4]-03 Bis(2-chloroethyl) 111-44-4 3.3E[4]-04 4.2E[4]-02 ether 8is(chloromethyl)ether 542-88-1 6.2E[4]-02 1.6E[4]-04 Bis(2-ethylhexyl) 117-81-7 2.4E[4]-07 4.2E+01 -phthal ate 1.3-Butadiene 106-99-0 2.8E[4]-04 3.6E[4]-02 Cadmium 7440-43-9 1.8E[4]-03 5.6E[4]-03 Carbon Tetrachloride 56-23-5 1.5E[4]-05 6.7E[4]-01 Chloroform 67-66-3 2.3E[4]-05 4.3E[4]-01 Chloroform 67-66-3 2.3E[4]-05 4.3E[4]-01 Chloromethane 74-87-3 3.6E[4]-05 4.3E[4]-01 DDT 7440-47-3 1.2E[4]-02 8.3E[4]-01 1,2-Dibromo-3 9.7E[4]-05 1.0E[4]-01 1,2-Dibromoethane 106-93-4 2.2E[4]-04 4.5E[4]-02 1,1-Dichloroethane	` '			
Benzo(a)pyrene 50-32-8 3.3E[±]_03 3.0E[±]_03 Beryllium 7440-41-7 2.4E[±]_03 4.2E[±]_03 Bis (2-chloroethyl) 111-44-4 3.3E[±]_04 3.0E[±]_02 ether Bis (chloromethyl) ether 542-88-1 6.2E[±]_02 1.6E[±]_04 Bis (2-ethylhexyl) 117-81-7 2.4E[±]_07 4.2E+01 -phthalate 1,3-Butadiene 106-99-0 2.8E[±]_04 3.6E[±]_02 Cadmium 7440-43-9 1.8E[±]_03 5.6E[±]_03 Carbon Tetrachloride 56-23-5 1.5E[±]_05 6.7E[±]_01 Chlorofane 57-74-9 3.7E[±]_05 4.3E[±]_02 Chloroform 67-66-3 2.3E[±]_06 2.8E+00 Chromium VI 7440-47-3 1.2E[±]_02 8.3E[±]_04 DDT 50-29-3 9.7E[±]_05 1.0E[±]_01 1,2-Dibromo-3 96-12-8 6.3E[±]_05 1.6E[±]_09 1,2-Dibromoethane 106-93-4 2.2E[±]_04 4.5E[±]_00 1,1-Dichloroethane 75-34-3 2.6E[±]_05 3.8E[±]_01				
Beryllium 7440-41-7 2.4E[!]_03 4.2E[!]_03 Bis (2-chloroethyl) 111-44-4 3.3E[!]_04 3.0E[!]_02 ether Bis (chloromethyl) ether 542-88-1 6.2E[!]_02 1.6E[!]_04 Bis (2-ethylhexyl) 117-81-7 2.4E[!]_07 4.2E+01 -phthal ate 1,3-Butadiene 106-99-0 2.8E[!]_04 3.6E[!]_02 Cadmium 7440-43-9 1.8E[!]_03 5.6E[!]_03 Carbon Tetrachloride 56-23-5 1.5E[!]_05 6.7E[!]_01 Chlordane 57-74-9 3.7E[!]_05 6.7E[!]_01 Chloroform 67-66-3 2.3E[!]_05 4.3E[!]_01 Chloroform 67-66-3 2.3E[!]_05 4.3E[!]_01 Chloromethane 74-87-3 3.6E[!]_05 4.3E[!]_01 DDT 740-47-3 1.2E[!]_02 8.3E[!]_01 1,2-Dibromo-3 9.7E[!]_05 1.0E[!]_01 1,2-Dibromoethane 106-93-4 2.2E[!]_04 4.5E[!]_02 1,2-Dichloroethane 75-34-3 2.6E[!]_05 3.8E[!]_01 1,2-Dihoroochane				
Bis(2-chloroethyl) 111-44-4 3.3E[4]_04 3.0E[4]_02 ether Bis(chloromethyl)ether 542-88-1 6.2E[4]_02 1.6E[4]_04 Bis(2-ethylhexyl) 117-81-7 2.4E[4]_07 4.2E+01 -phthalate 1,3-Butadiene 106-99-0 2.8E[4]_04 3.6E[4]_02 Cadmium 7440-43-9 1.8E[4]_03 5.6E[4]_03 Carbon Tetrachloride 56-23-5 1.5E[4]_04 2.7E[4]_02 Chlordane 57-74-9 3.7E[4]_04 2.7E[4]_02 Chloroform 67-66-3 2.3E[4]_05 4.3E[4]_01 Chromium VI 7440-47-3 1.2E[4]_02 8.3E[4]_01 DDT 50-29-3 9.7E[4]_05 1.0E[4]_01 Dibenz(a,h)anthracene 53-70-3 1.4E[4]_02 7.1E[4]_04 1,2-Dibromo-3 96-12-8 6.3E[4]_03 1.6E[4]_03 -chloropropane 1,2-Dibromoethane 106-93-4 2.2E[4]_04 4.5E[4]_02 1,1-Dichloroethane 75-34-3 2.6E[4]_05 3.8E[4]_01 1,2-Dibromoethane 107-06-2 2.6E[4]_05				
### Bis(chloromethyl)ether 542-88-1	•			
Bis(2-ethylhexyl)	ether		-	<u>-</u>
-phthalate 1,3-Butadiene 106-99-0 2.8E[!]_04 3.6E[!]_02 Cadmium 7440-43-9 1.8E[!]_03 5.6E[!]_03 5.6E[!]_03 Carbon Tetrachloride 56-23-5 1.5E[!]_05 6.7E[!]_01 Chlordane 57-74-9 3.7E[!]_04 2.7E[!]_02 Chloroform 67-66-3 2.3E[!]_05 4.3E[!]_01 Chloromethane 74-87-3 3.6E[!]_05 6.7E[!]_01 Chloromethane 74-87-3 3.6E[!]_05 6.7E[!]_02 Chloroform 67-66-3 2.3E[!]_05 4.3E[!]_01 Chloromethane 74-87-3 3.6E[!]_06 2.8E+00 Chromium VI 7440-47-3 1.2E[!]_02 8.3E[!]_04 DDT 50-29-3 9.7E[!]_05 1.0E[!]_01 Dibenz(a,h)anthracene 53-70-3 1.4E[!]_02 7.1E[!]_04 1,2-Dibromo-3 -chloropropane 1,2-Dibromoethane 106-93-4 2.2E[!]_04 4.5E[!]_03 -chloropropane 1,2-Dichloroethane 107-06-2 2.6E[!]_05 3.8E[!]_01 1,2-Dichloroethane 107-06-2 2.6E[!]_05 3.8E[!]_01 1,3-Dichloropropene 542-75-6 3.5E[!]_01 2.9E[!]_05 Dimethylnitrosamine 60-57-1 4.6E[!]_03 2.2E[!]_03 Diethylstilbestrol 56-53-1 1.4E[!]_01 7.1E[!]_05 Dimethylnitrosamine 62-75-9 1.4E[!]_02 7.1E[!]_04 2,4-Dinitrotoluene 121-14-2 8.8E[!]_05 1.1E[!]_01 1,2-Diphenylhydrazine 122-66-7 2.2E[!]_04 4.5E[!]_02 1,4-Dioxane 123-91-1 1.4E[!]_06 7.1E[!]_01 Ethylene Oxide 75-21-8 1.0E[!]_04 4.5E[!]_02 Formaldehyde 50-00-0 1.3E[!]_04 4.5E[!]_02 Formaldehyde 50-00-0 1.3E[!]_05 5.0E[!]_01 Heptachlor 76-44-8 1.3E[!]_03 7.7E[!]_01 Heptachlor Epoxide 1024-57-3 2.6E[!]_04 4.5E[!]_02 7.7E[!]_01 Hexachlorobutadiene 87-68-3 2.0E[!]_05 5.0E[!]_01 Alpha-hexachloro -cyclohexane Beta-hexachloro 319-85-7 5.3E[!]_04 2.6E[!]_02 2.6E[!]_02				
Cadmium 7440-43-9 1.8E[⅓]=03 5.6E[⅓]=03 Carbon Tetrachloride 56-23-5 1.5E[⅓]=05 6.7E[⅙]=01 Chlordane 57-74-9 3.7E[⅓]=04 2.7E[⅙]=02 Chloroform 67-66-3 2.3E[⅙]=05 4.3E[⅙]=01 Chloromethane 74-87-3 3.6E[⅙]=06 2.8E+00 Chromium VI 7440-47-3 1.2E[⅙]=02 8.3E[⅙]=04 DDT 50-29-3 9.7E[⅙]=05 1.0E[⅙]=01 Dibenz(a,h)anthracene 53-70-3 1.4E[⅙]=02 7.1E[⅙]=01 1,2-Dibromo-3 96-12-8 6.3E[⅙]=03 1.6E[⅙]=01 1,2-Dibromoethane 106-93-4 2.2E[⅙]=04 4.5E[⅙]=03 1,2-Dibromoethane 75-34-3 2.6E[⅙]=05 3.8E[⅙]=01 1,2-Dichloroethane 107-06-2 2.6E[⅙]=05 3.8E[⅙]=01 1,3-Dichloropthylene 75-35-4 5.0E[⅙]=05 3.8E[⅙]=01 1,3-Dichloropthylene 542-75-6 3.5E[⅙]=05 2.2E[⅙]=05 Dimethylstilbestrol 56-53-1 1.4E[⅙]=02 7.1E[⅙]=05 Dieldrin 60-57		117-81-7	2.4E[!] <u>-</u> 07	4.2E+01
Carbon Tetrachloride 56-23-5 1.5E[1]_05 6.7E[1]_01 Chlordane 57-74-9 3.7E[1]_04 2.7E[1]_02 Chloroform 67-66-3 2.3E[1]_05 4.3E[1]_01 Chloromethane 74-87-3 3.6E[1]_06 2.8E+00 Chromium VI 7440-47-3 1.2E[1]_02 8.3E[1]_04 DDT 50-29-3 9.7E[1]_05 1.0E[1]_01 Dibenz(a,h)anthracene 53-70-3 1.4E[1]_02 7.1E[1]_04 1,2-Dibromo-3 96-12-8 6.3E[1]_03 1.6E[1]_01 1,2-Dibromoethane 106-93-4 2.2E[1]_04 4.5E[1]_02 1,1-Dichloroethane 75-34-3 2.6E[1]_05 3.8E[1]_01 1,2-Dibromoethane 107-06-2 2.6E[1]_05 3.8E[1]_01 1,3-Dichloroethylene 75-35-4 5.0E[1]_05 2.0E[1]_01 1,3-Dichloropropene 542-75-6 3.5E[1]_01 2.9E[1]_05 Dieldrin 60-57-1 4.6E[1]_03 2.2E[1]_05 Dimethylstilbestrol 56-53-1 1.4E[1]_01 7.1E[1]_05 1,4-Dioxane 122-	1,3-Butadiene	106-99-0	2.8E[!] <u>-</u> 04	3.6E[4] <u>-</u> 02
Chlordane 57-74-9 3.7E[\cdot] = 04 2.7E[\cdot] = 02 Chloroform 67-66-3 2.3E[\cdot] = 05 4.3E[\cdot] = 01 Chloromethane 74-87-3 3.6E[\cdot] = 06 2.8E+00 Chromium VI 7440-47-3 1.2E[\cdot] = 02 8.3E[\cdot] = 04 DDT 50-29-3 9.7E[\cdot] = 05 1.0E[\cdot] = 01 Dibenz(a,h) anthracene 53-70-3 1.4E[\cdot] = 02 7.1E[\cdot] = 04 1,2-Dibromo-3 96-12-8 6.3E[\cdot] = 03 7.1E[\cdot] = 04 -chloropropane 1 1.2-Dibromoethane 106-93-4 2.2E[\cdot] = 04 4.5E[\cdot] = 03 1,2-Dibromoethane 107-06-2 2.6E[\cdot] = 05 3.8E[\cdot] = 01 3.8E[\cdot] = 01 1,1-Dichloroethane 75-34-3 2.6E[\cdot] = 05 3.8E[\cdot] = 01 3.8E[\cdot] = 01 1,2-Dichloroethane 107-06-2 2.6E[\cdot] = 05 3.8E[\cdot] = 01 3.8E[\cdot] = 01 1,3-Dichloropropene 542-75-6 3.5E[\cdot] = 05 2.0E[\cdot] = 01 1,3-Dichloropropene 542-75-6 3.5E[\cdot] = 03 2.2E[\cdot] = 03 </td <td>Cadmium</td> <td>7440-43-9</td> <td>1.8E[!]<u>-</u>03</td> <td>5.6E[!]<u>-</u>03</td>	Cadmium	7440-43-9	1.8E[!] <u>-</u> 03	5.6E[!] <u>-</u> 03
Chloroform 67-66-3 2.3E[1]_05 4.3E[1]_01 Chloromethane 74-87-3 3.6E[1]_06 2.8E+00 Chromium VI 7440-47-3 1.2E[1]_02 8.3E[1]_04 DDT 50-29-3 9.7E[1]_05 1.0E[1]_01 Dibenz(a,h)anthracene 53-70-3 1.4E[1]_02 7.1E[1]_04 1,2-Dibromo-3 96-12-8 6.3E[1]_03 1.6E[1]_03 -chloropropane 1,2-Dibromoethane 106-93-4 2.2E[1]_04 4.5E[1]_02 1,1-Dichloroethane 75-34-3 2.6E[1]_05 3.8E[1]_01 1,2-Dichloroethane 107-06-2 2.6E[1]_05 3.8E[1]_01 1,2-Dichloroethylene 75-35-4 5.0E[1]_05 2.0E[1]_01 1,3-Dichloropropene 542-75-6 3.5E[1]_01 2.9E[1]_05 Dieldrin 60-57-1 4.6E[1]_03 2.2E[1]_03 Diethylstilbestrol 56-53-1 1.4E[1]_01 7.1E[1]_05 Dimethylnitrosamine 62-75-9 1.4E[1]_01 7.1E[1]_05 Dimethylnitrosamine 121-14-2 8.8E[1]_05 1.1E[1]_01 1,2-Diphenylhydrazine 122-66-7 2.2E[1]_04 4.5E[1]_02 1,4-Dioxane 123-91-1 1.4E[1]_06 7.1E+00 Epichlorohydrin 106-89-8 1.2E[1]_06 8.3E+00 Ethylene Oxide 75-21-8 1.0E[1]_04 4.5E[1]_02 Ethylene Dibromide 106-93-4 2.2E[1]_04 4.5E[1]_02 Heptachlor 76-44-8 1.3E[1]_05 7.7E[1]_01 Heptachlor Epoxide 1024-57-3 2.6E[1]_03 3.8E[1]_03 Hexachlorobenzene 118-74-1 4.9E[1]_05 5.0E[1]_01 Alpha-hexachloro 319-84-6 1.8E[1]_03 5.6E[1]_03 -cyclohexane Baama-hexachloro 58-89-9 3.8E[1]_04 2.6E[1]_02	Carbon Tetrachloride	56-23-5	1.5E[!] <u>-</u> 05	6.7E[!] <u>-</u> 01
Chloromethane 74-87-3 3.6E[!]_06 2.8E+00 Chromium VI 7440-47-3 1.2E[!]_02 8.3E[!]_04 DDT 50-29-3 9.7E[!]_05 1.0E[!]_01 Dibenz(a,h)anthracene 53-70-3 1.4E[!]_02 7.1E[!]_04 1,2-Dibromo-3 96-12-8 6.3E[!]_03 1.6E[!]_03 -chloropropane 1 1.2-Dibromoethane 106-93-4 2.2E[!]_04 4.5E[!]_02 1,1-Dichloroethane 75-34-3 2.6E[!]_05 3.8E[!]_01 3.8E[!]_01 1,2-Dichloroethane 107-06-2 2.6E[!]_05 3.8E[!]_01 3.8E[!]_01 1,1-Dichloroethylene 75-35-4 5.0E[!]_05 2.0E[!]_05 3.8E[!]_01 1,3-Dichloropropene 542-75-6 3.5E[!]_01 2.9E[!]_05 2.2E[!]_05 Dieldrin 60-57-1 4.6E[!]_03 2.2E[!]_05 2.2E[!]_05 Dimethylstilbestrol 56-53-1 1.4E[!]_01 7.1E[!]_05 2.4-Dinitrotoluene 121-14-2 8.8E[!]_05 1.1E[!]_04 4.5E[!]_04 4.5E[!]_04 4.5E[!]_04 4.5E[!]_00 1.4-Dioxane	Chlordane	57-74-9	3.7E[!] <u>-</u> 04	2.7E[!] <u>-</u> 02
Chromium VI	Chloroform	67-66-3	2.3E[!] <u>-</u> 05	4.3E[!] <u>-</u> 01
DDT 50-29-3 9.7E[\cdot \cdot \				2.8E+00
Dibenz (a,h) anthracene 53-70-3 1.4E[½] = 02 7.1E[½] = 04 1,2-Dibromo-3 96-12-8 6.3E[½] = 03 1.6E[½] = 03 -chloropropane 1.2-Dibromoethane 106-93-4 2.2E[½] = 04 4.5E[½] = 02 1,1-Dichloroethane 75-34-3 2.6E[½] = 05 3.8E[½] = 01 1,2-Dichloroethane 107-06-2 2.6E[½] = 05 3.8E[½] = 01 1,1-Dichloroethylene 75-35-4 5.0E[½] = 05 2.0E[½] = 01 1,3-Dichloropropene 542-75-6 3.5E[½] = 01 2.9E[½] = 05 Dieddrin 60-57-1 4.6E[½] = 03 2.2E[½] = 05 Diethylstilbestrol 56-53-1 1.4E[½] = 01 7.1E[½] = 05 Dimethylnitrosamine 62-75-9 1.4E[½] = 02 7.1E[½] = 04 2,4-Dinitrotoluene 121-14-2 8.8E[½] = 05 1.1E[½] = 01 1,2-Diphenylhydrazine 122-66-7 2.2E[½] = 04 4.5E[½] = 02 1,4-Dioxane 123-91-1 1.4E[½] = 06 7.1E+00 Epichlorohydrin 106-89-8 1.2E[½] = 06 8.3E+00 Ethylene Oxide 75-21-8				
1,2-Dibromo-3	==:			
-chloropropane 1,2-Dibromoethane 106-93-4 2.2E[!]_04 4.5E[!]_02 1,1-Dichloroethane 75-34-3 2.6E[!]_05 3.8E[!]_01 1,2-Dichloroethane 107-06-2 2.6E[!]_05 3.8E[!]_01 1,1-Dichloroethylene 75-35-4 5.0E[!]_05 2.0E[!]_01 1,3-Dichloropropene 542-75-6 3.5E[!]_01 2.9E[!]_05 Dieldrin 60-57-1 4.6E[!]_03 2.2E[!]_03 Diethylstilbestrol 56-53-1 1.4E[!]_01 7.1E[!]_05 Dimethylnitrosamine 62-75-9 1.4E[!]_02 7.1E[!]_04 2,4-Dinitrotoluene 121-14-2 8.8E[!]_05 1.1E[!]_01 1,2-Diphenylhydrazine 122-66-7 2.2E[!]_04 4.5E[!]_02 1,4-Dioxane 123-91-1 1.4E[!]_06 7.1E+00 Epichlorohydrin 106-89-8 1.2E[!]_06 8.3E+00 Ethylene Oxide 75-21-8 1.0E[!]_04 4.5E[!]_01 Ethylene Dibromide 106-93-4 2.2E[!]_04 4.5E[!]_02 Formaldehyde 50-00-0 1.3E[!]_04 4.5E[!]_02 Formaldehyde 50-00-0 1.3E[!]_05 7.7E[!]_01 Heptachlor 76-44-8 1.3E[!]_05 7.7E[!]_03 Heptachlor Epoxide 1024-57-3 2.6E[!]_03 3.8E[!]_03 Hexachlorobenzene 118-74-1 4.9E[!]_05 5.0E[!]_01 Alpha-hexachloro 319-84-6 1.8E[!]_05 5.0E[!]_01 Alpha-hexachloro 319-84-6 1.8E[!]_03 5.6E[!]_03 -cyclohexane Beta-hexachloro 58-89-9 3.8E[!]_04 2.6E[!]_02				
1,1-Dichloroethane 75-34-3 2.6E[½]_05 3.8E[½]_01 1,2-Dichloroethane 107-06-2 2.6E[½]_05 3.8E[½]_01 1,1-Dichloroethylene 75-35-4 5.0E[½]_05 2.0E[½]_01 1,3-Dichloropropene 542-75-6 3.5E[½]_01 2.9E[½]_05 Dieldrin 60-57-1 4.6E[½]_03 2.2E[½]_03 Diethylstilbestrol 56-53-1 1.4E[½]_01 7.1E[½]_05 Dimethylnitrosamine 62-75-9 1.4E[½]_02 7.1E[½]_05 2,4-Dinitrotoluene 121-14-2 8.8E[½]_05 1.1E[½]_01 1,2-Diphenylhydrazine 122-66-7 2.2E[½]_04 4.5E[½]_02 1,4-Dioxane 123-91-1 1.4E[½]_06 7.1E+00 Epichlorohydrin 106-89-8 1.2E[½]_06 8.3E+00 Ethylene Oxide 75-21-8 1.0E[½]_04 4.5E[½]_02 Eromaldehyde 50-00-0 1.3E[½]_04 4.5E[½]_02 Formaldehyde 50-00-0 1.3E[½]_05 7.7E[½]_01 Heptachlor 76-44-8 1.3E[½]_05 7.7E[½]_01 Heptachlor Epoxide </td <td></td> <td>96-12-8</td> <td>6.3E[‡]<u>-</u>03</td> <td>1.6E[!]<u>-</u>03</td>		96-12-8	6.3E[‡] <u>-</u> 03	1.6E[!] <u>-</u> 03
1,2-Dichloroethane 107-06-2 2.6E[⅓]_05 3.8E[⅓]_01 1,1-Dichloroethylene 75-35-4 5.0E[⅓]_05 2.0E[⅙]_01 1,3-Dichloropropene 542-75-6 3.5E[⅙]_01 2.9E[⅙]_05 Dieldrin 60-57-1 4.6E[⅙]_03 2.2E[⅙]_03 Diethylstilbestrol 56-53-1 1.4E[⅙]_01 7.1E[⅙]_05 Dimethylnitrosamine 62-75-9 1.4E[⅙]_02 7.1E[⅙]_00 2,4-Dinitrotoluene 121-14-2 8.8E[⅙]_05 1.1E[⅙]_01 1,2-Diphenylhydrazine 122-66-7 2.2E[⅙]_04 4.5E[⅙]_02 1,4-Dioxane 123-91-1 1.4E[⅙]_06 7.1E+00 Epichlorohydrin 106-89-8 1.2E[⅙]_06 8.3E+00 Ethylene Oxide 75-21-8 1.0E[⅙]_04 1.0E[⅙]_01 Ethylene Dibromide 106-93-4 2.2E[⅙]_04 4.5E[⅙]_02 Formaldehyde 50-00-0 1.3E[⅙]_05 7.7E[⅙]_01 Heptachlor 76-44-8 1.3E[⅙]_05 7.7E[⅙]_01 Hexachlorobenzene 118-74-1 4.9E[⅙]_03 3.8E[⅙]_03 Hexachlorobut	1,2-Dibromoethane	106-93-4	2.2E[!] <u>-</u> 04	4.5E[!] <u>-</u> 02
1,1-Dichloroethylene	1,1-Dichloroethane	75-34-3	2.6E[!] <u>-</u> 05	3.8E[!] <u>-</u> 01
1,3-Dichloropropene	1,2-Dichloroethane	107-06-2	2.6E[!] <u>-</u> 05	3.8E[!] <u>-</u> 01
Dieldrin 60-57-1 4.6E[\frac{1}{2}]=03 2.2E[\frac{1}{2}]=03 Diethylstilbestrol 56-53-1 1.4E[\frac{1}{2}]=01 7.1E[\frac{1}{2}]=05 Dimethylnitrosamine 62-75-9 1.4E[\frac{1}{2}]=02 7.1E[\frac{1}{2}]=04 2,4-Dinitrotoluene 121-14-2 8.8E[\frac{1}{2}]=05 1.1E[\frac{1}{2}]=01 1,2-Diphenylhydrazine 122-66-7 2.2E[\frac{1}{2}]=04 4.5E[\frac{1}{2}]=02 1,4-Dioxane 123-91-1 1.4E[\frac{1}{2}]=06 7.1E+00 Epichlorohydrin 106-89-8 1.2E[\frac{1}{2}]=06 8.3E+00 Ethylene Oxide 75-21-8 1.0E[\frac{1}{2}]=04 4.5E[\frac{1}{2}]=01 Ethylene Dibromide 106-93-4 2.2E[\frac{1}{2}]=04 4.5E[\frac{1}{2}]=02 Formaldehyde 50-00-0 1.3E[\frac{1}{2}]=05 7.7E[\frac{1}{2}]=01 Heptachlor 76-44-8 1.3E[\frac{1}{2}]=03 7.7E[\frac{1}{2}]=03 Hexachlorobenzene 118-74-1 4.9E[\frac{1}{2}]=04 2.0E[\frac{1}{2}]=02 Hexachlorobutadiene 87-68-3 2.0E[\frac{1}{2}]=05 5.0E[\frac{1}{2}]=01 Alpha-hexachloro 319-85-7	•			
Diethylstilbestrol 56-53-1 1.4E[4]_01 7.1E[3]_05 Dimethylnitrosamine 62-75-9 1.4E[4]_02 7.1E[4]_04 2,4-Dinitrotoluene 121-14-2 8.8E[4]_05 1.1E[4]_01 1,2-Diphenylhydrazine 122-66-7 2.2E[4]_04 4.5E[4]_02 1,4-Dioxane 123-91-1 1.4E[4]_06 7.1E+00 Epichlorohydrin 106-89-8 1.2E[4]_06 8.3E+00 Ethylene Oxide 75-21-8 1.0E[4]_04 1.0E[4]_01 Ethylene Dibromide 106-93-4 2.2E[4]_04 4.5E[4]_02 Formaldehyde 50-00-0 1.3E[4]_05 7.7E[4]_01 Heptachlor 76-44-8 1.3E[4]_03 7.7E[4]_03 Heptachlor Epoxide 1024-57-3 2.6E[4]_03 3.8E[4]_03 Hexachlorobenzene 118-74-1 4.9E[4]_04 2.0E[4]_02 Hexachlorobutadiene 87-68-3 2.0E[4]_05 5.0E[4]_01 Alpha-hexachloro 319-84-6 1.8E[4]_03 5.6E[4]_03 -cyclohexane 8eta-hexachloro 319-85-7 5.3E[4]_04 1.9E[4]_02				
Dimethylnitrosamine 62-75-9 1.4E[!]_02 7.1E[!]_04 2,4-Dinitrotoluene 121-14-2 8.8E[!]_05 1.1E[!]_01 1,2-Diphenylhydrazine 122-66-7 2.2E[!]_04 4.5E[!]_02 1,4-Dioxane 123-91-1 1.4E[!]_06 7.1E+00 Epichlorohydrin 106-89-8 1.2E[!]_06 8.3E+00 Ethylene Oxide 75-21-8 1.0E[!]_04 1.0E[!]_01 Ethylene Dibromide 106-93-4 2.2E[!]_04 4.5E[!]_02 Formaldehyde 50-00-0 1.3E[!]_05 7.7E[!]_01 Heptachlor 76-44-8 1.3E[!]_03 7.7E[!]_03 Heyachlor Epoxide 1024-57-3 2.6E[!]_03 3.8E[!]_03 Hexachlorobenzene 118-74-1 4.9E[!]_04 2.0E[!]_02 Hexachlorobutadiene 87-68-3 2.0E[!]_05 5.0E[!]_01 Alpha-hexachloro 319-84-6 1.8E[!]_04 1.9E[!]_02 -cyclohexane 8eta-hexachloro 319-85-7 5.3E[!]_04 1.9E[!]_02 Gamma-hexachloro 58-89-9 3.8E[!]_04 2.6E[!]_02 </td <td></td> <td></td> <td></td> <td>_</td>				_
2,4-Dinitrotoluene 121-14-2 8.8E[½]_05 1.1E[½]_01 1,2-Diphenylhydrazine 122-66-7 2.2E[½]_04 4.5E[½]_02 1,4-Dioxane 123-91-1 1.4E[½]_06 7.1E+00 Epichlorohydrin 106-89-8 1.2E[½]_06 8.3E+00 Ethylene Oxide 75-21-8 1.0E[½]_04 1.0E[½]_01 Ethylene Dibromide 106-93-4 2.2E[½]_04 4.5E[½]_02 Formaldehyde 50-00-0 1.3E[½]_05 7.7E[½]_01 Heptachlor 76-44-8 1.3E[½]_03 7.7E[½]_03 Heptachlor Epoxide 1024-57-3 2.6E[½]_03 3.8E[½]_03 Hexachlorobenzene 118-74-1 4.9E[½]_04 2.0E[½]_02 Hexachlorobutadiene 87-68-3 2.0E[½]_05 5.0E[½]_01 Alpha-hexachloro 319-84-6 1.8E[½]_03 5.6E[½]_03 -cyclohexane 8ta-hexachloro 319-85-7 5.3E[½]_04 1.9E[½]_02 Gamma-hexachloro 58-89-9 3.8E[½]_04 2.6E[½]_02				
1,2-Diphenylhydrazine 122-66-7 2.2E[½]_04 4.5E[½]_02 1,4-Dioxane 123-91-1 1.4E[½]_06 7.1E+00 Epichlorohydrin 106-89-8 1.2E[½]_06 8.3E+00 Ethylene Oxide 75-21-8 1.0E[½]_04 1.0E[½]_01 Ethylene Dibromide 106-93-4 2.2E[½]_04 4.5E[½]_02 Formaldehyde 50-00-0 1.3E[½]_05 7.7E[½]_01 Heptachlor 76-44-8 1.3E[½]_03 7.7E[½]_03 Heptachlor Epoxide 1024-57-3 2.6E[½]_03 3.8E[½]_03 Hexachlorobenzene 118-74-1 4.9E[½]_04 2.0E[½]_02 Hexachlorobutadiene 87-68-3 2.0E[½]_05 5.0E[½]_01 Alpha-hexachloro 319-84-6 1.8E[½]_03 5.6E[½]_03 -cyclohexane 8ta-hexachloro 319-85-7 5.3E[½]_04 1.9E[½]_02 Gamma-hexachloro 58-89-9 3.8E[½]_04 2.6E[½]_02	-			
1,4-Dioxane 123-91-1 1.4E[½]_06 7.1E+00 Epichlorohydrin 106-89-8 1.2E[½]_06 8.3E+00 Ethylene Oxide 75-21-8 1.0E[½]_04 1.0E[½]_01 Ethylene Dibromide 106-93-4 2.2E[½]_04 4.5E[½]_02 Formaldehyde 50-00-0 1.3E[½]_05 7.7E[½]_01 Heptachlor 76-44-8 1.3E[½]_03 7.7E[½]_03 Heptachlor Epoxide 1024-57-3 2.6E[½]_03 3.8E[½]_03 Hexachlorobenzene 118-74-1 4.9E[½]_04 2.0E[½]_02 Hexachlorobenzene 87-68-3 2.0E[½]_05 5.0E[½]_01 Alpha-hexachloro 319-84-6 1.8E[½]_03 5.6E[½]_03 -cyclohexane 8eta-hexachloro 319-85-7 5.3E[½]_04 1.9E[½]_02 -cyclohexane 3ma-hexachloro 58-89-9 3.8E[½]_04 2.6E[½]_02	•			
Epichlorohydrin 106-89-8 1.2E[⅓]_06 8.3E+00 Ethylene Oxide 75-21-8 1.0E[⅓]_04 1.0E[⅙]_01 Ethylene Dibromide 106-93-4 2.2E[⅙]_04 4.5E[⅙]_02 Formaldehyde 50-00-0 1.3E[⅙]_05 7.7E[⅙]_01 Heptachlor 76-44-8 1.3E[⅙]_03 7.7E[⅙]_03 Heptachlor Epoxide 1024-57-3 2.6E[⅙]_03 3.8E[⅙]_03 Hexachlorobenzene 118-74-1 4.9E[⅙]_04 2.0E[⅙]_02 Hexachlorobenzene 87-68-3 2.0E[⅙]_05 5.0E[⅙]_01 Alpha-hexachloro 319-84-6 1.8E[⅙]_03 5.6E[⅙]_03 -cyclohexane 8eta-hexachloro 319-85-7 5.3E[⅙]_04 1.9E[⅙]_02 -cyclohexane Gamma-hexachloro 58-89-9 3.8E[⅙]_04 2.6E[⅙]_02			_	_
Ethylene Oxide 75-21-8 1.0E[\frac{1}{2}]=04 1.0E[\frac{1}{2}]=01 Ethylene Dibromide 106-93-4 2.2E[\frac{1}{2}]=04 4.5E[\frac{1}{2}]=02 Formaldehyde 50-00-0 1.3E[\frac{1}{2}]=05 7.7E[\frac{1}{2}]=01 Heptachlor 76-44-8 1.3E[\frac{1}{2}]=03 7.7E[\frac{1}{2}]=03 Heptachlor Epoxide 1024-57-3 2.6E[\frac{1}{2}]=03 3.8E[\frac{1}{2}]=03 Hexachlorobenzene 118-74-1 4.9E[\frac{1}{2}]=04 2.0E[\frac{1}{2}]=02 Hexachlorobenzene 87-68-3 2.0E[\frac{1}{2}]=05 5.0E[\frac{1}{2}]=01 Alpha-hexachloro 319-84-6 1.8E[\frac{1}{2}]=03 5.6E[\frac{1}{2}]=03 -cyclohexane 8eta-hexachloro 319-85-7 5.3E[\frac{1}{2}]=04 1.9E[\frac{1}{2}]=02 -cyclohexane Gamma-hexachloro 58-89-9 3.8E[\frac{1}{2}]=04 2.6E[\frac{1}{2}]=02				
Ethylene Dibromide 106-93-4 2.2E[½]_04 4.5E[½]_02 Formaldehyde 50-00-0 1.3E[½]_05 7.7E[½]_01 Heptachlor 76-44-8 1.3E[½]_03 7.7E[½]_03 Heptachlor Epoxide 1024-57-3 2.6E[½]_03 3.8E[½]_03 Hexachlorobenzene 118-74-1 4.9E[½]_04 2.0E[½]_02 Hexachlorobutadiene 87-68-3 2.0E[½]_05 5.0E[½]_01 Alpha-hexachloro 319-84-6 1.8E[½]_03 5.6E[½]_03 -cyclohexane 8eta-hexachloro 319-85-7 5.3E[½]_04 1.9E[½]_02 -cyclohexane 3ma-hexachloro 58-89-9 3.8E[½]_04 2.6E[½]_02				
Formaldehyde 50-00-0 1.3E[½]_05 7.7E[½]_01 Heptachlor 76-44-8 1.3E[½]_03 7.7E[½]_03 Heptachlor Epoxide 1024-57-3 2.6E[½]_03 3.8E[½]_03 Hexachlorobenzene 118-74-1 4.9E[½]_04 2.0E[½]_02 Hexachlorobutadiene 87-68-3 2.0E[½]_05 5.0E[½]_01 Alpha-hexachloro 319-84-6 1.8E[½]_03 5.6E[½]_03 -cyclohexane 8eta-hexachloro 319-85-7 5.3E[½]_04 1.9E[½]_02 -cyclohexane 3mma-hexachloro 58-89-9 3.8E[½]_04 2.6E[½]_02	-			
Heptachlor 76-44-8 1.3E[½]_03 7.7E[½]_03 Heptachlor Epoxide 1024-57-3 2.6E[½]_03 3.8E[½]_03 Hexachlorobenzene 118-74-1 4.9E[½]_04 2.0E[½]_02 Hexachlorobutadiene 87-68-3 2.0E[½]_05 5.0E[½]_01 Alpha-hexachloro 319-84-6 1.8E[½]_03 5.6E[½]_03 -cyclohexane 8eta-hexachloro 319-85-7 5.3E[½]_04 1.9E[½]_02 Beta-hexachloro 58-89-9 3.8E[½]_04 2.6E[½]_02	-			
Heptachlor Epoxide 1024-57-3 2.6E[½]_03 3.8E[½]_03 Hexachlorobenzene 118-74-1 4.9E[½]_04 2.0E[½]_02 Hexachlorobutadiene 87-68-3 2.0E[½]_05 5.0E[½]_01 Alpha-hexachloro 319-84-6 1.8E[½]_03 5.6E[½]_03 -cyclohexane 8ta-hexachloro 319-85-7 5.3E[½]_04 1.9E[½]_02 -cyclohexane 6amma-hexachloro 58-89-9 3.8E[½]_04 2.6E[½]_02	-			
Hexachlorobenzene 118-74-1 4.9E[!]_04 2.0E[!]_02 Hexachlorobutadiene 87-68-3 2.0E[!]_05 5.0E[!]_01 Alpha-hexachloro 319-84-6 1.8E[!]_03 5.6E[!]_03 -cyclohexane Beta-hexachloro 319-85-7 5.3E[!]_04 1.9E[!]_02 -cyclohexane Gamma-hexachloro 58-89-9 3.8E[!]_04 2.6E[!]_02				
Hexachlorobutadiene 87-68-3 2.0E[±]_05 5.0E[±]_01 Alpha-hexachloro 319-84-6 1.8E[±]_03 5.6E[±]_03 -cyclohexane -cyclohexane 1.9E[±]_02 1.9E[±]_02 -cyclohexane -cyclohexane 2.6E[±]_02 2.6E[±]_02	· ·			
Alpha-hexachloro 319-84-6 1.8E[4]_03 5.6E[4]_03 -cyclohexane Beta-hexachloro 319-85-7 5.3E[4]_04 1.9E[4]_02 -cyclohexane Gamma-hexachloro 58-89-9 3.8E[4]_04 2.6E[4]_02				
-cyclohexane Beta-hexachloro 319-85-7 5.3E[4]_04 1.9E[4]_02 -cyclohexane Gamma-hexachloro 58-89-9 3.8E[4]_04 2.6E[4]_02			_	_
-cyclohexane Gamma-hexachloro 58-89-9 3.8E[+]_04 2.6E[+]_02	-cyclohexane		_	_
		319-85-7	5.3E[!] <u>-</u> 04	1.9E[!] <u>-</u> 02
		58-89-9	3.8E[<u>+</u>] <u>-</u> 04	2.6E[!] <u>-</u> 02

5xE[!]<u>-</u>01

2xE[!]-04

7xE[<u>!</u>]<u>-</u>04

2xE[!]_05

2xE[!]<u>-</u>01

Hexachloroethane	Hexachlorocyclo -hexane, Technical		5.1E[!] <u>-</u> 04	2.0E[‡] <u>-</u> 02
Hexachloroethane	Hexachlorodibenzo-		1.3E+0	
Hexachloroethane				
Hydrazine 302-01-2 2.9E[H]_03 3.4E[H]_03 Hydrazine Sulfate 302-01-2 2.9E[H]_03 3.4E[H]_03 3-Methylcholanthrene 56-49-5 2.7E[H]_03 3.7E[H]_03 Methyl Hydrazine 60-34-4 3.1E[H]_04 3.2E[H]_02 Methylene Chloride 75-09-2 4.1E[H]_06 2.4E+00 4,4'-Methylene-bis-2 101-14-4 4.7E[H]_05 2.1E[H]_01 -chloroaniline 7440-02-0 2.4E[H]_04 4.2E[H]_02 Nickel 7440-02-0 2.4E[H]_04 4.2E[H]_02 Nickel Subsulfide 12035-72-2 4.8E[H]_04 4.2E[H]_02 Nickel Subsulfide 12035-72-2 4.8E[H]_04 2.1E[H]_02 N-Nitroson-butylamine 924-16-3 1.6E[H]_02 3.7E[H]_04 N-Nitroson-butylamine 924-16-3 1.6E[H]_02 3.7E[H]_04 N-Nitrosophyrolidine 930-55-2 6.1E[H]_04 1.6E[H]_04 N-Nitrosophyrolidine 930-55-2 6.1E[H]_04 1.6E[H]_01 PCBs 1336-36-3 1.2E[H]_05 1.4E[H]_01 <				
Hydrazine Sulfate 302-01-2 2.9E[½]=03 3.4E[½]=03 3-Methylcholanthrene 56-49-5 2.7E[½]=03 3.7E[½]=03 Methyl Hydrazine 60-34-4 3.1E[½]=04 3.2E[½]=02 Methylene Chloride 75-09-2 4.1E[½]=06 2.4E+00 4,4'-Methylene-bis-2 101-14-4 4.7E[½]=05 2.1E[½]=01 -chloroaniline nickel 7440-02-0 2.4E[½]=04 4.2E[½]=02 Nickel Refinery Dust 7440-02-0 2.4E[½]=04 4.2E[½]=02 Nickel Subsulfide 12035-72-2 4.8E[½]=04 2.1E[½]=02 Nickel Subsulfide 12035-72-2 4.8E[½]=02 3.7E[½]=03 N-Nitroso-n-butylamine 924-16-3 1.6E[½]=03 6.3E[½]=03 N-Nitroso-n-methylurea 684-93-5 8.6E[½]=02 1.2E[½]=04 N-Nitrosodiethylamine 55-18-5 4.3E[½]=02 1.3E[½]=04 N-Nitrosopyrrolidine 930-55-2 6.1E[½]=04 1.6E[½]=02 Pentachloronitrobenzene 82-68-8 7.3E[½]=05 1.4E[½]=01 PCBs 1336-36-3 1.2E[½]=03	Hexachloroethane			
3Methylcholanthrene	Hydrazine	302-01-2	2.9E[<u>!</u>] <u>-</u> 03	3.4E[!] <u>-</u> 03
Methyl Hydrazine 60-34-4 3.1E[H]_04 3.2E[H]_02 Methylene Chloride 75-09-2 4.1E[H]_06 2.4E+00 4,4'-Methylene-bis-2 101-14-4 4.7E[H]_05 2.1E[H]_01 -chloroaniline 7440-02-0 2.4E[H]_04 4.2E[H]_02 Nickel 7440-02-0 2.4E[H]_04 4.2E[H]_02 Nickel Subsulfide 12035-72-2 4.8E[H]_04 2.1E[H]_02 2-Nitropropane 79-46-9 2.7E[H]_02 3.7E[H]_04 N-Nitroson-butylamine 924-16-3 1.6E[H]_03 6.3E[H]_03 N-Nitroson-methylurea 684-93-5 8.6E[H]_02 1.2E[H]_04 N-Nitrosodiethylamine 55-18-5 4.3E[H]_02 1.2E[H]_04 N-Nitrosopyrrolidine 930-55-2 6.1E[H]_04 1.6E[H]_02 Pentachloronitrobenzene 82-68-8 7.3E[H]_05 1.4E[H]_01 PCBs 1336-36-3 1.2E[H]_03 8.3E[H]_03 Pronamide 23950-58-5 4.6E[H]_06 2.2E[H]_07 Reserpine 50-55-5 3.0E[H]_03 3.3E[H]_03 2,3,7,8	Hydrazine Sulfate	302-01-2	2.9E[!] <u>-</u> 03	3.4E[!] <u>-</u> 03
Methylene Chloride 75-09-2 4.1E[½]=06 2.4E+00 4,4'-Methylene-bis-2 101-14-4 4.7E[½]=05 2.1E[½]=01 -chloroaniline 7440-02-0 2.4E[½]=04 4.2E[½]=02 Nickel 7440-02-0 2.4E[½]=04 4.2E[½]=02 Nickel Subsulfide 12035-72-2 4.8E[½]=04 4.2E[½]=02 2-Nitropropane 79-46-9 2.7E[½]=02 3.7E[½]=04 N-Nitroson-butylamine 924-16-3 1.6E[½]=03 6.3E[½]=03 N-Nitroson-methylurea 684-93-5 8.6E[½]=02 1.2E[½]=04 N-Nitrosodiethylamine 55-18-5 4.3E[½]=02 2.3E[½]=04 N-Nitrosopyrrolidine 930-55-2 6.1E[½]=03 6.3E[½]=04 N-Nitrosopyrrolidine 930-55-2 6.1E[½]=04 1.6E[½]=02 Pentachloronitrobenzene 82-68-8 7.3E[½]=05 1.4E[½]=01 PCBs 1336-36-3 1.2E[½]=03 8.3E[½]=03 Pronamide 23950-58-5 3.0E[½]=06 2.2E[½]=07 Reserpine 50-55-5 3.0E[½]=03 3.3E[½]=07 -d	3-Methylcholanthrene	56-49-5	2.7E[<u></u> !] <u>-</u> 03	3.7E[<u>!</u>] <u>-</u> 03
4,4'-Methylene-bis-2 101-14-4 4.7E[½]=05 2.1E[½]=01 -chloroaniline 7440-02-0 2.4E[½]=04 4.2E[½]=02 Nickel Refinery Dust 7440-02-0 2.4E[½]=04 4.2E[½]=02 Nickel Subsulfide 12035-72-2 4.8E[½]=04 2.1E[½]=02 Nickel Subsulfide 12035-72-2 4.8E[½]=04 2.1E[½]=02 N-Nitropropane 79-46-9 2.7E[½]=02 3.7E[½]=04 N-Nitroso-n-butylamine 924-16-3 1.6E[½]=02 3.7E[½]=04 N-Nitroso-n-methylurea 684-93-5 8.6E[½]=02 1.2E[½]=04 N-Nitrosopyrrolidine 930-55-2 6.1E[½]=02 2.3E[½]=04 N-Nitrosopyrrolidine 930-55-2 6.1E[½]=04 1.6E[½]=02 Pentachloronitrobenzene 82-68-8 7.3E[½]=05 1.4E[½]=01 PCBs 1336-36-3 1.2E[½]=03 8.3E[½]=03 Pronamide 23950-58-5 4.6E[½]=06 2.2E+00 Reserpine 50-55-5 3.0E[½]=03 3.3E[½]=03 2,3,7,8-Tetrachloro 1746-01-6 4.5E+01 2.2E[½]=07 -dibenzo-p-dioxin 1,1,2,2- 79-34-5 5.8E[½]=05	Methyl Hydrazine	60-34-4	3.1E[!] <u>-</u> 04	3.2E[!] <u>-</u> 02
-chloroaniline Nickel 7440-02-0 2.4E[!]_04 4.2E[!]_02 Nickel Refinery Dust 7440-02-0 2.4E[!]_04 4.2E[!]_02 Nickel Subsulfide 12035-72-2 4.8E[!]_04 2.1E[!]_02 2-Nitropropane 79-46-9 2.7E[!]_02 3.7E[!]_02 2-Nitropropane 924-16-3 1.6E[!]_03 6.3E[!]_03 N-Nitroso-n-butylamine 924-16-3 1.6E[!]_02 1.2E[!]_04 N-Nitroso-n-methylurea 684-93-5 8.6E[!]_02 1.2E[!]_04 N-Nitrosodiethylamine 55-18-5 4.3E[!]_02 2.3E[!]_04 N-Nitrosopyrrolidine 930-55-2 6.1E[!]_04 1.6E[!]_02 Pentachloronitrobenzene 82-68-8 7.3E[!]_05 1.4E[!]_01 PCB 1336-36-3 1.2E[!]_05 1.4E[!]_01 PCB 1336-36-3 1.2E[!]_03 8.3E[!]_03 Pronamide 23950-58-5 4.6E[!]_06 2.2E+00 Reserpine 50-55-5 3.0E[!]_03 3.3E[!]_03 2,3,7,8-Tetrachloro 1746-01-6 4.5E+01 2.2E[!]_07 -dibenzo-p-dioxin 1,1,2,2- 79-34-5 5.8E[!]_05 1.7E[!]_01 Tetrachloroethylene 127-18-4 4.8E[!]_07 2.1E+01 Thiourea 62-56-6 5.5E[!]_04 1.8E[!]_02 1,1,2-Trichloroethane 79-00-5 1.6E[!]_05 6.3E[!]_01 Trichloroethylene 79-01-6 1.3E[!]_05 7.7E+00 2,4,6-Trichlorophenol 88-06-2 5.7E[!]_06 1.8E+00 Toxaphene 8001-35-2 3.2E[!]_04 3.1E[!]_02	Methylene Chloride	75-09-2	4.1E[<u>!</u>] <u>-</u> 06	2.4E+00
Nickel Refinery Dust 7440-02-0 2.4E[i]_04 4.2E[i]_02 Nickel Subsulfide 12035-72-2 4.8E[i]_04 2.1E[i]_02 2-Nitropropane 79-46-9 2.7E[i]_02 3.7E[i]_04 N-Nitroso-n-butylamine 924-16-3 1.6E[i]_03 6.3E[i]_03 N-Nitroso-n-methylurea 684-93-5 8.6E[i]_02 1.2E[i]_04 N-Nitrosodiethylamine 55-18-5 4.3E[i]_02 2.3E[i]_04 N-Nitrosodiethylamine 930-55-2 6.1E[i]_04 1.6E[i]_02 Pentachloronitrobenzene 82-68-8 7.3E[i]_05 1.4E[i]_01 PCBs 1336-36-3 1.2E[i]_05 1.4E[i]_01 PCBs 1336-36-3 1.2E[i]_03 3.3E[i]_03 Pronamide 23950-58-5 4.6E[i]_06 2.2E+00 Reserpine 50-55-5 3.0E[i]_03 3.3E[i]_03 2,3,7,8-Tetrachloro 1746-01-6 4.5E+01 2.2E[i]_07 -dibenzo-p-dioxin 1,1,2,2- 79-34-5 5.8E[i]_05 1.7E[i]_01 Tetrachloroethylene 127-18-4 4.8E[i]_07 2.1E+01 Thiourea 62-56-6 5.5E[i]_04 1.8E[i]_02 1,1,2-Trichloroethane 79-00-5 1.6E[i]_05 6.3E[i]_01 Trichloroethylene 79-01-6 1.3E[i]_06 7.7E+00 2,4,6-Trichlorophenol 88-06-2 5.7E[i]_06 1.8E+00 Toxaphene 8001-35-2 3.2E[i]_04 3.1E[i]_02		101-14-4	4.7E[!] <u>-</u> 05	2.1E[‡] <u>-</u> 01
Nickel Refinery Dust 7440-02-0 2.4E[½]_04 4.2E[½]_02 Nickel Subsulfide 12035-72-2 4.8E[½]_04 2.1E[½]_02 2-Nitropropane 79-46-9 2.7E[½]_02 3.7E[½]_04 N-Nitroso-n-butylamine 924-16-3 1.6E[½]_03 6.3E[½]_03 N-Nitroson-methylurea 684-93-5 8.6E[½]_02 1.2E[½]_04 N-Nitrosodiethylamine 55-18-5 4.3E[½]_02 2.3E[½]_04 N-Nitrosopyrrolidine 930-55-2 6.1E[½]_04 1.6E[½]_02 Pentachloronitrobenzene 82-68-8 7.3E[½]_05 1.4E[½]_01 PCBs 1336-36-3 1.2E[½]_05 1.4E[½]_01 Pronamide 23950-58-5 4.6E[½]_06 2.2E+00 Reserpine 50-55-5 3.0E[½]_03 3.3E[½]_03 2,3,7,8-Tetrachloro 1746-01-6 4.5E+01 2.2E[½]_07 -dibenzo-p-dioxin 1,1,2,2- 79-34-5 5.8E[½]_05 1.7E[½]_01 Tetrachloroethylene 127-18-4 4.8E[½]_07 2.1E+01 Thiourea 62-56-6 5.5E[½]_04 1.8E[½]_02 <td>Nickel</td> <td>7440-02-0</td> <td>2.4E[!]-04</td> <td>4.2E[!]-02</td>	Nickel	7440-02-0	2.4E[!]-04	4.2E[!]-02
Nickel Subsulfide 12035-72-2 4.8E[½]_04 2.1E[½]_02 2-Nitropropane 79-46-9 2.7E[½]_02 3.7E[½]_04 N-Nitroso-n-butylamine 924-16-3 1.6E[½]_03 6.3E[½]_03 N-Nitroso-n-methylurea 684-93-5 8.6E[½]_02 1.2E[½]_04 N-Nitrosodiethylamine 55-18-5 4.3E[½]_02 2.3E[½]_04 N-Nitrosopyrrolidine 930-55-2 6.1E[½]_04 1.6E[½]_02 Pentachloronitrobenzene 82-68-8 7.3E[½]_05 1.4E[½]_01 PCBs 1336-36-3 1.2E[½]_03 8.3E[½]_03 Pronamide 23950-58-5 4.6E[½]_06 2.2E+00 Reserpine 50-55-5 3.0E[½]_03 3.3E[½]_03 2,3,7,8-Tetrachloro 1746-01-6 4.5E+01 2.2E[½]_07 -dibenzo-p-dioxin 1,1,2,2- 79-34-5 5.8E[½]_05 1.7E[½]_01 Tetrachloroethylene 127-18-4 4.8E[½]_07 2.1E+01 Thiourea 62-56-6 5.5E[½]_04 1.8E[½]_02 1,1,2-Trichloroethane 79-00-5 1.6E[½]_06 7.7E+00	Nickel Refinery Dust	7440-02-0	2.4E[!]-04	4.2E[!]-02
N-Nitroso-n-butylamine 924-16-3 1.6E[½]=03 6.3E[½]=03 N-Nitroso-n-methylurea 684-93-5 8.6E[½]=02 1.2E[½]=04 N-Nitrosodiethylamine 55-18-5 4.3E[½]=02 2.3E[½]=04 N-Nitrosopyrrolidine 930-55-2 6.1E[½]=04 1.6E[½]=02 Pentachloronitrobenzene 82-68-8 7.3E[½]=05 1.4E[½]=01 PCBs 1336-36-3 1.2E[½]=03 8.3E[½]=03 Pronamide 23950-58-5 4.6E[½]=06 2.2E+00 Reserpine 50-55-5 3.0E[½]=03 3.3E[½]=03 2,3,7,8-Tetrachloro 1746-01-6 4.5E+01 2.2E[½]=07 -dibenzo-p-dioxin 1,1,2,2- 79-34-5 5.8E[½]=05 1.7E[½]=01 Tetrachloroethylene 127-18-4 4.8E[½]=07 2.1E+01 Thiourea 62-56-6 5.5E[½]=04 1.8E[½]=02 1,1,2-Trichloroethane 79-00-5 1.6E[½]=05 6.3E[½]=01 Trichloroethylene 79-01-6 1.3E[½]=06 7.7E+00 2,4,6-Trichlorophenol 88-06-2 5.7E[½]=06 1.8E+0	Nickel Subsulfide	12035-72-2	4.8E[!]-04	2.1E[!]-02
N-Nitroso-n-butylamine 924-16-3 1.6E[½]=03 6.3E[½]=03 N-Nitroso-n-methylurea 684-93-5 8.6E[½]=02 1.2E[½]=04 N-Nitrosodiethylamine 55-18-5 4.3E[½]=02 2.3E[½]=04 N-Nitrosopyrrolidine 930-55-2 6.1E[½]=04 1.6E[½]=02 Pentachloronitrobenzene 82-68-8 7.3E[½]=05 1.4E[½]=01 PCBs 1336-36-3 1.2E[½]=03 8.3E[½]=03 Pronamide 23950-58-5 4.6E[½]=06 2.2E+00 Reserpine 50-55-5 3.0E[½]=03 3.3E[½]=03 2,3,7,8-Tetrachloro 1746-01-6 4.5E+01 2.2E[½]=07 -dibenzo-p-dioxin 1,1,2,2- 79-34-5 5.8E[½]=05 1.7E[½]=01 Tetrachloroethylene 127-18-4 4.8E[½]=07 2.1E+01 Thiourea 62-56-6 5.5E[½]=04 1.8E[½]=02 1,1,2-Trichloroethane 79-00-5 1.6E[½]=05 6.3E[½]=01 Trichloroethylene 79-01-6 1.3E[½]=06 7.7E+00 2,4,6-Trichlorophenol 88-06-2 5.7E[½]=06 1.8E+0	2-Nitropropane	79-46-9	2.7E[!]-02	3.7E[!]-04
N-Nitroso-n-methylurea 684-93-5 8.6E[½]=02 1.2E[½]=04 N-Nitrosodiethylamine 55-18-5 4.3E[½]=02 2.3E[½]=04 N-Nitrosopyrrolidine 930-55-2 6.1E[½]=04 1.6E[½]=02 Pentachloronitrobenzene 82-68-8 7.3E[½]=05 1.4E[½]=01 PCBs 1336-36-3 1.2E[½]=03 8.3E[½]=03 Pronamide 23950-58-5 4.6E[½]=06 2.2E+00 Reserpine 50-55-5 3.0E[½]=03 3.3E[½]=03 2,3,7,8-Tetrachloro 1746-01-6 4.5E+01 2.2E[½]=07 -dibenzo-p-dioxin 1,1,2,2- 79-34-5 5.8E[½]=05 1.7E[½]=01 Tetrachloroethylene 127-18-4 4.8E[½]=07 2.1E+01 Thiourea 62-56-6 5.5E[½]=04 1.8E[½]=02 1,1,2-Trichloroethane 79-00-5 1.6E[½]=05 6.3E[½]=01 Trichloroethylene 79-01-6 1.3E[½]=06 7.7E+00 2,4,6-Trichlorophenol 88-06-2 5.7E[½]=06 1.8E+00 Toxaphene 8001-35-2 3.2E[½]=04 3.1E[½]=02	N-Nitroso-n-butylamine	924-16-3		6.3E[!]-03
N-Nitrosodiethylamine 55-18-5 4.3E[½]=02 2.3E[½]=04 N-Nitrosopyrrolidine 930-55-2 6.1E[½]=04 1.6E[½]=02 Pentachloronitrobenzene 82-68-8 7.3E[½]=05 1.4E[½]=01 PCBs 1336-36-3 1.2E[½]=03 8.3E[½]=03 Pronamide 23950-58-5 4.6E[½]=06 2.2E+00 Reserpine 50-55-5 3.0E[½]=03 3.3E[½]=03 2,3,7,8-Tetrachloro 1746-01-6 4.5E+01 2.2E[½]=07 -dibenzo-p-dioxin 1,1,2,2- 79-34-5 5.8E[½]=05 1.7E[½]=01 Tetrachloroethylene 127-18-4 4.8E[½]=07 2.1E+01 Thiourea 62-56-6 5.5E[½]=04 1.8E[½]=02 1,1,2-Trichloroethane 79-00-5 1.6E[½]=05 6.3E[½]=01 Trichloroethylene 79-01-6 1.3E[½]=06 7.7F+00 2,4,6-Trichlorophenol 88-06-2 5.7E[½]=06 1.8E+00 Toxaphene 8001-35-2 3.2E[½]=04 3.1E[½]=02	-		8.6E[!]-02	1.2E[+]-04
Pentachloronitrobenzene 82-68-8 7.3E[½]_05 1.4E[½]_01 PCBs 1336-36-3 1.2E[½]_03 8.3E[½]_03 Pronamide 23950-58-5 4.6E[½]_06 2.2E+00 Reserpine 50-55-5 3.0E[½]_03 3.3E[½]_03 2,3,7,8-Tetrachloro 1746-01-6 4.5E+01 2.2E[½]_07 -dibenzo-p-dioxin	N-Nitrosodiethylamine	55-18-5	4.3E[!]-02	2.3E[!]-04
PCBs 1336-36-3 1.2E[½]-03 8.3E[½]-03 Pronamide 23950-58-5 4.6E[½]-06 2.2E+00 Reserpine 50-55-5 3.0E[½]-03 3.3E[½]-03 2,3,7,8-Tetrachloro 1746-01-6 4.5E+01 2.2E[½]-07 -dibenzo-p-dioxin 79-34-5 5.8E[½]-05 1.7E[½]-01 Tetrachloroethylene 127-18-4 4.8E[½]-07 2.1E+01 Thiourea 62-56-6 5.5E[½]-04 1.8E[½]-02 1,1,2-Trichloroethane 79-00-5 1.6E[½]-05 6.3E[½]-01 Trichloroethylene 79-01-6 1.3E[½]-06 7.7E+00 2,4,6-Trichlorophenol 88-06-2 5.7E[½]-06 1.8E+00 Toxaphene 8001-35-2 3.2E[½]-04 3.1E[½]-02	N-Nitrosopyrrolidine	930-55-2	6.1E[!]-04	1.6E[!]-02
Pronamide 23950-58-5 4.6E[½]_06 2.2E+00 Reserpine 50-55-5 3.0E[½]_03 3.3E[½]_03 2,3,7,8-Tetrachloro -dibenzo-p-dioxin 1,14-01-6 4.5E+01 2.2E[½]_07 Tetrachloroethylene 79-34-5 5.8E[½]_05 1.7E[½]_01 Tetrachloroethane Tetrachloroethylene 127-18-4 4.8E[½]_07 2.1E+01 1.8E[½]_02 1,1,2-Trichloroethane 79-00-5 1.6E[½]_04 1.8E[½]_02 1.7E+00 1,1,2-Trichloroethylene 79-01-6 1.3E[½]_06 7.7E+00 2,4,6-Trichlorophenol 88-06-2 5.7E[½]_06 1.8E+00 Toxaphene 8001-35-2 3.2E[½]_04 3.1E[½]_02	Pentachloronitrobenzen	e 82-68-8	7.3E[<u>!</u>]_05	1.4E[!] <u>-</u> 01
Reserpine 50-55-5 3.0E[½]_03 3.3E[½]_03 2,3,7,8-Tetrachloro dibenzo-p-dioxin 1,1,2,2- 79-34-5 5.8E[½]_05 1.7E[½]_01 Tetrachloroethylene 127-18-4 4.8E[½]_07 2.1E+01 Thiourea 62-56-6 5.5E[½]_04 1.8E[½]_02 1,1,2-Trichloroethane 79-00-5 1.6E[½]_05 6.3E[½]_01 Trichloroethylene 79-01-6 1.3E[½]_06 7.7E+00 2,4,6-Trichlorophenol 88-06-2 5.7E[½]_06 1.8E+00 Toxaphene 8001-35-2 3.2E[½]_04 3.1E[½]_02	PCBs	1336-36-3	1.2E[!]-03	8.3E[!] <u>-</u> 03
2,3,7,8-Tetrachloro dibenzo-p-dioxin 1,1,2,2- 79-34-5 5.8E[½]_05 1.7E[½]_01 Tetrachloroethane 1,1,2,2- 79-34-5 5.8E[½]_07 2.1E[½]_01 Tetrachloroethane Tetrachloroethylene 127-18-4 4.8E[½]_07 2.1E+01 Thiourea 62-56-6 5.5E[½]_04 1.8E[½]_02 1,1,2-Trichloroethane 79-00-5 1.6E[½]_05 6.3E[½]_01 Trichloroethylene 79-01-6 1.3E[½]_06 7.7E+00 2,4,6-Trichlorophenol 88-06-2 5.7E[½]_06 1.8E+00 Toxaphene 8001-35-2 3.2E[½]_04 3.1E[½]_02	Pronamide	23950-58-5	4.6E[!] <u>-</u> 06	2.2E+00
-dibenzo-p-dioxin 1,1,2,2- 79-34-5 5.8E[!]_05 1.7E[!]_01 Tetrachloroethane 127-18-4 4.8E[!]_07 2.1E+01 Thiourea 62-56-6 5.5E[!]_04 1.8E[!]_02 1,1,2-Trichloroethane 79-00-5 1.6E[!]_05 6.3E[!]_01 Trichloroethylene 79-01-6 1.3E[!]_06 7.7E+00 2,4,6-Trichlorophenol 88-06-2 5.7E[!]_06 1.8E+00 Toxaphene 8001-35-2 3.2E[!]_04 3.1E[!]_02	Reserpine	50-55-5	3.0E[!]-03	3.3E[!]-03
1,1,2,2- 79-34-5 5.8E[\frac{1}{2}] = 05 1.7E[\frac{1}{2}] = 01 Tetrachloroethylene 127-18-4 4.8E[\frac{1}{2}] = 07 2.1E+01 Thiourea 62-56-6 5.5E[\frac{1}{2}] = 04 1.8E[\frac{1}{2}] = 02 1,1,2-Trichloroethane 79-00-5 1.6E[\frac{1}{2}] = 05 6.3E[\frac{1}{2}] = 01 Trichloroethylene 79-01-6 1.3E[\frac{1}{2}] = 06 7.7E+00 2,4,6-Trichlorophenol 88-06-2 5.7E[\frac{1}{2}] = 06 1.8E+00 Toxaphene 8001-35-2 3.2E[\frac{1}{2}] = 04 3.1E[\frac{1}{2}] = 02	2,3,7,8-Tetrachloro	1746-01-6	4.5E+01	2.2E[<u>+</u>]_07
Tetrachloroethylene Tetrachloroethane Tetrachloroethylene 127-18-4 4.8E[½]_07 2.1E+01 Thiourea 62-56-6 5.5E[½]_04 1.8E[½]_02 1,1,2-Trichloroethane 79-00-5 1.6E[½]_05 6.3E[½]_01 Trichloroethylene 79-01-6 1.3E[½]_06 7.7E+00 2,4,6-Trichlorophenol 88-06-2 5.7E[½]_06 1.8E+00 Toxaphene 8001-35-2 3.2E[½]_04 3.1E[½]_02	-dibenzo-p-dioxin			
Tetrachloroethylene 127-18-4 4.8E[½]_07 2.1E+01 Thiourea 62-56-6 5.5E[½]_04 1.8E[½]_02 1,1,2-Trichloroethane 79-00-5 1.6E[½]_05 6.3E[½]_01 Trichloroethylene 79-01-6 1.3E[½]_06 7.7E+00 2,4,6-Trichlorophenol 88-06-2 5.7E[½]_06 1.8E+00 Toxaphene 8001-35-2 3.2E[½]_04 3.1E[½]_02	1,1,2,2-	79-34-5	5.8E[!] <u>-</u> 05	1.7E[!] <u>-</u> 01
Thiourea 62-56-6 5.5E[\frac{1}{2}.04 1.8E[\frac{1}{2}].02 1,1,2-Trichloroethane 79-00-5 1.6E[\frac{1}{2}].05 6.3E[\frac{1}{2}].01 Trichloroethylene 79-01-6 1.3E[\frac{1}{2}].06 7.7E+00 2,4,6-Trichlorophenol 88-06-2 5.7E[\frac{1}{2}].06 1.8E+00 Toxaphene 8001-35-2 3.2E[\frac{1}{2}].04 3.1E[\frac{1}{2}].02				Tetrachloroethane
1,1,2-Trichloroethane 79-00-5 1.6E[½]_05 6.3E[½]_01 Trichloroethylene 79-01-6 1.3E[½]_06 7.7E+00 2,4,6-Trichlorophenol 88-06-2 5.7E[½]_06 1.8E+00 Toxaphene 8001-35-2 3.2E[½]_04 3.1E[½]_02	Tetrachloroethylene	127-18-4	4.8E[<u>!</u>] <u>-</u> 07	2.1E+01
Trichloroethylene 79-01-6 1.3E[½]_06 7.7E+00 2,4,6-Trichlorophenol 88-06-2 5.7E[½]_06 1.8E+00 Toxaphene 8001-35-2 3.2E[½]_04 3.1E[½]_02	Thiourea	62-56-6	5.5E[<u>!]</u> _04	1.8E[!] <u>-</u> 02
2,4,6-Trichlorophenol 88-06-2 5.7E[\displayses]_06 1.8E+00 Toxaphene 8001-35-2 3.2E[\displayses]_04 3.1E[\displayses]_02	1,1,2-Trichloroethane	79-00-5	1.6E[!] <u>-</u> 05	6.3E[!] <u>-</u> 01
Toxaphene 8001-35-2 3.2E[!]_04 3.1E[!]_02	Trichloroethylene	79-01-6	1.3E[!] <u>-</u> 06	7.7E+00
	2,4,6-Trichlorophenol	88-06-2	5.7E[<u></u> !] <u>-</u> 06	1.8E+00
Vinyl Chloride 75-01-4 7.1E[!]-06 1.4E+00	Toxaphene	8001-35-2	3.2E[!] <u>-</u> 04	3.1E[!] <u>-</u> 02
	Vinyl Chloride	75-01-4	7.1E[<u></u> !] <u>-</u> 06	1.4E+00

R315-266-[208]<u>605</u>. Appendix VI to Rule R315-266 -- Stack Plume Rise.

Appendix VI of 40 CFR 266, 2015 edition, is adopted and incorporated by reference.

R315-266-[209]606. Appendix VII to Rule R315-266 -- Health-Based Limits for Exclusion of Waste-Derived Residues.

Metals -- TCLP Extract Concentration Limits.

Constituent	CAS No.	Concentration limits (mg/L)
Antimony Arsenic Barium Beryllium Cadmium Chromium Lead Mercury Nickel Selenium Silver Thallium	7440-36-0 7440-38-2 7440-39-3 7440-41-7 7440-43-9 7440-47-3 7439-97-6 7440-02-0 7782-49-2 7440-22-4 7440-28-0	1xE+00 5xE+00 1xE+02 7xE[½]_03 1xE+00 5xE+00 2xE[½]_01 7xE+01 1xE+00 5xE+00 7xE+00

Nonmetals -- Residue Concentration Limits

Constituent	CAS No.	Concentration limits for residues (mg/kg)
Acetonitrile	75-05-8	2xE[<u>!]_</u> 01
Acetophenone	98-86-2	4xE+00

Allyl alcohol	10/-18-6	2xE[!] <u>=</u> 01
Aluminum phosphide	20859-73-8	1xE[!] <u>-</u> 02
Aniline	62-53-3	6xE[!] <u>-</u> 02
Barium cyanide	542-62-1	1xE+00
Benz(a)anthracene	56-55-3	1xE[!]-04
Benzene	71-43-2	5xE[<u>+</u>] <u>-</u> 03
Benzidine		
	92-87-5	1xE[!] <u>-</u> 06
Bis(2-chloroethyl) ether	r 111-44-4	3xE[!] <u>-</u> 04
Bis(chloroethyl) ether	542-88-1	2xE[!] <u>-</u> 06
Bis(2-ethylhexyl)	117-81-7	3xE+01
phthalate		
Bromoform	75-25-2	7xE[!] <u>-</u> 01
Calcium cyanide	592-01-8	1xE[!] <u>-</u> 06
Carbon disulfide	75-15-0	4xE+00
Carbon tetrachloride		
	56-23-5	5xE[!] <u>-</u> 03
Chlordane	57-74-9	3xE[<u>+</u>] <u>-</u> 04
Chlorobenzene	108-90-7	1xE+00
Chloroform	67-66-3	6xE[!] <u>-</u> 02
Copper cyanide	544-92-3	2xE[!] <u>-</u> 01
Cresols	1319-77-3	2xE+00
(Cresylic acid)		
Cyanogen	460-19-5	1xE+00
DDT	50-29-3	1xE[‡] <u>-</u> 03
	53-70-3	
Dibenz(a, h)-anthracene		7xE[!] <u>-</u> 06
1,2-Dibromo-3	96-12-8	2xE[!] <u>-</u> 05
-chloropropane		
p-Dichlorobenzene	106-46-7	7.5xE[!] <u>-</u> 02
Dichlorodifluoromethane	75-71-8	7xE+00
1,1-Dichloroethylene	75-35-4	5xE[!] <u>-</u> 03
2,4-Dichlorophenol	120-83-2	1xE[<u>+</u>] <u>-</u> 01
1,3-Dichloropropene	542-75-6	1xE[!] <u>-</u> 03
Dieldrin	60-57-1	2xE[!] <u>-</u> 05
Diethyl phthalate	84-66-2	3xE+01
Diethylstilbesterol	56-53-1	7xE[!] <u>-</u> 07
Dimethoate	60-51-5	3xE[!]-02
2,4-Dinitrotoluene	121-14-2	5xE[<u>!</u>] <u>-</u> 04
Diphenylamine	122-39-4	9xE[!] <u>-</u> 01
1,2-Diphenylhydrazine	122-66-7	5xE[!] <u>-</u> 04
Endosul fan	115-29-7	2xE[!] <u>-</u> 03
Endrin	72-20-8	2xE[!] <u>-</u> 04
Epichlorohydrin	106-89-8	4xE[!] <u>-</u> 02
Ethylene dibromide	106-93-4	4xE[<u>!</u>] <u>-</u> 07
Ethylene oxide	75-21-8	3xE[+] <u>-</u> 04
-		
Fluorine	7782-41-4	4xE+00
Formic acid	64-18-6	7xE+01
Heptachlor	76-44-8	8xE[!] <u>-</u> 05
Heptachlor epoxide	1024-57-3	4xE[!] <u>-</u> 05
Hexachlorobenzene	118-74-1	2xE[!] <u>-</u> 04
Hexachlorobutadiene	87-68-3	5xE[!] <u>-</u> 03
Hexachlorocyclopentadie		2xE[‡] <u>-</u> 01
		6[1] 00
Hexachlorodibenzo-p	19408-74-3	6xE[‡] <u>-</u> 08
-dioxins		
Hexachloroethane	67-72-1	3xE[!] <u>-</u> 02
Hydrazine	302-01-1	1xE[!] <u>-</u> 04
Hydrogen cyanide	74-90-8	7xE[!] <u>-</u> 05
Hydrogen sulfide	7783-06-4	1xE[<u>+</u>] <u>-</u> 06
Isobutyl alcohol	78-83-1	1xE+01
		1xE+01
Methomyl	16752-77-5	
Methoxychlor	72-43-5	1xE[<u>+</u>] <u>-</u> 01
3-Methylcholanthrene	56-49-5	4xE[!] <u>-</u> 05
4,4'-Methylenebis	101-14-4	2xE[!] <u>-</u> 03
(2-chloroaniline)		
Methylene chloride	75-09-2	5xE[!]-02
Methyl ethyl ketone (MEI		2xE+00
Methyl hydrazine	60-34-4	3xE[!] <u>-</u> 04
Methyl parathion	298-00-0	2xE[!] <u>-</u> 02
Naphthalene	91-20-3	1xE+01
Nickel cyanide	557-19-7	7xE[!] <u>-</u> 01
Nitric oxide	10102-43-9	4xE+00

107-02-8

79-06-1

107-13-1

309-00-2

107-18-6

Acrolein Acrylamide

Acrylonitrile Aldrin

Allyl alcohol

Nitrobenzene	98-95-3	2xE[!] <u>-</u> 02
N-Nitrosodi-n	924-16-3	6xE[<u></u> !] <u>-</u> 05
-butylamine		
N-Nitrosodiethylamine	55-18-5	2xE[!] <u>-</u> 06
N-Nitroso-N-methylurea	684-93-5	1xE[!] <u>-</u> 07
N-Nitrosopyrrolidine	930-55-2	2xE[+]-04
Pentachlorobenzene	608-93-5	3xE[<u>+</u>] <u>-</u> 02
Pentachloronitrobenzene	82-68-8	1xE[+]-01
(PCNB)		
Pentachlorophenol	87-86-5	1xE+00
Phenol	108-95-2	1xE+00
Phenylmercury acetate	62-38-4	3xE[+]-03
Phosphine	7803-51-2	1xE[+]-02
Polychlorinated	1336-36-3	5xE[!] <u>-</u> 05
biphenyls, N.O.S	1330-30-3	2XL[+]-03
Potassium cyanide	151-50-8	2xE+00
Potassium silver cyanid		7xE+00
Pronamide	23950-58-5	3xE+00
Pyridine	110-86-1	4xE[!] <u>-</u> 02
Reserpine	50-55-5	3xE[+]=05
Selenourea	630-10-4	2xE[!]-01
Silver cyanide	506-64-9	4xE+00
Sodium cyanide	143-33-9	1xE+00
Strychnine	57-24-9	1xE[!] <u>-</u> 02
1,2,4,5-	95-94-3	1xE[+]=02
Tetrachlorobenzene	93-94-3	1XC[+] <u>=</u> 02
1,1,2,2-	79-34-5	2xE[!]-03
tetrachloroethane	79-34-3	2XE[+] <u>=</u> 03
Tetrachloroethylene	127-18-4	7xE[!]-01
2,3,4,6-	58-90-2	1xE[‡] -02
Tetrachlorophenol	30-90-2	1XE[+] <u>-</u> 02
Tetraethyl lead	78-00-2	4xE[!]-06
Thiourea	62-56-6	2xE[!]-04
Toluene	108-88-3	2xE[+] <u>-</u> 04 1xE+01
Toxaphene	8001-35-2	5xE[!] <u>-</u> 03
1,1,2-Trichloroethane	79-00-5	6xE[!] <u>-</u> 03
Trichloroethylene	79-01-6	5xE[!] <u>-</u> 03
Trichloromonofluorometh		1xE+01
2,4,5-Trichlorophenol	95-95-4	4xE+00
2,4,6-Trichlorophenol	88-06-2	4xE+00
Vanadium pentoxide	1314-62-1	7xE[!] <u>-</u> 01
Vinyl chloride	75-01-4	2xE[!] <u>-</u> 03

*Note 1: The health-based concentration limits for appendix VIII Rule R315-261 constituents for which a health-based concentration is not provided below is 2xE[!]-06 mg/kg.

Note 2: The levels specified in this appendix and the default level of 0.002 micrograms per kilogram or the level of detection for constituents as identified in Note 1 of this appendix are administratively stayed under the condition, for those constituents specified $% \left(1\right) =\left(1\right) \left(1\right)$ in Subsection R315-266-112(b)(1), that the owner or operator complies with alternative levels defined as the land disposal restriction limits specified in Section R315-268-43 for $F[\theta]\underline{0}39$ nonwastewaters. See Subsection R315-266-112(b)(2)(i).

R315-266-[210]607. Appendix VIII to Rule R315-266 -- Organic Compounds for Which Residues Shall Be Analyzed.

Table

Volatiles

Renzene Toluene Carbon tetrachloride Chloroform 5 cm Methylene chloride Trichloroethylene Tetra chloroethylene 1.1.1-Trichloroethane Chlorobenzene

cis-1,4-Dichloro-2-butene Bromochloromethane Bromodichloromethane Bromoform Bromomethane Methylene bromide Methyl ethyl ketone

Semivolatiles

Bis(2-ethylhexyl)phthalate Naphthalene Pheno1 Diethyl phthalate Butyl benzyl phthalate 2,4-Dimethylphenol o-Dichlorobenzene m-Dichlorobenzene p-Dichlorobenzene Hexachlorobenzene 2,4,6-Trichlorophenol Fluoranthene o-Nitrophenol 1,2,4-Trichlorobenzene o-Chlorophenol Pentachlorophenol

Pyrene

Dimethyl phthalate Mononitrobenzene

2,6-Toluene diisocyanate

Polychlorinated dibenzo-p-dioxins(1) Polychlorinated dibenzo-furans(1)

(1) Analyses for polychlorinated dibenzo-p-dioxins and polychlorinated dibenzo-furans are required only for residues collected from areas downstream of the combustion chamber, e.g., ductwork, boiler tubes, heat exchange surfaces, air pollution control devices, etc.

Note to Appendix VIII: Analysis is not required for those compounds that do not have an established F039 nonwastewater concentration limit.

R315-266-[211]608. Appendix IX to Rule R315-266 -- Methods Manual for Compliance With the BIF Regulations.

Appendix IX of 40 CFR 266, 2015 edition, is adopted and incorporated by reference.

R315-266-[212]609. Appendix XI to Rule R315-266 -- Lead-Bearing Materials That May Be Processed in Exempt Lead Smelters.

A. Exempt Lead-Bearing Materials [When]If Generated or Originally Produced By Lead-Associated Industries(1)

Acid dump[/] or fill solids

Sump mud

Materials from laboratory analyses

Acid filters

Baghouse bags

Clothing, e.g., coveralls, aprons, shoes, hats, gloves

Sweepings

Air filter bags and cartridges

Respiratory cartridge filters

Shop abrasives

Stacking boards

Waste shipping containers, e.g., cartons, bags, drums,

cardboard

Paper hand towels

Wiping rags and sponges

Contaminated pallets

Water treatment sludges, filter cakes, residues, and solids

Emission control dusts, sludges, filter cakes, residues, and solids from lead-associated industries, e.g., K069 and D008 wastes

Spent grids, posts, and separators

Spent batteries

Lead oxide and lead oxide residues

Lead plates and groups

Spent battery cases, covers, and vents

Pasting belts

Water filter media

Cheesecloth from pasting rollers

Pasting additive bags

Asphalt paving materials

B. Exempt Lead-Bearing Materials [When] If Generated or Originally Produced By Any Industry

Charging jumpers and clips

Platen abrasive

Fluff from lead wire and cable casings

Lead-based pigments and compounding pigment dust

(1) Lead-associated industries are lead smelters, lead-acid battery manufacturing, and lead chemical manufacturing, e.g., manufacturing of lead oxide or other lead compounds.

R315-266-[213]610. Appendix XII to Rule R315-266 -- Nickel or Chromium-Bearing Materials That May Be Processed in Exempt Nickel-Chromium Recovery Furnaces.

A. Exempt Nickel or Chromium-Bearing Materials [when]if Generated by Manufacturers or Users of Nickel, Chromium, or Iron

Baghouse bags

Raney nickel catalyst

Floor sweepings

Air filters

Electroplating bath filters

Wastewater filter media

Wood pallets

Disposable clothing (coveralls, aprons, hats, and gloves)

Laboratory samples and spent chemicals

Shipping containers and plastic liners from containers or vehicles used to transport nickel or chromium-containing wastes

Respirator cartridge filters

Paper hand towels

B. Exempt Nickel or Chromium-Bearing Materials [when]if Generated by Any Industry

Electroplating wastewater treatment sludges (F006)

Solutions containing Nickel, [and/or-]chromium[-containing solutions] or both

Nickel, chromium, and iron catalysts

Nickel-cadmium and nickel-iron batteries

Filter cake from wet scrubber system water treatment plants in the specialty steel industry(1)

Filter cake from nickel-chromium alloy pickling operations(1)

(1) If a hazardous waste under an authorized State program.

R315-266-[214]611. Appendix XIII to Rule R315-266 -- Mercury Bearing Wastes That May Be Processed in Exempt Mercury Recovery Units.

These are exempt mercury-bearing materials with less than 500 ppm of Rule R315-261, appendix VIII organic constituents [when]if generated by manufacturers or users of mercury or mercury products.

- 1. Activated carbon
- 2. Decomposer graphite
- 3. Wood

- 4. Paper
- 5. Protective clothing
- 6. Sweepings
- 7. Respiratory cartridge filters
- 8. Cleanup articles
- 9. Plastic bags and other contaminated containers
- 10. Laboratory and process control samples
- 11. K106 and other wastewater treatment plant sludge and

filter cake

- 12. Mercury cell sump and tank sludge
- 13. Mercury cell process solids
- 14. Recoverable levels of mercury contained in soil

KEY: hazardous waste

Date of Enactment or Last Substantive Amendment: [October 15, 2019 2020

Authorizing, and Implemented or Interpreted Law: 19-6-105; 19-6-106

NOTICE OF PROPOSED RULE			
TYPE OF RULE: Amendment			
Utah Admin. Code Ref (R no.):	R315-268	Filing No. 52928	

Agency Information

1. Department:	Environmental Quality		
Agency:	Waste Management and Radiation Control, Waste Management		
Building:	MASOB		
Street address:	195 N 1	950 W	
City, state:	Salt Lak	e City, UT	
Mailing address:	PO Box 144880		
City, state, zip:	Salt Lake City, UT 84114-4880		
Contact person(s	s):		
Name:	Phone: Email:		
Thomas Ball	801- 536- 0251	tball@utah.gov	
Rusty Lundberg	801- 536- 4257	rlundberg@utah.gov	
Please address questions regarding information on this			

notice to the agency.

General Information

2. Rule or section catchline:

R315-268. Land Disposal Restrictions

3. Purpose of the new rule or reason for the change:

Under the current rules for management of hazardous waste, a small portion of pharmaceuticals are regulated as hazardous wastes when disposed. Hospitals, clinics, nursing homes, and other facilities that generate hazardous waste pharmaceuticals have experienced difficulty complying with the framework of the hazardous waste rules. To respond to these concerns and facilitate compliance among healthcare facilities, the Environmental Protection Agency (EPA) has finalized a tailored, sectorspecific regulatory framework for managing hazardous waste pharmaceuticals at healthcare facilities and reverse distributors (facilities that receive and accumulate prescription pharmaceuticals for the purpose of facilitating manufacturer credit). On February 22, 2019, the EPA published the final rule in the Federal Register (84 FR 5816). The final rule entitled, Management Standards for Hazardous Waste Pharmaceuticals and Amendment to the P075 Listing for Nicotine, applies to healthcare facilities that generate, accumulate, or otherwise handle hazardous waste pharmaceuticals and reverse distributors engaged in the management of prescription hazardous waste pharmaceuticals.

As stated above the rule provides a new set of sectorspecific standards for healthcare facilities (for both humans and animals) and reverse distributors for management of their hazardous waste pharmaceuticals in lieu of the existing hazardous waste generator regulations. The final rule promulgates Sections R315-266-500 through R315-266-510. Healthcare facilities and reverse distributors must manage their hazardous waste pharmaceuticals under this new set of rules in lieu of operating under Rule R315-262 as they have been. These operating standards include a prohibition on disposing of hazardous waste pharmaceuticals in the sewer, called sewering. The new rules also include a conditional exemption for hazardous waste pharmaceuticals that are also identified as controlled substances by the Drug Enforcement Administration (DEA). Further, the rules redefine when containers that held hazardous waste pharmaceuticals are considered empty. facilities that are very small quantity generators (VSQGs) must comply with the sewer prohibition for their hazardous waste pharmaceuticals under the new rules and have the option of complying with Sections R315-266-500 through R315-266-510 in lieu of operating under the conditional exemption found in Section R315-262-14. Additionally, the final rule amends the P075 acute hazardous waste listing for nicotine and salts to indicate that U.S. Food and Drug Administration (FDA)-approved over-the counter (OTC) nicotine replacement therapies (NRTs) are not included in the listina.

These rule changes became effective at the Federal level on August 21, 2019. (EDITOR'S NOTE: The proposed amendment to Rule R315-262 is under Filing No. 52924 and the proposed amendment to Rule R315-266 is under Filing No. 52927 in this issue, August 1, 2020, of the Bulletin.)

4. Summary of the new rule or change:

The headings to Section R315-268-7 and Subsection R315-268-7(a) are amended to include reverse distributors.

Subsection R315-268-50(a)(4) is added. This rule allows a healthcare facility to accumulate waste on site solely for the purpose of accumulating enough hazardous waste pharmaceuticals as necessary to facilitate proper recovery, treatment, or disposal as long as the facility complies with Sections R315-266-500 through R315-266-510.

Subsection R315-268-50(a)(5) is added. This rule allows a reverse distributor to accumulate waste on site solely for the purpose of accumulating enough hazardous waste pharmaceuticals as necessary to facilitate proper recovery, treatment, or disposal as long as the reverse distributor complies with Section R315-266-510.

In addition to the amendments listed above, nonsubstantive changes were made to correct typographical errors and to the format and the wording throughout the amended rule to correct format and wording that was not consistent with the current Rulewriting Manual for Utah Rulewriters.

Fiscal Information

5. Aggregate anticipated cost or savings to:

A) State budget:

The operates one hospital. This hospital is not currently listed as a generator of hazardous waste which could mean that the hospital does not generate any hazardous waste or is a VSQG of hazardous waste. However, this hospital could be subject to the new rules because it falls under the definition of healthcare facility as contained in the rules.

Adoption of these new rules could result in no change to the state budget if the hospital does not generate any hazardous waste.

If the hospital were to generate hazardous waste, then the estimated cost due to the adoption of this rule is approximately \$85 per year. The estimated savings due to the adoption of this rule is approximately \$245 per year and would result in an overall cost savings of approximately \$160 per year.

Data to assist in making this determination was obtained from the EPA document entitled "Regulatory Impact Analysis for EPA's Final Regulations for the Management of Hazardous Waste Pharmaceuticals" dated October 2018.

B) Local governments:

It is not anticipated that adoption of these rule changes will have any effect on local governments because no local governments in the operate healthcare facilities or reverse distributors.

C) Small businesses ("small business" means a business employing 1-49 persons):

There are approximately 7,437 facilities in the that are healthcare facilities and reverse distributors as defined by this rule. Approximately 6,956 of these facilities are small businesses that would potentially be affected by this rule. Not all healthcare facilities and reverse distributors are generators of hazardous waste so it is not possible to determine exactly how many of these businesses will be affected by this rule adoption. Based on information obtained from EPA, it is estimated that approximately 904 of these facilities are generators of hazardous waste. The estimated cost to small businesses due to the adoption of this rule is approximately \$85 per year. The estimated savings to small businesses due to the adoption of this rule is approximately \$245 per year resulting in an overall cost savings of approximately \$160 per year.

Data to assist in making this determination was obtained from the EPA document entitled "Regulatory Impact Analysis for EPA's Final Regulations for the Management of Hazardous Waste Pharmaceuticals" dated October 2018.

D) Non-small businesses ("non-small business" means a business employing 50 or more persons):

As stated previously, there are approximately 7,437 facilities in the that are healthcare facilities and reverse distributors as defined by this rule. Approximately 476 of these facilities are non-small businesses that would potentially be affected by this rule. Not all healthcare facilities and reverse distributors are generators of hazardous waste so it is not possible to determine exactly how many of these businesses will be affected by this rule adoption. Based on information obtained from EPA, it is estimated that approximately 62 of these facilities are generators of hazardous waste. The estimated cost to non-small businesses due to the adoption of this rule is approximately \$85 per year. The estimated savings to non-small businesses due to the adoption of this rule is approximately \$245 per year resulting in an overall cost savings of approximately \$160 per year.

Data to assist in making this determination was obtained from the EPA document entitled "Regulatory Impact Analysis for EPA's Final Regulations for the Management of Hazardous Waste Pharmaceuticals" dated October 2018.

E) Persons other than small businesses, non-small businesses, state, or local government entities ("person" means any individual, partnership, corporation, association, governmental entity, or public or private organization of any character other than an *agency*):

The Division believes that all facilities that could be impacted fiscally by this rule are captured in the four previous categories. It is anticipated if there are any persons other than small businesses, non-small businesses, state, or local governments that are healthcare facilities or reverse distributors, that these

persons would see a cost savings with the adoption of this rule similar to the savings discussed previously.

F) Compliance costs for affected persons:

It is not anticipated that there will be any additional compliance costs for affected persons due to the adoption of this rule other than those mentioned above.

G) Regulatory Impact Summary Table (This table only includes fiscal impacts that could be measured. If there are inestimable fiscal impacts, they will not be included in this table. Inestimable impacts will be included in narratives above.)

Regulatory Impact Table

Fiscal Cost	FY2021	FY2022	FY2023
State Government	\$85	\$85	\$85
Local Governments	\$0	\$0	\$0
Small Businesses	\$76,840	\$76,840	\$76,840
Non-Small Businesses	\$5,270	\$5,270	\$5,270
Other Persons	\$0	\$0	\$0
Total Fiscal Cost	\$82,195	\$82,195	\$82,195
Fiscal Benefits			
State Government	\$245	\$245	\$245
Local Governments	\$0	\$0	\$0
Small Businesses	\$221,480	\$221,480	\$221,480
Non-Small Businesses	\$15,190	\$15,190	\$15,190
Other Persons	\$0	\$0	\$0
Total Fiscal Benefits	\$236,915	\$236,915	\$236,915
Net Fiscal Benefits	\$154,720	\$154,720	\$154,720

H) Department head approval of regulatory impact analysis:

The Executive Director of the Department of Environmental Quality, L. Scott Baird, has reviewed and approved this fiscal analysis.

6. A) Comments by the department head on the fiscal impact this rule may have on businesses:

It is not anticipated that these rule changes will have a negative fiscal impact on any healthcare facility or reverse distributor involved in the management of hazardous waste pharmaceuticals. This rule simplifies requirements and provides regulatory flexibilities and thereby improves regulatory clarity for healthcare facilities and provides more regulatory certainty for reverse distributors. The simplification and clarity provided by these rule changes will reduce the regulatory burden on these facilities, increase compliance, and result in better protection of human health and the environment.

B) Name and title of department head commenting on the fiscal impacts:

L. Scott Baird, Executive Director

Citation Information

7. This rule change is authorized or mandated by state law, and implements or interprets the following state and federal laws. State code or constitution citations (required):

Section 19-6-104 | Section 19-6-105 | Section 19-6-106

Public Notice Information

9. The public may submit written or oral comments to the agency identified in box 1. (The public may also request a hearing by submitting a written request to the agency. The agency is required to hold a hearing if it receives requests from ten interested persons or from an association having not fewer than ten members. Additionally, the request must be received by the agency not more than 15 days after the publication of this rule in the Utah State Bulletin. See Section 63G-3-302 and Rule R15-1 for more information.)

A) Comments will be accepted 08/31/2020 until:

10. This rule change MAY 09/07/2020 become effective on:

NOTE: The date above is the date on which this rule MAY become effective. It is NOT the effective date. After the date designated in Box 10, the agency must submit a Notice of Effective Date to the Office of Administrative Rules to make this rule effective. Failure to submit a Notice of Effective Date will result in this rule lapsing and will require the agency to start the rulemaking process over.

Agency Authorization Information

. ,			
Agency head	Ty L. Howard,	Date:	07/09/2020
or designee,	Director		
and title:			

R315. Environmental Quality, Waste Management and Radiation Control, Waste Management.

R315-268. Land Disposal Restrictions.

R315-268-7. Land Disposal Restrictions -- Testing, Tracking, and Recordkeeping Requirements for Generators, Reverse Distributors, Treaters, and Disposal Facilities.

- (a) Requirements for generators and reverse distributors:
- (1) A generator of hazardous waste shall determine if the waste has to be treated before it can be land disposed. This is done by determining if the hazardous waste meets the treatment standards in Sections R315-268-40, R315-268-45, or R315-268-49. determination can be made concurrently with the hazardous waste determination required in Section R315-262-11, in either of two ways: testing the waste or using knowledge of the waste. If the generator tests the waste, testing would normally determine the total concentration of hazardous constituents, or the concentration of hazardous constituents in an extract of the waste obtained using test method 1311 in "Test Methods of Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, incorporated by reference, see Section R315-260-11, depending on whether the treatment standard for the waste is expressed as a total concentration or concentration of hazardous constituent in the waste's extract. Alternatively, the generator shall send the waste to a hazardous waste treatment facility permitted under Section 19-6-108, where the waste treatment facility shall comply with the requirements of Section R315-264-13 and Subsection R315-268-7(b). In addition, [some]certain hazardous wastes shall be treated by particular treatment methods before they can be land disposed and [some-]soils [are-]contaminated by such hazardous wastes. These treatment standards are also found in Section R315-268-40[-] and are described in detail in Section R315-268-42, Table 1. These wastes, and soils contaminated with such wastes, do not need to be tested, however, if they are in a waste mixture, other wastes with concentration level treatment standards would have to be tested. If a generator determines they are managing a waste or soil contaminated with a waste, that displays a hazardous characteristic of ignitability, corrosivity, reactivity, or toxicity, they shall comply with the special requirements of Section R315-268-9 in addition to any applicable requirements in Section R315-268-7.
- (2) If the waste or contaminated soil does not meet the treatment standards, or if the generator chooses not to make the determination of whether [his]the waste shall be treated, with the initial shipment of waste to each treatment or storage facility, the generator shall send a one-time written notice to each treatment or storage facility receiving the waste, and place a copy in the file. The notice shall include the information in column "268-7(a)(2)" of the Generator Paperwork Requirements Table in Subsection R315-268-7(a)(4). Alternatively, if the generator chooses not to make the determination of whether the waste shall be treated, the notification shall include the EPA Hazardous Waste Numbers and Manifest Number of the first shipment and shall state "This hazardous waste may or may not be subject to the LDR treatment standards. The treatment facility shall make the determination." No further notification is necessary until such time that the waste or facility change, in which case a new notification shall be sent and a copy placed in the generator's file.
- (3) If the waste or contaminated soil meets the treatment standard at the original point of generation:
- (i) With the initial shipment of waste to each treatment, storage, or disposal facility, the generator shall send a one-time written notice to each treatment, storage, or disposal facility receiving the waste, and place a copy in the file. The notice shall include the information indicated in column "268-7(a)(3)" of the Generator Paperwork Requirements Table in Subsection R315-268-7(a)(4) and the following certification statement, signed by an authorized representative:

I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in Sections R315-268-40 through R315-268-49. I believe that the information I submitted is

true, accurate, and complete. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment.

- (ii) For contaminated soil, with the initial shipment of wastes to each treatment, storage, or disposal facility, the generator shall send a one-time written notice to each facility receiving the waste and place a copy in the file. The notice shall include the information in column "268-7(a)(3)" of the Generator Paperwork Requirements Table in Subsection R315-268-7(a)(4).
- (iii) If the waste changes, the generator shall send a new notice and certification to the receiving facility[$\frac{1}{2}$] and place a copy in their files. Generators of hazardous debris excluded from the definition of hazardous waste under Subsection R315-261-3(f) are not subject to these requirements.
- (4) For reporting, tracking, and recordkeeping if[when] exceptions allow certain wastes or contaminated soil that do not meet the treatment standards to be land disposed: _There are certain exemptions from the requirement that hazardous wastes or contaminated soil meet treatment standards before they can be land disposed. These include, but are not limited to case-by-case extensions under Section R315-268-5, disposal in a no-migration unit under Section R315-268-6, or a national capacity variance or case-by-case capacity variance under Sections R315-268-20 through R315-268-39. If a generator's waste is so exempt, then with the initial shipment of waste, the generator shall send a one-time written notice to each land disposal facility receiving the waste. The notice shall include the information indicated in column "268-7(a)(4)" of the Generator Paperwork Requirements Table below. If the waste changes, the generator shall send a new notice to the receiving facility, and place a copy in their files.

TABLE 1 Generator Paperwork Requirements

Required information		268-7 (a)(3)		
1. EPA Hazardous Waste Numbers and Manifest Number of first shipment	X	X	X	X
2. Statement: this waste is not prohibited from land disposal			Х	
3. The waste is subject to the LDRs. The constituents concern for F001-F005, and		X		
FO39, and underlying hazardo constituents in characterist wastes, unless the waste wil	ic 1			
be treated and monitored for [all] each constituent[s]. I constituent[s] will be treat	f [all] <u>e</u> ed	<u>ach</u>		
and monitored, there is no n to put <u>each of</u> them[-all] on notice	the LDR			
 The notice shall include applicable wastewater [/] or nonwastewater category (see 		Х		
Section R315-268-2(d)[-] and and subdivisions made within	a		5/3	
<pre>waste code based on_waste-sp as D003 reactive cyanide[+]</pre>		_		
5. Waste analysis data, [when] <u>if</u> available	Х	Х	Х	
Date the waste is subject to the prohibition	t		Х	
7. For hazardous debris, [waterating with the alternative treatment technologies proviby Section R315-268-45: the	e	X		X

contaminants subject to treatment, as described in Section R315-268-45(b): and an indication that these contaminants are being treated to comply with Section R315-268-45 8. For contaminated soil Χ subject to LDRs as provided in [\$] Subsection R315-268-49(a). the constituents subject to treatment as described in [8] Subsection R315-268-49(d), and the following statement: "This contaminated soil, does/does not, contain listed hazardous waste and, does/does not, exhibit a characteristic of hazardous waste and, is subject to/complies with, the soil treatment standards as provided by [\$]<u>Subs</u>ection R315-268-49(c) or the universal treatment standards" χ 9. A certification is needed. χ see applicable section for exact wording

- (5) If a generator is managing and treating prohibited waste or contaminated soil in tanks, containers, or containment buildings regulated under Sections R315-262-15, R315-262-16, and R315-262-17 to meet applicable LDR treatment standards found at Section R315-268-40, the generator shall develop and follow a written waste analysis plan which describes the procedures it will carry out to comply with the treatment standards. Generators treating hazardous debris under the alternative treatment standards of Table 1 to Section R315-268-45, however, are not subject to these waste analysis requirements. The plan [must]shall be kept on site in the generator's records, and the following requirements [must]shall be met:
- (i) The waste analysis plan shall be based on a detailed chemical and physical analysis of a representative sample of the prohibited waste(s) being treated, and contain [all]the information necessary to treat the waste[{]s[}] in accordance with the requirements of Rule R315-268, including the selected testing frequency.
- (ii) Such plan shall be kept in the facility's on-site files and made available to inspectors.
- (iii) Wastes shipped off-site pursuant to Subsection R315-268-7(a) shall comply with the notification requirements of Subsection R315-268-7(a)(3).
- (6) If a generator determines that the waste or contaminated soil is restricted based solely on his knowledge of the waste, [all]the supporting data used to make this determination shall be retained on-site in the generator's files. If a generator determines that the waste is restricted based on testing this waste or an extract developed using the test method 1311 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as referenced in Section R315-260-11, and [all]the waste analysis data shall be retained on-site in the generator's files.
- (7) If a generator determines that he is managing a prohibited waste that is excluded from the definition of hazardous or solid waste or is exempted from regulation under Sections R315-261-2 through R315-261-6 subsequent to the point of generation, including deactivated characteristic hazardous wastes managed in wastewater treatment systems subject to the Clean Water Act (CWA) as specified at Subsection R315-261-4(a)(2) or that are CWA-equivalent, or are managed in an underground injection well regulated by the SDWA, he shall place a one-time notice describing such generation, subsequent exclusion from the definition of hazardous or solid waste or exemption

from regulation under Sections R315-261-2 through R315-261-6, and the disposition of the waste, in the facility's on-site files.

- (8) Generators shall retain on-site a copy of [all]the notices, certifications, waste analysis data, and other documentation produced pursuant to Section R315-268-7 for at least three years from the date that the waste that is the subject of such documentation was last sent to onsite or off-site treatment, storage, or disposal. The three[-]-year record retention period is automatically extended during the course of any unresolved enforcement action regarding the regulated activity or as requested by the Director. The requirements of Subsection R315-268-7(a) apply to solid wastes even [when]if the hazardous characteristic is removed prior to disposal, or [when]if the waste is excluded from the definition of hazardous or solid waste under Sections R315-261-2 through R315-261-6, or exempted from hazardous waste regulation, subsequent to the point of generation.
- (9) If a generator is managing a lab pack containing hazardous wastes and wishes to use the alternative treatment standard for lab packs found at Subsection R315-268-42(c):
- (i) With the initial shipment of waste to a treatment facility, the generator shall submit a notice that provides the information in column "268-7(a)(9)" in the Generator Paperwork Requirements Table of Subsection R315-268-7(a)(4), and the following certification. The certification, which shall be signed by an authorized representative and shall be placed in the generator's files, shall say the following:

I certify under penalty of law that I personally have examined and am familiar with the waste and that the lab pack contains only wastes that have not been excluded under [a]Appendix IV to Rule R315-268 and that this lab pack will be sent to a combustion facility in compliance with the alternative treatment standards for lab packs at Subsection R315-268-42(c). I am aware that there are significant penalties for submitting a false certification, including the possibility of fine or imprisonment.

- (ii) No further notification is necessary until such time that the wastes in the lab pack change, or the receiving facility changes, in which case a new notice and certification shall be sent and a copy placed in the generator's file.
- (iii) If the lab pack contains characteristic hazardous wastes, D001-D043 excluding D009, underlying hazardous constituents, as defined in Subsection R315-268-2(i) need not be determined.
- (iv) The generator shall also comply with the requirements in Subsections R315-268-7(a)(6) and R315-268-7(a)(7).
- (10) Small quantity generators with tolling agreements pursuant to Subsection R315-262-20(e) shall comply with the applicable notification and certification requirements of Subsection R315-268-7(a) for the initial shipment of the waste subject to the agreement. Such generators shall retain on-site a copy of the notification and certification, together with the tolling agreement, for at least three years after termination or expiration of the agreement. The three-year record retention period is automatically extended during the course of any unresolved enforcement action regarding the regulated activity or as requested by the Director.
- (b) Treatment facilities shall test their wastes according to the frequency specified in their waste analysis plans as required by Section R315-264-13, for permitted TSDs, or [40 CFR 265.13, which is adopted by reference]Section R315-265-13, for interim status facilities. Such testing shall be performed as provided in Subsections R315-268-7(b)(1), R315-268-7(b)(2) and R315-268-7(b)(3).
- (1) For wastes or contaminated soil with treatment standards expressed in the waste extract, [{]TCLP[}], the owner or operator of the treatment facility shall test an extract of the treatment residues, using test method 1311, the Toxicity Characteristic Leaching Procedure, described in "Test Methods for Evaluating Solid Waste, Physical/Chemical

Methods," EPA Publication SW-846 as incorporated by reference in Section R315-260-11, to assure that the treatment residues extract meet the applicable treatment standards.

- (2) For wastes or contaminated soil with treatment standards expressed as concentrations in the waste, the owner or operator of the treatment facility shall test the treatment residues, not an extract of such residues, to assure that they meet the applicable treatment standards.
- (3) A one-time notice shall be sent with the initial shipment of waste or contaminated soil to the land disposal facility. A copy of the notice shall be placed in the treatment facility's file.
- (i) No further notification is necessary until such time that the waste or receiving facility change, in which case a new notice shall be sent and a copy placed in the treatment facility's file.
 - (ii) The one-time notice shall include these requirements:

268-7(h)

TABLE 2

Treatment Facility Paperwork Requirements

Required information

Required information 200-	/ (b)
1. EPA Hazardous Waste Numbers and Manifest	Χ
Number of first shipment	
2. The waste is subject to the LDRs. The	Χ
constituents of concern for F001-F005, and F039,	
and underlying hazardous constituents in	
characteristic wastes, unless the waste will be	
treated and monitored for $[all]$ each constituent $[s]$. If	[all] <u>each</u>
constituent $[s]$ will be treated and monitored, there	
is no need to put <pre>each of them[-all]</pre> on the LDR notice.	
 The notice shall include the applicable 	X
wastewater[<u>/</u>] <u>or</u> nonwastewater category, see	
Subsections R315-268-2(d) and <u>R315-268-2</u> (f))[—] and	
subdivisions made within a waste code based on	
waste-specific criteria, such as D003 reactive	
cyanide	
4. Waste analysis data, [when] <u>if</u> available	X
For contaminated soil subject to LDRs as	X
provided in Subsection R315-268-49(a), the	
constituents subject	
to treatment as described in Subsection	
R315-268-49(d) and the following statement,	
"this contaminated soil, does/does not, exhibit a	
characteristic of hazardous waste and, is subject	
to/complies with, the soil treatment standards as	
provided by Subsection R315-268-49(c)".	
6. A certification is needed, see applicable	X
section for exact wording	

(4) The treatment facility shall submit a one-time certification signed by an authorized representative with the initial shipment of waste or treatment residue of a restricted waste to the land disposal facility. The certification shall state:

I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification. Based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process has been operated and maintained properly so as to comply with the treatment standards specified in Section R315-268-40 without impermissible dilution of the prohibited waste. I am aware there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

A certification is also necessary for contaminated soil and it shall state:

I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and believe that it has been maintained and operated properly so as to comply with treatment standards specified in Section R315-268-49 without impermissible

dilution of the prohibited wastes. I am aware there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

- (i) A copy of the certification shall be placed in the treatment facility's on-site files. If the waste or treatment residue changes, or the receiving facility changes, a new certification shall be sent to the receiving facility, and a copy placed in the file.
- (ii) Debris excluded from the definition of hazardous waste under Subsection R315-261-3(f)[, i.e.,] that is debris treated by an extraction or destruction technology provided by Table 1, Section R315-268-45, and debris that the Director has determined does not contain hazardous waste, however, is subject to the notification and certification requirements of Subsection R315-268-7(d) rather than the certification requirements of Subsection R315-268-7(b).
- (iii) For wastes with organic constituents having treatment standards expressed as concentration levels, if compliance with the treatment standards is based in whole or in part on the analytical detection limit alternative specified in Subsection R315-268-40(d), the certification, signed by an authorized representative, shall state the following:

I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification. Based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the nonwastewater organic constituents have been treated by combustion units as specified in Section R315-268-42, Table 1. I have been unable to detect the nonwastewater organic constituents, despite having used best good-faith efforts to analyze for such constituents. I am aware there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

(iv) For characteristic wastes that are subject to the treatment standards in Section R315-268-40, other than those expressed as a method of treatment, or Section R315-268-49, and that contain underlying hazardous constituents as defined in Subsection R315-268-2(i); if these wastes are treated on-site to remove the hazardous characteristic; and are then sent off-site for treatment of underlying hazardous constituents, the certification shall state the following:

I certify under penalty of law that the waste has been treated in accordance with the requirements of Section R315-268-40 or R315-268-49 to remove the hazardous characteristic. This decharacterized waste contains underlying hazardous constituents that require further treatment to meet treatment standards. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

(v) For characteristic wastes that contain underlying hazardous constituents as defined Subsection R315-268-2(i) that are treated on-site to remove the hazardous characteristic to treat underlying hazardous constituents to levels in Section R315-268-48 Universal Treatment Standards, the certification shall state the following:

I certify under penalty of law that the waste has been treated in accordance with the requirements of Section R315-268-40 to remove the hazardous characteristic and that underlying hazardous constituents, as defined in Subsection R315-268-2(i) have been treated on-site to meet the Section R315-268-48 Universal Treatment Standards. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

(5) If the waste or treatment residue will be further managed at a different treatment, storage, or disposal facility, the treatment, storage, or disposal facility sending the waste or treatment residue offsite shall comply with the notice and certification requirements applicable to generators under Section R315-268-7.

- (6) Where the wastes are recyclable materials used in a manner constituting disposal subject to [the provisions of]Subsection R315-266-20(b) regarding treatment standards and prohibition levels, the owner or operator of a treatment facility, [i.e.]that is[,] the recycler, shall, for the initial shipment of waste, prepare a one-time certification described in Subsection R315-268-7(b)(4), and a one-time notice which includes the information in Subsection R315-268-7(b)(3), except the manifest number. The certification and notification shall be placed in the facility's on-site files. If the waste or the receiving facility changes, a new certification and notification shall be prepared and placed in the on-site files. In addition, the recycling facility shall also keep records of the name and location of each entity receiving the hazardous wastederived product.
- (c) Except where the owner or operator is disposing of any waste that is a recyclable material used in a manner constituting disposal pursuant to Subsection R315-266-20(b), the owner or operator of any land disposal facility disposing any waste subject to restrictions under Rule R315-268 shall:
- (1) Have copies of the notice and certifications specified in Subsection R315-268-7(a) or $\underline{R315-268-7}(b)$.
- (2) Test the waste, or an extract of the waste or treatment residue developed using test method 1311, the Toxicity Characteristic Leaching Procedure, described in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846 as incorporated by reference in Section R315-260-11, to assure that the wastes or treatment residues are in compliance with the applicable treatment standards set forth in Sections R315-268-40 through R315-268-49. Such testing shall be performed according to the frequency specified in the facility's waste analysis plan as required by Section R315-264-13 or R315-265-13[40 CFR 265.13, which is adopted by reference].
- (d) Generators or treaters who first claim that hazardous debris is excluded from the definition of hazardous waste under Subsection R315-261-3(f)[, i.e.,] that is debris treated by an extraction or destruction technology provided by Table 1, Section R315-268-45, and debris that the Director has determined does not contain hazardous waste, are subject to the following notification and certification requirements:
- (1) A one-time notification, including the following information, shall be submitted to the Director:
- (i) The name and address of the Subtitle D facility receiving the treated debris;
- (ii) A description of the hazardous debris as initially generated, including the applicable EPA Hazardous Waste Number[{-|s[-]: and
- (iii) For debris excluded under Subsection R315-261-3(f)(1), the technology from Table 1, Section R315-268-45, used to treat the debris
- (2) The notification shall be updated if the debris is shipped to a different facility, and, for debris excluded under Subsection R315-261-2(f)(1), if a different type of debris is treated or if a different technology is used to treat the debris.
- (3) For debris excluded under Subsection R315-261-3(f)(1), the owner or operator of the treatment facility shall document and certify compliance with the treatment standards of Table 1, Section R315-268-45, as follows:
- (i) Records shall be kept of [all]each inspection[s], evaluation[s], and analyses of treated debris that are made to determine compliance with the treatment standards;
- (ii) Records shall be kept of any data or information the treater obtains during treatment of the debris that identifies key operating parameters of the treatment unit; and

- (iii) For each shipment of treated debris, a certification of compliance with the treatment standards shall be signed by an authorized representative and placed in the facility's files. The certification shall state the following: "I certify under penalty of law that the debris has been treated in accordance with the requirements of Section R315-268-45. I am aware that there are significant penalties for making a false certification, including the possibility of fine and imprisonment."
- (e) Generators and treaters who first receive from the Director a determination that a given contaminated soil subject to LDRs as provided in Subsection R315-268-49(a) no longer contains a listed hazardous waste and generators and treaters who first determine that a contaminated soil subject to LDRs as provided in Subsection R315-268-49(a) no longer exhibits a characteristic of hazardous waste shall:
- (1) Prepare a one-time only documentation of these determinations including [all-]supporting information; and $[{}_{\bar{1}}]$
- (2) Maintain that information in the facility files and other records for a minimum of three years.

R315-268-50. Land Disposal Restrictions -- Prohibitions on Storage of Restricted Wastes.

- (a) Except as provided in Section R315-268-50, the storage of hazardous wastes restricted from land disposal under Sections R315-268-20 through R315-268-39 is prohibited, unless the following conditions are met:
- (1) A generator stores such wastes in tanks, containers, or containment buildings on-site solely for the purpose of the accumulation of such quantities of hazardous waste as necessary to facilitate proper recovery, treatment, or disposal and the generator complies with the requirements in Sections R315-262-16 and R315-262-17, and Rules R315-264 and R315-265.
- (2) An owner[/] or operator of a hazardous waste treatment, storage, or disposal facility stores such wastes in tanks, containers, or containment buildings solely for the purpose of the accumulation of such quantities of hazardous waste as necessary to facilitate proper recovery, treatment, or disposal and:
- $\hbox{ (i) \ Each container is clearly marked to identify its contents and with:} \\$
 - (A) The words "Hazardous Waste";
- (B) The applicable EPA hazardous waste number[{]s[}], EPA hazardous waste codes, in Sections R315-261-20 through R315-261-24 and R315-261-30 through R315-261-35; or use a nationally recognized electronic system, such as bar coding, to identify the EPA hazardous waste number[{]s[}];
- (C) An indication of the hazards of the contents, examples include:
- (I) the applicable hazardous waste characteristic[{|s|}], [i.e.,]ignitable, corrosive, reactive, toxic;
- (II) hazard communication consistent with the Department of Transportation requirements at 49 CFR part 172 subpart E, labeling, or subpart F, placarding;
- (III) a hazard statement or pictogram consistent with the Occupational Safety and Health Administration Hazard Communication Standard at 29 CFR 1910.1200; or
- $\,$ (IV) a chemical hazard label consistent with the National Fire Protection Association code 704; and
 - (D) The date each period of accumulation begins;
- (ii) Each tank is clearly marked with a description of its contents, the quantity of each hazardous waste received, and the date each period of accumulation begins, or such information for each tank

- is recorded and maintained in the operating record at that facility. Regardless of whether the tank itself is marked, an owner[/] or operator shall comply with the operating record requirements specified in Section R315-264-73 or R315-265-73[40 CFR 265.73, which are adopted by reference].
- (3) A transporter stores manifested shipments of such wastes at a transfer facility for 10 days or less.
- (4) A healthcare facility accumulates such wastes in containers on site solely for the purpose of the accumulation of such quantities of hazardous waste pharmaceuticals as necessary to facilitate proper recovery, treatment, or disposal and the healthcare facility complies with the applicable requirements in Sections R315-266-500 through R315-266-503.
- (5) A reverse distributor accumulates such wastes in containers on site solely for the purpose of the accumulation of such quantities of hazardous waste pharmaceuticals as necessary to facilitate proper recovery, treatment, or disposal and the reverse distributor complies with Section R315-266-510.
- (b) An owner[/] or operator of a treatment, storage or disposal facility may store such wastes for up to one year unless the Director can demonstrate that such storage was not solely for the purpose of accumulation of such quantities of hazardous waste as are necessary to facilitate proper recovery, treatment, or disposal.
- (c) An owner[/] or operator of a treatment, storage or disposal facility may store such wastes beyond one year; however, the owner[/] or operator bears the burden of proving that such storage was solely for the purpose of accumulation of such quantities of hazardous waste as are necessary to facilitate proper recovery, treatment, or disposal.
- (d) If a generator's waste is exempt from a prohibition on the type of land disposal utilized for the waste, for example, because of an approved case-by-case extension under Section R315-268-5, an approved Section R315-268-6 petition, or a national capacity variance under Sections R315-268-20 through R315-268-39, the prohibition in Subsection R315-268-50(a) does not apply during the period of such exemption.
- (e) The prohibition in Subsection R315-268-50(a) does not apply to hazardous wastes that meet the treatment standards specified under Sections R315-268-41, R315-268-42, and R315-268-43 or the treatment standards specified under the variance in Section R315-268-44, or, where treatment standards have not been specified, is in compliance with the applicable prohibitions specified in Section R315-268-32 or RCRA section 3004.
- (f) Liquid hazardous wastes containing polychlorinated biphenyls (PCBs) at concentrations greater than or equal to 50 ppm shall be stored at a facility that meets the requirements of 40 CFR 761.65(b) and shall be removed from storage and treated or disposed as required by Rule R315-268 within one year of the date when such wastes are first placed into storage. [The provisions of]Subsection R315-268-50(c) does not apply to such PCB wastes prohibited under Section R315-268-32
- (g) The prohibition and requirements in Section R315-268-50 do not apply to hazardous remediation wastes stored in a staging pile approved pursuant to Section R315-264-554.

KEY: hazardous waste, land disposal restrictions

Date of Enactment or Last Substantive Amendment: [Augu

Date of Enactment or Last Substantive Amendment: [August 31, 2017]2020

Authorizing, and Implemented or Interpreted Law: 19-6-105; 19-6-106

NOTICE OF PROPOSED RULE			
TYPE OF RULE: Amendment			
Utah Admin. Code Ref (R no.):	R315-270-1	Filing No. 52929	

Agency Information

rigorioy illiorillati				
1. Department:	Environi	Environmental Quality		
Agency:	Waste Management and Radiation Control, Waste Management			
Building:	MASOB			
Street address:	195 N 1	950 W		
City, state:	Salt Lak	e City, UT		
Mailing address:	PO Box 144880			
City, state, zip:	Salt Lake City, UT 84114-4880			
Contact person(s	s):			
Name:	Phone:	Email:		
Thomas Ball	801- 536- 0251	tball@utah.gov		
Rusty Lundberg	801- 536- 4257	rlundberg@utah.gov		
Please address q	uestions	regarding information on this		

General Information

notice to the agency.

2. Rule or section catchline:

R315-270-1. Hazardous Waste Permit Program – Purpose and Scope of These Rules

3. Purpose of the new rule or reason for the change:

Under the current rules for management of hazardous waste, a small portion of pharmaceuticals are regulated as hazardous wastes when disposed. Hospitals, clinics, nursing homes, and other facilities that generate hazardous waste pharmaceuticals have experienced difficulty complying with the framework of the hazardous waste rules. To respond to these concerns and facilitate compliance among healthcare facilities, the Environmental Protection Agency (EPA) has finalized a tailored, sectorspecific regulatory framework for managing hazardous waste pharmaceuticals at healthcare facilities and reverse distributors (facilities that receive and accumulate prescription pharmaceuticals for the purpose of facilitating manufacturer credit). On February 22, 2019, the EPA published the final rule in the Federal Register (84 FR 5816). The final rule entitled, Management Standards for Hazardous Waste Pharmaceuticals and Amendment to the P075 Listing for Nicotine, applies to healthcare facilities that generate, accumulate, or otherwise handle hazardous waste pharmaceuticals and reverse distributors engaged in the management of prescription hazardous waste pharmaceuticals.

As stated above the rule provides a new set of sectorspecific standards for healthcare facilities (for both humans and animals) and reverse distributors for management of their hazardous waste pharmaceuticals in lieu of the existing hazardous waste generator regulations. The final rule promulgates Sections R315-266-500 through R315-266-510. Healthcare facilities and reverse distributors must manage their hazardous waste pharmaceuticals under this new set of rules in lieu of operating under Rule R315-262 as they have been. These operating standards include a prohibition on disposing of hazardous waste pharmaceuticals in the sewer, called sewering. The new rules also include a conditional exemption for hazardous waste pharmaceuticals that are also identified as controlled substances by the Drug Enforcement Administration (DEA). Further, the rules redefine when containers that held hazardous waste pharmaceuticals are considered empty. Healthcare facilities that are very small quantity generators (VSQGs) must comply with the sewer prohibition for their hazardous waste pharmaceuticals under the new rules and have the option of complying with Sections R315-266-500 through R315-266-510 in lieu of operating under the conditional exemption found in Section R315-262-14. Additionally, the final rule amends the P075 acute hazardous waste listing for nicotine and salts to indicate that U.S. Food and Drug Administration (FDA)-approved over-the counter (OTC) nicotine replacement therapies (NRTs) are not included in the listing.

These rule changes became effective at the Federal level on August 21, 2019. (EDITOR'S NOTE: The proposed amendment to Rule R315-262 is under Filing No. 52924 and the proposed amendment to Rule R315-266 is under Filing No. 52927 in this issue, August 1, 2020, of the Bulletin.)

4. Summary of the new rule or change:

Subsection R315-270-1(c)(2)(ix) is added. This rule exempts reverse distributors accumulating potentially creditable hazardous waste pharmaceuticals and evaluated hazardous waste pharmaceuticals from having to obtain a hazardous waste permit. The rule states that these reverse distributors are subject to Sections R315-266-500 through R315-266-510.

References to parts of 40 CFR 265 that were adopted and incorporated by reference that have now been adopted into Rule R315-265 were amended to reference the appropriate rules found in Rule R315-265. (EDITOR'S NOTE: The proposed amendment to Section R315-265-1 is under Filing No. 52926 in this issue, August 1, 2020, of the Bulletin.)

In addition to the amendments listed above, nonsubstantive changes were made to correct typographical errors and to the format and the wording throughout the amended rule to correct format and wording that was not consistent with the current Rulewriting Manual for Utah Rulewriters.

Fiscal Information

5. Aggregate anticipated cost or savings to:

A) State budget:

The operates one hospital. This hospital is not currently listed as a generator of hazardous waste which could mean that the hospital does not generate any hazardous waste or is a VSQG of hazardous waste. However, this hospital could be subject to the new rules because it falls under the definition of healthcare facility as contained in the rules.

Adoption of these new rules could result in no change to the state budget if the hospital does not generate any hazardous waste.

If the hospital were to generate hazardous waste, then the estimated cost due to the adoption of this rule is approximately \$85 per year. The estimated savings due to the adoption of this rule is approximately \$245 per year and would result in an overall cost savings of approximately \$160 per year.

Data to assist in making this determination was obtained from the EPA document entitled "Regulatory Impact Analysis for EPA's Final Regulations for the Management of Hazardous Waste Pharmaceuticals" dated October 2018.

B) Local governments:

It is not anticipated that adoption of these rule changes will have any effect on local governments because no local governments in the operate healthcare facilities or reverse distributors.

C) Small businesses ("small business" means a business employing 1-49 persons):

There are approximately 7,437 facilities in the that are healthcare facilities and reverse distributors as defined by this rule. Approximately 6,956 of these facilities are small businesses that would potentially be affected by this rule. Not all healthcare facilities and reverse distributors are generators of hazardous waste so it is not possible to determine exactly how many of these businesses will be affected by this rule adoption. Based on information obtained from EPA, it is estimated that approximately 904 of these facilities are generators of hazardous waste. The estimated cost to small businesses due to the adoption of this rule is approximately \$85 per year. The estimated savings to small businesses due to the adoption of this rule is approximately \$245 per year resulting in an overall cost savings of approximately \$160 per year.

Data to assist in making this determination was obtained from the EPA document entitled "Regulatory Impact Analysis for EPA's Final Regulations for the Management of Hazardous Waste Pharmaceuticals" dated October 2018.

D) Non-small businesses ("non-small business" means a business employing 50 or more persons):

As stated previously, there are approximately 7,437 facilities in the that are healthcare facilities and reverse distributors as defined by this rule. Approximately 476 of these facilities are non-small businesses that would potentially be affected by this rule. Not all healthcare facilities and reverse distributors are generators of hazardous waste so it is not possible to determine exactly how many of these businesses will be affected by this rule adoption. Based on information obtained from EPA, it is estimated that approximately 62 of these facilities are generators of hazardous waste. The estimated cost to non-small businesses due to the adoption of this rule is approximately \$85 per year. The estimated savings to non-small businesses due to the adoption of this rule is approximately \$245 per year resulting in an overall cost savings of approximately \$160 per year.

Data to assist in making this determination was obtained from the EPA document entitled "Regulatory Impact Analysis for EPA's Final Regulations for the Management of Hazardous Waste Pharmaceuticals" dated October 2018.

E) Persons other than small businesses, non-small businesses, state, or local government entities ("person" means any individual, partnership, corporation, association, governmental entity, or public or private organization of any character other than an *agency*):

The Division believes that all facilities that could be impacted fiscally by this rule are captured in the four previous categories. It is anticipated if there are any persons other than small businesses, non-small businesses, state, or local governments that are healthcare facilities or reverse distributors, that these persons would see a cost savings with the adoption of this rule similar to the savings discussed previously.

F) Compliance costs for affected persons:

It is not anticipated that there will be any additional compliance costs for affected persons due to the adoption of this rule other than those mentioned above.

G) Regulatory Impact Summary Table (This table only includes fiscal impacts that could be measured. If there are inestimable fiscal impacts, they will not be included in this table. Inestimable impacts will be included in narratives above.)

Regulatory Impact Table

Fiscal Cost	FY2021	FY2022	FY2023
State Government	\$85	\$85	\$85
Local Governments	\$0	\$0	\$0
Small Businesses	\$76,840	\$76,840	\$76,840

Non-Small Businesses	\$5,270	\$5,270	\$5,270
Other Persons	\$0	\$0	\$0
Total Fiscal Cost	\$82,195	\$82,195	\$82,195
Fiscal Benefits			
State Government	\$245	\$245	\$245
Local Governments	\$0	\$0	\$0
Small Businesses	\$221,480	\$221,480	\$221,480
Non-Small Businesses	\$15,190	\$15,190	\$15,190
Other Persons	\$0	\$0	\$0
Total Fiscal Benefits	\$236,915	\$236,915	\$236,915
Net Fiscal Benefits	\$154,720	\$154,720	\$154,720

H) Department head approval of regulatory impact analysis:

The Executive Director of the Department of Environmental Quality, L. Scott Baird, has reviewed and approved this fiscal analysis.

6. A) Comments by the department head on the fiscal impact this rule may have on businesses:

It is not anticipated that these rule changes will have a negative fiscal impact on any healthcare facility or reverse distributor involved in the management of hazardous waste pharmaceuticals. This rule simplifies requirements and provides regulatory flexibilities and thereby improves regulatory clarity for healthcare facilities and provides more regulatory certainty for reverse distributors. The simplification and clarity provided by these rule changes will reduce the regulatory burden on these facilities, increase compliance, and result in better protection of human health and the environment.

B) Name and title of department head commenting on the fiscal impacts:

L. Scott Baird, Executive Director

Citation Information

7. This rule change is authorized or mandated by state law, and implements or interprets the following state and federal laws. State code or constitution citations (required):

Section 19-6-104 | Section 19-6-105 | Section 19-6-106

Public Notice Information

9. The public may submit written or oral comments to the agency identified in box 1. (The public may also request a hearing by submitting a written request to the agency. The agency is required to hold a hearing if it receives requests from ten interested persons or from an association having not fewer than ten members. Additionally, the request must be received by the agency not more than 15 days after the publication of this rule in the Utah State Bulletin. See Section 63G-3-302 and Rule R15-1 for more information.)

A) Comments will be accepted 08/31/2020 until:

10. This rule change MAY 09/07/2020 become effective on:

NOTE: The date above is the date on which this rule MAY become effective. It is NOT the effective date. After the date designated in Box 10, the agency must submit a Notice of Effective Date to the Office of Administrative Rules to make this rule effective. Failure to submit a Notice of Effective Date will result in this rule lapsing and will require the agency to start the rulemaking process over.

Agency Authorization Information

Agency head	Ty L. Howard,	Date:	07/09/2020
or designee,	Director		
and title:			

R315. Environmental Quality, Waste Management and Radiation Control, Waste Management.

R315-270. Hazardous Waste Permit Program.

R315-270-1. Hazardous Waste Permit Program -- Purpose and Scope of These Rules.

(a) No person shall own, construct, modify, or operate any facility for the purpose of treating, storing, or disposing of hazardous waste without first submitting, and receiving the approval of the Director for, a hazardous waste permit for that facility. However, any person owning or operating a facility on or before November 19, 1980, who has given timely notification as required by section 3010 of the Resource Conservation and Recovery Act (RCRA) of 1976, 42 U.S.C., section 6921, et seq., and who has submitted a proposed hazardous waste permit as required by Section R315-270-1 and Section 19-6-108 for that facility, may continue to operate that facility without violating Section R315-270-1 until such time as the permit is approved or disapproved pursuant to Section R315-270-1.

(b)(1) The Director shall review each proposed hazardous waste permit application to determine whether the application will be in accord with [the provisions of-]Rules R315-260 through R315-266, R315-268, R315-270, and R315-273, and Section 19-6-108 and, on that basis, shall approve or disapprove the application within the applicable time period specified in Section 19-6-108. If, after the receipt of plans, specifications, or other information required under Rule R315-270 and Section 19-6-108 and within the applicable time period of Section 19-6-108, the Director determines that the proposed construction, installation or establishment or any part of it will not be in accord with the requirements of Rule R315-270 or other applicable rules, he shall issue an order prohibiting the construction, installation or establishment of the proposal in whole or in part. The date of submission shall be deemed to

be the date [of]that [all]the required information is provided to the Director as required by Rule R315-270.

- (2) Any permit application [which]that does not meet the requirements of Rules R315-260 through R315-266, R315-268, R315-270, and R315-273 shall be disapproved within the applicable time period specified in Section 19-6-108. If within the applicable time period specified in Section 19-6-108 the Director fails to approve or disapprove the permit application or to request the submission of any additional information or modification to the application, the application shall not be deemed approved but the applicant may petition the Director for a decision or seek judicial relief requiring a decision of approval or disapproval.
- (3) An application for approval of a hazardous waste permit consists of two parts, part A and part B. For an existing facility, the requirement is satisfied by submitting only part A of the application until the date the Director sets for each individual facility for submitting part B of the application, which date shall be in no case less than six months after the Director gives notice to a particular facility that it shall submit part B of the application.
- (c) Scope of the hazardous waste permit requirement. Section 19-6-108 requires a permit for the "treatment," "storage," and "disposal" of any "hazardous waste" as identified or listed in Rule R315-261. The terms "treatment," "storage," "disposal," and "hazardous waste" are defined in Section R315-270-2. Owners and operators of hazardous waste management units shall have permits during the active life, including the closure period, of the unit. Owners and operators of surface impoundments, landfills, land treatment units, and waste pile units that received waste after July 26, 1982, or that certified closure, [according to 40 CFR 265.115, which is adopted by reference]in accordance with Section R315-265-115, after January 26, 1983, shall have post-closure permits, unless they demonstrate closure by removal or decontamination as provided under Subsections R315-270-1(c)(5) and R315-270-1(c)(6), or obtain an enforceable document in lieu of a post-closure permit, as provided under Subsection R315-270-1(c)(7). If a post-closure permit is required, the permit shall address applicable Rule R315-264 groundwater monitoring, unsaturated zone monitoring, corrective action, and post-closure care requirements. The denial of a permit for the active life of a hazardous waste management facility or unit does not affect the requirement to obtain a post-closure permit under Section R315-270-1.
- (1) Specific inclusions. Owners and operators of certain facilities require hazardous waste permits as well as permits under other programs for certain aspects of the facility operation. Hazardous waste permits are required for the following:
- (i) Injection wells that dispose of hazardous waste, and associated surface facilities that treat, store or dispose of hazardous waste. However, the owner and operator with a Utah or Federal UIC permit, shall be deemed to have a "permit by rule" for the injection well itself if they comply with the requirements of Subsection R315-270-60(b).
- (ii) Treatment, storage, or disposal of hazardous waste at facilities requiring an NPDES permit. However, the owner and operator of a publicly owned treatment works receiving hazardous waste shall be deemed to have a "permit by rule" for that waste if they comply with the requirements of Section R315-270-60(c).
- (2) Specific exclusions and exemptions. The following [persons are among those who-]are not required to obtain a hazardous waste permit:
- (i) $\underline{A}[G]$ generator[s] who accumulates hazardous waste onsite in compliance with [all of] the conditions for exemption provided in Sections R315-262-14, R315-262-15, R315-262-16, and R315-262-17.

- (ii) <u>A [F]farmer[s]</u> who disposes of hazardous waste pesticides from their own use as provided in Section R315-262-70[†].
- (iii) <u>A[P]person[s]</u> who own<u>s</u> or operate<u>s</u> facilities solely for the treatment, storage or disposal of hazardous waste excluded from regulation[s] under Rule R315-270 by Section R315-261-4 or Section R315-262-14, very small quantity generator exemption.
- (iv) An $[\Theta]owner[s]$ or operator[s] of totally enclosed treatment facilities as defined in Section R315-260-10.
- (v) An $[\Theta]$ owner[s] and operator[s] of one or more elementary neutralization units or wastewater treatment units as defined in Section R315-260-10.
- (vi) A [Ŧ]transporter[s] storing manifested shipments of hazardous waste in containers meeting the requirements of Section R315-262-30 at a transfer facility for a period of ten days or less.
- (vii) \underline{A} [P]person[s] adding absorbent material to waste in a container, as defined in Section R315-260-10, and \underline{a} person[s] adding waste to absorbent material in a container, provided that these actions occur at the time waste is first placed in the container; and Subsection R315-264-17(b) and Sections R315-264-171, and 172 are complied with.
- (viii) Universal waste handlers and universal waste transporters, as defined in Section R315-260-10, managing the wastes listed below. These handlers are subject to regulation under Rule R315-273 if handling the following universal wastes:[-]
 - (A) [B]batteries as described in Section R315-273-2;
 - (B) [P]pesticides as described in Section R315-273-3;
- (C) $[\underline{\mathbf{M}}]\underline{\mathbf{m}}$ ercury-containing equipment as described in Section R315-273-4; and
 - (D) [L]amps as described in Section R315-273-5.
- (ix) Reverse distributors accumulating potentially creditable hazardous waste pharmaceuticals and evaluated hazardous waste pharmaceuticals, as defined in Section R315-266-500. Reverse distributors are subject to regulation under Sections R315-266-500 through R315-266-510 for the accumulation of potentially creditable hazardous waste pharmaceuticals and evaluated hazardous waste pharmaceuticals.
 - (3) Further exclusions.
- (i) A person is not required to obtain a permit for treatment or containment activities taken during immediate response to any of the following situations:
 - (A) [A]a discharge of a hazardous waste;
- (B) [A]an imminent and substantial threat of a discharge of hazardous waste; \underline{or}
- (C) [A]a discharge of a material [which]that, [when]tf discharged, becomes a hazardous waste.
- (ii) Any person who continues or initiates hazardous waste treatment or containment activities after the immediate response is over is subject to [all]the applicable requirements of Rule R315-270 for those activities.
- (iii) In the case of emergency responses involving military munitions, the responding military emergency response specialist's organizational unit shall retain records for three years identifying the dates of the response, the responsible persons responding, the type and description of material addressed, and its disposition.
- (4) Permits for less than an entire facility. The Director may issue or deny a permit for one or more units at a facility without simultaneously issuing or denying a permit to [all]each of the units at the facility. The interim status of any unit for which a permit has not been issued or denied is not affected by the issuance or denial of a permit to any other unit at the facility.
- (5) Closure by removal. Owners[/] or operators of surface impoundments, land treatment units, and waste piles closing by removal

or decontamination under Rule R315-265 standards shall obtain a postclosure permit unless they can demonstrate to the Director that the closure met the standards for closure by removal or decontamination in Section R315-264-228, Subsection R315-264-280(e), or Section R315-264-258, respectively. The demonstration may be made in the following ways:

- (i) If the owner[A] or operator has submitted a part B application for a post-closure permit, the owner[A] or operator may request a determination, based on information contained in the application, that Rule R315-264 closure by removal standards were met. If the Director believes that Rule R315-264 standards were met, [Ŧ]the Director shall notify the public of this proposed decision, allow for public comment, and reach a final determination according to the procedures in Subsection R315-270-1(c)(6).
- (ii) If the owner[A] or operator has not submitted a part B application for a post-closure permit, the owner[A] or operator may petition the Director for a determination that a post-closure permit is not required because the closure met the applicable Rule R315-264 closure standards.
- (A) The petition shall include data demonstrating that closure by removal or decontamination standards of Rule R315-264 were met.
- (B) The Director shall approve or deny the petition according to the procedures outlined in Subsection R315-270-1(c)(6).
 - (6) Procedures for closure equivalency determination.
- (i) If a facility owner[/] or operator seeks an equivalency demonstration under Subsection R315-270-1(c)(5), the Director shall provide the public, through a newspaper notice, the opportunity to submit written comments on the information submitted by the owner[/] or operator within 30 days from the date of the notice. The Director shall also, in response to a request or at the Director's discretion, hold a public hearing whenever such a hearing might clarify one or more issues concerning the equivalence of the Rule R315-265 closure to a Rule R315-264 closure. The Director shall give public notice of the hearing at least 30 days before it occurs. Public notice of the hearing may be given at the same time as notice of the opportunity for the public to submit written comments, and the two notices may be combined.
- (ii) The Director shall determine whether the Rule R315-265 closure met the Rule R315-264 closure by removal or decontamination requirements within 90 days of its receipt. If the Director finds that the closure did not meet the applicable Rule R315-264 standards, the Director shall provide the owner[/] or operator with a written statement of the reasons why the closure failed to meet Rule R315-264 standards. The owner[/] or operator may submit additional information in support of an equivalency demonstration within 30 days after receiving such written statement. The Director shall review any additional information submitted and make a final determination within 60 days.
- (iii) If the Director determines that the facility did not close in accordance with Rule R315-264 closure by removal standards, the facility is subject to post-closure permitting requirements.
- (7) Enforceable documents for post-closure care. At the discretion of the Director, an owner or operator may obtain, in lieu of a post-closure permit, an enforceable document imposing the requirements of Section R315-265-121[40 CFR 265.121, which is adopted by reference]. "Enforceable document" means an order, a permit, or other document issued by the Director including, but not limited to, a corrective action order issued by EPA under section 3008(h), a CERCLA remedial action, or a closure or post-closure permit.

KEY: hazardous waste

Date of Enactment or Last Substantive Amendment: [August 31, 2017]2020

Authorizing, and Implemented or Interpreted Law: 19-6-105; 19-6-106

NOTICE OF PROPOSED RULE		
TYPE OF RULE: Amendment		
Utah Admin. Code Ref (R no.):	R315-273-80	Filing No. 52930

Agency Information

1. Department:	Environ	mental Quality			
Agency:	Waste Management and Radiation Control, Waste Management				
Building:	MASOB				
Street address:	195 N 1	195 N 1950 W			
City, state:	Salt Lake City, UT				
Mailing address:	PO Box 144880				
City, state, zip:	Salt Lake City, UT 84114-4880				
Contact person(s	(s):				
Name:	Phone:	Email:			
Thomas Ball	801- 536- 0251	tball@utah.gov			
Rusty Lundberg	801- 536- 4257	rlundberg@utah.gov			
Please address questions regarding information on this					

Please address questions regarding information on this notice to the agency.

General Information

2. Rule or section catchline:

R315-273-80. Standards for Universal Waste Management, Petitions to Include Other Wastes Under Rule R315-273 -- General

3. Purpose of the new rule or reason for the change:

Under the current rules for management of hazardous waste, a small portion of pharmaceuticals are regulated as hazardous wastes when disposed. Hospitals, clinics, nursing homes, and other facilities that generate hazardous waste pharmaceuticals have experienced difficulty complying with the framework of the hazardous waste rules. To respond to these concerns and facilitate compliance among healthcare facilities, the Environmental Protection Agency (EPA) has finalized a tailored, sectorspecific regulatory framework for managing hazardous waste pharmaceuticals at healthcare facilities and reverse distributors (facilities that receive and accumulate prescription pharmaceuticals for the purpose of facilitating manufacturer credit). On February 22, 2019, the EPA published the final rule in the Federal Register (84 FR 5816). The final rule entitled, Management Standards for Hazardous Waste Pharmaceuticals and Amendment to the P075 Listing for Nicotine, applies to healthcare facilities that generate, accumulate, or otherwise handle hazardous waste pharmaceuticals and reverse distributors engaged in the management of prescription hazardous waste pharmaceuticals.

As stated above the rule provides a new set of sectorspecific standards for healthcare facilities (for both humans and animals) and reverse distributors for management of their hazardous waste pharmaceuticals in lieu of the existing hazardous waste generator regulations. The final rule promulgates Sections R315-266-500 through R315-266-510. Healthcare facilities and reverse distributors must manage their hazardous waste pharmaceuticals under this new set of rules in lieu of operating under Rule R315-262 as they have been. These operating standards include a prohibition on disposing of hazardous waste pharmaceuticals in the sewer, called sewering. The new rules also include a conditional exemption for hazardous waste pharmaceuticals that are also identified as controlled substances by the Drug Enforcement Administration (DEA). Further, the rules redefine when containers that held hazardous waste pharmaceuticals are considered empty. Healthcare facilities that are very small quantity generators (VSQGs) must comply with the sewer prohibition for their hazardous waste pharmaceuticals under the new rules and have the option of complying with Sections R315-266-500 through R315-266-510 in lieu of operating under the conditional exemption found in Section R315-262-14. Additionally, the final rule amends the P075 acute hazardous waste listing for nicotine and salts to indicate that U.S. Food and Drug Administration (FDA)-approved over-the counter (OTC) nicotine replacement therapies (NRTs) are not included in the listing.

These rule changes became effective at the Federal level on August 21, 2019. (EDITOR'S NOTE: The proposed amendment to Rule R315-262 is under Filing No. 52924 and the proposed amendment to Rule R315-266 is under Filing No. 52927 in this issue, August 1, 2020, of the Bulletin.)

4. Summary of the new rule or change:

Subsection R315-273-80(e) is added. This rule states that hazardous waste pharmaceuticals are regulated in Sections R315-266-500 through R315-266-510 and prohibits the addition of hazardous waste pharmaceuticals for management under Rule R315-273.

In addition to the amendments listed above, nonsubstantive changes were made to correct typographical errors and to the format and the wording throughout the amended rule to correct format and wording that was not consistent with the current Rulewriting Manual for Utah Rulewriters.

Fiscal Information

5. Aggregate anticipated cost or savings to:

A) State budget:

The operates one hospital. This hospital is not currently listed as a generator of hazardous waste which could mean that the hospital does not generate any hazardous waste or is a VSQG of hazardous waste. However, this hospital could be subject to the new rules because it falls under the definition of healthcare facility as contained in the rules.

Adoption of these new rules could result in no change to the state budget if the hospital does not generate any hazardous waste.

If the hospital were to generate hazardous waste, then the estimated cost due to the adoption of this rule is approximately \$85 per year. The estimated savings due to the adoption of this rule is approximately \$245 per year and would result in an overall cost savings of approximately \$160 per year.

Data to assist in making this determination was obtained from the EPA document entitled "Regulatory Impact Analysis for EPA's Final Regulations for the Management of Hazardous Waste Pharmaceuticals" dated October 2018.

B) Local governments:

It is not anticipated that adoption of these rule changes will have any effect on local governments because no local governments in the operate healthcare facilities or reverse distributors.

C) Small businesses ("small business" means a business employing 1-49 persons):

There are approximately 7,437 facilities in the that are healthcare facilities and reverse distributors as defined by this rule. Approximately 6,956 of these facilities are small businesses that would potentially be affected by this rule. Not all healthcare facilities and reverse distributors are generators of hazardous waste so it is not possible to determine exactly how many of these businesses will be affected by this rule adoption. Based on information obtained from EPA, it is estimated that approximately 904 of these facilities are generators of hazardous waste. The estimated cost to small businesses due to the adoption of this rule is approximately \$85 per year. The estimated savings to small businesses due to the adoption of this rule is approximately \$245 per year resulting in an overall cost savings of approximately \$160 per year.

Data to assist in making this determination was obtained from the EPA document entitled "Regulatory Impact Analysis for EPA's Final Regulations for the Management of Hazardous Waste Pharmaceuticals" dated October 2018.

D) Non-small businesses ("non-small business" means a business employing 50 or more persons):

As stated previously, there are approximately 7,437 facilities in the that are healthcare facilities and reverse distributors as defined by this rule. Approximately 476 of these facilities are non-small businesses that would potentially be affected by this rule. Not all healthcare facilities and reverse distributors are generators of hazardous waste so it is not possible to determine exactly how many of these businesses will be affected by this rule adoption. Based on information obtained from EPA, it is estimated that approximately 62 of these facilities are generators of hazardous waste. The estimated cost to non-small businesses due to the adoption of this rule is approximately \$85 per year. The estimated savings to non-small businesses due to the adoption of this rule is approximately \$245 per year resulting in an overall cost savings of approximately \$160 per year.

Data to assist in making this determination was obtained from the EPA document entitled "Regulatory Impact Analysis for EPA's Final Regulations for the Management of Hazardous Waste Pharmaceuticals" dated October 2018

E) Persons other than small businesses, non-small businesses, state, or local government entities ("person" means any individual, partnership, corporation, association, governmental entity, or public or private organization of any character other than an *agency*):

The Division believes that all facilities that could be impacted fiscally by this rule are captured in the four previous categories. It is anticipated if there are any persons other than small businesses, non-small businesses, state, or local governments that are healthcare facilities or reverse distributors, that these persons would see a cost savings with the adoption of this rule similar to the savings discussed previously.

F) Compliance costs for affected persons:

It is not anticipated that there will be any additional compliance costs for affected persons due to the adoption of this rule other than those mentioned above.

G) Regulatory Impact Summary Table (This table only includes fiscal impacts that could be measured. If there are inestimable fiscal impacts, they will not be included in this table. Inestimable impacts will be included in narratives above.)

Regulatory Impact Table

Fiscal Cost	FY2021	FY2022	FY2023
State Government	\$85	\$85	\$85
Local Governments	\$0	\$0	\$0
Small Businesses	\$76,840	\$76,840	\$76,840

Non-Small Businesses	\$5,270	\$5,270	\$5,270
Other Persons	\$0	\$0	\$0
Total Fiscal Cost	\$82,195	\$82,195	\$82,195
Fiscal Benefits			
State Government	\$245	\$245	\$245
Local Governments	\$0	\$0	\$0
Small Businesses	\$221,480	\$221,480	\$221,480
Non-Small Businesses	\$15,190	\$15,190	\$15,190
Other Persons	\$0	\$0	\$0
Total Fiscal Benefits	\$236,915	\$236,915	\$236,915
Net Fiscal Benefits	\$154,720	\$154,720	\$154,720

H) Department head approval of regulatory impact analysis:

The Executive Director of the Department of Environmental Quality, L. Scott Baird, has reviewed and approved this fiscal analysis.

6. A) Comments by the department head on the fiscal impact this rule may have on businesses:

It is not anticipated that these rule changes will have a negative fiscal impact on any healthcare facility or reverse distributor involved in the management of hazardous waste pharmaceuticals. This rule simplifies requirements and provides regulatory flexibilities and thereby improves regulatory clarity for healthcare facilities and provides more regulatory certainty for reverse distributors. The simplification and clarity provided by these rule changes will reduce the regulatory burden on these facilities, increase compliance, and result in better protection of human health and the environment.

B) Name and title of department head commenting on the fiscal impacts:

L. Scott Baird, Executive Director

Citation Information

7. This rule change is authorized or mandated by state law, and implements or interprets the following state and federal laws. State code or constitution citations (required):

Section 19-6-104	Section 19-6-105	Section 19-6-106
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Public Notice Information

9. The public may submit written or oral comments to the agency identified in box 1. (The public may also request a hearing by submitting a written request to the agency. The agency is required to hold a hearing if it receives requests from ten interested persons or from an association having not fewer than ten members. Additionally, the request must be received by the agency not more than 15 days after the publication of this rule in the Utah State Bulletin. See Section 63G-3-302 and Rule R15-1 for more information.)

A) Comments will be accepted 08/31/2020 until:

10. This rule change MAY 09/07/2020 become effective on:

NOTE: The date above is the date on which this rule MAY become effective. It is NOT the effective date. After the date designated in Box 10, the agency must submit a Notice of Effective Date to the Office of Administrative Rules to make this rule effective. Failure to submit a Notice of Effective Date will result in this rule lapsing and will require the agency to start the rulemaking process

Agency Authorization Information

Agency head	Ty L. Howard,	Date:	07/09/2020
or designee,	Director		
and title:			

R315. Environmental Quality, Waste Management and Radiation Control, Waste Management.

R315-273. Standards for Universal Waste Management. R315-273-80. Standards for Universal Waste Management, Petitions to Include Other Wastes Under Rule R315-273 -- General.

- (a) Except as provided in Subsection R315-273-80(e), [A]any person seeking to add a hazardous waste or a category of hazardous waste to Rule R315-273 may petition for a [regulatory]rule amendment under Sections R315-273-80 and R315-273-81 and Sections R315-260-20 and R315-260-23.
- (b) To be successful, the petitioner shall demonstrate to the satisfaction of the Board that regulation under the universal waste [regulations]rules of Rule R315-273 is: appropriate for the waste or category of waste; will improve management practices for the waste or category of waste; and will improve implementation of the hazardous waste program. The petition shall include the information required by Subsection R315-260-20(b). The petition should also address as many of the factors listed in Section R315-273-81 as are appropriate for the waste or waste category addressed in the petition.
- (c) The Board shall evaluate petitions using the factors listed in Section R315-273-81. The Board shall grant or deny a petition using the factors listed in Section R315-273-81. The decision shall be based on the weight of evidence showing that regulation under Rule R315-273 is appropriate for the waste or category of waste, shall improve management practices for the waste or category of waste, and shall improve implementation of the hazardous waste program.
- (d) The Board may request additional information needed to evaluate the merits of the petition.

Hazardous waste pharmaceuticals are regulated by Sections R315-266-500 through R315-266-510 and may not be added as a category of hazardous waste for management under Rule R315-273.

KEY: hazardous waste, universal waste

Date of Enactment or Last Substantive Amendment: [October 15, 2019 2020

Authorizing, and Implemented or Interpreted Law: 19-6-105; 19-6-106

NOTICE OF PROPOSED RULE				
TYPE OF RULE: Amendment				
Utah Admin. Code Ref (R no.):	R382-10-22	Filing No. 52938		

Agency Information

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1. Department:	Health	Health		
Agency:	Children	Children's Health Insurance Program		
Building:	Cannon	Cannon Health Building		
Street address:	288 N 1	288 N 1460 W, Salt Lake City, UT		
Mailing address:	PO Box 143102			
City, state, zip:	Salt Lake City, UT 84114-3102			
Contact person(s	s):			
Name:	Phone:	Email:		
Craig Devashrayee	801- 538- 6641	cdevashrayee@utah.gov		
Please address o	=	regarding information on this		

notice to the agency.

General Information

2. Rule or section catchline:

R382-10-22. Public Health Emergency Provisions

3. Purpose of the new rule or reason for the change:

The purpose of this change is to allow certain income exclusions to help members of the Children's Health Insurance Program (CHIP) remain eligible during the Coronavirus (COVID-19) Pandemic.

4. Summary of the new rule or change:

This amendment allows income exclusions for recovery rebates, employer payments of student loans, qualified charitable contributions, and federal pandemic employment payments.

Fiscal Information

5. Aggregate anticipated cost or savings to:

WASTE MANAGEMENT AND RADIATION CONTROL BOARD

Executive Summary

REQUEST FOR A SITE-SPECIFIC TREATMENT VARIANCE

EnergySolutions LLC September 10, 2020

September 10, 2020			
What is the issue before the Board?	On August 25, 2020 EnergySolutions, LLC submitted a request for a site-specific treatment variance from the Utah Hazardous Waste Management Rules to treat by stabilization, waste containing High-Subcategory Mercury.		
What is the historical background or context for this issue?	EnergySolutions requests approval to receive and dispose, in EnergySolutions' Mixed Waste Landfill Cell, waste containing the D009 or U151 High Mercury-Organic Subcategory and High Mercury-Inorganic Subcategory hazardous waste codes that has been treated using stabilization/amalgamation technologies. Furthermore, EnergySolutions will perform the stabilization/amalgamation treatment on D009 and U151 High Mercury Subcategory waste streams that have not been treated prior to arrival at the EnergySolutions Clive facility. All actions will be performed in accordance with EnergySolutions' State-issued Part B Permit. The listed treatment technology in 40 CFR 268.40 for the D009 High Mercury-Organic Subcategory is either incineration (IMERC) or retorting/roasting for mercury recovery (RMERC). The listed treatment technology for the D009 High Mercury-Inorganic Subcategory and for U151 is RMERC. The need and justification for this action are as follows: The intent of the RMERC treatment process is to recover elemental mercury for recycling. However, radioactive mercury cannot be recycled and the RMERC process generates secondary waste (radioactive elemental mercury) which requires additional treatment by amalgamation (a stabilization technology) prior to disposal.		

DSHW-2020-012446

Attachment: DRC-2020-014784

The IMERC technology is also intended to be a mercury recovery technology where the waste is incinerated and the mercury recovered in the ash or in a specific off-gas control system. For radioactive mercury, both the ash and the control equipment/media will require further treatment. Furthermore, IMERC involves an extra handling step for the radioactive residue.

Successful chemical stabilization of High Mercury-Inorganic Subcategory wastes has been demonstrated to achieve a measure of performance equivalent to the required methods which require two treatment methods (RMERC and stabilization) with no detrimental effect to human health or the environment. The U.S. Environmental Protection Agency (US EPA) has issued a Determination of Equivalent Treatment (DET) for these High Mercury Subcategory wastes that were chemically stabilized. In the EPA's determination, they concluded that for waste streams that are radioactive and contain mercury, the recovery portion of RMERC may not be appropriate and that alternative treatment processes should be pursued.

The US EPA has reviewed the treatment of mercury-bearing waste in a Federal Register Notice (68 FR 4481). In this notice, the US EPA concluded that treatment of mercury waste is possible and it is suggested that stakeholders should use the site specific treatment variance process to achieve approval for the treatment of high subcategory mercury wastes. The notice specifically designates an example of when this would be appropriate as the case of a high mercury subcategory waste that is also radioactive.

This variance request consists of waste that may be shipped to *EnergySolutions* over the next year. To date, *EnergySolutions* has disposed of approximately 12,100 cubic feet of treated High Mercury Subcategory waste. From knowledge of the current market of High Mercury Subcategory Waste requiring treatment or disposal, and from past experience receiving this type of waste, *EnergySolutions* anticipates less than 500 cubic feet of additional High Mercury Subcategory waste for disposal in the next year under this treatment variance.

DSHW-2020-012446

Attachment: DRC-2020-014784

	EnergySolutions has submitted variance requests for similar waste every year since 2001. The Board has granted each of these requests. The facility has been successful in treating these High Mercury Subcategory wastes. A notice for public comment will be published in the Salt Lake Tribune, the Deseret Morning News and the Tooele County Transcript Bulletin on September 10, 2020. The comment period begins September 10, 2020 and will end October 13, 2020.
What is the governing statutory or regulatory citation?	Variances are provided for in 19-6-111 of the Utah Solid and Hazardous Waste Act. This is a one-time site-specific variance from an applicable treatment standard as allowed by R315-268.44 of the Utah Administrative Code.
Is Board action required?	No. This is an informational item before the Board.
What is the Division/Director's recommendation?	The Director will provide a recommendation at the next Board meeting.
Where can more information be obtained?	For technical questions, please contact Otis Willoughby (801) 536-0220. For legal questions, please contact Bret Randall at (801) 536-0284.

DSHW-2020-012446

Attachment: DRC-2020-014784



August 25, 2020 CD20-0133

Mr. Ty Howard Director Division of Waste Management and Radiation Control 195 North 1950 West Salt Lake City, UT 84114-4880

Subject: EPA ID Number UTD982598898 - Request for a Site-Specific Treatment

Variance for Wastes Containing High-Subcategory Mercury

Dear Mr. Howard.

EnergySolutions hereby requests a variance to receive an exemption from Utah Administrative Code (UAC) R315-268-40(a)(3) for wastes that are characterized with hazardous waste codes D009 or U151, High Mercury-Organic Subcategory or High Mercury-Inorganic Subcategory. This request is submitted in accordance with the requirements of UAC R315-260-19.

The regulatory requirement authorizing this request is found in UAC R315-268-44 which allows a site-specific variance from an applicable treatment standard provided that the following condition is met:

UAC R315-268-44(h)(2) It is inappropriate to require the waste to be treated to the level specified in the treatment standard or by the method specified as the treatment standard, even though such treatment is technically possible.

EnergySolutions requests approval to dispose, in EnergySolutions' Mixed Waste Landfill Cell, waste containing the D009 or U151 High Mercury-Organic Subcategory and High Mercury-Inorganic Subcategory hazardous waste codes that have been treated using stabilization/amalgamation technologies. EnergySolutions will perform the stabilization/amalgamation treatment on D009 and U151 High Mercury Subcategory waste streams that have not been treated prior to arrival at the EnergySolutions Clive facility. At the time of disposal, the waste will be verified to have a mercury concentration less than 0.2 mg/L using the Toxicity Characteristic Leaching Procedure (TCLP) or less than 0.25 mg/L TCLP if the waste is a soil matrix. All actions will be performed in accordance with EnergySolutions' state-issued Part B Permit.



Mr. Ty Howard CD20-0133 August 25, 2020 Page 2 of 5

The D009 High Mercury-Organic Subcategory is described in the "Treatment Standards for Hazardous Waste" table in 40 CFR 268.40 (incorporated into UAC R315-268-40 by reference). The description is as follows:

Nonwastewaters that exhibit, or are expected to exhibit, the characteristic of toxicity for mercury based on the toxicity characteristic leaching procedure (TCLP) in SW846; and contain greater than or equal to 260 mg/kg total mercury that also contain organics and are not incinerator residues. (High Mercury-Organic Subcategory)

Likewise, the D009 High Mercury-Inorganic Subcategory's description is as follows:

Nonwastewaters that exhibit, or are expected to exhibit, the characteristic of toxicity for mercury based on the toxicity characteristic leaching procedure (TCLP) in SW846; and contain greater than or equal to 260 mg/kg total mercury that are inorganic, including incinerator residues and residues from RMERC. (High Mercury-Inorganic Subcategory)

The U151 hazardous waste code does not delineate between organic or inorganic; the description simply states the following:

U151 (mercury) nonwastewaters that contain greater than or equal to 260 mg/kg total mercury.

The listed treatment technology in 40 CFR 268.40 for the D009 High Mercury-Organic Subcategory is either incineration (IMERC) or retorting/roasting for mercury recovery (RMERC). The listed treatment technology for the D009 High Mercury-Inorganic Subcategory and for U151 is RMERC.

The need and justification for this action are as follows:

- The intent of the RMERC treatment technology is to recover elemental mercury for recycling. However, radioactive mercury cannot be recycled and the RMERC process generates secondary waste (radioactive elemental mercury) which requires additional treatment by amalgamation (a stabilization technology) prior to disposal.
- The IMERC technology is also intended to be a mercury recovery technology where the waste is incinerated and the mercury recovered in the ash or in a



Mr. Ty Howard CD20-0133 August 25, 2020 Page 3 of 5

specific off-gas control system. For radioactive mercury, both the ash and the control equipment/media will require further treatment. Furthermore, IMERC involves an extra handling step for the radioactive residue.

 Both IMERC and RMERC are described in Table 1 of UAC R315-268-42. Both descriptions state that

[A]ll wastewater and nonwastewater residues derived from this process must then comply with the corresponding treatment standards per waste code with consideration of any applicable subcategories (e.g., High or Low Mercury Subcategories).

For RMERC, this treatment standard is explained as an additional D009 subcategory:

[N]onwastewaters that exhibit, or are expected to exhibit, the characteristic of toxicity for mercury based on the toxicity characteristic leaching procedure (TCLP) in SW846; and contain less than 260 mg/kg total mercury and that are residues from RMERC only.

The Land Disposal Restriction (LDR) treatment standard for this subcategory is 0.2 mg/L TCLP (or 0.25 mg/L TCLP alternative treatment standard for contaminated soil described in UAC R315-268-49). For IMERC, the ash and/or control equipment media will be a newly generated hazardous waste and would therefore be required to meet the LDR treatment standard for mercury of 0.2 mg/L. The disposal standard proposed by Energy *Solutions* meets the LDR TCLP concentration in a single step.

• Successful chemical stabilization of High Mercury-Inorganic Subcategory wastes has been demonstrated to achieve a measure of performance equivalent to the required methods which require two treatment methods (RMERC and stabilization) with no detrimental effect to human health or the environment. The U.S. Environmental Protection Agency (US EPA) has issued a Determination of Equivalent Treatment (DET) for these High Mercury Subcategory wastes that were chemically stabilized. In the EPA's determination, they concluded that for waste streams that are radioactive and contain mercury, the recovery portion of RMERC may not be appropriate and that alternative treatment processes should be pursued. A copy of this letter is attached for reference.



Mr. Ty Howard CD20-0133 August 25, 2020 Page 4 of 5

- The US EPA has reviewed the treatment of mercury-bearing waste in Federal Register Notice 68 FR 4481. In this notice, the US EPA concluded that treatment of mercury waste is possible and it is suggested that stakeholders should use the site specific treatment variance process to achieve approval for the treatment of high subcategory mercury wastes. The notice specifically designates an example of when this would be appropriate as the case of a high mercury subcategory waste that is also radioactive.
- EnergySolutions has requested similar site-specific treatment variances for High Mercury Subcategory waste in letters dated November 21, 2001; October 21, 2003; April 28, 2004; November 8, 2004; November 29, 2005; December 20, 2006; January 25, 2008; January 20, 2009; January 27, 2010; February 15, 2011; March 21, 2012; March 7, 2013; March 4, 2014; April 21, 2016; September 27, 2017, and March 25, 2019. These variance requests were approved on January 8, 2002; December 11, 2003; June 10, 2004; January 13, 2005; January 12, 2006; February 8, 2007; March 13, 2008; March 12, 2009; April 8, 2010; May 12, 2011; May 10, 2012; April 11, 2013; April 10, 2014; June 9, 2016; September 27, 2017; and May 9, 2019 respectively.
- Over the years that this variance has been granted, Energy Solutions and generators have consistently been successful at treating high subcategory mercury to LDR compliant levels.

This variance request consists of waste that is expected to be disposed by Energy Solutions over the next year. To date, Energy Solutions has disposed of approximately 12,100 cubic feet of treated High Mercury Subcategory waste. From knowledge of the current market of High Mercury Subcategory Waste requiring treatment or disposal, and from past experience receiving this type of waste, Energy Solutions anticipates less than 500 cubic feet of additional High Mercury Subcategory waste for disposal in the next year under this treatment variance.

Energy Solutions requests that a variance be granted to allow the disposal of High Mercury Subcategory waste that has been treated either to the 0.2 mg/L TCLP standard for hazardous waste or the 0.25 mg/L TCLP standard for contaminated soil.



Mr. Ty Howard CD20-0133 August 25, 2020 Page 5 of 5

The name, phone number, and address of the person who should be contacted to notify Energy Solutions of decisions by the Director is:

Mr. Vern Rogers Director, Regulatory Affairs Energy Solutions LLC 299 South Main Street, Suite 1700 Salt Lake City, UT 84111 (801) 649-2000

Should there be any questions to this request, please contact me at (801) 649-2144.

Sincerely,

Jinty Z. Osta Aug 25 2020 11:57 AM

Timothy L. Orton, P.E. **Environmental Engineer**

enclosure

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Generator: Brooklinven National Laboratory

Generator # / Waste Stream #: \$400 22 2012 -1

Waste Stream Name: BNL Treated Mercury Soil

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, D.C. 20460

OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE

Mr. George J. Malosh U.S. Department of Energy Brookhaven Group Building 464 Upton, NY 11973-5000

Dear Mr. Malosh:

EPA has reviewed your request for a determination of equivalent treatment as authorized by 40 CRF 268.40(b) for the mercury contaminated waste from your facility that will be the subject of treatability studies.

Based on the information provided in your application and conversations between your staff and mine, EPA is approving the request for a determination of equivalent treatment. EPA agrees that RMERC is not appropriate for this waste, due to the generation of elemental mercury that is contaminated with radioactive materials and that has no current use via recycling. Instead, the facility will need to meet a replacement concentration-based treatment standard for this waste, which is detailed in the enclosed determination. This standard does not replace any other applicable federal, state, or local requirements as specified in the facility's waste analysis plan. Additionally, all wastes subject to this determination must be disposed at a facility permitted to accepted the radioactive elements present in the waste following treatment.

Enclosed you will find our determination on your request. If you need further assistance, please contact John Austin. Waste Treatment Branch (703/308-0436).

Sincerely yours,

Elizabeth A.
Cotsworth, Acting
Director
Office of Solid
Waste

Enclosure

cc. Jim Thompson, OWPE RCRA Hotline Generator: Brookhaven National Laborator
Generator #/Waste Stream # 8008 22 6646 67

Waste Stream Name: BNL Treated Mercury Soil

Determination of Equivalent Treatment
40 CFR 268.42(b)

Notification of Acceptance

Notification Number: OSW-DE016-0698

Requesting Facility: Brookhaven National Laboratory

Facility Address: U. S. Department of Energy Brookhaven Group Puilding 464 Upton, NY 11973-5000

EPA Facility ID #: NY7890008975

Facility Representatives: Gail Penny, Project Manager (516)344-3229; Email: gpenny@bnl.gov

Glen Todzia, Project Engineer (516)344-7488

Date of Request: July 1, 1998

Waste Description for Which Replacement Standard is Sought:

The subject wastes consist of (a) treatability samples totaling 4990 kg of RCRA characteristic mercury- and radioactive-contaminated soils and (b) an unspecified amount of residues and newly generated wastes resulting from multiple treatability studies on these samples. The treatability samples are soils that are mostly sand but contain some gravel. Approximately 5% of the treatability sample wastes consists of pieces of glass, metal, and plastic. A summary waste description is given in Table 1.

The subject waste soils were excavated in 1997 from a former land disposal area ("Chemical Holes Area") for miscellaneous laboratory wastes at Brookhaven National Laboratory, in Long Island. New York. The retrieval was performed as a CERCLA removal action. Segregation of the excavated waste into two waste streams was performed by sieving with a 2-inch sieve as the waste was excavated. Only materials that passed through the 2-inch sieve are the subject of the planned treatability studies.

Easis of Request:

The subject mercury-contaminated waste soils (above 260 ppm mercury) are also contaminated with low levels of radioactive materials. The LDR technology specific treatment standard for this waste is RMERC (retoring or roasting with recovery of the mercury for reuse). Retoring or

Generator: Brookhaven National Laboratory Generator # / Waste Stream 4. 8008-7" GC 4C C: 1 Waste Stream Name: BNL Treated Mercury Soil

roasting of the waste is inappropriate because any mercury recovered would still be contaminated with radioactive materials, which would prohibit its recycle or reuse as elemental mercury. The

Table 1. Initial Waste Descriptions

Waste Container ID		Approximate 'Weight (kg)	Total 'Mercury 'Concentration '(ing/kg)	TCLP Mercury Concentration (nig/l)	IP; imary !Mercury !Species	Other RCRA Constituents that texceed TC Regulatory Levels or lare Listed Wastes	Percention and	'Waste	Applicable :LDR ;Treatment :Standard
Bin J	2	:2495	16750	3 56	Elemental*	Identified .	Nonwastewater, High Mercury Subcategory*	D009	RMERC
Bin 2	2	2495	15,000	0 263	Elemental*	Identified	Nonwastewatur, High Mercury Subcategory*	: :	RMERC 1. Determined by visual inspection.

2. Nonwaste waters that exhibit, or are expected to exhibit, the characteristic of toxicity for mercury based on the extraction procedure (EP) in SW 846 Method 1310; and contain greater than or equal to 250 mg/kg total mercury that are inorganic, including residues from RMERC.

2

elemental mercury would therefore require further treatment (amalgamation) prior to its ultimate disposal. The subject wastes are proposed to be treated by a variety of methods as part of a treatability study to evaluate treatment options for other legacy wastes within the U. S. Department of Energy (DOE) complex.

DOE has requested a Determination of Equivalent Treatment for the treated treatability study samples and any newly generated >260 ppm Hg wastes that may result from these treatability studies (i.e., treatment residues). The proposed waste disposal location for the treatability study wastes that meet the assigned substitute treatment standard (and any other applicable LDR waste treatment standards) is the Envirocare of Utah. Clive. Utah, low level radioactive waste landfill. Alternatively, the DOE Hanford Site. Richland. Washington low level radioactive waste landfill.

Generator, Broukhaven National Laboratory Generator # / Waste St. cam #: 8006-22 LC 46 CT Waste Stream Name: BNL Treated Mercury Soil

may be used. Other landfills that become available in the future and that meet all EPA and other agency requirements (e.g., NRC, DOE, or State) for disposal of such waste may also be considered. In the absence of the requested DET replacement standard, all treatment residues would have to be re-treated by retorting or roasting. Any recovered mercury would have to be amalgamated prior to disposal as low level radioactive waste.

EPA is requested to assign a replacement mercury treatment standard of 0.2 mg/kg TCLP to these treated treatability samples and any resulting newly generated treatment residues. The treated samples and newly generated wastes from the treatability study would still be required to meet applicable existing LDR treatment standards for underlying hazardous constituents other than mercury.

Previously Applicable Treatment Standard for Which Equivalency is Granted:

Waste codes of concern	1		Nonwastewater	
D009	Non wastewaters that exhibit, or are expected to exhibit, the characteristic of toxicity for mercury based on the extraction procedure (EP) in SW846 Method 1310; and contain greater than or equal to 260 mg/kg total mercury that are inorganic, including incinerator residues from RMERC (High Mercury Inorganic Subcategory	Mercury	RMERC	:

3

Replacement Treatment Standards	Replacement	Trestment	Standards:
---------------------------------	-------------	-----------	------------

of conce:			Nonwastewater
D009	Non wastewaters that exhibit, or are expected	Mercury	0.20 mg L TCLP
	to exhibit, the characteristic of toxicity for mercury based on the extraction procedure	1	
	(EP) in SWS46 Method 1310; and contain		
	greater than or equal to 260 mg/kg total		
	mercury that are morganic, including		
			the same of the same of the contract of the co

Generator: Brookhaven National Laboratory Jef Generator #/ Waste Stream #. 8008-22- Geft-CI Waste Stream Name. BNL Treuted Mercury Soil

incinerator residues from RMERC (High Mercury Inorganic Subcategory

Compliance with these standards, as approved below, does not relieve the facility from compliance with any other applicable treatment standards associated with these wastes. This standard does not replace any other applicable federal, state, or local requirements as specified in the facility's waste analysis plan. Additionally, all wastes subject to this determination must be disposed at a facility permitted to accept the radioactive elements present in the waste.

Authorities and References:

A Determination of Equivalent Treatment is governed by 40 CFR 268.42(b), which states: "(b) Any person may submit an application to the Administrator demonstrating that an alternative treatment method can achieve a measure of performance equivalent to that achieved by methods specified in paragraphs (a), (c), and (d) of this section... The applicant must submit information demonstrating that his treatment method is in compliance with federal, state, and local requirements and is protective of human health and the environment. On the basis of such information and any other available information, the Administrator may approve the use of the alternative treatment method if he finds that the alternative treatment method provides a measure of performance equivalent to that achieved by methods specified in paragraphs (a), (c), and (d) of this section. Any approval must be stated in writing and may contain such provisions and conditions as the Administrator deems appropriate. The person to whom such approval is issued must comply with all limitations contained in such a determination."

The above provision was further clarified in the preamble for the Land Disposal Restriction for Third Third Scheduled Wastes: Final Rule, 55 FR at 22536, (June 1, 1990) as follows: "when EPA requires the use of a technology (or technologies), a generator or treater may demonstrate that an alternative treatment method can achieve the equivalent level of

performance as that of the specified treatment method [40 CFR 268.42(b)]. This demonstration is typically both waste-specific and site-specific and may be based on. (1) the development of a concentration based standard that utilized a surrogate or indicator compound that guarantees effective treatment of the hazardous constituents; (2) the development of a new analytical method for quantifying the hazardous constituents, and (3) other demonstrations of equivalence for an alternative method of treatment based on a statistical comparison of technologies, including a comparison of specific design and operating parameters."

Justification for the Equivalent Treatment Standard:

Generator, Brookhaven National Laboratory JEH Generator # / Waste Stream #, 8008-22 Colfe cl Waste Stream Name: BNL Treated Mercury Soil

In the context of this treatability study situation, roasting or retorting and recovery of mercury (RMERC) from High Mercury-Inorganic nonwastewater wastes does not appear to be an appropriate treatment method if the wastes are also radioactive. This is because the recovered mercury is expected to be still classified as radioactive material and as such will not be recyclable but will require further treatment prior to its ultimate disposal. Therefore, the earlier recovery step appears not to serve a useful purpose in this particular mixed waste context, and would involve additional waste handling with the attendant concerns about potential exposure to radionuclides. The requested replacement standard for the limited quantity of waste to be subject to the treatability studies is the current LDR concentration-based treatment standard for Low Mercury-Inorganic nonwastewaters that have undergone RMERC, 0.20 mg/L TCLP. Therefore, the wastes will be subject to treatment standards equivalent to those for the residues of the IMERC p. ocess, but without having to first undergo a non-useful RMERC step. This is an appropriate measure of equivalent performance and is sufficiently protective of human health and the environment in this particular situation.

Based upon the information submitted, the factors identified above, and the conditions for treatment and disposal set out above, I have determined that the petition for Determination of Equivalent Treatment submitted by DCE on May 20, 1998 is hereby granted, effective upon my signature.

Dated:

Elizabeth A. Colsworth, Acting Director Office & Solid Waste

5

Attachment I - Analytical Data for Wastes to be Subjected to the Treatability Studies

Generator # / Waste Stream #: ###### Ceff. of

	Waste Stream Name: Bi	L Treated Mercury Soil	
Americium - 241		7140 pCi/g	
.Strontium - 90	ı	2.15 pCi/g	
B-25 Container #2			
Parameter	Concentration		
Mercury (total)		18,000 mg/kg	
!Mercury (TCLP)	1	0.263 mg/L	
Gross Alpha	!24.9 pCi/g		
Gross Beta	35 9 pCi/g		
Plutonium - 238		7.06 pCi/g	
Plutonium - 239/240		5.87 pCi/g	
Americium - 241	i .	28.67 pCi/g	
Strontium - 90		35.5 pCi/g	
	6		

Attachment 2- DOE Description of Treatment Technologies to be Included in Treatability Studies

The DOE Mixed Waste Focus Area (MWFA) Mercury Contamination Product Line Mercury Working

Group (HgWG) is sponsoring demonstrations of alternative advanced technologies for treating texicity

characteristic mixed waste containing more than 260 ppm total mercury concentrations to determine which technologies can produce stable products for disposal that are acceptably protective of human health and the environment. The initial wastes and the final waste forms are to be tested using TCLP to

determine if the final waste forms are no longer toxicity characteristic hazardous waste, meet the applicable replacement LDR treatment standard for mercury, and meet any other LDR waste treatment

standards determined to be applicable for this waste. Informational testing to provide additional data for

use by EPA will also be conducted, including measurement of mercury vapor pressure over the final

weste forms, and selected additional leaching tests to be determined in coordination with EPA Office of

Solid Waste, EPA's contractor Professor David Kosson (Rutgers University), Brookhaven National Laboratory (ENL), and the MWFA/HaWG.

Generator # / Wuste Stream #: 80:38-29 Coft -c/ Waste Stream #: 80:38-29 Coft -c/

Mercury Stabilization

A BNL sulfur polymer cement process will be one of the mercury stabilization processes demonstrated.

Commercial vendors will also be contracted to perform stabilization demonstrations. These vendors will

be selected by the HgWG through an open bidding process. Each stabilization process will have been

previously demonstrated on wastes or surrogates with less than 260 ppm total mercury concentration.

Mercury Separation

A mercury separation technology may be included in the demonstration tests. A candidate process uses a

potassium iodide/iodine leaching solution to solubilize and remove mercury. The mercury is recovered

as elemental mercury and amalgamated for disposal. The extractants are recovered and recycled. This

process has already been demonstrated for mercury levels below 260 ppm.

Mercury Retort and Amalgamation

For comparison with the results of the advanced separation and stabilization technologies, an additional

heatability study will be performed using a mobile commercial vacuum retort unit to thermally desorb

mercury, The recovered mercury will be amalgamated for disposal. This will be the baseline technology

to satisfy the existing LDR treatment standard (RMERC) for High Mercury Inorganic Subcategory waste

and the smalgamation (AMALG) treatment standard for

radioactive elemental mercury waste. Amalgamation will be by commercially available processes or by

an advanced sulfur-polymer-cement process developed and used at BNL.