



UPDES Industrial Permit Application

Part I. General Information (40 CFR 122.21(j)(1) and (9))

Permit Status: Renewal New Permit

UPDES Permit No.: _____ New Permit; UPDES Permit # Not Available

Facility Name: _____

Facility Location: _____

City _____ State _____ Zip _____

Facility Mailing Address: _____

City _____ State _____ Zip _____

Facility Contact: _____ **Title:** _____

Phone Number: _____ **Email Address:** _____

Name of Signatory: _____ **Title:** _____

Is the applicant the facility owner, operator or both? (check only one response.)

Owner Operator Both

Indicate below any existing environmental permits. (Check all that apply and type the corresponding permit number for each.)

RCRA (hazardous waste) UIC (underground injection control) PSD (air emissions)

Nonattainment program (CAA) NESHAPs (CAA) Dredge or fill (CWA Section 404)

Other (specify) _____

Nature of Business CFR (40 CFR 122.21(f)(8))

Describe the nature of your business



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Part II. Facility Information

Design and Actual Flow Rates

Provide design and actual flow rates in designated spaces.

| Design Flow Rate | |
|------------------|-----|
| | mgd |

| Annual Average Flow Rates (Actual) | | | | | |
|------------------------------------|-----|----------------|-----|-----------------|-----|
| Five Years Ago | | Four Years Ago | | Three Years Ago | |
| | mgd | | mgd | | mgd |
| Two Years Ago | | Last Year | | Current Year | |
| | mgd | | mgd | | mgd |

| Maximum Daily Flow Rates (Actual) | | | | | |
|-----------------------------------|-----|----------------|-----|-----------------|-----|
| Five Years Ago | | Four Years Ago | | Three Years Ago | |
| | mgd | | mgd | | mgd |
| Two Years Ago | | Last Year | | Current Year | |
| | mgd | | mgd | | mgd |

Describe the treatment for each outfall*

| | Outfall Number | | Outfall Number | | Outfall Number | |
|---------------------------|----------------|--|----------------|--|----------------|--|
| Level of Treatment | | | | | | |
| Primary | Treatment Unit | | Treatment Unit | | Treatment Unit | |
| | Size | | Size | | Size | |
| | Flow rate | | Flow rate | | Flow rate | |
| | Retention time | | Retention time | | Retention time | |
| | Other | | Other | | Other | |
| Equivalent to secondary | Treatment Unit | | Treatment Unit | | Treatment Unit | |
| | Size | | Size | | Size | |
| | Flow rate | | Flow rate | | Flow rate | |
| | Retention time | | Retention time | | Retention time | |
| | Other | | Other | | Other | |

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Part II. Facility Information *continued*

Describe the treatment for each outfall* *continued*

| | Outfall # | | Outfall # | | Outfall # | |
|-----------------|----------------|--|----------------|--|----------------|--|
| Secondary | Treatment Unit | | Treatment Unit | | Treatment Unit | |
| | Size | | Size | | Size | |
| | Flow rate | | Flow rate | | Flow rate | |
| | Retention time | | Retention time | | Retention time | |
| | Other | | Other | | Other | |
| Advanced | Treatment Unit | | Treatment Unit | | Treatment Unit | |
| | Size | | Size | | Size | |
| | Flow rate | | Flow rate | | Flow rate | |
| | Retention time | | Retention time | | Retention time | |
| | Other | | Other | | Other | |
| Other (specify) | Treatment Unit | | Treatment Unit | | Treatment Unit | |
| | Size | | Size | | Size | |
| | Flow rate | | Flow rate | | Flow rate | |
| | Retention time | | Retention time | | Retention time | |
| | Other | | Other | | Other | |

* The data can be entered in the section above or an excel spreadsheet. Attached additional sheets if needed.

Production

| Outfall Number | Operation, Product, or Material | Quantity per Day | Unit of Measure |
|----------------|---------------------------------|------------------|-----------------|
| | | | |
| | | | |
| | | | |

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Part II. Facility Information *continued*

BLUEPRINT: Attach a line drawing that shows the water flow through your facility with a water balance.

Blueprint Attached

MAP: Attach a USGS topographic map or aerial photo extending one mile beyond the property boundaries of the site, the facility or activity boundaries, any treatment area(s), outfall(s), major drainage patterns, and the receiving surface waters stated above.

Map Attached

Are improvements to the facility scheduled?

YES If YES, explain below.

NO If NO, Skip to Part III

Briefly list and describe the schedule improvements.

| | |
|----|--|
| 1. | |
| 2. | |
| 3. | |
| 4. | |

Provide scheduled or actual dates of completion for improvements.

Scheduled or Actual Dates of Completion for Improvements

| Scheduled Improvement (from above) | Affected Outfalls (list outfall number) | Begin Construction (MM/DD/YYYY) | End Construction (MM/DD/YYYY) | Begin Discharge (MM/DD/YYYY) | Attainment of Operational Level (MM/DD/YYYY) |
|---------------------------------------|--|------------------------------------|----------------------------------|---------------------------------|---|
| 1. | | | | | |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |



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Part III. Sampling Information

Provide all parameter sampling data with analytical results, reporting limit and any laboratory flags on an Excel spreadsheet. *An Excel Spreadsheet will be provided upon request.*

Has WET testing been conducted during the last 5 years? YES NO

Indicate the acute and chronic WET tests (PASS or FAIL) results for the past 5 years. If no WET testing for the quarter, then leave blank (e.g., for semi-annual or annual testing or missed testing events).

| Year | Outfall No. _____ | | Outfall No. _____ | | Outfall No. _____ | | Outfall No. _____ | | Outfall No. _____ | | Outfall No. _____ | |
|------|-------------------|--|-------------------|--|-------------------|--|-------------------|--|-------------------|--|-------------------|--|
| | Acute | | Chronic | | Acute | | Chronic | | Acute | | Chronic | |
| | Qtr 1 | <input type="checkbox"/> PASS <input type="checkbox"/> FAIL | Qtr 1 | <input type="checkbox"/> PASS <input type="checkbox"/> FAIL | Qtr 1 | <input type="checkbox"/> PASS <input type="checkbox"/> FAIL | Qtr 1 | <input type="checkbox"/> PASS <input type="checkbox"/> FAIL | Qtr 1 | <input type="checkbox"/> PASS <input type="checkbox"/> FAIL | Qtr 1 | <input type="checkbox"/> PASS <input type="checkbox"/> FAIL |
| | Qtr 2 | <input type="checkbox"/> PASS <input type="checkbox"/> FAIL | Qtr 2 | <input type="checkbox"/> PASS <input type="checkbox"/> FAIL | Qtr 2 | <input type="checkbox"/> PASS <input type="checkbox"/> FAIL | Qtr 2 | <input type="checkbox"/> PASS <input type="checkbox"/> FAIL | Qtr 2 | <input type="checkbox"/> PASS <input type="checkbox"/> FAIL | Qtr 2 | <input type="checkbox"/> PASS <input type="checkbox"/> FAIL |
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| | Qtr 1 | <input type="checkbox"/> PASS <input type="checkbox"/> FAIL | Qtr 1 | <input type="checkbox"/> PASS <input type="checkbox"/> FAIL | Qtr 1 | <input type="checkbox"/> PASS <input type="checkbox"/> FAIL | Qtr 1 | <input type="checkbox"/> PASS <input type="checkbox"/> FAIL | Qtr 1 | <input type="checkbox"/> PASS <input type="checkbox"/> FAIL | Qtr 1 | <input type="checkbox"/> PASS <input type="checkbox"/> FAIL |
| | Qtr 2 | <input type="checkbox"/> PASS <input type="checkbox"/> FAIL | Qtr 2 | <input type="checkbox"/> PASS <input type="checkbox"/> FAIL | Qtr 2 | <input type="checkbox"/> PASS <input type="checkbox"/> FAIL | Qtr 2 | <input type="checkbox"/> PASS <input type="checkbox"/> FAIL | Qtr 2 | <input type="checkbox"/> PASS <input type="checkbox"/> FAIL | Qtr 2 | <input type="checkbox"/> PASS <input type="checkbox"/> FAIL |
| | Qtr 3 | <input type="checkbox"/> PASS <input type="checkbox"/> FAIL | Qtr 3 | <input type="checkbox"/> PASS <input type="checkbox"/> FAIL | Qtr 3 | <input type="checkbox"/> PASS <input type="checkbox"/> FAIL | Qtr 3 | <input type="checkbox"/> PASS <input type="checkbox"/> FAIL | Qtr 3 | <input type="checkbox"/> PASS <input type="checkbox"/> FAIL | Qtr 3 | <input type="checkbox"/> PASS <input type="checkbox"/> FAIL |
| | Qtr 4 | <input type="checkbox"/> PASS <input type="checkbox"/> FAIL | Qtr 4 | <input type="checkbox"/> PASS <input type="checkbox"/> FAIL | Qtr 4 | <input type="checkbox"/> PASS <input type="checkbox"/> FAIL | Qtr 4 | <input type="checkbox"/> PASS <input type="checkbox"/> FAIL | Qtr 4 | <input type="checkbox"/> PASS <input type="checkbox"/> FAIL | Qtr 4 | <input type="checkbox"/> PASS <input type="checkbox"/> FAIL |

Describe any cause(s) of toxicity:

Were the above WET analysis submitted to Utah DWQ? YES NO



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Part V. Outfalls and Receiving Water(s)

Provide the latitude and longitude to the nearest second for each dewatering outfall. The specified location should be after all treatment and before release to the receiving water. Provide the name of the initial receiving water. If the initial receiving water is unnamed, please also indicate the closed named drainage the receiving water flows into (i.e. unnamed tributary of City Creek). Attach additional sheets if necessary for more outfalls.

Each outfall to a different receiving water segment is subject to additional application fees and annual fees.

| Outfall No. | Average daily flow rate | Latitude | Longitude | Receiving Surface Waters (Name) |
|-------------|-------------------------|----------|-----------|---------------------------------|
| | mgd | O ° ' " | O ° ' " | |
| | mgd | O ° ' " | O ° ' " | |
| | mgd | O ° ' " | O ° ' " | |

Do any of the outfalls described above have a season or periodic discharges?

YES NO

If so, provide the following information for each applicable outfall.

| | Outfall No. | Outfall No. | Outfall No. |
|--|-------------|-------------|-------------|
| Number of times per year discharges occurs | | | |
| Average duration of each discharge (specify units) | | | |
| Average flow of each discharge | mgd | mgd | mgd |
| Months in which discharge occurs | | | |

The discharge to outfall #1 and outfall #2 is anticipated to be intermittent, however the timing and duration of the discharges cannot be determined at this time due to frequent changes in the rate of recharge in the pit.



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Part VI. Effluent and Intake Characteristics

Table A.

Conventional and Non-Conventional Pollutants

Are you requesting a waiver for one or more pollutants listed Table A for any of your outfalls? YES NO

If yes, indicate the applicable outfalls below. Attach the waiver request and other required information to the application.

| | | | | | |
|----------------|--|----------------|--|----------------|--|
| Outfall Number | | Outfall Number | | Outfall Number | |
|----------------|--|----------------|--|----------------|--|

Have you completed monitoring for all Table A pollutants at each of your outfalls for which a waiver has not been requested and attached the results to this application?
 YES NO; a waiver has been requested for all pollutants at all outfalls

Table B.

Toxic Metals, Cyanide, Total Phenols, and Organic Toxic Pollutants

Do any of the facility's processes that contribute wastewater fall into one or more of the primary industry categories listed in Appendix A? YES NO Not applicable

Have you checked "Testing Required" for all toxic metals, cyanide, and total phenols in Section 1 of Table B? YES NO

List the applicable primary industry categories and check the boxes indicating the required Gas Chromatography/Mass Spectrometry (GS/MS) Fraction(s) identified in Appendix A.

| Primary Industry Category | Required Gas Chromatography/Mass Spectrometry (GS/MS) Fraction(s) |
|---------------------------|--|
| | <input type="checkbox"/> Volatile <input type="checkbox"/> Acid <input type="checkbox"/> Base/Neutral <input type="checkbox"/> Pesticide |
| | <input type="checkbox"/> Volatile <input type="checkbox"/> Acid <input type="checkbox"/> Base/Neutral <input type="checkbox"/> Pesticide |
| | <input type="checkbox"/> Volatile <input type="checkbox"/> Acid <input type="checkbox"/> Base/Neutral <input type="checkbox"/> Pesticide |

Have you checked "Testing Required" for all required pollutants in Sections 2 through 5 of Table B for each of the GC/MS fractions? NA - none required YES NO

Have you checked "Believe Present" or "Believed Absent" for all pollutants listed in Sections 1 through 5 of Table B where testing is not required? YES NO

Have you provided (1) quantitative data for those Section 1, Table B, pollutants for which you have indicated testing is required or (2) quantitative data or other required information for those Section 1, Table B, pollutants that you have indicated are "Believe Present" in your discharge? YES NO

Have you provided (1) quantitative data for those Sections 2 through 5, Table B, pollutants for which you have determined testing is required or (2) quantitative data or an explanation for those Sections 2 through 5, Table B, pollutants you have indicated are "Believed Present" in your discharge? NA - none required YES NO



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Part VI. Effluent and Intake Characteristics *continued*

**Table C.
 Certain Conventional and Non-Conventional Pollutants**

Have you indicated whether pollutants are “Believed Present” or “Believed Absent” for all pollutants listed on Table C for all outfalls?
 YES NO

Have you completed Table C by providing (1) quantitative data for those pollutants that are limited either directly or indirectly in an Effluent Limitation Guidelines and/or (2) quantitative data or an explanation for those pollutants for which you have indicated “Believe Present”?
 YES NO

No ELG promulgated by EPA under Section 304 of the CWA applies to the facility YES NO

**Table D.
 Certain Hazardous Substances and Asbestos**

Have you indicated whether pollutants are “Believed Present” or “Believed Absent” for all pollutants listed on Table D for all outfalls?
 YES NO

Have you completed Table D by (1) describing the reasons the applicable pollutants are expected to be discharged and (2) by providing quantitative data, if available?
 YES NO

**Table E.
 2,3,7,8-Tetrachlorodibenzo-p-Dioxin (2,3,7,8-TCDD)**

Does the facility use or manufacture one or more of the 2,3,7,8-TCDD congeners listed below:
 2,4,5-trichlorophenoxy acetic acid (2,4,5-T)
 2-(2,4,5-trichlorophenoxy) propanoic acid (Silvex, 2,4,5-TP)
 2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloro-propionate (Erbon)
 0,0-dimethyl 0-(2,4,5-trichlorophenyl) phosphorothioate (Ronnel)
 2,4,5,-trichlorophenol (TCP)
 hexachlorophene (HCP).
 Or do you know of have reason to believe that TCDD is or may be present in the effluent?
 YES, Complete Table E NO, Skip to Part VII

Have you completed Table E by reporting qualitative data for TCDD?
 YES NO

Were any of the analyses reported in this section performed by a contract laboratory or consulting firm?
 YES NO, Skip to Part VII

Provide information for each contract laboratory or consulting firm below.

| | Laboratory Number 1 | Laboratory Number 2 | Laboratory Number 3 |
|--------------------------------|---------------------|---------------------|---------------------|
| Name of laboratory/firm | | | |
| Laboratory address | | | |
| Phone Number | | | |
| Pollutant(s) analyzed | | | |



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Part VII. Used or Manufactured Toxics

Is any pollutant listed in Table B a substance or a component of a substance used or manufactured at your facility as an intermediate or final product or byproduct?

YES NO, Skip to Part VIII

List the pollutants below.

| | | |
|----------|----------|----------|
| 1. _____ | 4. _____ | 7. _____ |
| 2. _____ | 5. _____ | 8. _____ |
| 3. _____ | 6. _____ | 9. _____ |



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Part IX. Biosolids Information

Was the Biosolids Annual Report submitted? YES NO
 Attach a Biosolids Management Plan with application
 Serve Connections?

Part IX is not applicable - the facility does not treat sanitary waste and does not have regular sludge production

Provide the total dry metric tons per the latest 365-day period of sewage sludge generated, treated, used and disposed of:

| Practice | Dry Metric Tons per 365-day Period |
|---|------------------------------------|
| Amount generated at the facility | |
| Amount treated at the facility | |
| Amount used (i.e., received from offsite) at the facility | |
| Amount disposed of at the facility | |

Treatment Provided at Your Facility

Identify the treatment process(es) used at your facility to reduce pathogens in sewage sludge

- | | |
|--|---|
| <input type="checkbox"/> Preliminary operations (e.g., sludge grinding and degritting) | <input type="checkbox"/> Thickening (concentration) |
| <input type="checkbox"/> Stabilization | <input type="checkbox"/> Anaerobic digestion |
| <input type="checkbox"/> Composting | <input type="checkbox"/> Conditioning |
| <input type="checkbox"/> Disinfection | <input type="checkbox"/> Dewatering (e.g. centrifugation, sludge drying beds, sludge lagoons) |
| <input type="checkbox"/> Heat drying | <input type="checkbox"/> Thermal reduction |
| <input type="checkbox"/> Methane or biogas capture and recovery | |

Sewage Sludge Disposal Method

Land Application of Bulk Sewage Sludge

Is sewage sludge from your facility applied to the land? YES NO If No, Skip to next section
 Total dry metric tons per 365-day period of sewage sludge applied to all land sites: _____

Surface Disposal

Is sewage sludge from your facility placed on a surface disposal site?
 YES NO If No, Skip to next section
 Total dry metric tons of sewage sludge from your facility placed on all surface disposal sites per 365-day period: _____
 Do you own or operate all surface disposal sites to which you send sewage sludge for disposal?
 YES NO If No, complete the below information
 Surface disposal site *you do not operate*
 Site name _____
 Mailing address _____
 City _____ State _____ Zip _____
 Contact Name _____ Title _____
 Phone Number _____ Email Address _____



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Part IX. Bisolids Information *continued*

Incineration

Is sewage sludge from your facility fired in a sewage sludge incinerator?
 YES NO If No, Skip to next section

Total dry metric tons of sewage sludge from your facility fired in all sewage sludge incinerators per 365-day period: _____

Do you own or operate all sewage sludge incinerators in which sewage sludge from facility is fired?
 YES NO If No, complete the below information

Incinerator location *you do not operate*

Site name _____

Mailing address _____

City _____ State _____ Zip _____

Contact Name _____ Title _____

Phone Number _____ Email Address _____

Disposal in a Municipal Solid Waste Landfill

Is sewage sludge from your facility placed on a municipal solid waste landfill?
 YES NO If No, Skip to next section

Total dry metric tons of sewage sludge from your facility placed in this municipal solid waste landfill per 365-day period: _____

Do you own or operate the municipal solid waste landfill in which sewage sludge is disposed?
 YES NO If No, complete the below information

Municipal Solid Waste Landfill *you do not operate*

Site name _____

Mailing address _____

City _____ State _____ Zip _____

Contact Name _____ Title _____

Phone Number _____ Email Address _____



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Part X. Reuse Information

Is wastewater applied to land?

YES NO If YES, complete the below information.

| Land Application Site and Discharge Data | | | |
|--|-------|------------------------------|---|
| Location | Size | Average Daily Volume Applied | How often |
| | acres | gpd | <input type="checkbox"/> Seasonal <input type="checkbox"/> Continuous <input type="checkbox"/> Intermittent |
| | acres | gpd | <input type="checkbox"/> Seasonal <input type="checkbox"/> Continuous <input type="checkbox"/> Intermittent |
| | acres | gpd | <input type="checkbox"/> Seasonal <input type="checkbox"/> Continuous <input type="checkbox"/> Intermittent |

Seasonal land application.

Indicate months of seasonal land application

- | | | | |
|-----------------------------------|--------------------------------|------------------------------------|-----------------------------------|
| <input type="checkbox"/> January | <input type="checkbox"/> April | <input type="checkbox"/> July | <input type="checkbox"/> October |
| <input type="checkbox"/> February | <input type="checkbox"/> May | <input type="checkbox"/> August | <input type="checkbox"/> November |
| <input type="checkbox"/> March | <input type="checkbox"/> June | <input type="checkbox"/> September | <input type="checkbox"/> December |

Where is the Reuse water distributed

- Residential irrigation
- Urban uses
 - Non-residential landscape irrigation
 - Golf course irrigation
 - Toilet flushing
 - Fire protection
- Irrigation of food crops (direct contact with edible part) – spray irrigation
- Irrigation of food crops (*Non direct contact with edible part*) – no spray irrigation
- Irrigation
 - Sod farms
 - Silviculture
 - Limited access highway rights of way
 - Other areas where human access is restrict or unlikely to occur
- Irrigation of animal feed crops other than pasture for milking animals
- Impoundment of wastewater where direct human contact is not allowed or is unlikely to occur
- Cooling water
- Soil compaction or duct control in construction areas
- Other

Attached an updated Reuse Project Plan

An updated Reuse Project Plan is required during every permit renewal.



Division of Water Quality (DWQ) UPDES Program

UPDES Industrial Permit Application

Part X. Antidegradation Review

The objective of antidegradation rules and policies is to protect existing high quality waters and set forth a process for determining where and how much degradation is allowable for socially and/or economically important reasons. In accordance with Utah Administrative Code (UAC R317-2-3), an antidegradation review (ADR) is a permit requirement for any project that will increase the level of pollutants in waters of the state. The rule outlines requirements for both Level I and Level II ADRs, as well as public comment procedures. This review form is intended to assist the applicant and Division of Water Quality (DWQ) staff in complying with the rule but is not a substitute for the complete rule in R317-2-3.5. Additional details can be found in the *Utah Antidegradation Implementation Guidance* and relevant sections of the guidance are cited in this review form.

ADRs should be among the first steps of an application for a UPDES permit because the review helps establish treatment expectations. The level of effort and amount of information required for the ADR depends on the nature of the project and the characteristics of the receiving water. To avoid unnecessary delays in permit issuance, DWQ recommends that the process be initiated at least one year prior to the date a final approved permit is required.

DWQ will determine if the project will impair beneficial uses (Level I ADR) using information provided by the applicant and whether a Level II ADR is required. The applicant is responsible for conducting the Level II ADR. For the permit to be approved, the Level II ADR must document that all feasible measures have been undertaken to minimize pollution for socially, environmentally or economically beneficial projects resulting in an increase in pollution to waters of the state.

For permit requiring a Level II ADR, this antidegradation form must be completed and approved by DWQ before any UPDES permit can be issued. Typically, the ADR form is completed in an iterative manner in consultation with DWQ. The applicant should first complete the statement of social, environmental and economic importance (SEEI) in Section C and determine the parameters of concern (POC) in Section D. Once the POCs' are agreed upon by DWQ, the alternatives analysis and selection of preferred alternative Section E can be conducted based on minimizing degradation resulting from discharge of the POCs. Once the applicant and DWQ agree upon the preferred alternative, the review is considered complete, and the form is submitted to DWQ.

What are the designated uses of the receiving water (R317-2-6)?

- Domestic Water Supply
- Recreation
- Aquatic Life
- Agricultural Water Supply
- Great Salt Lake

Antidegradation Category 1, 2 or 3 of receiving water (R317-2-3.2, -3.3, and -3.4):



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Part X. Antidegradation Review *continued*

Effluent flow reviewed: *typically, this should be the maximum daily discharge at the design capacity of the facility. Exceptions should be noted.*

What is the application for? (Check all that apply)

- A UPDES permit for a new facility, project, or outfall.
- A UPDES permit renewal with an expansion of modification of an existing wastewater treatment works.
- A UPDES permit renewal requiring limits for a pollutant not covered by the previous permit and/or an increase to existing permit limits.
- A UPDES permit renewal with no charges in facility operations.

Section B. Is a Level II ADR required?

This section of the form is intended to help applicants determine if a Level II ADR is required for specific permitted activities. In addition, the Executive Secretary may require a Level II ADR for an activity with the potential for major impact on the quality of waters of the state (R317-2-3.5a.1).

B1. The UPDES permit is new or is being renewed and the proposed effluent concentration and loading limits are higher than the concentration and loading limits in the previous permit and any previous antidegradation review(s).

- YES – (Proceed to B2 of the Form)
- NO – No Level II ADR is required and there is no need to proceed further with the review questions. Continue to the Certification Statement and Signature page.

B2. Will any pollutants use assimilative capacity of the receiving water, i.e. do the pollutant concentrations in the effluent exceed those in the receiving waters at critical conditions? For most pollutants, effluent concentrations that are higher than the ambient concentrations require an antidegradation review? For a few pollutants such as dissolved oxygen, and antidegradation review is required if the effluent concentrations are less than the ambient concentrations in the receiving water. (Section 3.3.3 of Implementation Guidance)

- YES – (Proceed to B3 of the Form)
- NO – No Level II ADR is required and there is no need to proceed further with the review questions. Continue to the Certification Statement and Signature page.



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Part X. Antidegradation Review *continued*

B3. Are water quality impacts of the proposed project temporary and limited (Section 3.3.4 of Implementation Guidance)? Proposed projects that will have temporary and limited effects on water quality can be exempted from a Level II ADR.

- YES – Identify the reason used to justify this determination if B4.1 and proceed to Section G. No Level II ADR is required.
- NO – A Level II ADR is required (Proceed to Section C)

B3.1 Complete this question only if the applicant is requesting a Level II review exclusion for temporary and limited projects (See R317-2-3.5(b)(3) and R317-2-3.5(b)(4)). For projects requesting a temporary and limited exclusion please indicate the factor(s) used to justify this determination (check all that apply and provide details as appropriate) (Section 3.3.4 of Implementation Guidance):

- Water quality impacts will be temporary and related exclusively to sediment or turbidity and fish spawning will not be impaired.

Factors to be considered in determining whether water quality impacts will be temporary and limited:

- a) The length of time during which water quality will be lowered:
- b) The perfect change in ambient concentrations of pollutants:
- c) Pollutants affected:
- d) Likelihood for long-term water quality benefits:
- e) Potential for any residual long-term influences on existing uses:
- f) Impairment of fish spawning, survival and development of aquatic fauna excluding fish removal efforts:

| |
|--|
| |
| |
| |
| |
| |
| |
| |

Additional justification, as needed:



UPDES Industrial Permit Application

Level II ADR (Sections C-F) was completed using the DWQ review form and is attached to the application

Part X. Antidegradation Review *continued*

Level II ADR

Section C, D, E, and F of the form constitute the Level II ADR Review. The applicant must provide as much detail as necessary for DWQ to perform the antidegradation review. Questions are provided for the convenience of applicants; however, for more complex permits it may be more effective to provide the required information in a separate report. Applicants that prefer a separate report should record the report name here and proceed to Section G of the form.

Option Report Name: _____

Section C. Is the degradation from the project socially and economically necessary to accommodate important social or economic development in the area in which the waters are located? *The applicant must provide as much detail as necessary for DWQ to concur that the project is socially and economically necessary when answering the questions in the section. More information is available in Section 6.2 of the Implementation Guidance.*

C1. Describe the social and economic benefits that would be realized through the proposed project, including the number and nature of jobs created and anticipated tax revenues.

C2. Describe any environmental benefits to be realized through implementation of the proposed project.

C3. Describe any social and economic losses that may result from the project, including impacts to recreation or commercial development.

C4. Summarize any supporting information from the affected communities on preserving assimilative capacity to support future growth and development.



UPDES Industrial Permit Application

Part X. Antidegradation Review *continued*

C5. Please describe any structures or equipment associated with the project that will be placed within or adjacent to the receiving water.

C6. Will the discharge potentially impact a drinking water source, e.g., Class 1C waters? Depending upon the locations of the discharge and its proximity to downstream drinking water diversions, additional treatment or more stringent effluent limits or additional monitoring, beyond that which may otherwise be required to meet minimum technology standards or in stream water quality standards, may be required by the Director in order to adequately protect public health and the environment (R317-2-3.5 d.).

- YES
- NO

Section D. Identify and rank (from increasing to decreasing potential threat to designated uses) the parameters of concern. Parameters of concern are parameters in the effluent at concentrations greater than ambient concentrations in the receiving water. The applicant is responsible for identifying parameter concentrations in the effluent and DWQ will provide parameter concentrations for the receiving water. More information is available in Section 3.3.3 of the Implementation Guidance.

| Parameters of Concern: | | | |
|-------------------------------|------------------|------------------------------|-------------------------------|
| Rank | Pollutant | Ambient Concentration | Effluent Concentration |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |



UPDES Industrial Permit Application

Part X. Antidegradation Review *continued*

| Pollutants Evaluated that are not Considered Parameters of Concern: | | | |
|---|-----------------------|------------------------|---------------|
| Pollutant | Ambient Concentration | Effluent Concentration | Justification |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |

Section E. Alternative Analysis Requirements of Level II Antidegradation Review. *Level II ADRs require the applicant to determine whether there are feasible less-degrading alternatives to the proposed project. More information is available in Section 5.5 and 5.6 of the Implementation Guidance.*

E1. The UPDES permit is being renewed without any changes to flow or concentrations. Alternative treatment and discharge options including changes to operations and maintenance were considered and compared to the current processes. NO economically feasible treatment or discharge alternatives were identified that were not previously considered for any previous antidegradation review(s).

- YES – (Proceed to Section F)
- NO or Does Not Apply (Proceed to E2)

E2. Attach as an appendix to this form a report that describes that following factors for all alternative treatment options (see 1) a technical descriptions of the treatment process, including construction costs and continued operation and maintenance expenses, 2) the mass and concentration of discharge constituents, and 3) a description of the reliability of the system, including the frequency where recurring operation and maintenance may lead to temporary increases in discharged pollutants. Most of this information is typically available from a Facility Plan, if available.

Report Name: _____

E3. Describe the proposed method and cost of the baseline treatment alternative. The baseline treatment alternative is the minimum treatment required to meet water quality based effluent limits (WQBEL) as determined by the preliminary or final wasteload analysis (WLC) and any secondary or categorical effluent limits.



UPDES Industrial Permit Application

Part X. Antidegradation Review *continued*

E4. Were any of the following alternatives feasible and affordable?

| Alternative | Feasible | Reason Not Feasible/Affordable |
|----------------------------------|--|--------------------------------|
| Pollutant Trading | <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| Water Recycling/Reuse | <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| Land Application | <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| Connection to Other Facilities | <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| Upgrade to Existing Facility | <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| Total Containment | <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| Improved O&M of Existing Systems | <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| Seasonal or Controlled Discharge | <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| New Construction | <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| No Discharge | <input type="checkbox"/> YES <input type="checkbox"/> NO | |

E5. From the applicant's perspective, what is the preferred treatment option?



UPDES Industrial Permit Application

Part X. Antidegradation Review *continued*

E6. Is the preferred option also the least polluting feasible alternative?

YES NO

If No, what were less degrading feasible alternative(s)?

If No, provide a summary of the justification for not selecting the least polluting feasible alternative and if appropriate, provide a more detailed justification as an attachment.

Section F. Optional Information

F1. Does the applicant want to conduct optional public review(s) in addition to the mandatory public review? Level II ADRs are public noticed for a thirty day comment period. More information is available in Section 3.7.1 of the Implementation Guidance.

YES NO

F2. Does the project include an optional mitigation plan to compensate for the proposed water quality degradation?

YES NO

Report Name: _____

Level II ADR

Part C, D, E, and F of the form constitute the Level II ADR Review. The applicant must provide as much detail as necessary for DWQ to perform the antidegradation review. Questions are provided for the convenience of applicants; however, for more complex permits it may be more effective to provide the required information in a separate report. Applicants that prefer a separate report should record the report name here and proceed to Part G of the form.

Optional Report Name:

Part C. Is the degradation from the project socially and economically necessary to accommodate important social or economic development in the area in which the waters are located? *The applicant must provide as much detail as necessary for DWQ to concur that the project is socially and economically necessary when answering the questions in this section. More information is available in Section 6.2 of the Implementation Guidance.*

C1. Describe the social and economic benefits that would be realized through the proposed project, including the number and nature of jobs created and anticipated tax revenues.

1. The total tax revenue Utah Iron has paid to the State for 2020 through 2023 for revenues associated with iron ore mining is approximately \$750,000

2. Approximately 175 direct employee jobs are created from the mine being open. About ten percent of these new jobs are entry level; 90% are considered some of the highest paying jobs in Iron County, and even the State of Utah. These jobs generate approximately \$350,000 State income tax revenue, annually. An additional estimated \$150,000 Utah State sales tax is generated through disposable income paid to the employees, annually.

3. Approximately 150 vendors or independent contracting firms from which Utah Iron purchase millions of dollars of goods and services annually in the State of Utah alone. The estimated State income tax generated from these activities is approximately \$300,000 (assuming 15% profit margin resulting in \$5M taxable income).

C2. Describe any environmental benefits to be realized through implementation of the proposed project.

Discharge water is of good quality. the discharge provides an additional ground and surface water into the Escalante Valley drainage.

C3. Describe any social and economic losses that may result from the project, including impacts to recreation or commercial development.

No known losses have been identified that would occur because of the implementation of this project.

C4. Summarize any supporting information from the affected communities on preserving assimilative capacity to support future growth and development.

N/A

C5. Please describe any structures or equipment associated with the project that will be placed within or adjacent to the receiving water.

Water will be discharged through delivery pipe. Outfall will consist of an energy dissipation structure to reduce erosion.

Part E. Alternative Analysis Requirements of a Level II

Antidegradation Review. *Level II ADRs require the applicant to determine whether there are feasible less-degrading alternatives to the proposed project. For new and expanded discharges, the Alternatives Analysis must be prepared under the supervision of and stamped by a Professional Engineer registered with the State of Utah. DWQ may grant an exception from this requirement under certain circumstances, such as the alternatives considered potentially feasible do not include engineered treatment alternatives. More information regarding the requirements for the Alternatives Analysis is available in Section 5 of the Implementation Guidance.*

E1. The UPDES permit is being renewed without any changes to flow or concentrations. Alternative treatment and discharge options including changes to operations and maintenance were considered and compared to the current processes. No economically feasible treatment or discharge alternatives were identified that were not previously considered for any previous antidegradation review(s).

Yes (Proceed to Part F)

No or Does Not Apply (Proceed to E2)

E2. Attach as an appendix to this form a report that describes the following factors for all alternative treatment options 1) a technical description of the treatment process, including construction costs and continued operation and maintenance expenses, 2) the mass and concentration of discharge constituents, and 3) a description of the reliability of the system, including the frequency where recurring operation and maintenance may lead to temporary increases in discharged pollutants. Most of this information is typically available from a Facility Plan, if available.

Report Name:

E3. Describe the proposed method and cost of the baseline treatment alternative. The baseline treatment alternative is the minimum treatment required to meet water quality based effluent limits (WQBEL) as determined by the preliminary or final wasteload analysis (WLA) and any secondary or categorical effluent limits.

E4. Were any of the following alternatives feasible and affordable?

| Alternative | Feasible | Reason Not Feasible/Affordable |
|----------------------------------|-----------------|---|
| Pollutant Trading | No | Need to remove water from pit |
| Water Recycling/Reuse | Yes | Partially feasible. Due to technical limitation, only limited amount of water from the iron mine can be recycled by using in the mill process. |
| Land Application | Yes | Partially feasible. Not feasible during the winter due to ice build up and frost damage to equipment. |
| Connection to Other Facilities | No | There are no other commercial or industrial users within a reasonable distance of the facility. |
| Upgrade to Existing Facility | No | Utah Iron has recently completed a number of significant upgrades that maximize the use of the water and other resources at the mine. In particular, filter presses have largely replaced antiquated evaporation equipment and have also improved the efficie |
| Total Containment | No | Intercepted water volume exceeds the capability to use the water in the existing infrastructure. |
| Improved O&M of Existing Systems | No | Intercepted water volume exceeds the capability to use the water in the existing infrastructure. |
| Seasonal or Controlled Discharge | Yes | Partially feasible. The most difficult time of the year to manage discharges is in winter through early spring. This is due to a) lower temperatures resulting in less evaporation, b) increased precipitation in the surrounding geographic region, resultng in higher flows and c), freezing temperatures limit the ability to use all of the infrastructure at its maximum capacity. |
| New Construction | No | Some future additions to the iron ore processing capacity of the mine are currently being evaluated, but these are at least 5 or more years out from implementation. |
| No Discharge | No | Water consistently appears in the mine pits as excavation of material occurs. While the volumes vary based on geological and climate conditions, there is a long history of water intercept that has to be addressed to allow economic extraction of Iron Ore. |

E5. From the applicant’s perspective, what is the preferred treatment option?

During the times of the year when discharge is warranted, no treatment is proposed because the water meets all discharge standards and there are no known technologies to improve the water quality for this water resource.

E6. Is the preferred option also the least polluting feasible alternative?

Yes

No

If no, what were less degrading feasible alternative(s)?

If no, provide a summary of the justification for not selecting the least polluting feasible alternative and if appropriate, provide a more detailed justification as an attachment.

Part F. Optional Information

F1. Does the applicant want to conduct optional public review(s) in addition to the mandatory public review? Level II ADRs are public noticed for a thirty day comment period. More information is available in Section 3.7.1 of the Implementation Guidance.

No

Yes

F2. Does the project include an optional mitigation plan to compensate for the proposed water quality degradation?

No

Yes

Report Name:



Division of Water Quality (DWQ) UPDES Program

UPDES Industrial Permit Application

Appendix A. Testing Requirements for Organic Toxic Pollutants Industry Categories*

| Industry Category | | Volatile | Gas Chromatography/Mass Spectrometry (GS/MS) Fraction(s)† | | Pesticide |
|-------------------|---|--------------------------|---|--------------------------|--------------------------|
| | | | Acid | Base/Neutral | |
| 1. | Adhesives and sealants | X | X | X | <input type="checkbox"/> |
| 2. | Aluminum forming | X | X | X | <input type="checkbox"/> |
| 3. | Auto and other laundries | X | X | X | X |
| 4. | Battery manufacturing | X | <input type="checkbox"/> | X | <input type="checkbox"/> |
| 5. | Coal mining | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. | Coil coating | X | X | X | <input type="checkbox"/> |
| 7. | Copper forming | X | X | X | <input type="checkbox"/> |
| 8. | Electric and electronic compounds | X | X | X | X |
| 9. | Electroplating | X | X | X | <input type="checkbox"/> |
| 10. | Explosives manufacturing | <input type="checkbox"/> | X | X | <input type="checkbox"/> |
| 11. | Foundries | X | X | X | <input type="checkbox"/> |
| 12. | Gum and wood chemicals (all subparts except D and F) | X | X | <input type="checkbox"/> | <input type="checkbox"/> |
| 13. | Gum and wood chemicals, Subpart D (tall oil rosin) | X | X | X | <input type="checkbox"/> |
| 14. | Gum and wood chemicals, Subpart F (rosin-based derivatives) | X | X | X | <input type="checkbox"/> |
| 15. | Inorganic chemicals manufacturing | X | X | X | <input type="checkbox"/> |
| 16. | Iron and steel manufacturing | X | X | X | <input type="checkbox"/> |
| 17. | Leather tanning and finishing | X | X | X | <input type="checkbox"/> |
| 18. | Mechanical products manufacturing | X | X | X | <input type="checkbox"/> |
| 19. | Nonferrous metals manufacturing | X | X | X | X |
| 20. | Ore mining, Subpart B (base and precious metals) | <input type="checkbox"/> | X | <input type="checkbox"/> | <input type="checkbox"/> |
| 21. | Organic chemicals manufacturing | X | X | X | X |
| 22. | Paint and ink formulation | X | X | X | <input type="checkbox"/> |
| 23. | Pesticides | X | X | X | X |
| 24. | Petroleum refining | X | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 25. | Pharmaceutical preparations | X | X | X | <input type="checkbox"/> |
| 26. | Photographic equipment and supplies | X | X | X | <input type="checkbox"/> |
| 27. | Plastic and synthetic materials manufacturing | X | X | X | X |
| 28. | Plastic processing | X | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 29. | Printing and publishing | X | X | X | X |
| 30. | Pulp and paperboard mills | X | X | X | X |
| 31. | Rubber processing | X | X | X | <input type="checkbox"/> |
| 32. | Soap and detergent manufacturing | X | X | X | <input type="checkbox"/> |
| 33. | Steam electric power plants | X | X | <input type="checkbox"/> | <input type="checkbox"/> |
| 34. | Textile mills (except Subpart C, Greige Mills) | X | X | X | <input type="checkbox"/> |
| 35. | Timber products processing | X | X | X | X |

Key
 * See note at conclusion of 40 CFR 122, Appendix D (1983) for explanation of effect of suspensions on testing requirements for primary industry categories
 † The pollutants in each fraction are listed in Table B
 X Testing is required
 Testing is not required

*Based on note at conclusion of 40 CFR 122, Appendix D, the US Environmental Protection Agency has suspended the requirements of § 122.21(g)(7)(ii)(A) and Table I of Appendix D as they apply to certain industrial categories. The suspension applies, among other, to all subcategories of the ore mining industry, except for Subpart B (aluminum ore subcategory).

Iron Mountain Mine

Area Map



Iron Mountain

Outfall 1

Iron Mountain Mine

Mill Building

Outfall 2

Sweet Hills HP

56

56

Google Earth

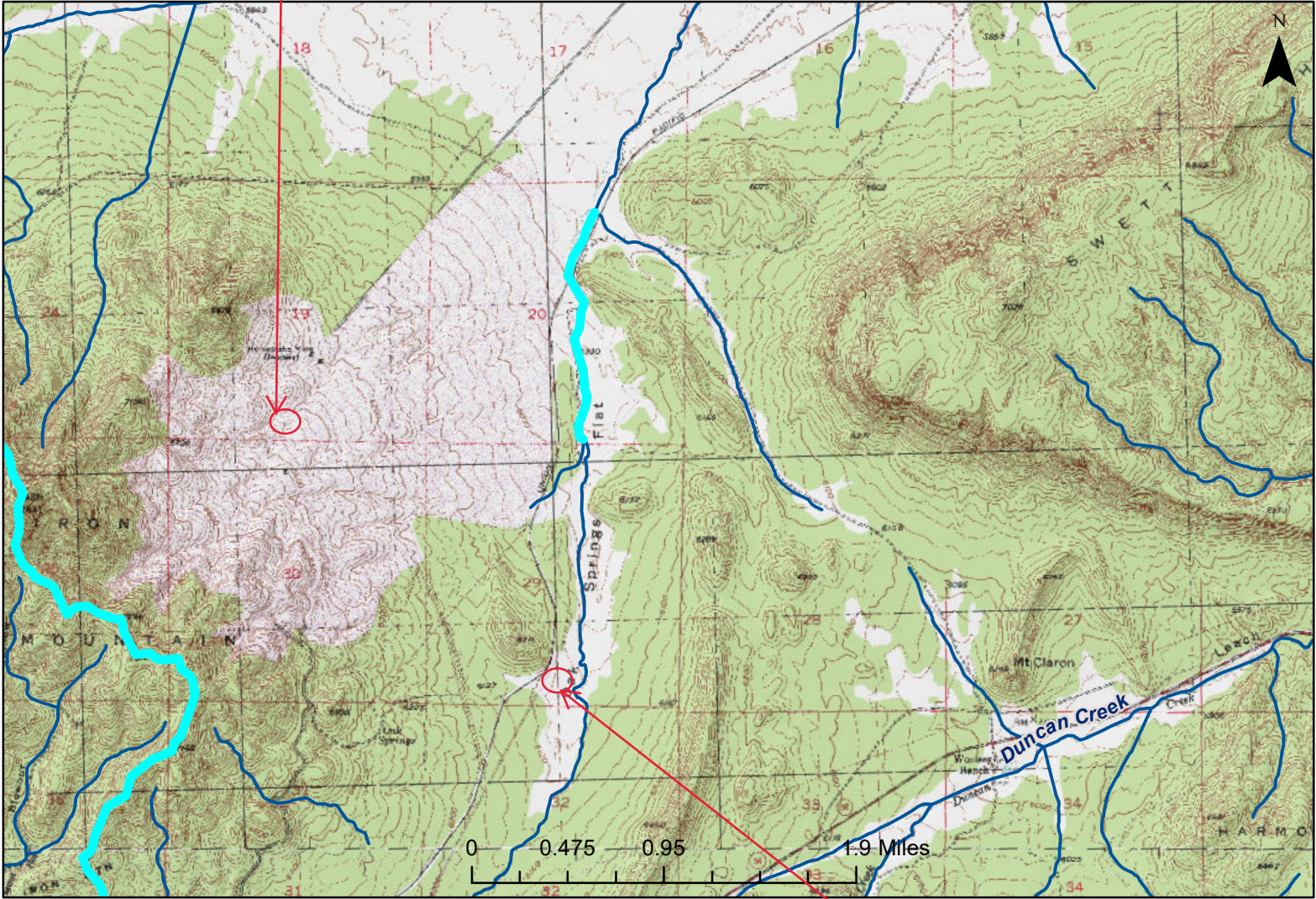


1 mi



Beneficial Uses and Water Quality Assessment Map

Approximate location outfall-1



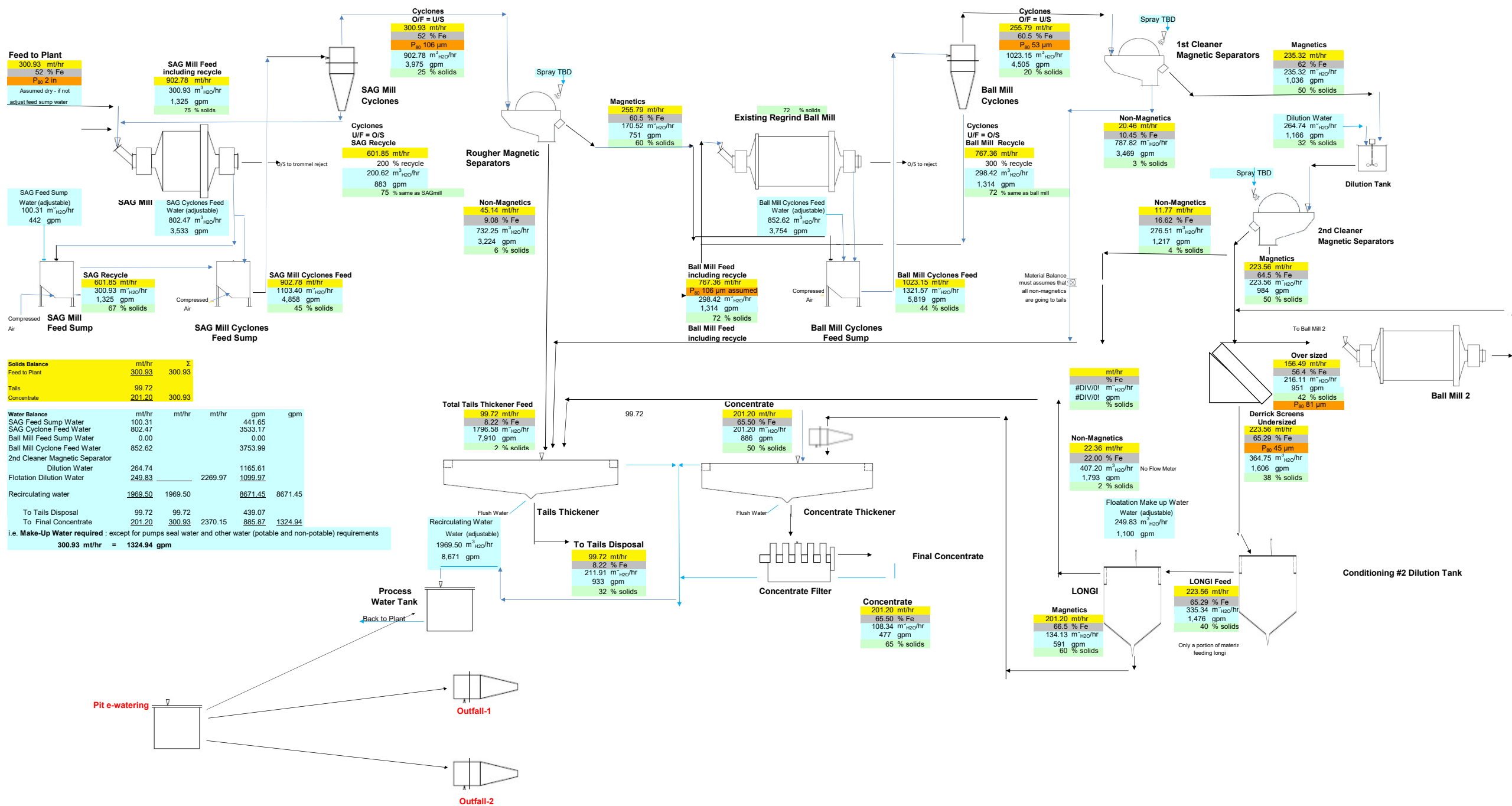
Approximate location outfall-2

Unit ID: UT-not defined
 AU_Type: null
 Assessment Unit Name: none
 Unit Description: Beneficial uses area only (No AUs): West Desert region (undefined beneficial uses)
 Beneficial Uses: Use Class 2B = Infrequent Primary Contact Recreation (e.g. wading, fishing); Use Class 3D = Waterfowl, Shore Birds and Associated Aquatic Life
 RIVER_MILE: null
 Watershed Management Unit: null
 2016 Assessment: none: no defined assessment unit(s)
 Beneficial Use: Cause of Impairment: null
 TMDL Required: 303d Cause of Impairment: null
 TMDL Approved: Cause of Impairment: null
 Aquatic Habitat Impairment: null
 PROTECTED: Use Class 2B = Infrequent Primary Contact Recreation (e.g. wading, fishing), Use Class 3D = Waterfowl, Shore Birds and Associated Aquatic Life
 BLU_Ribbon: null
 Anti-Degradation Category: Category 1 = No point discharges allowed within U.S. Forest Service outer boundary or to other specified waters of R317-2-12 and Category 3 = water quality degradation may be allowed for non-Category 1 and 2 waters pursuant to antidegradation review
 TMDL Information: null
 MAPLABEL: null
 New_AUID: null
 Perimeter: null
 Area_m2: 46793575408.50468

Utah Iron
Cedar City, Utah, USA

2,135,250 metric tons p.a. fed to plant @ 90 % mill availability 24/7
All tonnages are metric tonnes Water density taken as 1 mt/m³
Pumps NOT shown Pumps seal water and other water (potable and non-potable) requirements NOT shown
6,500.00 t/d 300.93 mt/hr
Tonnages based on Dawson Test #37
Filter spray water strainers NOT shown

Utah Iron Concentrator Flow Sheet



| Solids Balance | | | | |
|----------------|--------|--|--------|--|
| | mt/hr | | Σ | |
| Feed to Plant | 300.93 | | 300.93 | |
| Tails | 99.72 | | | |
| Concentrate | 201.20 | | 300.93 | |

| Water Balance | | | | |
|--------------------------------|---------|---------|---------|---------|
| | mt/hr | mt/hr | gpm | gpm |
| SAG Feed Sump Water | 100.31 | | 441.65 | |
| SAG Cyclone Feed Water | 802.47 | | 3533.17 | |
| Ball Mill Feed Sump Water | 0.00 | | 0.00 | |
| Ball Mill Cyclone Feed Water | 852.62 | | 3753.99 | |
| 2nd Cleaner Magnetic Separator | | | | |
| Dilution Water | 264.74 | | 1165.61 | |
| Flotation Dilution Water | 249.83 | 2269.97 | 1099.97 | |
| Recirculating water | 1969.50 | 1969.50 | 8671.45 | 8671.45 |
| To Tails Disposal | 99.72 | 99.72 | 439.07 | |
| To Final Concentrate | 201.20 | 300.93 | 2370.15 | 1324.94 |

i.e. Make-Up Water required : except for pumps seal water and other water (potable and non-potable) requirements
300.93 mt/hr = 1324.94 gpm

Notes:

1. The proposed discharge consists of water from de-watering of the mining pit. Effluent water is not used in the process presented in the diagram and is not in direct contact with process material or facilities.
2. The proposed discharge is designed to 280 gpm (0.4 mgd). discharge may be diverted to outfall 1 or outfall 2.
3. Pit de-watering water is intermittently diverted to be used as make-up water for the ore processing process.

UPDES Industrial Permit Application - Iron Mountain Mine
Part IV - Facility Monitoring Data

| Parameter | Units | March-2023 | | May-2023 | | June-2023 | | August-2023 | |
|--------------------------|----------------|------------|---------|----------|---------|-----------|---------|-------------|---------|
| | | Result | MDL/RL | Result | MDL/RL | Result | MDL/RL | Result | MDL/RL |
| pH | s.u | 7.69 | | 7.83 | | | | | |
| Temprature (deg celcius) | degree celcius | 7.59 | | 14.93 | | | | | |
| BOD5 | mg/L | NA | | NA | | NA | | ND | 2 |
| COD | mg/L | NA | | NA | | NA | | 6 | 5 |
| TOC | mg/L | NA | | NA | | NA | | 1.3 | 0.3 |
| TSS | mg/L | NA | | NA | | NA | | 8 | 3 |
| Amonia as N | mg/L | 0.25 | 0.2 | 0.3 | 0.2 | 0.24 | 0.2 | ND | 0.06 |
| Antimony, Total | mg/L | ND | 0.02 | ND | 0.02 | ND | 0.02 | 0.0005 | 0.00004 |
| Arsenic, Total | mg/L | ND | 0.05 | ND | 0.05 | ND | 0.05 | 0.0021 | 0.00009 |
| Beryllium, Total | mg/L | ND | 0.001 | ND | 0.001 | ND | 0.001 | ND | 0.00007 |
| Cadmium, Total | mg/L | ND | 0.005 | ND | 0.005 | ND | 0.005 | ND | 0.00005 |
| Chromium, Total | mg/L | ND | 0.005 | ND | 0.005 | ND | 0.005 | ND | 0.0007 |
| Copper, Total | mg/L | ND | 0.005 | ND | 0.005 | ND | 0.005 | 0.00088 | 0.0002 |
| Lead, Total | mg/L | ND | 0.02 | ND | 0.02 | ND | 0.02 | ND | 0.0001 |
| Mercury, Total | mg/L | ND | 0.00015 | ND | 0.00015 | ND | 0.00015 | 0.00011 | 0.00008 |
| Nickel, Total | mg/L | NA | | NA | | NA | | 0.00024 | 0.00006 |
| Selenium, Total | mg/L | 0.09 | 0.02 | ND | 0.02 | ND | 0.02 | 0.0015 | 0.0001 |
| Silver, Total | mg/L | ND | 0.005 | ND | 0.005 | ND | 0.005 | ND | 0.00005 |
| Thallium, Total | mg/L | ND | 0.0002 | ND | 0.0002 | ND | 0.0002 | ND | 0.00003 |
| Zinc, Total | mg/L | ND | 0.01 | ND | 0.01 | ND | 0.01 | 0.00316 | 0.0008 |
| Cyanide, Total | mg/L | NA | | NA | | NA | | ND | 0.002 |
| Phenols, Total | mg/L | NA | | NA | | NA | | ND | 0.021 |

Notes:

mg/L- milligrams per liter

NA- not analyzed

ND- not detected

MDL/RL- laboratory method detection limit/reporting limit

Ardon, Ehud

Subject: Request for waiver for testing of Table A pollutants

From: Jeff Studenka <jstudenka@utah.gov>
Sent: Wednesday, November 15, 2023 4:53 PM
To: Ardon, Ehud <ehud.ardon@wsp.com>
Cc: Mike McCandless <mbmfossil@gmail.com>; Buchanan, Corey <corey.buchanan@wsp.com>
Subject: Re: Request for waiver for testing of Table A pollutants

Received, thank you.



Jeff Studenka

UPDES Individual Permits Section

Division of Water Quality
Phone: (385) 602-7303
waterquality.utah.gov

Emails to and from this email address may be considered public records and thus subject to Utah GRAMA requirements.

On Wed, Nov 15, 2023 at 2:41 PM Ardon, Ehud <ehud.ardon@wsp.com> wrote:

Jeff,

Utah Iron is requesting a waiver for the following pollutants included in Appendix A of the UPDES permit application:

- Biochemical oxygen demand (BOD5)
- Chemical oxygen demand (COD)
- Total organic carbon (TOC)

The waiver is requested as these pollutants are not normally associated with iron ore mining.

Thanks,



Ehud Ardon

Lead Consultant, Project Management

M+ 1 801-448-1559

WSP USA

511 Congress St, Ste. 200

Portland, Maine

04101 USA

wsp.com

Division of Water Quality (DWQ) UPDES Program

UPDES Industrial Permit Application

| | | | | | |
|-------------------------|--|----------------------|--|-----------------------|--|
| UPDES Permit No. | | Facility Name | | Outfall Number | |
|-------------------------|--|----------------------|--|-----------------------|--|

| Table A. Conventional and Non-Conventional Pollutants¹ | | | | | | | | | | |
|--|--|-------------------------------------|--------------------|--------------------------|---------------------------------------|---|---|--------------------|----------------------|--------------------|
| | Pollutant | Waiver Requested (if applicable) | Units (specify) | | Effluent | | | | Intake (optional) | |
| | | | | | Maximum Daily Discharge (required) | Maximum Monthly Discharge (if available) | Long-Term Average Daily Discharge (if available) | Number of Analyses | Long-Term Average | Number of Analyses |
| <input type="checkbox"/> | Check here if you have applied to Utah DWQ for a waiver for <i>all</i> of the pollutants listed on this table for the noted outfall. | | | | | | | | | |
| 1. | Biochemical oxygen demand (BOD ₅) | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | Mass | <input type="checkbox"/> | | | | | | |
| 2. | Chemical oxygen demand (COD) | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | Mass | <input type="checkbox"/> | | | | | | |
| 3. | Total organic carbon (TOC) | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | Mass | <input type="checkbox"/> | | | | | | |
| 4. | Total suspended solids (TSS) | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | Mass | <input type="checkbox"/> | | | | | | |
| 5. | Ammonia (as N) | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | Mass | <input type="checkbox"/> | | | | | | |
| 6. | Flow | <input type="checkbox"/> | Rate | <input type="checkbox"/> | | | | | | |
| 7. | Temperature (winter) | <input type="checkbox"/> | Fahrenheit | <input type="checkbox"/> | | | | | | |
| | Temperature (summer) | <input type="checkbox"/> | Fahrenheit | <input type="checkbox"/> | | | | | | |
| 8. | pH (minimum) | <input type="checkbox"/> | Standard units | SU | | | | | | |
| | pH (maximum) | <input type="checkbox"/> | Standard units | SU | | | | | | |

¹ Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required 40 CFR chapter I, subchapter N or O.

Division of Water Quality (DWQ) UPDES Program

UPDES Industrial Permit Application

| | | | | | |
|-------------------------|--|----------------------|--|-----------------------|--|
| UPDES Permit No. | | Facility Name | | Outfall Number | |
|-------------------------|--|----------------------|--|-----------------------|--|

Table B. Toxic Metals, Cyanide, Total Phenols, and Organic Toxic Pollutants ¹

| | Pollutant/Parameter (and CAS Number, if available) | Testing Required | Presence or Absence (check one) | | Units (specify) | Effluent | | | | Intake (optional) | | |
|--|---|--------------------------|------------------------------------|--------------------------|--------------------|---------------------------------------|---|---|--------------------|----------------------|--------------------|--|
| | | | Believed Present | Believed Absent | | Maximum Daily Discharge (required) | Maximum Monthly Discharge (if available) | Long-Term Average Daily Discharge (if available) | Number of Analyses | Long-Term Average | Number of Analyses | |
| Section 1. Toxic Metals, Cyanide, and Total Phenols | | | | | | | | | | | | |
| 1. | Antimony, Total (7440-36-0) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | | | Mass | <input type="checkbox"/> | | | | | | |
| 2. | Arsenic, Total (7440-38-0) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | | | Mass | <input type="checkbox"/> | | | | | | |
| 3. | Beryllium, Total (7440-41-7) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | | | Mass | <input type="checkbox"/> | | | | | | |
| 4. | Cadmium, Total (7440-43-9) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | | | Mass | <input type="checkbox"/> | | | | | | |
| 5. | Chromium, Total (7440-47-3) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | | | Mass | <input type="checkbox"/> | | | | | | |
| 6. | Copper, Total (7440-50-8) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | | | Mass | <input type="checkbox"/> | | | | | | |
| 7. | Lead, Total (7439-92-1) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | | | Mass | <input type="checkbox"/> | | | | | | |

¹ Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required 40 CFR chapter I, subchapter N or O.

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| Table B. Toxic Metals, Cyanide, Total Phenols, and Organic Toxic Pollutants ¹ | | | | | | | | | | | | |
|---|---|--------------------------|------------------------------------|--------------------------|--------------------|---------------------------------------|---|---|--------------------|----------------------|--------------------|--|
| | Pollutant/Parameter (and CAS Number, if available) | Testing Required | Presence or Absence (check one) | | Units (specify) | Effluent | | | | Intake (optional) | | |
| | | | Believed Present | Believed Absent | | Maximum Daily Discharge (required) | Maximum Monthly Discharge (if available) | Long-Term Average Daily Discharge (if available) | Number of Analyses | Long-Term Average | Number of Analyses | |
| Section 1. Toxic Metals, Cyanide, and Total Phenols <i>continued</i> | | | | | | | | | | | | |
| 8. | Mercury, Total (7439-97-6) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | | | Mass | <input type="checkbox"/> | | | | | | |
| 9. | Nickel, Total (7440-02-0) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | | | Mass | <input type="checkbox"/> | | | | | | |
| 10. | Selenium, Total (7782-49-2) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | | | Mass | <input type="checkbox"/> | | | | | | |
| 11. | Silver, Total (7440-22-4) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | | | Mass | <input type="checkbox"/> | | | | | | |
| 12. | Thallium, Total (7440-28-0) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | | | Mass | <input type="checkbox"/> | | | | | | |
| 13. | Zinc, Total (7440-66-6) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | | | Mass | <input type="checkbox"/> | | | | | | |
| 14. | Cyanide, Total (57-12-5) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | | | Mass | <input type="checkbox"/> | | | | | | |
| 15. | Phenols, Total | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | | | Mass | <input type="checkbox"/> | | | | | | |

¹ Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required 40 CFR chapter I, subchapter N or O.

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Table B. Toxic Metals, Cyanide, Total Phenols, and Organic Toxic Pollutants ¹

| | Pollutant/Parameter (and CAS Number, if available) | Testing Required | Presence or Absence (check one) | | Units (specify) | Effluent | | | | Intake (optional) | | |
|--|---|--------------------------|------------------------------------|--------------------------|--------------------|---------------------------------------|---|---|--------------------|----------------------|--------------------|--|
| | | | Believed Present | Believed Absent | | Maximum Daily Discharge (required) | Maximum Monthly Discharge (if available) | Long-Term Average Daily Discharge (if available) | Number of Analyses | Long-Term Average | Number of Analyses | |
| Section 2. Organic Toxic Pollutants (GC/MS Fraction – Volatile Compounds) | | | | | | | | | | | | |
| 1. | Acrolein (107-02-8) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | | | Mass | <input type="checkbox"/> | | | | | | |
| 2. | Acrylonitrile (107-13-1) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | | | Mass | <input type="checkbox"/> | | | | | | |
| 3. | Benzene (71-43-2) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | | | Mass | <input type="checkbox"/> | | | | | | |
| 4. | Bromoform (75-25-2) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | | | Mass | <input type="checkbox"/> | | | | | | |
| 5. | Carbon tetrachloride (56-23-5) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | | | Mass | <input type="checkbox"/> | | | | | | |
| 6. | Chlorobenzene (108-90-7) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | | | Mass | <input type="checkbox"/> | | | | | | |
| 7. | Chlorodibrompmethane (124-48-1) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | | | Mass | <input type="checkbox"/> | | | | | | |
| 8. | Chloroethane (75-00-3) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | | | Mass | <input type="checkbox"/> | | | | | | |

¹ Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required 40 CFR chapter I, subchapter N or O.

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Table B. Toxic Metals, Cyanide, Total Phenols, and Organic Toxic Pollutants¹

| | Pollutant/Parameter (and CAS Number, if available) | Testing Required | Presence or Absence (check one) | | Units (specify) | Effluent | | | | Intake (optional) | | |
|---|---|--------------------------|------------------------------------|--------------------------|--------------------|---------------------------------------|---|---|--------------------|----------------------|--------------------|--|
| | | | Believed Present | Believed Absent | | Maximum Daily Discharge (required) | Maximum Monthly Discharge (if available) | Long-Term Average Daily Discharge (if available) | Number of Analyses | Long-Term Average | Number of Analyses | |
| Section 2. Organic Toxic Pollutants (GC/MS Fraction – Volatile Compounds) <i>continued</i> | | | | | | | | | | | | |
| 9. | 2-chloroethylvinyl ether (110-75-80) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | | | Mass | <input type="checkbox"/> | | | | | | |
| 10. | Chloroform (67-66-3) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | | | Mass | <input type="checkbox"/> | | | | | | |
| 11. | Dichlorobromomethane (75-27-4) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | | | Mass | <input type="checkbox"/> | | | | | | |
| 12. | 1,1-dichloroethane (75-34-3) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | | | Mass | <input type="checkbox"/> | | | | | | |
| 13. | 1,2-dichloroethane (78-87-5) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | | | Mass | <input type="checkbox"/> | | | | | | |
| 14. | 1,1-dichloroethylene (75-35-4) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | | | Mass | <input type="checkbox"/> | | | | | | |
| 15. | 1,2-dichloropropane (78-87-5) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | | | Mass | <input type="checkbox"/> | | | | | | |
| 16. | 1,3-dichloropropylene (542-75-6) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | | | Mass | <input type="checkbox"/> | | | | | | |

¹ Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required 40 CFR chapter I, subchapter N or O.

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Table B. Toxic Metals, Cyanide, Total Phenols, and Organic Toxic Pollutants¹

| | Pollutant/Parameter (and CAS Number, if available) | Testing Required | Presence or Absence (check one) | | Units (specify) | Effluent | | | | Intake (optional) | |
|--|---|------------------|------------------------------------|-----------------|--------------------|---------------------------------------|---|---|--------------------|----------------------|--------------------|
| | | | Believed Present | Believed Absent | | Maximum Daily Discharge (required) | Maximum Monthly Discharge (if available) | Long-Term Average Daily Discharge (if available) | Number of Analyses | Long-Term Average | Number of Analyses |

Section 2. Organic Toxic Pollutants (GC/MS Fraction – Volatile Compounds) *continued*

| | | | | | | | | | | | | |
|-----|--|--------------------------|--------------------------|--------------------------|---------------|--------------------------|--|--|--|--|--|--|
| 17. | Ethylbenzene (100-41-4) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | | | Mass | <input type="checkbox"/> | | | | | | |
| 18. | Methyl bromide (74-83-9) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | | | Mass | <input type="checkbox"/> | | | | | | |
| 19. | Methyl chloride (74-87-3) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | | | Mass | <input type="checkbox"/> | | | | | | |
| 20. | Methylene chloride (75-09-2) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | | | Mass | <input type="checkbox"/> | | | | | | |
| 21. | 1,1,2,2-tetrachloroethane (79-34-5) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | | | Mass | <input type="checkbox"/> | | | | | | |
| 22. | Tetrachloroethylene (127-18-4) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | | | Mass | <input type="checkbox"/> | | | | | | |
| 23. | Toluene (108-88-3) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | | | Mass | <input type="checkbox"/> | | | | | | |
| 24. | 1,2-trans-dichloroethylene (156-60-5) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | | | Mass | <input type="checkbox"/> | | | | | | |

¹ Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required 40 CFR chapter I, subchapter N or O.

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| UPDES Permit No. | | Facility Name | | Outfall Number | |
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Table B. Toxic Metals, Cyanide, Total Phenols, and Organic Toxic Pollutants¹

| | Pollutant/Parameter (and CAS Number, if available) | Testing Required | Presence or Absence (check one) | | Units (specify) | Effluent | | | | Intake (optional) | | |
|---|---|--------------------------|------------------------------------|--------------------------|--------------------|---------------------------------------|---|---|--------------------|----------------------|--------------------|--|
| | | | Believed Present | Believed Absent | | Maximum Daily Discharge (required) | Maximum Monthly Discharge (if available) | Long-Term Average Daily Discharge (if available) | Number of Analyses | Long-Term Average | Number of Analyses | |
| Section 2. Organic Toxic Pollutants (GC/MS Fraction – Volatile Compounds) <i>continued</i> | | | | | | | | | | | | |
| 25. | 1,1,1-trichloroethane (71-55-6) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | | | Mass | <input type="checkbox"/> | | | | | | |
| 26. | 1,1,2-trichloroethane (79-00-5) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | | | Mass | <input type="checkbox"/> | | | | | | |
| 27. | Trichloroethylene (79-01-6) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | | | Mass | <input type="checkbox"/> | | | | | | |
| 28. | Vinyl chloride (75-01-4) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | | | Mass | <input type="checkbox"/> | | | | | | |

¹ Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required 40 CFR chapter I, subchapter N or O.

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Table B. Toxic Metals, Cyanide, Total Phenols, and Organic Toxic Pollutants ¹

| | Pollutant/Parameter (and CAS Number, if available) | Testing Required | Presence or Absence (check one) | | Units (specify) | Effluent | | | | Intake (optional) | | |
|---|---|--------------------------|------------------------------------|--------------------------|--------------------|---------------------------------------|---|---|--------------------|----------------------|--------------------|--|
| | | | Believed Present | Believed Absent | | Maximum Daily Discharge (required) | Maximum Monthly Discharge (if available) | Long-Term Average Daily Discharge (if available) | Number of Analyses | Long-Term Average | Number of Analyses | |
| Section 3. Organic Toxic Pollutants (Gas Chromatography/Mass Spectrometry (GS/MS) Fraction – Acid Compounds) | | | | | | | | | | | | |
| 1. | 2-chlorophenol (95-57-8) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | | |
| | | | | | Mass | | | | | | | |
| 2. | 2,4-dichlorophenol (120-83-2) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | | |
| | | | | | Mass | | | | | | | |
| 3. | 2,4-dimethylphenol (105-67-9) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | | |
| | | | | | Mass | | | | | | | |
| 4. | 4,6-dinitro-o-cresol (534-52-1) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | | |
| | | | | | Mass | | | | | | | |
| 5. | 2,4-dinitrophenol (51-28-5) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | | |
| | | | | | Mass | | | | | | | |
| 6. | 2-nitrophenol (88-75-5) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | | |
| | | | | | Mass | | | | | | | |
| 7. | 4-nitrophenol (100-02-7) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | | |
| | | | | | Mass | | | | | | | |
| 8. | p-chloro-m-cresol (59-50-7) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | | |
| | | | | | Mass | | | | | | | |

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Table B. Toxic Metals, Cyanide, Total Phenols, and Organic Toxic Pollutants¹

| | Pollutant/Parameter (and CAS Number, if available) | Testing Required | Presence or Absence (check one) | | Units (specify) | Effluent | | | | Intake (optional) | |
|--|---|------------------|------------------------------------|-----------------|--------------------|---------------------------------------|---|---|--------------------|----------------------|--------------------|
| | | | Believed Present | Believed Absent | | Maximum Daily Discharge (required) | Maximum Monthly Discharge (if available) | Long-Term Average Daily Discharge (if available) | Number of Analyses | Long-Term Average | Number of Analyses |

Section 3. Organic Toxic Pollutants (Gas Chromatography/Mass Spectrometry (GS/MS) Fraction – Acid Compounds) *continued*

| | | | | | | | | | | | | |
|-----|------------------------------------|--------------------------|--------------------------|--------------------------|---------------|--|--|--|--|--|--|--|
| 9. | Pentachlorophenol (87-86-5) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | | |
| | | | | | Mass | | | | | | | |
| 10. | Phenol (108-95-2) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | | |
| | | | | | Mass | | | | | | | |
| 11. | 2,4,6-trichlorophenol (88-05-2) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | | |
| | | | | | Mass | | | | | | | |

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Continue to Section 4

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Table B. Toxic Metals, Cyanide, Total Phenols, and Organic Toxic Pollutants ¹

| | Pollutant/Parameter (and CAS Number, if available) | Testing Required | Presence or Absence (check one) | | Units (specify) | Effluent | | | | Intake (optional) | | |
|---|---|--------------------------|------------------------------------|--------------------------|--------------------|---------------------------------------|---|---|--------------------|----------------------|--------------------|--|
| | | | Believed Present | Believed Absent | | Maximum Daily Discharge (required) | Maximum Monthly Discharge (if available) | Long-Term Average Daily Discharge (if available) | Number of Analyses | Long-Term Average | Number of Analyses | |
| Section 4. Organic Toxic Pollutants (Gas Chromatography/Mass Spectrometry (GS/MS) Fraction – Base/Neutral Compounds) | | | | | | | | | | | | |
| 1. | Acenaphthene (83-32-9) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | | |
| | | | | | Mass | | | | | | | |
| 2. | Acenaphthylene (208-96-8) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | | |
| | | | | | Mass | | | | | | | |
| 3. | Anthracene (120-12-7) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | | |
| | | | | | Mass | | | | | | | |
| 4. | Benzidine (92-97-5) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | | |
| | | | | | Mass | | | | | | | |
| 5. | Benzo (a) anthracene (56-55-3) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | | |
| | | | | | Mass | | | | | | | |
| 6. | Benzo (a) pyrene (50-32-8) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | | |
| | | | | | Mass | | | | | | | |
| 7. | 3,4-benzofluoranthene (205-99-2) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | | |
| | | | | | Mass | | | | | | | |
| 8. | Benzo (ghi) perylene (191-24-2) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | | |
| | | | | | Mass | | | | | | | |

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Table B. Toxic Metals, Cyanide, Total Phenols, and Organic Toxic Pollutants¹

| | Pollutant/Parameter (and CAS Number, if available) | Testing Required | Presence or Absence (check one) | | Units (specify) | Effluent | | | | Intake (optional) | | |
|--|---|--------------------------|------------------------------------|--------------------------|--------------------|---------------------------------------|---|---|--------------------|----------------------|--------------------|--|
| | | | Believed Present | Believed Absent | | Maximum Daily Discharge (required) | Maximum Monthly Discharge (if available) | Long-Term Average Daily Discharge (if available) | Number of Analyses | Long-Term Average | Number of Analyses | |
| Section 4. Organic Toxic Pollutants (Gas Chromatography/Mass Spectrometry (GS/MS) Fraction – Base/Neutral Compounds) <i>continued</i> | | | | | | | | | | | | |
| 9. | Benzo (k) fluoranthene (207-08-9) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | | |
| | | | | | Mass | | | | | | | |
| 10. | Bis (2-chloroethoxy) methane (111-91-1) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | | |
| | | | | | Mass | | | | | | | |
| 11. | Bis (2-chloroethyl) ether (111-44-4) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | | |
| | | | | | Mass | | | | | | | |
| 12. | Bis (2-chloroisopropyl) ether (102-80-1) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | | |
| | | | | | Mass | | | | | | | |
| 13. | Bis (2-ethylhexyl) phthalate (85-68-7) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | | |
| | | | | | Mass | | | | | | | |
| 14. | 4-bromophenyl phenyl ether (101-55-3) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | | |
| | | | | | Mass | | | | | | | |
| 15. | Butyl benzyl phthalate (85-68-7) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | | |
| | | | | | Mass | | | | | | | |
| 16. | 2-chlorophthalene (91-58-7) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | | |
| | | | | | Mass | | | | | | | |

¹ Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required 40 CFR chapter I, subchapter N or O.

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Table B. Toxic Metals, Cyanide, Total Phenols, and Organic Toxic Pollutants ¹

| | Pollutant/Parameter (and CAS Number, if available) | Testing Required | Presence or Absence (check one) | | Units (specify) | Effluent | | | | Intake (optional) | | |
|--|---|--------------------------|------------------------------------|--------------------------|--------------------|---------------------------------------|---|---|--------------------|----------------------|--------------------|--|
| | | | Believed Present | Believed Absent | | Maximum Daily Discharge (required) | Maximum Monthly Discharge (if available) | Long-Term Average Daily Discharge (if available) | Number of Analyses | Long-Term Average | Number of Analyses | |
| Section 4. Organic Toxic Pollutants (Gas Chromatography/Mass Spectrometry (GS/MS) Fraction – Base/Neutral Compounds) <i>continued</i> | | | | | | | | | | | | |
| 17. | 4-chlorophenyl phenyl ether (7005-72-3) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | | |
| | | | | | Mass | | | | | | | |
| 18. | Chrysene (218-01-9) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | | |
| | | | | | Mass | | | | | | | |
| 19. | Dibenzo (a,h) anthracene (53-70-3) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | | |
| | | | | | Mass | | | | | | | |
| 20. | 1,2-dichlorobenzene (95-50-1) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | | |
| | | | | | Mass | | | | | | | |
| 21. | 1,3-dichlorobenzene (541-73-1) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | | |
| | | | | | Mass | | | | | | | |
| 22. | 1,4-dichlorobenzene (106-46-7) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | | |
| | | | | | Mass | | | | | | | |
| 23. | 3,3-dichlorobenzidine (91-94-1) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | | |
| | | | | | Mass | | | | | | | |
| 24. | Diethyl phthalate (84-66-2) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | | |
| | | | | | Mass | | | | | | | |

¹ Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required 40 CFR chapter I, subchapter N or O.

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| Table B. Toxic Metals, Cyanide, Total Phenols, and Organic Toxic Pollutants¹ | | | | | | | | | | | |
|--|--|--------------------------|---|--------------------------|---------------------------|--|--|--|---------------------------|-----------------------------|---------------------------|
| | Pollutant/Parameter (and CAS Number, if available) | Testing Required | Presence or Absence (check one) | | Units (specify) | Effluent | | | | Intake (optional) | |
| | | | Believed Present | Believed Absent | | Maximum Daily Discharge (required) | Maximum Monthly Discharge (if available) | Long-Term Average Daily Discharge (if available) | Number of Analyses | Long-Term Average | Number of Analyses |
| Section 4. Organic Toxic Pollutants (Gas Chromatography/Mass Spectrometry (GS/MS) Fraction – Base/Neutral Compounds) <i>continued</i> | | | | | | | | | | | |
| 25. | Dimethyl phthalate (131-11-3) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | |
| | | | | | Mass | | | | | | |
| 26. | Di-n-butyl phthalate (84-74-2) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | |
| | | | | | Mass | | | | | | |
| 27. | 2,4-dinitrotoluene (121-14-2) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | |
| | | | | | Mass | | | | | | |
| 28. | 2,6-dinitrotoluene (121-14-2) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | |
| | | | | | Mass | | | | | | |
| 29. | Di-n-octyl phthalate (117-84-0) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | |
| | | | | | Mass | | | | | | |
| 30. | 1,2-Diphenylhydrazine (as azobenzene) (122-66-7) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | |
| | | | | | Mass | | | | | | |
| 31. | Fluoranthene (206-44-0) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | |
| | | | | | Mass | | | | | | |
| 32. | Fluorene (86-37-7) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | |
| | | | | | Mass | | | | | | |

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| Table B. Toxic Metals, Cyanide, Total Phenols, and Organic Toxic Pollutants ¹ | | | | | | | | | | | | |
|--|--|--------------------------|---|--------------------------|---------------------------|--|--|--|---------------------------|-----------------------------|---------------------------|--|
| | Pollutant/Parameter (and CAS Number, if available) | Testing Required | Presence or Absence (check one) | | Units (specify) | Effluent | | | | Intake (optional) | | |
| | | | Believed Present | Believed Absent | | Maximum Daily Discharge (required) | Maximum Monthly Discharge (if available) | Long-Term Average Daily Discharge (if available) | Number of Analyses | Long-Term Average | Number of Analyses | |
| Section 4. Organic Toxic Pollutants (Gas Chromatography/Mass Spectrometry (GS/MS) Fraction – Base/Neutral Compounds) <i>continued</i> | | | | | | | | | | | | |
| 33. | Hexachlorobenzene (118-74-1) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | | |
| | | | | | Mass | | | | | | | |
| 34. | Hexachlorobutadiene (87-68-3) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | | |
| | | | | | Mass | | | | | | | |
| 35. | Hexachlorocyclopentadiene (77-47-4) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | | |
| | | | | | Mass | | | | | | | |
| 36. | Hexachloroethane (67-72-1) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | | |
| | | | | | Mass | | | | | | | |
| 37. | Indeno (1,2,3-cd) pyrene (193-39-5) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | | |
| | | | | | Mass | | | | | | | |
| 38. | Isophorone (78-59-1) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | | |
| | | | | | Mass | | | | | | | |
| 39. | Naphthalene (91-20-3) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | | |
| | | | | | Mass | | | | | | | |
| 40. | Nitrobenzene (98-95-3) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | | |
| | | | | | Mass | | | | | | | |

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Table B. Toxic Metals, Cyanide, Total Phenols, and Organic Toxic Pollutants ¹

| | Pollutant/Parameter (and CAS Number, if available) | Testing Required | Presence or Absence (check one) | | Units (specify) | Effluent | | | | Intake (optional) | | |
|--|---|--------------------------|------------------------------------|--------------------------|--------------------|---------------------------------------|---|---|--------------------|----------------------|--------------------|--|
| | | | Believed Present | Believed Absent | | Maximum Daily Discharge (required) | Maximum Monthly Discharge (if available) | Long-Term Average Daily Discharge (if available) | Number of Analyses | Long-Term Average | Number of Analyses | |
| Section 4. Organic Toxic Pollutants (Gas Chromatography/Mass Spectrometry (GS/MS) Fraction – Base/Neutral Compounds) <i>continued</i> | | | | | | | | | | | | |
| 41. | N-nitrosodimethylamine (62-75-9) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | | |
| | | | | | Mass | | | | | | | |
| 42. | N-nitrosodi-n-propylamine (621-64-7) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | | |
| | | | | | Mass | | | | | | | |
| 43. | N-nitrosodiphenylamine (86-30-6) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | | |
| | | | | | Mass | | | | | | | |
| 44. | Phenanthrene (85-01-8) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | | |
| | | | | | Mass | | | | | | | |
| 45. | Pyrene (129-00-0) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | | |
| | | | | | Mass | | | | | | | |
| 46. | 1,2,4-trichlorobenzene (120-82-1) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | | |
| | | | | | Mass | | | | | | | |

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Continue to Section 5

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| Table B. Toxic Metals, Cyanide, Total Phenols, and Organic Toxic Pollutants ¹ | | | | | | | | | | | |
|--|--|--------------------------|---|--------------------------|---------------------------|--|--|--|---------------------------|-----------------------------|---------------------------|
| | Pollutant/Parameter (and CAS Number, if available) | Testing Required | Presence or Absence (check one) | | Units (specify) | Effluent | | | | Intake (optional) | |
| | | | Believed Present | Believed Absent | | Maximum Daily Discharge (required) | Maximum Monthly Discharge (if available) | Long-Term Average Daily Discharge (if available) | Number of Analyses | Long-Term Average | Number of Analyses |
| Section 5. Organic Toxic Pollutants (Gas Chromatography/Mass Spectrometry (GS/MS) Fraction – Pesticides) <i>continued</i> | | | | | | | | | | | |
| 1. | Aldrin (309-00-2) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | |
| | | | | | Mass | | | | | | |
| 2. | α-BHC (319-84-6) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | |
| | | | | | Mass | | | | | | |
| 3. | β-BHC (319-85-7) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | |
| | | | | | Mass | | | | | | |
| 4. | γ-BHC (58-89-9) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | |
| | | | | | Mass | | | | | | |
| 5. | δ-BHC (319-86-8) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | |
| | | | | | Mass | | | | | | |
| 6. | Chlorodane (57-74-9) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | |
| | | | | | Mass | | | | | | |
| 7. | 4,4'-DDT (50-29-3) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | |
| | | | | | Mass | | | | | | |
| 8. | 4,4'-DDE (72-55-9) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | |
| | | | | | Mass | | | | | | |

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Table B. Toxic Metals, Cyanide, Total Phenols, and Organic Toxic Pollutants ¹

| | Pollutant/Parameter (and CAS Number, if available) | Testing Required | Presence or Absence (check one) | | Units (specify) | Effluent | | | | Intake (optional) | |
|--|---|------------------|------------------------------------|-----------------|--------------------|---------------------------------------|---|---|--------------------|----------------------|--------------------|
| | | | Believed Present | Believed Absent | | Maximum Daily Discharge (required) | Maximum Monthly Discharge (if available) | Long-Term Average Daily Discharge (if available) | Number of Analyses | Long-Term Average | Number of Analyses |

Section 5. Organic Toxic Pollutants (Gas Chromatography/Mass Spectrometry (GS/MS) Fraction – Pesticides) *continued*

| | | | | | | | | | | | | |
|-----|-----------------------------------|--------------------------|--------------------------|--------------------------|---------------|--|--|--|--|--|--|--|
| 9. | 4,4'-DDD (72-54-8) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | | |
| | | | | | Mass | | | | | | | |
| 10. | Dieldrin (60-57-1) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | | |
| | | | | | Mass | | | | | | | |
| 11. | α-endosulfan (115-29-7) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | | |
| | | | | | Mass | | | | | | | |
| 12. | β-endosulfan (115-29-7) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | | |
| | | | | | Mass | | | | | | | |
| 13. | Endosulfan sulfate (1031-07-8) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | | |
| | | | | | Mass | | | | | | | |
| 14. | Endrin (72-20-8) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | | |
| | | | | | Mass | | | | | | | |
| 15. | Endrin aldehyde (7421-93-4) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | | |
| | | | | | Mass | | | | | | | |
| 16. | Heptachlor (76-44-8) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | | |
| | | | | | Mass | | | | | | | |

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| Table B. Toxic Metals, Cyanide, Total Phenols, and Organic Toxic Pollutants ¹ | | | | | | | | | | | |
|--|--|--------------------------|---|--------------------------|---------------------------|--|--|--|---------------------------|-----------------------------|---------------------------|
| | Pollutant/Parameter (and CAS Number, if available) | Testing Required | Presence or Absence (check one) | | Units (specify) | Effluent | | | | Intake (optional) | |
| | | | Believed Present | Believed Absent | | Maximum Daily Discharge (required) | Maximum Monthly Discharge (if available) | Long-Term Average Daily Discharge (if available) | Number of Analyses | Long-Term Average | Number of Analyses |
| Section 5. Organic Toxic Pollutants (Gas Chromatography/Mass Spectrometry (GS/MS) Fraction – Pesticides) <i>continued</i> | | | | | | | | | | | |
| 17. | Heptachlor epoxide (1024-57-3) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | |
| | | | | | Mass | | | | | | |
| 18. | PCB-1242 (53469-21-9) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | |
| | | | | | Mass | | | | | | |
| 19. | PCB-1254 (11097-69-1) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | |
| | | | | | Mass | | | | | | |
| 20. | PCB-1221 (11104-28-2) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | |
| | | | | | Mass | | | | | | |
| 21. | PCB-1232 (11141-16-5) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | |
| | | | | | Mass | | | | | | |
| 22. | PCB-1248 (12672-29-6) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | |
| | | | | | Mass | | | | | | |
| 23. | PCB-1260 (11096-82-5) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | |
| | | | | | Mass | | | | | | |
| 24. | PCB-1016 (12674-11-2) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | |
| | | | | | Mass | | | | | | |

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| Table B. Toxic Metals, Cyanide, Total Phenols, and Organic Toxic Pollutants ¹ | | | | | | | | | | | |
|--|---|--------------------------|------------------------------------|--------------------------|--------------------|---------------------------------------|---|---|--------------------|----------------------|--------------------|
| | Pollutant/Parameter (and CAS Number, if available) | Testing Required | Presence or Absence (check one) | | Units (specify) | Effluent | | | | Intake (optional) | |
| | | | Believed Present | Believed Absent | | Maximum Daily Discharge (required) | Maximum Monthly Discharge (if available) | Long-Term Average Daily Discharge (if available) | Number of Analyses | Long-Term Average | Number of Analyses |
| Section 5. Organic Toxic Pollutants (Gas Chromatography/Mass Spectrometry (GS/MS) Fraction – Pesticides) <i>continued</i> | | | | | | | | | | | |
| 25. | Toxaphene (8001-35-2) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | | | | | | |
| | | | | | Mass | | | | | | |

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Available data of source water is included in attached table

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| Table C. Certain Conventional and Non-Conventional Pollutants ¹ | | | | | | | | | | |
|--|---|------------------------------------|--------------------------|--------------------|---------------------------------------|---|---|--------------------|----------------------|--------------------|
| | Pollutant/Parameter (and CAS Number, if available) | Presence or Absence (check one) | | Units (specify) | Effluent | | | | Intake (optional) | |
| | | Believed Present | Believed Absent | | Maximum Daily Discharge (required) | Maximum Monthly Discharge (if available) | Long-Term Average Daily Discharge (if available) | Number of Analyses | Long-Term Average | Number of Analyses |
| <input type="checkbox"/> | Check here if you believe all pollutants on Table C to be present in your discharge from the noted outfall. You need not complete the "Presence or Absence" column of Table C for <i>each pollutant</i> . | | | | | | | | | |
| <input type="checkbox"/> | Check here if you believe all pollutants on Table C to be absent in your discharge from the noted outfall. You need not complete the "Presence or Absence" column of Table C for <i>each pollutant</i> . | | | | | | | | | |
| 1. | Bromide (24959-67-9) | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | |
| | | | | Mass | <input type="checkbox"/> | | | | | |
| 2. | Chlorine, total residual | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | |
| | | | | Mass | <input type="checkbox"/> | | | | | |
| 3. | Color | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | |
| | | | | Mass | <input type="checkbox"/> | | | | | |
| 4. | E.coli | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | |
| | | | | Mass | <input type="checkbox"/> | | | | | |
| 5. | Fluoride (16984-48-8) | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | |
| | | | | Mass | <input type="checkbox"/> | | | | | |
| 6. | Nitrate | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | |
| | | | | Mass | <input type="checkbox"/> | | | | | |
| 7. | Nitrite | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | |
| | | | | Mass | <input type="checkbox"/> | | | | | |
| 8. | Nitrogen, total organic (as N) | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | |
| | | | | Mass | <input type="checkbox"/> | | | | | |

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| Table C. Certain Conventional and Non-Conventional Pollutants¹ <i>continued</i> | | | | | | | | | | | |
|---|--|---|--------------------------|-----------------------------------|--------------------------|--|--|--|--------------------|-------------------------------------|--------------------|
| | Pollutant/Parameter <small>(and CAS Number, if available)</small> | Presence or Absence <small>(check one)</small> | | Units <small>(specify)</small> | | Effluent | | | | Intake <small>(optional)</small> | |
| | | Believed Present | Believed Absent | | | Maximum Daily Discharge <small>(required)</small> | Maximum Monthly Discharge <small>(if available)</small> | Long-Term Average Daily Discharge <small>(if available)</small> | Number of Analyses | Long-Term Average | Number of Analyses |
| 9. | Oil and Grease | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | | Mass | <input type="checkbox"/> | | | | | | |
| 10. | Phosphorus (as P), total <small>(7723-14-0)</small> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | | Mass | <input type="checkbox"/> | | | | | | |
| 11. | Sulfate (as SO ₄) <small>(14808-798-)</small> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | | Mass | <input type="checkbox"/> | | | | | | |
| 12. | Sulfide (as S) | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | | Mass | <input type="checkbox"/> | | | | | | |
| 13. | Sulfite (as SO ₃) <small>(14265-45-3)</small> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | | Mass | <input type="checkbox"/> | | | | | | |
| 14. | Surfactants | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | | Mass | <input type="checkbox"/> | | | | | | |
| 15. | Aluminum, total <small>(7429-90-5)</small> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | | Mass | <input type="checkbox"/> | | | | | | |
| 16. | Barium, total <small>(7440-39-3)</small> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | | Mass | <input type="checkbox"/> | | | | | | |
| 17. | Boron, total <small>(7440-42-8)</small> | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | | Mass | <input type="checkbox"/> | | | | | | |

¹ Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required 40 CFR chapter I, subchapter N or O.



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| Table C. Certain Conventional and Non-Conventional Pollutants¹ <i>continued</i> | | | | | | | | | | | |
|---|--|---|--------------------------|---------------------------|--------------------------|--|--|--|---------------------------|-----------------------------|---------------------------|
| | Pollutant/Parameter (and CAS Number, if available) | Presence or Absence (check one) | | Units (specify) | | Effluent | | | | Intake (optional) | |
| | | Believed Present | Believed Absent | | | Maximum Daily Discharge (required) | Maximum Monthly Discharge (if available) | Long-Term Average Daily Discharge (if available) | Number of Analyses | Long-Term Average | Number of Analyses |
| 18. | Cobalt, total (7440-48-4) | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | | Mass | <input type="checkbox"/> | | | | | | |
| 19. | Iron, total (7439-89-6) | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | | Mass | <input type="checkbox"/> | | | | | | |
| 20. | Magnesium, total (7439-95-4) | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | | Mass | <input type="checkbox"/> | | | | | | |
| 21. | Molybdenum, total (7439-95-4) | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | | Mass | <input type="checkbox"/> | | | | | | |
| 22. | Manganese, total (7439-95-5) | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | | Mass | <input type="checkbox"/> | | | | | | |
| 23. | Tin, total (7440-31-5) | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | | Mass | <input type="checkbox"/> | | | | | | |
| 24. | Titanium, total (7440-32-6) | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | | |
| | | | | Mass | <input type="checkbox"/> | | | | | | |

¹ Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required 40 CFR chapter I, subchapter N or O.



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| Table C. Certain Conventional and Non-Conventional Pollutants¹ <i>continued</i> | | | | | | | | | | |
|---|--|---|--------------------------|-----------------------------------|--|--|--|--------------------|-------------------------------------|--------------------|
| | Pollutant/Parameter <small>(and CAS Number, if available)</small> | Presence or Absence <small>(check one)</small> | | Units <small>(specify)</small> | Effluent | | | | Intake <small>(optional)</small> | |
| | | Believed Present | Believed Absent | | Maximum Daily Discharge <small>(required)</small> | Maximum Monthly Discharge <small>(if available)</small> | Long-Term Average Daily Discharge <small>(if available)</small> | Number of Analyses | Long-Term Average | Number of Analyses |
| 25. | Radioactivity | | | | | | | | | |
| | Alpha, total | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | |
| | | | | Mass | <input type="checkbox"/> | | | | | |
| | Beta, total | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | |
| | | | | Mass | <input type="checkbox"/> | | | | | |
| | Radium, total | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | |
| | | | | Mass | <input type="checkbox"/> | | | | | |
| | Radium 226, total | <input type="checkbox"/> | <input type="checkbox"/> | Concentration | <input type="checkbox"/> | | | | | |
| | | | | Mass | <input type="checkbox"/> | | | | | |

¹ Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required 40 CFR chapter I, subchapter N or O.

UPDES Industrial Permit Application - Iron Mountain Mine
 Table C Parameters - available data

| Parameter | Units | March-2021 | | June-2021 | | March-2023 | | May-2023 | | June-2023 | | August-2023 | |
|-------------------------|-------|------------|--------|-----------|--------|------------|--------|----------|--------|-----------|--------|-------------|---------|
| | | Result | MDL/RL | Result | MDL/RL | Result | MDL/RL | Result | MDL/RL | Result | MDL/RL | Result | MDL/RL |
| Bromide | mg/l | NA | | NA | | 0.3 | 0.01 | 0.4 | 0.01 | 0.4 | 0.01 | 0.4 | 0.01 |
| Fluoride | mg/l | NA | | NA | | 0.172 | 0.1 | 0.209 | 0.1 | 0.204 | 0.1 | 0.179 | 0.1 |
| Nitrate/Nitrite (as N) | mg/l | 0.5 | 0.05 | 0.35 | 0.01 | NA | | NA | | NA | | NA | |
| Nitrate (as N) | mg/l | NA | | NA | | 15.5 | 1 | 5.65 | 1 | 2.14 | 0.1 | ND | 0.07 |
| Nitrite (as N) | mg/l | NA | | NA | | 0.2 | 0.1 | ND | 0.1 | ND | 0.1 | ND | 0.08 |
| Total Organic Nitrogen | mg/l | NA | | NA | | ND | 1.2 | ND | 1.2 | ND | 1 | ND | 0.4 |
| Phosphorus (Total as P) | mg/l | NA | | NA | | 0.9 | 0.01 | 0.03 | 0.01 | 0.02 | 0.01 | 0.1 | 0.06 |
| Sulfate | mg/l | 208 | 10 | 218 | 10 | 274 | 10 | 180 | 10 | 166 | 10 | 213 | 3.22 |
| Aluminum | mg/l | NA | | NA | | 1.4 | 0.05 | 0.2 | 0.05 | ND | 0.05 | 0.1 | 0.02 |
| Barium | mg/l | NA | | NA | | 0.064 | 0.005 | 0.06 | 0.005 | 0.061 | 0.005 | 0.06 | 0.0006 |
| Boron | mg/l | NA | | NA | | 0.07 | 0.05 | 0.1 | 0.05 | 0.11 | 0.05 | 0.12 | 0.03 |
| Cobalt | mg/l | NA | | NA | | ND | 0.01 | ND | 0.01 | ND | 0.01 | 0.0006 | 0.00005 |
| Iron | mg/l | NA | | NA | | 4.72 | 0.02 | 0.32 | 0.02 | 0.11 | 0.02 | 0.13 | 0.005 |
| Magnesium | mg/l | 77.7 | 5 | 88.1 | 0.1 | NA | | NA | | NA | | 65 | 0.02 |
| Molybdenum | mg/l | NA | | NA | | 0.08 | 0.01 | 0.04 | 0.01 | 0.03 | 0.01 | 0.0325 | 0.0005 |
| Manganese | mg/l | NA | | NA | | 0.165 | 0.005 | 0.009 | 0.005 | 0.009 | 0.005 | 0.0017 | 0.0009 |
| Tin | mg/l | NA | | NA | | ND | 0.02 | ND | 0.02 | ND | 0.02 | 0.02 | 0.01 |
| Titanium | mg/l | NA | | NA | | 0.017 | 0.005 | ND | 0.005 | ND | 0.005 | 0.0014 | 0.001 |

Notes:

mg/L- milligrams per liter

NA- not analyzed

ND- not detected

MDL/RL- laboratory method detection limit/reporting limit

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| UPDES Permit No. | | Facility Name | | Outfall Number | |
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| Table D. Certain Hazardous Substances and Asbestos¹ | | | | | |
|---|--|---|--------------------------|---|---|
| | Pollutant/Parameter (and CAS Number, if available) | Presence or Absence (check one) | | Reason Pollutant Believed Present in Discharge | Available Quantitative Data (specify units) |
| | | Believed Present | Believed Absent | | |
| 1. | Asbestos | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 2. | Acetaldehyde | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 3. | Allyl alcohol | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 4. | Allyl chloride | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 5. | Amyl acetate | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 6. | Aniline | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 7. | Benzonitrile | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 8. | Benzyl chloride | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 9. | Butyl acetate | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 10. | Butylamine | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 11. | Captan | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 12. | Carbaryl | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 13. | Carbofuran | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 14. | Carbon disulfide | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 15. | Chlorpyrifos | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 16. | Coumaphos | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 17. | Cresol | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 18. | Crotonaldehyde | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 19. | Cyclohexane | <input type="checkbox"/> | <input type="checkbox"/> | | |

¹ Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required 40 CFR chapter I, subchapter N or O.

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| UPDES Permit No. | | Facility Name | | Outfall Number | |
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| Table D. Certain Hazardous Substances and Asbestos¹ <i>continued</i> | | | | | |
|--|---|------------------------------------|--------------------------|--|--|
| | Pollutant/Parameter (and CAS Number, if available) | Presence or Absence (check one) | | Reason Pollutant Believed Present in Discharge | Available Quantitative Data (specify units) |
| | | Believed Present | Believed Absent | | |
| 20. | 24-D (2,4-dichlorophenoxyacetic acid) | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 21. | Diazinon | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 22. | Dicamba | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 23. | Dichlobenil | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 24. | Dichlone | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 25. | 2,2-dichloropropionic acid | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 26. | Dichlorvos | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 27. | Diethyl amine | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 28. | Dimethyl amine | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 29. | Dinitrobenzene | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 30. | Diquat | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 31. | Disulfoton | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 32. | Diuron | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 33. | Epichlorohydrin | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 34. | Ethion | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 35. | Ethylene diamine | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 36. | Ethylene dibromide | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 37. | Formaldehyde | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 38. | Furfural | <input type="checkbox"/> | <input type="checkbox"/> | | |

¹ Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required 40 CFR chapter I, subchapter N or O.



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| UPDES Permit No. | | Facility Name | | Outfall Number | |
|-------------------------|--|----------------------|--|-----------------------|--|

| Table D. Certain Hazardous Substances and Asbestos¹ continued | | | | | |
|---|--|---|--------------------------|---|---|
| | Pollutant/Parameter (and CAS Number, if available) | Presence or Absence (check one) | | Reason Pollutant Believed Present in Discharge | Available Quantitative Data (specify units) |
| | | Believed Present | Believed Absent | | |
| 39. | Guthion | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 40. | Isoprene | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 41. | Isopropanolamine | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 42. | Kelthane | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 43. | Kepone | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 44. | Malathion | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 45. | Mercaptodimethur | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 46. | Methoxychlor | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 47. | Methyl mercaptan | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 48. | Methyl methacrylate | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 49. | Methyl parathion | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 50. | Mevinphos | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 51. | Mexacarbate | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 52. | Monoethyl amine | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 53. | Monomethyl amine | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 54. | Naled | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 55. | Naphthenic acid | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 56. | Nitrotoluene | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 57. | Parathion | <input type="checkbox"/> | <input type="checkbox"/> | | |

¹ Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required 40 CFR chapter I, subchapter N or O.



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| Table D. Certain Hazardous Substances and Asbestos¹ continued | | | | | |
|---|--|---|--------------------------|---|---|
| | Pollutant/Parameter (and CAS Number, if available) | Presence or Absence (check one) | | Reason Pollutant Believed Present in Discharge | Available Quantitative Data (specify units) |
| | | Believed Present | Believed Absent | | |
| 58. | Phenolsulfonate | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 59. | Phosgene | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 60. | Propargite | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 61. | Propylene oxide | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 62. | Pyrethrins | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 63. | Quinoline | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 64. | Resorcinol | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 65. | Strontium | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 66. | Strychnine | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 67. | Styrene | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 68. | 2,4,5-T (2,4,5-trichlorophenoxyacetic acid) | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 69. | TDE (tetrachlorodiphenyl ethane) | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 70. | 2,4,5-TP [2-(2,4,5-trichlorophenoxy) propanoic acid] | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 71. | Trichlorofon | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 72. | Triethanolamine | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 73. | Triethylamine | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 74. | Trimethylamine | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 75. | Uranium | <input type="checkbox"/> | <input type="checkbox"/> | | |

¹ Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required 40 CFR chapter I, subchapter N or O.



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| Table D. Certain Hazardous Substances and Asbestos¹ continued | | | | | |
|---|--|---|--------------------------|---|---|
| | Pollutant/Parameter (and CAS Number, if available) | Presence or Absence (check one) | | Reason Pollutant Believed Present in Discharge | Available Quantitative Data (specify units) |
| | | Believed Present | Believed Absent | | |
| 76. | Vandium | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 77. | Vinyl acetate | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 78. | Xylene | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 79. | Xylenol | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 80. | Zioconium | <input type="checkbox"/> | <input type="checkbox"/> | | |

¹ Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required 40 CFR chapter I, subchapter N or O.



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|---------------------------------|---|--|
| Hazardous Substances | | |
| 1. Acetaldehyde | 54. Benzoyl chloride | 255. 2,4,5-T esters (2,4,5-trichlorophenoxy acetic acid esters) |
| 2. Acetic acid | 55. Benzyl chloride | 256. 2,4,5-T salts (2,4,5-trichlorophenoxy acetic acid salts) |
| 3. Acetic anhydride | 56. Beryllium chloride | 257. 2,4,5-TP acid (2,4,5-trichlorophenoxy propanoic acid) |
| 4. Acetone cyanohydrin | 57. Beryllium fluoride | 258. 2,4,5-TP acid esters (2,4,5-trichlorophenoxy propanoic acid esters) |
| 5. Acetyl bromide | 58. Beryllium nitrate | 259. TDE (tetrachlorodiphenyl ethane) |
| 6. Acetyl chloride | 59. Butylacetate | 260. Tetraethyl lead |
| 7. Acrolein | 60. n-butylphthalate | 261. Tetraethyl pyrophosphate |
| 8. Acrylonitrile | 61. Butylamine | 262. Thallium sulfate |
| 9. Adipic acid | 62. Butyric acid | 263. Toluene |
| 10. Aldrin | 63. Cadmium acetate | 264. Toxaphene |
| 11. Allyl alcohol | 64. Cadmium bromide | 265. Trichlorofon |
| 12. Allyl chloride | 65. Cadmium chloride | 266. Trichloroethylene |
| 13. Aluminum sulfate | 66. Calcium arsenate | 267. Trichlorophenol |
| 14. Ammonia | 67. Calcium arsenite | 268. Triethanolamine |
| 15. Ammonium acetate | 68. Calcium carbide | 269. Triethylamine |
| 16. Ammonium benzoate | 69. Calcium chromate | 270. Trimethylamine |
| 17. Ammonium bicarbonate | 70. Calcium cyanide | 271. Uranyl acetate |
| 18. Ammonium bichromate | 71. Calcium dodecylbenzenesulfonate | 272. Uranyl nitrate |
| 19. Ammonium bifluoride | 72. Calcium hypochlorite | 273. Vanadium pentoxide |
| 20. Ammonium bisulfite | 73. Captan | 274. Vanadyl sulfate |
| 21. Ammonium carbamate | 74. Carbaryl | 275. Vinyl acetate |
| 22. Ammonium carbonate | 75. Carbofuran | 276. Vinylidene chloride |
| 23. Ammonium chloride | 76. Carbon disulfide | 277. Xylene |
| 24. Ammonium chromate | 77. Carbon tetrachloride | 278. Xylenol |
| 25. Ammonium citrate | 78. Chlordane | 279. Zinc acetate |
| 26. Ammonium fluoroborate | 79. Chlorine | 280. Zinc ammonium chloride |
| 27. Ammonium fluoride | 80. Chlorobenzene | 281. Zinc borate |
| 28. Ammonium hydroxide | 81. Chloroform | 282. Zinc bromide |
| 29. Ammonium oxalate | 82. Chloropyrifos | 283. Zinc carbonate |
| 30. Ammonium silicofluoride | 83. Chlorosulfonic acid | 284. Zinc chloride |
| 31. Ammonium sulfamate | 84. Chromic acetate | 285. Zinc cyanide |
| 32. Ammonium sulfide | 85. Chromic acid | 286. Zinc fluoride |
| 33. Ammonium sulfite | 86. Chromic sulfate | 287. Zinc formate |
| 34. Ammonium tartrate | 87. Chromous chloride | 288. Zinc hydrosulfite |
| 35. Ammonium thiocyanate | 88. Cobaltous bromide | 289. Zinc nitrate |
| 36. Ammonium thiosulfate | 89. Cobaltous formate | 290. Zinc phenolsulfonate |
| 37. Amyl acetate | 90. Cobaltous sulfamate | 291. Zinc phosphide |
| 38. Aniline | 91. Coumaphos | 292. Zinc silicofluoride |
| 39. Antimony pentachloride | 92. Cresol | 293. Zinc sulfate |
| 40. Antimony potassium tartrate | 93. Crotonaldehyde | 294. Zirconium nitrate |
| 41. Antimony tribromide | 94. Cupric acetate | 295. Zirconium potassium fluoride |
| 42. Antimony trichloride | 95. Cupric acetoarsenite | 296. Zirconium sulfate |
| 43. Antimony trifluoride | 96. Cupric chloride | 297. Zirconium tetrachloride |
| 44. Antimony trioxide | 97. Cupric nitrate | |
| 45. Arsenic disulfide | 98. Cupric oxalate | |
| 46. Arsenic pentoxide | 99. Cupric sulfate | |
| 47. Arsenic trichloride | 100. Cupric sulfate ammoniated | |
| 48. Arsenic trioxide | 101. Cupric tartrate | |
| 49. Arsenic trisulfide | 102. Cyanogen chloride | |
| 50. Barium cyanide | 103. Cyclohexane | |
| 51. Benzene | 104. 2,4-D acid (2,4-dichlorophenoxyacetic acid) | |
| 52. Benzoic acid | | |
| 53. Benzotrile | | |
| | 105. 2,4-D esters (2,4-dichlorophenoxyacetic acid esters) | |
| | 106. DDT | |
| | 107. Diazinon | |
| | 108. Dicamba | |
| | 109. Dichlobenil | |
| | 110. Dichlone | |
| | 111. Dichlorobenzene | |
| | 112. Dichloropropane | |
| | 113. Dichloropropene | |
| | 114. Dichloropropene-dichloropropane mix | |
| | 115. 2,2-dichloropropionic acid | |
| | 116. Dichlorvos | |
| | 117. Dieldrin | |
| | 118. Diethylamine | |
| | 119. Dimethylamine | |
| | 120. Dinitrobenzene | |
| | 121. Dinitrophenol | |
| | 122. Dinitrotoluene | |
| | 123. Diquat | |
| | 124. Disulfoton | |
| | 125. Diuron | |
| | 126. Dodecylbenzenesulfonic acid | |
| | 127. Endosulfan | |
| | 128. Endrin | |
| | 129. Epichlorohydrin | |
| | 130. Ethion | |
| | 131. Ethylbenzene | |
| | 132. Ethylenediamine | |
| | 133. Ethylene dibromide | |
| | 134. Ethylene dichloride | |
| | 135. Ethylene diaminetetracetic acid (EDTA) | |
| | 136. Ferric ammonium citrate | |
| | 137. Ferric ammonium oxalate | |
| | 138. Ferric chloride | |
| | 139. Ferric fluoride | |
| | 140. Ferric nitrate | |
| | 141. Ferric sulfate | |
| | 142. Ferrous ammonium sulfate | |
| | 143. Ferrous chloride | |
| | 144. Ferrous sulfate | |
| | 145. Formaldehyde | |
| | 146. Formic acid | |
| | 147. Fumaric acid | |
| | 148. Furfural | |
| | 149. Guthion | |
| | 150. Heptachlor | |
| | 151. Hexachlorocyclopentadiene | |
| | 152. Hydrochloric acid | |
| | 153. Hydrofluoric acid | |
| | 154. Hydrogen cyanide | |
| | 155. Hydrogen sulfide | |
| | 156. Isoprene | |
| | 157. Isopropanolamine | |
| | dodecylbenzenesulfonate | |
| | 158. Kelthane | |
| | 159. Kepone | |
| | 160. Lead acetate | |
| | 161. Lead arsenate | |
| | 162. Lead chloride | |
| | 163. Lead fluoborate | |
| | 164. Lead fluorite | |
| | 165. Lead iodide | |
| | 166. Lead nitrate | |
| | 167. Lead stearate | |
| | 168. Lead sulfate | |
| | 169. Lead sulfide | |
| | 170. Lead thiocyanate | |
| | 171. Lindane | |
| | 172. Lithium chromate | |
| | 173. Malathion | |
| | 174. Maleic acid | |
| | 175. Maleic anhydride | |
| | 176. Mercaptodimethur | |
| | 177. Mercuric cyanide | |
| | 178. Mercuric nitrate | |
| | 179. Mercuric sulfate | |
| | 180. Mercuric thiocyanate | |
| | 181. Mercurous nitrate | |
| | 182. Methoxychlor | |
| | 183. Methyl mercaptan | |
| | 184. Methyl methacrylate | |
| | 185. Methyl parathion | |
| | 186. Mevinphos | |
| | 187. Mexacarbate | |
| | 188. Monoethylamine | |
| | 189. Monomethylamine | |
| | 190. Naled | |
| | 191. Naphthalene | |
| | 192. Naphthene acid | |
| | 193. Nickel ammonium sulfate | |
| | 194. Nickel chloride | |
| | 195. Nickel hydroxide | |
| | 196. Nickel nitrate | |
| | 197. Nickel sulfate | |
| | 198. Nitric acid | |
| | 199. Nitrobenzene | |
| | 200. Nitrogen dioxide | |
| | 201. Nitrophenol | |
| | 202. Nitrotoluene | |
| | 203. Paraformaldehyde | |
| | 204. Parathion | |
| | 205. Pentachlorophenol | |
| | 206. Phenol | |
| | 207. Phosgene | |
| | 208. Phosphoric acid | |
| | 209. Phosphorus | |
| | 210. Phosphorus oxychloride | |
| | 211. Phosphorus pentasulfide | |
| | 212. Phosphorus trichloride | |
| | 213. Polychlorinated biphenyls (PCB) | |
| | 214. Potassium arsenate | |
| | 215. Potassium arsenite | |
| | 216. Potassium bichromate | |
| | 217. Potassium chromate | |
| | 218. Potassium cyanide | |
| | 219. Potassium hydroxide | |
| | 220. Potassium permanganate | |
| | 221. Propargite | |
| | 222. Propionic acid | |
| | 223. Propionic anhydride | |
| | 224. Propylene oxide | |
| | 225. Pyrethrins | |
| | 226. Quinoline | |
| | 227. Resorcinol | |
| | 228. Selenium oxide | |
| | 229. Silver nitrate | |
| | 230. Sodium | |
| | 231. Sodium arsenate | |
| | 232. Sodium arsenite | |
| | 233. Sodium bichromate | |
| | 234. Sodium bifluoride | |
| | 235. Sodium bisulfite | |
| | 236. Sodium chromate | |
| | 237. Sodium cyanide | |
| | 238. Sodium dodecylbenzenesulfonate | |
| | 239. Sodium fluoride | |
| | 240. Sodium hydrosulfide | |
| | 241. Sodium hydroxide | |
| | 242. Sodium hypochlorite | |
| | 243. Sodium methylate | |
| | 244. Sodium nitrite | |
| | 245. Sodium phosphate (dibasic) | |
| | 246. Sodium phosphate (tribasic) | |
| | 247. Sodium selenite | |
| | 248. Strontium chromate | |
| | 249. Strychnine | |
| | 250. Styrene | |
| | 251. Sulfuric acid | |
| | 252. Sulfur monochloride | |
| | 253. 2,4,5-T acid (2,4,5-trichlorophenoxyacetic acid) | |
| | 254. 2,4,5-T amines (2,4,5-trichlorophenoxy acetic acid amines) | |