ATTACHMENT 1

WASTE CHARACTERISTICS AND WASTE ANALYSIS PLAN (WAP)

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WASTE CHARACTERISTICS AND WASTE ANALYSIS PLAN (WAP)

Attachment 1 describes the chemical and physical properties of the hazardous wastes permitted to be stored at the Clearfield facility ("Facility"). The WAP is used to ensure that sufficient information is available for the proper handling and storage of the wastes.

1.0 CHEMICAL AND PHYSICAL ANALYSES

The hazardous wastes that may be stored in accordance with this Permit are specified in Table 1 and Condition III.B.1. This Facility stores hazardous waste that is generated both on-site and off-site, and serves as a 10-day transfer facility. The Facility stores wastes generated off-site, which have been pre-qualified for acceptance by a permitted treatment, storage, or disposal facility (TSDF) or recycling firm (collectively known herein as receiving facility). Each off-site generated waste stream is profiled or characterized for its specific chemical and physical properties, by the generator and the permitted receiving facility.

1.1 On-Site (Univar) Generated Wastes

On-site Univar generated waste from the Facility, includes mixed solvents (line flush) from various liquid products. In addition, the Facility generates waste consisting of off-specification products (not spent) returned to the Facility by the customer, which cannot be beneficially reused or reclaimed. The majority of the products returned by the customer are resold; however, some returned products are classified as hazardous waste and are sent to a receiving facility. Other wastes generated by Facility include off-specification polyester resin and rags/absorbents used to clean spills or drips of liquid products. Waste generated at the Facility shall be characterized and managed in accordance with this Permit.

If waste is generated at the Univar facility, it will be contained, characterized, labeled and moved to the CSU. Container tracking and storage procedures will be followed.

1.2 Off-Site (Customer) Generated Wastes

The Facility stores the following types of waste generated off-site by various customers: spent organic solvents, inorganic corrosives, plating wastes, copper cyanide waste, acutely hazardous waste (i.e., copper cyanide), F and K listed wastes, off-specification and discarded commercial chemical products, and toxicity listed and characteristic wastes. Hazardous wastes that have been pre-qualified for acceptance are picked up from the generator and transported to the Facility where they are stored until a truckload or partial truckload quantity is

accumulated for shipment to the designated receiving facility. Hazardous wastes are transported and stored in U.S. Department of Transportation (DOT)-approved containers. Storage of containerized hazardous waste at the facility is limited by the facility's permit to a maximum of 32,560 gallons, which is equivalent to 592, 55-gallon drums.

Wastes shall be segregated into one of the four following categories:

- Organic chemicals and solvents, including, ignitable wastes and halogenated wastes.
- Cyanide wastes and cyanide containing wastes from metal processing operations.
- Caustic wastes with pH equal to or greater than 12.5, and
- Acid wastes with pH equal to or less than 2.0.

Waste solvents and waste products containing spent solvents represent a large volume of the wastes handled at the Facility. These wastes include solvent based paints and coatings, thinners, cleaning and degreasing solvents, laboratory solvents, paint residues, printing inks, and still bottoms. These wastes are hazardous due to ignitability and toxicity, or because the wastes exhibit a characteristic of toxicity, or due to the presence of listed wastes from specific or non-specific sources.

Customer generated inorganic corrosive wastes are also managed in large volumes at the Facility. These include spent paint strippers, spent cleaning solutions, and other wastes that exhibit the characteristics of corrosivity.

Spent wastes from customers who use plating, metal treating, and mineral metals recovery chemicals represent a small volume of customer generated wastes. Off-specification commercial chemical products also represent a small volume of customer generated wastes.

Plating wastes from plating, stripping, cleaning, and quenching operations, and which contain cyanides, are incompatible with acid corrosive wastes. Any wastes containing cyanide are segregated from acid corrosive wastes.

The waste types will include commercial chemical products and wastes from specific sources, such as wood preservation; inorganic pigments; organic chemicals; inorganic chemicals; pesticides; petroleum refining; iron and steel manufacturing; primary aluminum manufacturing; secondary lead manufacturing; veterinary pharmaceuticals; ink formulations; and coking.

Containers of potentially incompatible wastes will be segregated in the waste container storage unit (CSU) in accordance R315-264-1105 and Appendix A.

Furthermore, all containers are stored on pallets or container legs. Incompatible wastes are placed in the storage areas in accordance with the hazardous waste compatibility guidance included as Appendix A. Containers of waste are not opened while in storage at the facility. No co-mingling, mixing, bulking, or treatment takes place at the facility. Before the Clearfield facility approves of a customer's hazardous waste, a comprehensive, four-step waste analysis system is used to identify and characterize each waste stream, determine if the waste can be accepted for storage, obtain approval for disposal or recycling, and ensure that the waste will be properly managed.

Step 1

The first step in the system involves obtaining specific chemical and physical data for each waste stream. Each customer is required to provide this data in the form of a Waste Profile Sheet (WPS) for each waste stream. An example of a WPS is included as (Appendix B). In addition to the WPS, and as requested, the customer provides a representative sample in accordance with R315-261-1090, material specification sheet, safety data sheet (SDS), etc., representing the profiled waste stream and its components.

The customer provides known data relative to the physical, chemical, and Resource Conservation and Recovery Act (RCRA) hazardous characteristics of the waste on the WPS. The waste is identified by name, process generating the waste, and RCRA hazardous waste code(s).

Step 2

The second step involves verification of the generator’s data and determination of the best available method for disposal or recycling. The Univar Waste Management Specialist at the corporate office reviews the information and/or analysis provided by the customer regarding the waste stream. This review is to ensure that all applicable hazardous waste codes have been identified and that no hazardous waste codes are identified that cannot be stored at the Facility in accordance with the Permit. Specific attention will be given to cyanide containing plating wastes (F007) which may also be characterized as a reactive waste (D003) and require screening for reactivity prior to receipt. However, because the facility also operates as a transfer facility, these wastes may be manifested directly to a receiving facility and held on-site for up to 10 days. The criteria used to conduct this review are provided in Table 2. This review is also to confirm the generator’s information identifying the appropriate treatment methods or treatment levels for all land disposal restricted (LDR) wastes (example LDR form included in Appendix C).

Some of the receiving facilities sample the waste streams submitted for disposal

to determine the best available method for disposal or recycling. This sample may be taken prior to approval of the waste for disposal or when the waste shipment arrives at the receiving facility. The receiving facility laboratory analyzes the physical and chemical composition of the waste to both confirm the profile information provided by the generator and to determine the most efficient and effective method for the disposal or recycling of the waste material. In general, the Facility does not receive a copy of the receiving facility's analytical data.

Step 3

The third step is an acknowledgment by the selected waste management firm (which may be a TSDF or a reclamation facility) of the disposition of the waste. If they agree to accept the waste, an agreement is reached between Univar and the receiving facility, which identifies, among other things, the approved waste stream by reference to the specific WPS, specifies the method of disposal or recycling, and location of the receiving facility to which the waste is to be sent.

Step 4

The fourth step of the waste approval process is the signing of a contract between Univar and the generator. This contract identifies, by WPS, the specific waste stream, which Univar agrees to transport to the receiving facility and specifies the location of the storage facility. Moreover, the contract specifies that if the waste is found to be non-conforming upon delivery to the waste management facility, the generator shall be liable for all reasonable expenses and charges that may be incurred. A waste is non-conforming if it does not match the description on the WPS or if it has constituents not identified in the WPS, which might increase the nature of the hazard or for which the receiving facility is not designed or permitted to manage.

The customer's waste streams are re-certified any time the waste changes significantly or the process generating the waste has changed. At a minimum, re-certification will meet the requirements of the receiving facility's WAP and an updated version of the WPS will be submitted to Univar.

These are the steps that must be completed before a customer generated waste can be accepted for storage at the Facility. All of the aforementioned documents are kept permanently on electronic file for each customer generated waste stream that is accepted and stored. This includes the initial analysis and re-certification of each waste stream as required by the receiving facility's WAP. As such, they become a permanent part of the Facility RCRA Operating Record. Hard copies of these files are provided upon request.

1.3 Containerized Wastes

Containers for wastes must be made of or lined with materials that will not react with, and are otherwise compatible with, the waste to be stored. Containers to be stored include portable containers that meet DOT requirements for the hazardous material in the container. The container types that may be received at the Facility and their materials of construction are identified in Attachment 9. Compatibility of container construction material and wastes to be stored in the container are verified prior to storage by comparing information collected during waste characterization with manufacturer's specifications and container usage data. Generators are responsible for proper packaging of wastes prior to transportation to the Facility. The Facility will not accept for transport any wastes not packaged in a chemically compatible container in good condition. Waste containers are always kept closed during storage. Containers are not opened, handled, or stored in a manner that may cause them to rupture or leak. If a container holding waste is not in good condition, or if it begins to leak, it will be placed in an approved overpack drum.

Incompatible wastes are not placed in the same container. Facility employees are trained in waste segregation when placing wastes within a specific storage area. An example of the training materials is included in Appendix A. Wastes that may be stored at the Facility are listed in Table 1. These hazardous wastes may contain free liquids; therefore, the permitted storage areas are designed for containers with free liquids.

The hazardous waste labels on the containers identify ignitable (D001), corrosive (D002), and potentially reactive cyanide-containing (D003) wastes. Facility personnel are instructed to keep acids and caustics stored separately and to keep all cyanide-containing wastes separate from the corrosives. Also, as a general rule, inorganic corrosive wastes are kept separate from the waste solvents.

Waste containers are adequately spaced for inspection and for access by personnel. Containers are stored with labels visible for inspection.

1.4 Transfer-Only Wastes

The Facility may also temporarily (ten days or less) hold wastes manifested to another facility in accordance with R315-263-12. This is referred to as transfer operations. There are no restrictions on waste codes or waste types for transfer operations. Manifested shipments of hazardous wastes that are stored at the Facility for a period of ten days or less (as a transfer) shall be segregated from the wastes that are stored at the CSU under this Permit. This location will be clearly marked and used for transfer wastes (10-day) only.

2.0 WASTE ANALYSIS PLAN

This WAP, which is used to ensure that sufficient information is available for the proper handling and storage of hazardous wastes, is described below.

Univar has a program to assist customers with the disposal or recycling of their chemical waste. The waste-handling program was developed by the Facility to ensure proper container management and involves joint agreements between the Facility and various permitted receiving facilities. The Facility assists with pick-up and transportation of customer containerized wastes for disposal or recycling at a permitted receiving facility.

Univar assists its customers in qualifying their hazardous waste streams for approval and acceptance at a select commercial waste receiving facility. Univar subsequently picks up and transports the customers' containerized wastes to the identified waste management facility. Containerized customer wastes are stored temporarily at the Facility until such time as a truck load quantity is accumulated and can effectively and efficiently be transported to the receiving facility.

This WAP for the Facility addresses three primary areas in detail:

- Pre-acceptance Procedure
- Pre-shipment Inspection
- Incoming Waste Inspection

Pre-acceptance Procedure

The principal objectives of the pre-acceptance procedures are to characterize the waste, qualify it for acceptance, and to prepare a contractual agreement with the customer, Univar, and the waste management facility.

The customer is required to provide detailed information about each waste stream on a WPS. The WPS identifies the stream as a wastewater or non-wastewater for treatability group purposes. The customer is required to complete a WPS for each waste stream generated.

The customer, upon request, is required to provide a representative sample of the waste. It is the customer's responsibility to ensure that the sample collected and submitted for disposal or recycling is representative of the waste in accordance with R315-264-13(a). A WPS, which includes a generator's certification (refer to Appendix B for an example WPS), and sample, if requested, will be forwarded to the receiving facility. Mixed solvents and off-specification products may not be sampled because the material is similar in content to the original, on-specification material, but is merely inadequate quality for sale or commercial use.

The customer is required to notify the receiving facility of the applicability of the LDRs in accordance with R315-268. The permitted receiving facility will not accept the waste stream unless they have received, with the initial shipment of the waste, a one-time written notice from the generator in accordance with R315-268-7.

The waste management firm confirms the information provided on the WPS by the generator. The waste management firm's laboratory may perform selected additional analysis as may be necessary to confirm the appropriateness and cost of the specified method of disposal. If the waste stream is characteristic of the WPS and the waste management firm accepts the waste for disposal or recycling, an agreement is reached between the Facility and the waste management facility, which identifies the approved waste stream by reference to the specific WPS, specifies the method of disposal or recycling and the location of the disposal facility to which the waste is to be sent.

After approval by the receiving facility, an agreement is signed between Univar and the generator. The customer is informed that RCRA regulations require a re-analysis whenever a waste is reasoned to be different than previously offered. The customer is also informed that they are liable for costs, transportation, handling, and analysis if, upon arrival at the receiving facility, the waste is not as listed on the manifest and container labels. This procedure is applicable to each waste stream that a customer offers.

Pre-shipment Inspection

Prior to scheduling a pick-up of customer waste, the customer's information is checked to verify that the waste stream has been qualified for acceptance. At this time, it is also verified if any waste streams are covered by LDRs, and if the appropriate one-time notification has been submitted to the receiving facility. The customer is required to complete forms that identify the wastes as restricted and confirm if the waste has been or must be treated to comply with applicable performance standards.

At the time of pick-up from the customer's facility, the driver will inspect and verify that the lot of waste is properly labeled and containers are all intact, and that the required forms are included. An example driver's checklist used for the pre-shipment inspection is included in Appendix D.

Incoming Waste Inspection

A Facility representative will inspect all incoming shipments of waste. The representative will utilize the manifest accompanying the shipment to verify the following points:

- The drums are counted to verify the number shown on the manifest.

- The drums are inspected to ensure that they are physically sound, tightly closed, and are not bulging or showing evidence of any recent physical damage.

- The drum labels are checked against the waste manifest. The manifest is checked for the generator's signature and the proper DOT shipping data.

- The representative will confirm that one-time LDR notification forms have been completed for the initial shipment of wastes.

Any significant discrepancy between the shipment, the manifest, or the WPS will be noted in writing on the manifest. The Facility will immediately contact the customer representative listed on the WPS. If a significant discrepancy cannot be reconciled with the customer within 15 calendar days, or if an un-manifested waste is received, the Utah Department of Environmental Quality (DEQ) will be notified of our attempt to resolve the matter and will be forwarded a copy of the manifest, along with an explanation of the manifest discrepancy. In this instance, the waste shipment would be returned to the customer.

A Facility representative will note the reactive properties of each lot of wastes as a basis for segregating the wastes. Facility personnel are trained to keep acids and caustics separate from each other and to keep cyanide wastes separate from corrosives. Wastes are further segregated in the storage areas in accordance with the Facility's waste segregation guide (refer to Appendix A).

2.1 Parameters and Rationale

The most extensive analytical evaluations of wastes are conducted by the receiving facility's laboratory. The qualifying of confirmatory testing is done primarily for five reasons:

- To confirm the accuracy of the information provided on the WPS
- To confirm the accuracy of the declared RCRA hazardous waste code (WPS)
- To establish the most effective waste management alternative
- To establish the safest container/shipment handling methods
- To establish potential LDRs for the waste

A list of parameters chosen for analysis and an explanation of the rationale for their selection are given in Table 3.

2.2 Test Methods

The analytical methods that may be employed to test for the parameters listed in this plan are provided in Table 3.

2.3 Sampling Methods

The method used to obtain a representative sample of the material to be analyzed shall be the appropriate method from R315-261-1090 or an equivalent approved method.

For customer generated wastes, the sampling method used to obtain a representative sample is specified by the generator. The customer certifies that the sample offered is representative of the waste generated. From a sample collection standpoint the waste types are described as free flowing liquids, multiphase liquids, sludges, and solids.

The Facility provides assistance if asked by a customer about required sampling methods. The generator is directed to SW-846, which contains the sampling methods required by the U.S. Environmental Protection Agency (EPA), including the appropriate sample preservatives and preservation procedures.

2.4 Frequency of Analyses

2.4.1 Univar Generated Wastes

If a Univar generated material is determined to be a regulated hazardous waste, the Facility applies knowledge of the hazard characteristics of the waste based on the materials and the processes used, each time a waste is generated. In the absence of sufficient generator knowledge, a sample is collected from wastes generated by Univar and sent to an off-site Utah certified laboratory for analysis.

2.4.1 Customer Generated Wastes

Pre-Acceptance and Re-certification Analyses

The receiving facility may require sampling and analysis of the waste stream prior to acceptance of the waste. The generator will be responsible for sampling and analyzing each waste stream. In other cases, the waste shipment is sampled upon arrival at the receiving facility. In general, the Facility does not receive a copy of the receiving facility's analytical data.

Each waste stream will be re-certified any time the waste changes significantly or the process generating the waste has changed. The customer is required to notify the Facility of any change in either the process or raw materials.

The intent of this WAP is to verify (or correct) information provided on

the WPS or equivalent analytical report.

2.5 Additional Requirements for Wastes Generated Off-Site

Each waste shipment is inspected as it is received at the Facility as described in the *Pre-Acceptance Procedures* above. The hazardous waste manifest is checked for the generator's signature, the DOT shipping data, the identification of the waste, and the total quantity of the shipment. The containers are counted to verify the quantity on the manifest. The waste labels are checked to ensure that they are completely and correctly filled out and that they refer to the correct manifest.

If there is a discrepancy between the waste shipment and the accompanying hazardous waste manifest, it is noted in writing on the waste manifest. If the discrepancy cannot be reconciled with the customer within 15 days, the Utah DEQ will be notified of the facility's attempt to resolve the matter, and will be sent a copy of the manifest along with an explanation of the manifest discrepancy. If the discrepancy cannot be resolved, the waste is returned to the customer.

A RCRA Operating Log is maintained electronically to track each waste shipment received at the Facility. The description and quantity of each hazardous waste received are recorded. Each customer manifest number is recorded on the operating log. An example of the record is included in Appendix E. Waste analysis and other related documents (e.g., re-certification) are kept in an electronic customer file. Hard copies of these files can be provided upon request.

The following wastes are prohibited:

- Water Reactive Materials that exhibit the characteristics in R315-261-23(a)(2)-(4)
- Pyrophoric Materials (defined as DOT Division 4.2(1))
- Division 1.1 and 1.2 Explosives
- Shock Sensitive Materials
- Radioactive or nuclear waste material that do not meet one or more of the exemptions listed in R313-19-13
- Dioxin-containing waste (F020, F021, F022, F023, F026, F027, and F028)
- D003 Reactive waste
- Infectious waste
- Liquid PCB containing waste

The Facility will not perform routine sampling and analysis of secured waste containers upon arrival at the Facility. Sampling and analysis of containers of waste temporarily stored at the Facility is not necessary to meet the requirements of R315-264-13(c) for the following reasons:

- Extensive information regarding the nature of the waste is obtained at the time the waste profile is developed.

- Additional information regarding the waste characteristics is determined during the waste acceptance process performed by the receiving facility. This step of the process frequently includes representative waste sampling and analysis in accordance with the requirements of the receiving facility's WAP.

- No waste is shipped from a generator's facility to Univar until it has been approved for acceptance by a designated receiving facility; written agreements are in place between the generator, Univar, and the receiving facility.

- Waste shipments are inspected before they are transported from the generator's facility to ensure that the information provided on the container markings and DOT label, as well as the container type and number, match the manifest, the Univar's waste profile, and sales order for that shipment. Discrepancies are resolved before the shipment leaves the generator's facility.

- Waste shipments are inspected upon arrival at Facility to again verify that the shipment information indicated by container markings and labeling, as well as the number and type of containers on the shipment, match the waste manifest, Facility's waste profile, and sales order. Discrepancies must be resolved with the generator before the waste is placed into storage. If a discrepancy cannot be resolved at this point, the shipment is rejected and is returned to the generator.

- A further description of the waste acceptance screening procedure is included in this WAP in Section 2.0.

- Waste containers will not be opened at the Facility during normal operations. The only exception would be the transfer of waste from a marginal or leaking container to an overpack drum or other suitable container to prevent a spill.

- The secured containers of waste are segregated among the permitted storage areas based on the known hazards of the waste as indicated by Univar's waste profile information, and further identified by the Facility's waste segregation guide. Waste segregation procedures are described in the WAP.

- Facility personnel conduct documented inspections of all containers in storage on a weekly basis. Informal checks of the warehouse storage areas are performed much more frequently, assuring that potential leaks or other problems are detected before they can become serious incidents.

- Waste containers in storage at the Facility are forwarded to their designated receiving facility for recycling, treatment, or disposal at the earliest practical time as transportation logistics and business considerations allow.

2.6 Additional Requirements for Ignitable, Reactive, or Incompatible Wastes

The Facility takes precautions to prevent accidental ignition or reaction of ignitable or reactive waste. This waste is separated and protected from sources of ignition or reaction including but not limited to: open flames, smoking, cutting and welding, hot surfaces, frictional heat, sparks (static, electrical, or mechanical), spontaneous ignition (e.g., from heat-producing chemical reactions), and radiant heat. Smoking is not permitted in the areas and "No Smoking" signs are conspicuously posted. The ignitable waste storage areas satisfy RCRA requirements for storage of flammable and combustible liquids.

Containers of hazardous wastes that are incompatible with each other are segregated in accordance with the Facility's waste segregation procedures (refer to Appendix A). The waste containers stored in the container storage unit (CSU) are further separated by either a 2 or 4-inch high curb and 30 inches or more of aisle space. The basis for segregating the wastes is the known properties of the waste and the process from which they come. This is supplemented by the data that is supplied by the generator on the WPS. This is confirmed by the pre-acceptance analysis that is conducted on the waste samples by the generator.

No mixing of off-site generated hazardous wastes from different generators or different waste streams, or opening of off-site generated waste containers is done by this Facility. Incompatible on-site generated wastes are not mixed or placed in the same container.

2.7 Managing Waste Profiles Electronically

The Facility manages all waste profiles electronically in accordance with the Uniform Electronic Transactions Act (UCA 46-4). The Facility will create and maintain reliable and accurate electronic records with a system that supports electronic records management. Electronic records are simply records in electronic format rather than having been printed or written onto paper. The waste profiles are managed in accordance with the Facility's recordkeeping policy and procedure. The electronic profiles will be accessible by the facility manager,

supervisor, and inventory control coordinator. Backup access will be provided by customer service representatives at the Facility. In addition, 24 hour access to the electronic profiles will be provided by Univar's emergency response center at 1-855-639-3648.

Each customer is required to provide data in the form of a WPS for each waste stream. This WPS for each waste stream is maintained electronically until it is re-certified or any other changes are necessary. At that time, the outdated WPS is deleted and the new WPS is maintained until further revision is necessary. The WPSs will include the generator's certification in the form of an electronic signature. The Facility is responsible for ensuring that WPSs are maintained onsite. The WPS will be saved in a customer file on the hard drive with shared access. Each WPS will be a "read only" file.

An electronic recordkeeping system will be maintained so that it is adequate to collect, organize, and categorize records, and facilitate the preservation, retrieval, use, and disposition of records.

3.0 WASTE ANALYSIS REQUIREMENTS PERTAINING TO LAND DISPOSAL RESTRICTIONS

Waste that is restricted from land disposal will not be accepted for storage, unless the initial shipment of the waste is accompanied by the proper LDR notification form.

3.1 Waste Analysis

The hazardous wastes stored at this Facility are listed in Table 1. The Facility stores wastes that are generated off-site by generators and have been pre-qualified for acceptance by a permitted final destination facility. Each waste stream is profiled or characterized for its specific chemical or physical properties. This information is provided by the generator and includes the treatability group, and if applicable, the subcategory within a treatability group.

3.1.1 Spent Solvent and Dioxin Wastes

F001 to F005 spent solvent wastes that are restricted from land disposal are identified by the generator during the pre-acceptance process, and the information is confirmed by the ultimate receiving facility. The initial shipment of these wastes is accompanied by the proper LDR notification form, which indicates treatment standards. Containers are marked with the initial date of storage, and may not be stored at the Facility for more than one year.

Dioxin-containing wastes, identified by EPA waste codes F020, F021, F022, F023, F026, and F027 wastes in R315-261-31 are not accepted at this Facility.

3.1.2 Listed Wastes

Listed wastes are identified by the generator and confirmed by the receiving facility. The proper LDR one-time notification form accompanies the initial shipment of these wastes.

3.1.3 Characteristic Wastes

Characteristic wastes are identified by the generator and confirmed by the ultimate receiving facility. The proper LDR one-time notification form accompanies the initial shipment of these wastes.

3.1.4 Lab Packs

No treatment or disposal of Lab Packs takes place at the Facility. Any Lab Packs accepted for storage must be accompanied by an inventory sheet that lists each container, size of container, and identification of the contents of each container. The initial shipment must be accompanied by the proper LDR one-time notification form.

3.1.5 Contaminated Debris

Hazardous debris accepted by the Facility for storage will be containerized and will be stored as hazardous waste under the requirements of the RCRA Part B storage permit. The proper LDR one-time notification form shall be submitted to Univar with the initial shipment of these wastes.

3.1.6 Waste Mixtures and Wastes with Overlapping Requirements

Waste mixtures and wastes carrying multiple waste codes must be characterized and compositions identified by the generator on a WPS before the material will be accepted for storage by the Facility. The proper LDR one-time notification form accompanies the initial shipment of these wastes.

3.1.7 Dilution and Aggregation of Wastes

The Facility does not dilute or aggregate hazardous wastes.

3.2 Notification, Certification, and Recordkeeping Requirements

Applicable LDR one-time written notifications from generators must accompany each initial hazardous waste shipment to the Facility. Applicable certifications from generators must accompany affected hazardous waste shipments to the Facility. Facility personnel will review the proper documentation prior to accepting the waste for storage.

3.2.1 Retention of Generator Notices and Certifications

With the initial shipment of hazardous wastes, LDR notices and certifications, as indicated in Section 3.2 must be submitted by the original generator of the waste. LDR notices and certifications will be reviewed by the Facility and the notices and certifications will be retained in the Facility RCRA Operating Record.

3.2.2 Wastes Shipped to Subtitle C Facilities

All restricted waste accepted at this Facility for storage will be shipped off-site to a permitted RCRA Subtitle C hazardous waste facility. When such waste is shipped initially, the Facility will submit notifications and certifications in compliance with the notice and certification requirements applicable to generators under R315-268-7(b)(5). Each initial shipment of waste that is transported off-site to a RCRA permitted Subtitle C hazardous waste facility will include a written notification and certification that the waste either meets or does not meet the land disposal restriction standards.

3.2.3 Subtitle D Wastes (non-hazardous wastes)

No waste will be treated at the Facility to remove hazardous characteristics for the purpose of meeting Land Disposal Restriction standards.

The Facility shall comply with applicable Utah Solid Waste Rules R315-301, 315 and 316, and other applicable rules, for on-site generated Subtitle D wastes, or any off-site generated Subtitle D wastes that will be stored prior to being transported to a Subtitle C or Subtitle D facility, in lieu of being transferred from the Facility within ten days.

3.2.4 Recyclable Materials

No wastes are used at the Facility in a manner constituting disposal.

The Facility shall comply with the intermediate facility requirements of R315-261-4(a)(24)(vi), as applicable, for any off-site generated hazardous secondary materials (HSM) being stored for customers prior to being transported to a designated reclamation facility. Any HSM that is present at the facility for more than 10 days, as outlined in R315-261-4(a)(24)(ii) is subject to all applicable requirements in R315-261-4(a)(24)(vi).

The Facility shall not receive for storage, or transfer, any HSM that is not packaged according to applicable Department of Transportation regulations at 49 CFR parts 173, 178, and 179 while in transport.

The Facility shall send the required notifications under R315-260-42(a) if it elects to store HSM as an intermediate facility, for such materials destined for reclamation.

3.2.5 Recordkeeping

Waste that is received at the Facility from customers must be accompanied by the proper notifications and certifications by the generator. This documentation will be reviewed by Facility personnel and will be maintained as part of the Facility's RCRA Operating Record until closure of the Facility, in accordance with the recordkeeping requirements of R315-264-73.

3.3 Requirements Pertaining to the Storage of Restricted Wastes

Hazardous wastes that are restricted from land disposal will be stored in containers in the permitted hazardous waste CSU. Storage of restricted wastes will be for the sole purpose of accumulating sufficient quantities for efficient and economic shipment to permitted TSDFs. Restricted wastes will not be stored for longer than one year.

3.3.1 Restricted Wastes Stored in Containers

Containers of restricted wastes will be clearly marked to identify the contents, and to note the date on which accumulation began for the generator.

3.3.2 Storage of Liquid PCB Wastes

No liquid PCB or PCB-containing wastes will be stored at this Facility. PCB lamp ballasts may be transferred under ten day rules.

3.4 Exemptions, Extensions, and Variances to Land Disposal Restrictions

No exemptions, extensions, or variances to land disposal restrictions are requested for this Facility.

APPENDIX A

WASTE SEGREGATION GUIDE

APPENDIX B

EXAMPLE WASTE PROFILE SHEET (WPS)

APPENDIX C

EXAMPLE LAND DISPOSAL RESTRICTION FORM

APPENDIX D

EXAMPLE DRIVER'S CHECKLIST

APPENDIX E

EXAMPLE RCRA OPERATING LOG

TABLES

TABLE 1
RCRA HAZARDOUS WASTE STORAGE

Univar Solutions LLC
Clearfield, Utah

The Facility accepts containerized hazardous wastes that are generated by the customer and are qualified for acceptance by a permitted receiving facility.

The following wastes may be stored:

D Codes	P Codes
D001-D043 (except D003)	P029
F Codes	**U Codes**
F001–F009, F019, F034, F035, F037, F038	U001-U004, U008, U012, U019, U023, U028, U031, U032, U039, U043, U044, U051-U053, U055-U057, U069-U072, U075-U079, U080, U083, U088, U090, U092, U103, U107, U108, U110, U112, U117, U121, U122, U123, U125, U140, U147, U154, U159, U161, U165, U171, U188, U190, U194, U196, U210, U213, U219, U220, U223, U226, U228, U239, U359
K Codes	
K001, K048-K052, K086	

TABLE 2
PRE-ACCEPTANCE CRITERIA

The Facility is permitted to store only those customer generated hazardous wastes which carry the hazardous waste codes listed in Table 1. Prior to accepting a waste stream for storage, the Facility must establish that the waste stream meets certain criteria such that it can be appropriately characterized and safely and properly stored with compatible wastes. The Facility must also confirm that no wastes are accepted for storage, which consist of the hazardous waste codes that the Facility is not permitted to store. However, these wastes may be held on-site for up to 10 days.

To make this determination, the following list is provided. This list contains each of the permitted hazardous waste codes, the qualifying criteria which the waste must meet to carry that code and the analytical test method or other means of establishing whether that criteria is met. Some wastes may carry more than one hazardous waste code if more than one criteria are met.

During the qualification process for a waste stream, the following list must be reviewed with the WPS provided by the generator and the analytical data provided by the generator, receiving facility or other source. The analytical data must provide all information required in accordance with the Facility's WAP. The proper hazardous waste codes which apply to the waste stream will be determined during this review.

TABLE 2

Waste Code	**Qualifying Criteria**	**Test Method**
D001	Flash point of < 140°F	Flash Point
D002	pH of < 2.5 or > 12 SU	pH
D004	Arsenic ≥ 5.0 mg/l in TCLP extract	TCLP[1]
D005	Barium ≥ 100.0 mg/l in TCLP extract	TCLP[1]
D006	Cadmium ≥ 1.0 mg/l in TCLP extract	TCLP[1]
D007	Chromium ≥ 5.0 mg/l in TCLP extract	TCLP[1]
D008	Lead ≥ 5.0 mg/l in TCLP extract	TCLP[1]
D009	Mercury ≥ 0.2 mg/l in TCLP extract	TCLP[1]
D010	Selenium ≥ 1.0 mg/l in TCLP extract	TCLP[1]
D011	Silver ≥ 5.0 mg/l in TCLP extract	TCLP[1]
D012	Endrin ≥ 0.02 mg/l in TCLP extract	TCLP[1]
D013	Lindane ≥ 0.4 mg/l in TCLP extract	TCLP[1]
D014	Methoxychlor ≥ 10.0 mg/l in TCLP extract	TCLP[1]
D015	Toxaphene ≥ 0.5 mg/l in TCLP extract	TCLP[1]
D016	2,4-D ≥ 10.0 mg/l in TCLP extract	TCLP[1]
D017	2,4,5-TP Silvex ≥ 1.0 mg/l in TCLP extract	TCLP[1]
D018	Benzene ≥ 0.5 mg/l in TCLP extract	TCLP[1]
D019	Carbon tetrachloride ≥ 0.5 mg/l in TCLP extract	TCLP[1]
D020	Chlordane ≥ 0.03 mg/l in TCLP extract	TCLP[1]
D021	Chlorobenzene ≥ 100.0 mg/l in TCLP extract	TCLP[1]
D022	Chloroform ≥ 6.0 mg/l in TCLP extract	TCLP[1]

D023	o-Cresol ≥ 200.0 mg/l in TCLP extract[2]	TCLP[1]
Waste Code	**Qualifying Criteria**	**Test Method**
D024	m-Cresol ≥ 200.0 mg/l in TCLP extract[2]	TCLP[1]
D025	p-Cresol ≥ 200.0 mg/l in TCLP extract[2]	TCLP[1]
D026	Cresol ≥ 200.0 mg/l in TCLP extract[2]	TCLP[1]
D027	1,4-Dichlorobenzene ≥ 7.5 mg/l in TCLP extract	TCLP[1]
D028	1,2-Dichloroethane ≥ 0.5 mg/l in TCLP extract	TCLP[1]
D029	1,1-Dichloroethylene ≥ 0.7 mg/l in TCLP extract	TCLP[1]
D030	2,4-Dinitrotoluene ≥ 0.13 mg/l in TCLP extract[3]	TCLP[1]
D031	Heptachlor (and its epoxide) ≥ 0.008 mg/l in TCLP extract	TCLP[1]
D032	Hexachlorobenzene ≥ 0.13 mg/l in TCLP extract[3]	TCLP[1]
D033	Hexachlorobutadiene ≥ 0.5 mg/l in TCLP extract	TCLP[1]
D034	Hexachloroethane ≥ 3.0 mg/l in TCLP extract	TCLP[1]
D035	Methyl ethyl ketone ≥ 200.0 mg/l in TCLP extract	TCLP[1]
D036	Nitrobenzene ≥ 2.0 mg/l in TCLP extract	TCLP[1]
D037	Pentachlorophenol ≥ 100.0 mg/l in TCLP extract	TCLP[1]
D038	Pyridine ≥ 5.0 mg/l in TCLP extract[3]	TCLP[1]
D039	Tetrachloroethylene ≥ 0.7 mg/l In TCLP extract	TCLP[1]
D040	Trichloroethylene ≥ 0.5 mg/l in TCLP extract	TCLP[1]
D041	2,4,5-Trichlorophenol ≥ 400.0 mg/l in TCLP extract	TCLP[1]
D042	2,4,6-Trichlorophenol ≥ 2.0 mg/l in TCLP extract	TCLP[1]
D043	Vinyl chloride ≥ 0.2 mg/l in TCLP extract	TCLP[1]
F001	The following spent halogenated solvents used in degreasing: tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride and chlorinated fluorocarbons; all spent solvent mixtures/blends used in degreasing containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those solvents listed in F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures	Process knowledge/solvent scan[1]
F002	The following spent halogenated solvents: tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, ortho-dichlorobenzene, trichlorofluoromethane, and 1,1,2-trichloroethane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those listed in F001, F004, or F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures	Process knowledge/solvent scan

Waste Code	Qualifying Criteria	Test Method
F003	The following spent non-halogenated solvents: xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; all spent solvent mixtures/blends containing, before use, only the above spent non-halogenated solvents; and all spent solvent mixtures/blends containing, before use, one or more of the above non-halogenated solvents, and, a total of ten percent or more (by volume) of one or more of those solvents listed in F001, F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures	Process knowledge/solvent scan
F004	The following spent non-halogenated solvents: Cresols and cresylic acid, and nitrobenzene; all spent solvent mixtures blends containing, before use, a total of ten percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures	Process knowledge/solvent scan
F005	The following spent non-halogenated solvents: toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, and 2-nitropropane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, or F004; and still bottoms from the recovery of these spent solvents and spent solvent mixtures	Process knowledge/solvent scan
F006	Wastewater treatment sludges from electroplating operations except from the following processes: (1) Sulfuric acid anodizing of aluminum; (2) tin plating on carbon steel; (3) zinc plating (segregated basis) on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning/stripping associated with tin, zinc and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum	Process knowledge
F007	Spent cyanide plating bath solutions from electroplating operations	Process knowledge/cyanide scan
F008	Plating bath residues from the bottom of plating baths from electroplating operations where cyanides are used in the process	Process knowledge/cyanide scan
F009	Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process	Process knowledge/cyanide scan
Waste Code	**Qualifying Criteria**	**Test Method**

F019	Wastewater treatment sludges from the chemical conversion coating of aluminum except from zirconium phosphating in aluminum can washing when such phosphating is an exclusive conversion coating process	Process knowledge
F034	Wastewaters (except those that have not come into contact with process contaminants) process residuals, preservative drippage, and spent formulations, from wood preserving processes generated at plants that use creosote formulations. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol.	Process knowledge
F035	Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use inorganic preservatives containing arsenic or chromium. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol.	Process knowledge
F037	Petroleum refinery primary oil/water/solids separation sludge - Any sludge generated from the gravitational separation of oil/water/solids during the storage or treatment of process wastewaters and oily cooling wastewaters from petroleum refineries. Such sludges include, but are not limited to, those generated in: oil/water/solids separators; tanks and impoundments; ditches and other conveyances; sumps; and stormwater units receiving dry weather flow. Sludge generated in stormwater units that do not receive dry weather flow, sludges generated from non-contact once-through cooling waters segregated for treatment from other process or oily cooling waters, sludges generated in aggressive biological treatment units as defined in 261.31(b)(2)(including sludges generated in one or more additional units after wastewaters have been treated in aggressive biological treatment units) and K051 wastes are not included in this listing.	Process knowledge

Waste Code	Qualifying Criteria	Test Method
F038	Petroleum refinery secondary (emulsified) oil/water/solids separation sludge – Any sludge and/or float generated from the physical and/or chemical separation of oil/water/solids in process wastewaters and oily cooling wastewaters from petroleum refineries. Such wastes include, but are not limited to, all sludges and floats generated in: induced air flotation (IAF) units, tanks and impoundments, and all sludges generated in DAF units. Sludges generated in stormwater units that do not receive dry weather flow, sludges generated from non-contact once-through cooling waters segregated for treatment from other process or oily cooling waters, sludges and floats generated in aggressive biological treatment units as defined in 40 CFR 261.31(b)(2) (including sludges and floats generated in one or more additional units after wastewaters have been treated in aggressive biological treatment units) and F037, K048, and K051 wastes are not included in this listing.	Process knowledge
K001	Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or pentachlorophenol	Process knowledge
K048	Dissolved air flotation (DAF) float from the petroleum refining industry	Process knowledge
K049	Slop oil emulsion solids from the petroleum refining industry	Process knowledge
K050	Heat exchanger bundle cleaning sludge from the petroleum refining industry	Process knowledge
K051	API separator sludge from the petroleum refining industry	Process knowledge
K052	Tank bottoms (leaded) from the petroleum industry	Process knowledge
K086	Solvent washes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, driers, soaps, and stabilizers containing chromium and lead. Chromium $\geq$ 50 mg/l in TCLP Extract; Lead $\geq$ 5.0 mg/l in TCLP Extract.	Process knowledge/TCLP
P029	Copper Cyanide	Cyanide scan
U Codes	Commercial chemical products, manufacturing chemical intermediates, or off-specification commercial chemical products.	Spec Sheet or SDS

[1] Solvent scan - Analysis used to determine the presence of volatile and semi-volatile organic compounds, primarily F001 through F005 spent solvents.

TABLE 3
WASTE ANALYSIS TEST METHODS

Parameter	Rationale	Test Method[1]
Physical Description	Conformance with WPS[2]	Waste Acceptance Procedure
Viscosity	Handling Considerations	Varies, e.g., ASTM D2983
Specific Gravity	Handling Considerations	ASTM D-891, ASTM D70
pH	Confirm RCRA Hazardous Waste Code Confirm Treatment Method	9040
Flash Point	Confirm RCRA Hazardous Waste Code	1010
Cyanide	Confirm Non-Reactivity Confirm Treatment Method	9010/9012/9014
Sulfide	Confirm Non-Reactivity Confirm Treatment Method	SM4500-S2
TCLP Analyses for RCRA Metals: As Ba Cd Cr Pb Hg Se Ag	Confirm RCRA Hazardous Waste Code Confirm Disposal Method	1311 and 6010
TCLP Analyses for VOCs	Confirm RCRA Hazardous Waste Code Confirm Disposal Method	1311 8260
TCLP Analyses for SVOCs	Confirm RCRA Hazardous Waste Code Confirm Disposal Method	1311 8270
Solvent Scan	Determine Acceptability for Reclamation of Fuels Program	8011 8015 8021 8260

[1] All methods referenced in EPA Publication, *SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,* latest edition, unless otherwise noted (referred to as EPA SW-846) or ASTM. The latest revision to the analytical method will be used for waste analysis for each parameter. Univar will verify samples are collected in accordance with R315-261-1090.

[2] Applies to all test parameters listed.