ATTACHMENT 2

WASTE ANALYSIS PLAN

Supporting Documentation is located in Attachment 3.

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2.1.5 Residues from the demilitarization, treatment, and testing of chemical agents (the P999 hazardous waste described above) are defined as F999 hazardous wastes by the State of Utah Hazardous Waste Rules.

2.2 ANALYSIS OF HAZARDOUS WASTE FOR CONTAINER STORAGE

2.2.1 The TOCDF is prohibited from accepting hazardous wastes generated off site and is only permitted to store the captive P999 hazardous wastes that exist within the Tooele Army Depot South (TEAD-S) Chemical Stockpile and the F999 hazardous wastes that are generated from the maintenance, demilitarization, and treatment of the stockpile. Therefore, for the purposes of storage, the TOCDF has knowledge of the composition of the P999 hazardous wastes and the inputs to the processes by which the F999 hazardous wastes are generated.

2.3 RESERVED

2.4 WASTE ANALYSIS FOR TRANSFER TO OFF-SITE SUBTITLE C TSDF

2.4.1 The maintenance and treatment of the TEAD-S Stockpile resulted in the generation of hazardous wastes that are, at a minimum, classified as F999 hazardous waste (i.e., residues from demilitarization, treatment, and testing of nerve, military, and chemical agents). As the generator of these hazardous wastes, the TOCDF must properly characterize these wastes, either by sampling and analyzing the wastes or through knowledge of the waste. This is required to determine if additional hazardous waste codes apply, as defined in 40 CFR §262.11, and to determine if the waste requires further treatment before disposal in accordance with 40 CFR §268.40, 268.45, or §268.49. However, generators of waste are not required to have a written waste analysis plan. The TOCDF, as the generator of the hazardous waste, is required to maintain on site all supporting data that are used to make the determination applicable to LDR if knowledge is applied for characterization, including all analytical results if testing of the waste is used to make the determination.

2.4.2 To ensure the safety of the operators at the off-site TSDFs to which the F999 waste will be transferred, the TOCDF will evaluate the waste to determine the potential health hazards associated with the chemical agent contamination level. This evaluation will be conducted using headspace monitoring (i.e., evaluating the captured air volume in a sealed container) using a Near Real Time or carbon absorbtion tube based monitoring system for agent, or through analysis of a representative sample of the waste.

2.4.3 The F999 hazardous waste meeting the definition of debris found in 40 CFR 268.2(g) and that were generated from the maintenance and treatment of the chemical stockpile and

placed in onsite permitted storage locations will be evaluated using headspace monitoring since a representative sample of debris cannot be collected. The F999 hazardous wastes that were generated from the maintenance and treatment of the chemical stockpile and placed in onsite permitted storage locations and that are comprised of a homogeneous matrix will be sampled and analyzed to determine whether the agent concentration in the waste is above a value established by TOCDF and the receiving offsite TSDF that require additional onsite treatment before being transferred.

2.4.4 The agent contamination level of wastes generated during closure (to include discarded equipment and building demolition debris) will be evaluated as described in the Closure Plan; Attachment 10 to this permit.

2.5 PARAMETER TEST METHODS R315-8-2.4 [40 CFR 264.13(b)(2)];

2.5.1 Table 2-1 provides a listing of the analytical methods that shall be used to detect and quantify the selected parameters. This information is presented in a relational format in Table 2-0 (the WAP Summary Table).

2.5.2 Reserved.

2.5.3 Reserved.

2.5.4 Off-site analyses shall be performed by a Utah-certified laboratory for the parameters listed in Table 2-0.

2.6 SAMPLING METHODS R315-50-6 [40 CFR 264.13(b)(3)];

2.6.1 The sampling methods to be used for each waste stream are found in Table 2-0 (the WAP Summary Table).

2.7 FREQUENCY OF ANALYSES R315-8-2.4 [40 CFR 264.13(b)(4)];

2.7.1 The frequencies at which each waste stream shall be sampled and analyzed are found in Table 2-0 (The WAP Summary Table).

2.8 ADDITIONAL REQUIREMENTS FOR WASTES GENERATED OFF SITE R315-8-2.4 [40 CFR 264.13(b)(5)];

2.8.1 The Permittee is not permitted to store or treat waste generated off site. The Permittee is only permitted to store and treat wastes generated by the facility having EPA ID Number UT5210090002.

2.9 ADDITIONAL REQUIREMENTS FOR IGNITABLE, REACTIVE, OR INCOMPATIBLE WASTES R315-8-2.8 [40 CFR 264.13(b)(6)];

2.9.1 The Permittee shall comply with R315-8-2.8 for management of ignitable, reactive, or incompatible wastes.

2.10 RECORDKEEPING REQUIREMENTS R315-8-5.3 [40 CFR 264.73(b)(3)];

2.10.1 In accordance with Module II.I, analytical results generated in compliance with

Attachment 2 (Waste Analysis Plan) shall be maintained on file onsite as part of the Operating Record. Independent records shall be maintained for the TOCDF.

2.11 SAMPLING AND ANALYSIS QA/QC PROCEDURES

2.11.1 The Laboratory Quality Control Plan in Attachment 3 ~~and 23~~ describes the Quality Assurance/Quality Control procedures established at the TOCDF to ensure integrity and accuracy of the waste sampling and analysis effort.

2.12 SUBPART CC SAMPLING AND ANALYTICAL PROCEDURES

2.12.1 The Permittee shall perform initial or change-of-process waste determinations for hazardous waste listed in Table 2-0 for wastes managed in containers. These determinations shall be made at the points of waste origination for average VOCs before the first time any portion of the waste stream is placed in an applicable container.

2.12.2 The average VOC is the mass-weighted average of a hazardous waste as made in accordance with Section 2.12.1. The Permittee may choose from the two following sets of requirements for waste determinations:

2.12.2.1 Direct measurements or methods specified in 40 CFR 265.1084(a)(2) through (a)(4).

2.12.2.2 Knowledge-based determinations.

2.12.3 Waste determinations for VOC through direct measurements shall document the point of waste origination and the average VOC for an averaging period. The averaging period for all waste streams shall be designated and documented in the Operating Record. The averaging period can represent any time interval that the Permittee determined is appropriate for each hazardous waste stream of this section, but shall not exceed one year.

2.12.4 Direct sample measurements shall be taken at the points of waste generation in manner to eliminate volatilization, biodegradation, reaction, or sorption during the sample collection storage and preparation steps. A minimum of four samples shall be collected at the points of origination for applicable waste streams identified in this attachment. All samples for a given waste determination shall be collected within a one-hour period. The average of the four sample results constitutes a waste determination for the waste stream. All samples used for waste analysis shall be representative of the highest VOC.

2.12.5 All samples shall be collected and analyzed in accordance R315-7-30 [40 CFR 265.1084], Attachment 3 (Sampling, Analytical, and QA/QC Procedures), and this Attachment.

2.12.6 The Permittee may also apply other methods and requirements of R315-7-30 [40 CFR 265.1084(a)(3)] for samples collected and analyses to determine VOC, provided the methods are approved by the Director of the Division of Solid and Hazardous Waste as required by R315-3-4.

2.12.7 All direct measurements used for sampling and analytical results which require implementation of Module X and Section 2.12, Subpart CC waste analysis requirements shall be documented in the Operating Record and shall include the following:

2.12.7.1 Point of waste generation

2.12.7.2 Averaging period

2.12.7.3 Sampling plan used (See 40 CFR 265.1084(b)(3)(ii)(C))

2.12.7.4 Date, time, and location where the samples were collected (40 CFR 264.1089(f))

2.12.7.5 Quality assurance program including procedures to minimize loss of organics during sampling and measurement of accuracy of procedures (40 CFR 265.1084(a)(3)(iii)(F))

2.12.7.6 Analytical method used (40 CFR 264.13(b))

2.12.7.7 Identification of the analyst who performed the analytical tests, and Analytical operating conditions.

2.12.8 Knowledge-based determinations may be used for making waste determinations provided that there is sufficient information to meet the requirements found in R315-8-22 [40 CFR 265.1084(a)(4)].

2.12.9 The Permittee shall make and update all analytical determinations required by Section 2.12 annually or prior to an agent campaign change for waste streams identified in this Attachment.

2.12.10 For waste streams identified in Table 2-0 that are determined during sampling to have VOC above 500 ppm and are not managed with air emission controls as required by R315-8-22 [40 CFR 264.1084 through 264.1087], the Permittee shall notify the Director of the Division of Solid and Hazardous Waste of each occurrence of non-compliance and prepare plans for the adoption of air emission control requirements or waste determinations as required by this section.

2.12.11 Reserved.

2.12.12 Direct measurements for maximum organic vapor pressure shall be one of the following:

2.12.12.1 Method 25E in 40 CFR 60, Appendix A;

2.12.12.2 ASTM Standard Test Method for Vapor Pressure, ASTM 2879-92 (40 CFR 260.11).

2.12.13 Knowledge of the waste for maximum organic vapor pressure shall be determined in accordance with Paragraph 2.12.11.

2.12.14 As indicated below, the following wastes and waste management units are exempt from certain Subpart CC and sampling and analytical requirements of this Section:

2.12.14.1 Hazardous waste that has been treated or reduced by an organic destruction or removal process that satisfies any one of the requirements and conditions of R315-8-22 [40 CFR 264.1082(c)] is not subject to waste analysis requirements of Section 2.12.

2.12.14.2 Hazardous waste and residues, which are to be managed in containers, which are

complying with the air emission control standards of R315-8-22 [40 CFR 264.1084 through 1087] are not subject to waste analysis requirements of Section 2.12.

2.12.14.3 Wastes which are collected subject to chemical events and discharges of wastes subject to spill clean-up requirements are not subject to the waste analysis requirements of Section 2.12.

2.12.14.4 Reserved.

2.12.14.5 Wastes that satisfy the requirements specified in R315-8-22 [40 CFR 264.1082(c)(4)] are not subject to waste analysis requirements of Section 2.12.

Table 2-0
TOCDF WASTE ANALYSIS PLAN SUMMARY

WASTE STREAM	TREATMENT UNIT(S)	ANALYTICAL PARAMETERS[5,7]	PREPARATION and ANALYTICAL METHODS[1,5,8]	FREQUENCY OF ANALYSIS[5] (Establish Profile)	SAMPLING METHOD[5]
2.4. WASTES TRANSFERRED OFF-SITE TO SUBTITLE C TSDFs					
2.4.3. F999 Wastes Comprised of Homogeneous Matrices	NA	Agent Screen	TE-LOP-572		
2.4.3. F999 Wastes Comprised of Debris	NA	Agent Concentration in Container Via Headspace Monitoring	NRT TE-LOP 524/ DAAMS TE-LOP-522 and TE-LOP-562	Each Bag or Container	Head-Space Monitoring

Table 2-1: Analytical Method Descriptions	
Method	**Description/Title**
TOCDF (CAL) Laboratory Procedures	
TE-LOP-522	Laboratory Operating Procedure for Depot Area Air Monitoring Systems (DAAMS)
TE-LOP-524	Laboratory Operating Procedure for Automatic Continuous Air Monitoring System (ACAMS)
TE-LOP-562	Laboratory Operating Procedure for Analysis of Depot Area Air Monitoring System (DAAMS) Tubes
TE-LOP-572	Extractions/Analyses Including: WCL Extraction of GB for the Metals Diluent Solution; DWS Extraction of VX and HD; Extraction of GB, HD, and VX from Hydraulic Fluid; Analysis of GB, HD, and VX in Lubricating Oils; Analysis of GB, HD, and VX in Organic Wastes; and Extraction of GB, HD, and VX from Wood.
TE-LOP-574	Special Analyses Including: Specific Gravity Measurements.