

ATTACHMENT 7

TRAINING PLAN

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LIST OF ACRONYMS

CAMDS	Chemical Agent Munition Disposal System
CDTF	Chemical Demilitarization Training Facility
CFR	Code of Federal Regulations
CMA	Chemical Materials Agency
JACADS	Johnston Atoll Chemical Agent Disposal System
PAS	Pollution Abatement System
PDAR	Process Data Acquisition and Recording
RCRA	Resource Conservation and Recovery Act
TOCDF	Tooele Chemical Agent Disposal Facility

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7.1 **PERSONNEL TRAINING [R315-3-5(b)(12), R315-8-2.7]**

7.1.1 This training plan has been developed in accordance with R315-3-5(b)(12) and R315-8-2.7 as an integral part of the facility's Hazardous Waste Permit for hazardous waste treatment and storage. It has been implemented to ensure that the facility is operated in a manner that protects human health and the environment, both on and off the facility.

7.1.2 The training program trains facility personnel to perform their duties by providing classroom instruction, hands-on Computer Based Training equipment, and supervised on-the-job training. The program provides for both initial and annual review training, relevant to an employee's position, for the facility personnel that manage hazardous waste. This includes, but is not limited to, personnel that handle, move, perform maintenance on, or operate hazardous waste management equipment. The program provides facility personnel with training relevant to their positions to respond effectively to emergencies and familiarization with emergency procedures, emergency equipment, emergency systems and implementation of the contingency plan. Relevant to the employees' duties, instruction is given which teaches hazardous waste management procedures to ensure compliance with this Permit. Included in the training are assessments of each individual's skill and knowledge to determine that the training program objectives have been met.

7.1.3 This training plan provides for the recording and documentation of training which meet hazardous waste requirements. This training plan is reviewed and updated periodically to maintain compliance with permit and regulatory requirements. This training plan is maintained and available at the Tooele Chemical Agent Disposal Facility (TOCDF).

7.1.4 Section 7.2 provides an outline of the training program, while Section 7.3 describes implementation of the training program.

7.2 **OUTLINE OF TRAINING PROGRAM [R315-3-5(b)(12), R315-8-2.7(a)(1), R315-8-2.7(a)(2)]**

7.2.1 **Programmatic Training**

7.2.1.1 The Chemical Materials Agency (CMA) has been tasked with carrying out the Army's responsibility for disposing of the United States stockpile of chemical warfare munitions pursuant to Public Law 99-145. There are eight disposal sites in the continental United States where chemical disposal facilities are or may be constructed, with the TOCDF being one of the eight. A programmatic training facility was planned to provide systems training. The programmatic demilitarization training facility is located in the Edgewood Area of the Aberdeen Proving Ground, Maryland, known as the Chemical Demilitarization Training Facility (CDTF).

7.2.1.2 This training provides the skill and knowledge that is common to the eight chemical disposal facilities. The training is provided by using actual process equipment and lines, simulated toxic work areas, a control room, and a non-agent laboratory.

- 7.2.1.3 The training program was developed from a job/task analysis that defined the technical tasks which are performed by the facility personnel. Skill and knowledge profiles were developed to indicate the items that must be known to perform a particular task. The skill and knowledge profiles were then used to develop the course objectives and supporting training materials.
- 7.2.1.4 The TOCDF course materials are validated by technical review performed by Government and/or contractor subject matter experts. Any required changes are incorporated prior to using the course material.
- 7.2.1.5 Not all facility personnel receive advanced training at CDTF; initial training and annual review training are conducted at TOCDF. Tables 7-1 and 7-2 list the courses for initial, advanced, and annual review training. The courses listed in the tables and described in Section 7.4 are taught at either CDTF or TOCDF.
- 7.2.2 Job Titles and Duties [R315-8-2.7(d)(1)]
- 7.2.2.1 The original job titles and duties for job positions related to hazardous waste management were determined as part of the training program development process. Each job position shall have a written job description, which lists the requisite skill, education or other qualifications, and the duties for that position. The TOCDF job description and employee name filling that position shall be maintained at TOCDF.
- 7.2.2.2 Facility personnel are hired using criteria for each job classification, which includes minimum standards for education and previous training or experience.
- 7.2.2.3 Personnel expected to have access to agent will enter the Army's Chemical Personnel Reliability Program.
- 7.2.3 Training Content, Frequency, and Techniques R315-8-2.7(d)(3), R315-8-2.7(c)]
- 7.2.3.1 The classroom lectures, hands-on Computer Based Training, and self-paced study courses that are required by an employee's job position are listed in Table 7-1, Table 7-2 and in the Training Records database. The descriptions of these courses, and the training frequency and techniques, are included in Section 7.4.
- 7.2.4 Chemical Demilitarization Training Facility (CDTF) Training
- 7.2.4.1 The CDTF located at Aberdeen Proving Ground, Maryland, is used to provide classroom and hands-on training for those personnel who will benefit from practicing with the unique demilitarization equipment and monitoring support equipment. The CDTF includes actual demilitarization process lines as training equipment, a control room, simulated toxic operations area, maintenance craft laboratories for electrical, instrument, and mechanical training, simulated toxic maintenance area, and a non-agent laboratory. This equipment allows plant operators, maintenance personnel, and analytical and monitoring personnel to have hands-on experience in a nontoxic environment.

- 7.2.4.2 Major pieces of demilitarization equipment installed at the CDTF are the Rocket Shear Machine/Burster Size Reduction kit, Mine Machine, Projectile/Mortar Disassembly Machine, Multipurpose Demilitarization Machine, Bulk Drain Station, conveyors, airlocks, furnace equipment and the Pick and Place Machine. The equipment is sequenced to follow the demilitarization process from the Unpack Area, through the Explosive Containment Room Vestibule, and through the demilitarization operations. Operation and control of other process equipment not included at the CDTF is simulated using a simulation computer and trainer's console. The non-agent laboratory provides training in monitoring and analytical techniques in the areas of occupational exposure and environmental emission criteria.
- 7.2.4.3 The personnel who do not require advanced technical training at the CDTF (administrative personnel, support staff, etc.) receive their training at the TOCDF. Personnel attend training at the CDTF in accordance with the requirements of their job position. The detailed course descriptions shown in Section 7.4 may be taught by either TOCDF or CDTF instructors. Personnel in operations and maintenance are only required to train in those sections of the technical courses in Section 7.4 that are needed to operate/maintain the system(s) on which they will work. For example, a Control Room Operator attends applicable modules of Plant Operator training as required by their job position, while a Pollution Abatement System (PAS) Operator attends only those modules, which are relevant to the PAS. Also, a Control Room Operator who operates furnace systems is only trained in the sections applicable to those systems in each technical course.
- 7.2.5 TOCDF Site Training
- 7.2.5.1 During training, the employee gains plant knowledge and experience. Department managers and/or supervisors may conduct job specific training or performance demonstrations needed for employees to demonstrate job competency or to complete experience requirements.
- 7.2.5.2 Employees shall not work unsupervised in the plant until the training requirements for their respective job titles are complete. This includes completing initial and advanced training courses and the satisfactory completion of any on-the-job training.
- 7.2.6 Annual Review and Other Training
- 7.2.6.1 Continuing training takes place at the TOCDF and/or CDTF. The job titles, which receive continuing training, are shown in Table 7-2. DPE suit training is only provided to those individuals with the specified job titles who actually make DPE entries. Additional training requirements of specific personnel are based on observation and critique by safety and supervisory personnel. Remedial training is conducted whenever necessary. When job specific requirements warrant change to either training or training material, such as a change in munition processing or agent campaign, retraining shall take place for the relevant job titles without modification to this Permit. Integrated plant exercises are held that may involve small groups or the entire facility in order to evaluate personnel emergency responses and provide team training. These exercise scenarios are also used to evaluate the emergency responses and the contingency procedures.

- 7.2.6.2 When munition processing or an agent campaign is changed, the facility personnel shall receive specific training before the new campaign begins. The training courses for process change are listed in Table 7-2. Only the training necessary for the process change will be taught. Annual review training provides a review of agent characteristics, hazards and symptoms, emergency response, and waste management. Some of the presentation techniques for annual review training may be changed from formal classroom activities to self-paced study. The self-paced study is directed and monitored by the Training Staff. The employee is given sufficient time to study the material for the course. The same material is reviewed in self-paced study as in formal classroom activities. The detailed course descriptions in Section 7.4 state the applicability of annual review training for each course. Included in the annual refresher training is a review of the agent characteristics and associated hazards/symptoms.
- 7.2.6.3 In addition to completing required courses, all employees must understand the basic operation of the facility and know and abide by Army regulations applicable to chemical agent facilities, such as surety, security, and safety.
- 7.2.6.4 Some of the presentation techniques may be changed to self-paced study from formal classroom activities, for individuals hired to fill a job position after the initial work force has been trained. The self-paced training is directed and monitored by the Training Staff and any on-the-job training is directed by the individual's supervisor. The employee is given sufficient time to study the material and take the written test(s) for the course. The new hires develop the same skill and knowledge as if they had attended formal classroom activities. New hires complete required training before working unsupervised in the plant. They shall complete initial training requirements within six months of the date of their employment or assignment to a new position. They shall complete advanced training requirements for their respective job titles prior to working unsupervised in the plant.
- 7.2.7 Training Manager [R315-8-2.7(a)(2)]
- 7.2.7.1 The Training Manager at the TOCDF is responsible for ensuring that employees have completed the training requirements and performance demonstrations, if any, for their specified job. Included in the requirements and responsibilities of the Training Manager are the following:
- 7.2.7.1.1 Schedule training
- 7.2.7.1.2 Coordinate training with the CDTF.
- 7.2.7.1.3 Supervise the training of personnel in proper operation of the facility in accordance with federal, state, and local environmental regulations, and the facility's Permit.
- 7.2.7.1.4 Perform and evaluate classroom instruction.
- 7.2.7.1.5 Document performance demonstrations, if any, for each job position.
- 7.2.7.1.6 Administer the personnel training records in accordance with this Permit.
- 7.2.7.1.7 Ensure the quality of the training program.

- 7.2.7.1.8 Identify training documents.
- 7.2.7.1.9 Direct and coordinate training document development.
- 7.2.7.2 The experience and qualifications of the Training Manager are:
 - 7.2.7.2.1 Trained in hazardous waste management.
 - 7.2.7.2.2 Knowledge of plant operations.
 - 7.2.7.2.3 Prior teaching experience including training plan development experience.
- 7.2.7.3 The Training Manager is required to become thoroughly familiar with hazardous waste management requirements and facility operations prior to exercising control over this training program.
- 7.2.8 Training for Emergency Response [R315-8-2.7(a)(3)]
 - 7.2.8.1 Facility personnel are trained to respond properly, as outlined in Attachment 9 (Contingency Plan), to emergency situations based on their job responsibilities. Training includes agent characteristics/symptoms and first aid, response to alarms and evacuation, response to fire alarms, and personal protective equipment. Employees receive training appropriate to their job description that includes emergency response for agent related emergencies. Practical exercises and participation in exercise scenarios provide on-the-job experience. Based on job duties, employees receive training on emergency monitoring equipment operation and maintenance, key parameters for waste feed cut-offs, and ground water contamination.
 - 7.2.8.2 Site hazardous material response training is provided to selected individuals from the site who acts as responders to hazardous material incidents. The site specific training is provided by an instructor whose qualifications meet the regulatory requirements as determined by the Training Manager.
 - 7.2.8.3 Annual review training is provided by TOCDF instructors. Training records for annual review training shall be maintained at the TOCDF.
- 7.3 **IMPLEMENTATION OF TRAINING PROGRAM [R315-8-2.7(b), R315-8-2.7(d)(4), R315-8-2.7(e)]**
 - 7.3.1 Facility personnel that manage hazardous waste shall successfully complete their initial training within six months after their date of employment, assignment to the facility, or assignment to a new position at the facility. Prior to completing the advanced training, personnel that manage hazardous waste shall be supervised while performing hazardous waste duties.
 - 7.3.2 Training operations began prior to systemization, continue through plant operations, and end when closure is complete. The training program includes initial, advanced, and annual review training. Personnel in operations and maintenance are only required to complete the sections of the technical courses described in Section 7.4, which are relevant to the system(s), which the individual will operate or maintain.

- 7.3.3 Employees are assigned to training courses that meet the needs of the facility and ensure compliance with regulatory requirements. Each course has its own unique set of objectives for skill and knowledge that must be mastered before the employee passes the course. The instructor records attendance and performance for each employee. The Training Department tracks the training given to and completed by each employee.
- 7.3.4 Employees who cannot complete the training requirements for their job position will have their training records and performance evaluated. The evaluation will be conducted by the Training Manager and the individual's manager or department head. Recommendations on the employee's suitability to the job or the project will be made to the Human Resources Department.
- 7.3.5 The following information and documents shall be maintained and available at the TOCDF:
- 7.3.5.1 Job title for each position at the facility related to hazardous waste management, and the name of the employee(s) filling each job.
- 7.3.5.2 A written job description for each job title.
- 7.3.5.3 A written description of the type and amount of initial, advanced, and annual review training given to each person named.
- 7.3.5.4 Records that document the successful completion of the training and any experience required for each person named.
- 7.3.6 The training records and documents shall be kept at least until closure of the facility. Training records on former employees shall be kept at least three years from the date the employee last worked at the facility. The Training Plan shall be maintained and available at the TOCDF.
- 7.4 **Detailed Curriculum Descriptions [R315-8-2.7(d)(3)]**
- 7.4.1 The following curriculum categories consist of one or more training courses. Employees are required to successfully complete at least one training course in any category required for their job position. Employees receive training in the courses which are necessary for their job position. These courses may be applicable for initial, advanced, annual review, or process change training. Initial training shall be completed within six months. Advanced training shall be completed following the initial training period but prior to the employee working unsupervised in the plant. Annual review training shall be accomplished within the same calendar month (anniversary month) plus or minus 30 days of initial training and may consist of self-paced study. Employees hired prior to the effective date of this Permit may use their last refresher date as the date of initial training. For a change in munition processing or agent campaign, only the training necessary for the change is provided. Courses may be conducted by either CDTF or TOCDF personnel at either facility. Topics covered in the General Employee and Safety and Health categories meet the OSHA requirements for Hazardous Waste Operations (HAZWOPER) for a TSDF facility.

- 7.4.2 General Employee: This curriculum provides employees with general information about the TOCDF. This curriculum is an initial training requirement. Annual review training is applicable. Process change training is not applicable. Topics covered in this curriculum include: Chemical Stockpile Disposal Program Overview; Chemical Agent Description, Response to Alarms, Description of Munitions/Agent Inventory, Process Flow Overview, Personal Protective Equipment for Site Entry, Quality Control Overview, Federal and State Regulatory Authority, Emergency Response Plan and Organization, Safety Program Plan, Accident Prevention Plan, Industrial Hygiene Plan, Medical Plan, Training Plan, Quality Assurance Plan, Security and Safety.
- 7.4.3 Safety and Health: This curriculum provides training that meets applicable OSHA and Army regulatory requirements for Operations and Emergency Response. This curriculum is an initial training requirement. Annual review training is applicable. Process change training is not applicable. Employees receive training in the courses which are necessary for their job positions. Topics covered in this curriculum include: Hazard Communication, CPR, First Aid, Confined Space, Lockout/Tagout. Advanced Safety and Health courses are provided to selected employees who act as part of the TOCDF Emergency Response Organization (ERO).
- 7.4.4 Systems Descriptions: This curriculum describes the operation and control of the plant systems and is broken into training courses and taught at the block diagram, piping and instrumentation drawing level, as appropriate for the job position. Employees receive only the courses necessary for job performance. These course are intended for employees who operate or maintain plant equipment and their managers/supervisors. This curriculum is an initial training requirement. Annual review and process change training are not applicable. Topics covered in this curriculum include: Major Components/Equipment and Construction; System Operation; System Flow; System Key Parameters; System Interlocks; System Alarms; and System Waste Feed Cut-off.
- 7.4.5 Toxic Area Personal Protective Equipment: This curriculum is an initial training requirement. Annual review training is applicable. Employees receive training in the courses which are necessary for their job positions. Topics covered in this curriculum include: Supplied Air PPE Levels of Dress (DPE or OSHA-A), Air Purifying PPE Levels of Dress (Levels C and D), and Toxic Area Entry/Exit protocol. This curriculum provides a description of all levels of protective clothing, toxic area entry requirements and procedures, decontamination techniques, toxic area entry monitoring activities, and personnel emergencies in toxic areas. Practical exercises are included for suit-up activities and decontamination.
- 7.4.6 Plant Operations: This curriculum is intended for plant operators, their supervisors, and plant shift managers. Courses build on previous training for operators and supervisors who handle agent/munitions, control or handle waste streams associated with the demilitarization processes. Employees receive training in the courses which are necessary for their job positions. Hands-on training is provided for operators to develop the skills necessary to operate plant equipment during normal and emergency conditions. This curriculum is an advanced training requirement. Annual review training is not applicable. Process change training is applicable. Topics covered in this curriculum include: Control Description and Response; Interpretation of System Indication and Response; System Operation; System Safety, Chemical Surety, and Environmental Requirements; Normal System Operating Procedures; Abnormal/Emergency Process

System Procedures; Data Logging; Procedure Compliance and Process Control System Overview.

- 7.4.7 Plant Maintenance: This curriculum provides maintenance craftsmen and supervisors with the skills and knowledge to maintain various pieces of plant equipment. This curriculum is an advanced training requirement. Annual review training is not applicable. Process change training is applicable. Topics covered in this curriculum include: Normal Operation; Troubleshooting; Maintenance Techniques and Methods; Safety and Environmental Requirements; and Data Logging.
- 7.4.8 Monitoring: This curriculum provides monitoring personnel and supervisors with a description of monitoring activities and equipment. It provides skills and knowledge on the agent and industrial pollutant monitoring equipment used at the facility. This curriculum is an advanced training requirement. Annual review training is not applicable. Process change training is applicable. Topics covered in this curriculum include: Operation and Maintenance of Agent Monitors; Operation and Maintenance of Non-Agent Monitors; Troubleshooting Equipment Faults; Response to Agent and Non-Agent Monitor Alarms; Laboratory Monitoring Procedures; and Sample Collection Requirements and Methods.
- 7.4.9 Laboratory: This curriculum is designed to introduce laboratory personnel to the plans, procedures and equipment necessary to perform the laboratory mission in a safe and environmentally responsible manner in accordance with applicable regulations. This curriculum is an advanced training requirement. Annual review training is not applicable. Process change training is applicable. Topics covered in this curriculum include: Laboratory Analytical Procedures; Laboratory Safety; Chemical Hygiene; Hazardous Waste Procedures; Contingency Procedures; Component Fault Isolation Techniques; Equipment Maintenance Safety; and Component Replacement.
- 7.4.10 Process Control System: This course is intended for Controls Engineers and Process Data Acquisition and Recording (PDAR) Engineers. It provides a detailed explanation of the specific components of the process control system. This course is an advanced training requirement. Annual review and process change training are not applicable. Topics covered in this course include: Equipment Operation; Troubleshooting; and Programming.

Table 7-1 Initial/Advanced Training Requirements									
Initial Training	X	X	X	X					
Advanced Training					X	X	X	X	X
Curriculum Number	1	2	3	4	5	6	7	8	9
CURRICULUM TITLE	General Employee	Safety and Health	Toxic Area PPE	Systems Descriptions	Plant Operations	Plant Maintenance	Monitoring	Laboratory	Process Controls
JOB TITLE									
General Manager	X	X		X					
Deputy General Manager – Technical Support/Risk Manager	X	X		X					
Deputy General Manager – Plant Operations	X	X		X					
Deputy General Manager – Closure Integration	X	X		X				X	
Permitting Supervisor	X	X		X					
Environmental Programs Manager	X	X		X					
Environmental Shift Inspector	X	X							
Environmental Inspector/Auditor	X	X							
Compliance/Audit Supervisor	X	X		X					
Permitting Technician/Specialist	X	X		X					
Environmental Test Specialist	X	X		X					
Closure Electrical Engineer	X	X		X					
Closure Environmental Engineer Technologist	X	X		X					
Closure Mechanical Engineer	X	X		X					
Closure Planning & Integration Manager	X	X		X					
Secondary Waste Manager	X	X		X					
Environmental Technician	X	X		X					
Project Manager - Mustard	X	X		X					
Trial Burns Project Manager	X	X		X					
Mustard Sampling Manager/Secondary Waste Processing Manager	X	X		X				X	
Operations Supervisor - Mustard	X	X		X	X				X
Environmental Leader	X	X		X					
Changeover Manager	X	X	X	X				X	
Facility Modification Specialist	X	X	X	X				X	
Surety & Security Manager	X	X		X					
Quality Manager	X	X		X					
Quality Support Specialist	X	X		X					
Quality Technician	X	X		X					

Table 7-1 Initial/Advanced Training Requirements									
Initial Training	X	X	X	X					
Advanced Training					X	X	X	X	X
Curriculum Number	1	2	3	4	5	6	7	8	9
CURRICULUM TITLE	General Employee	Safety and Health	Toxic Area PPE	Systems Descriptions	Plant Operations	Plant Maintenance	Monitoring	Laboratory	Process Controls
JOB TITLE									
Quality Oversight Specialist	X	X		X					
Quality Support Supervisor	X	X		X					
Quality Management Support Technician	X	X		X					
Safety Manager	X	X		X					
Shift Safety Specialist	X	X		X					
Safety Engineer/Technologist	X	X		X					
Industrial Hygienist	X	X		X					
Agent Munitions/Safety Specialist	X	X		X					
Security Specialist	X	X		X					
Emergency Preparedness Administrator	X	X		X					
Training Manager	X	X		X					
Training Instructor /Simulator Specialist	X	X		X					
Training Specialist/Instructor	X	X		X					
Instructional Technologist	X	X		X					
Operations Manager	X	X		X					
Assistant Operations Manager	X	X		X					X
Plant Shift Manager	X	X		X					X
Maintenance Manager	X	X		X					
Systems Engineer	X	X		X					
Controls Engineer	X	X		X					X
Controls Engineer Supervisor	X	X		X					X
Operations Supervisor	X	X		X	X				X
Control Room Supervisor	X	X	X	X		X	X		X
Hazmat/Hotline/DSA/Supervisor	X	X	X	X	X				
Control Room Operator	X	X		X	X				X
PAS Operator	X	X	X	X	X				
BRA/RHA Operator	X	X		X	X				
Utilities Operator	X	X		X	X				
DSA Operator	X	X	X	X	X				
CHB/UPA Operator	X	X	X	X	X				
Operations Munition Coordinator	X	X	X	X	X				X

Table 7-1 Initial/Advanced Training Requirements									
Initial Training	X	X	X	X					
Advanced Training					X	X	X	X	X
Curriculum Number	1	2	3	4	5	6	7	8	9
CURRICULUM TITLE	General Employee	Safety and Health	Toxic Area PPE	Systems Descriptions	Plant Operations	Plant Maintenance	Monitoring	Laboratory	Process Controls
JOB TITLE									
Maintenance Supervisor	X	X	X	X					
Maintenance Engineer	X	X		X					
Calibration Coordinator	X	X							
Planner	X	X							
Electrical Technician	X	X	X	X		X			
Instrument Installer	X	X							
I&C Technician	X	X	X	X		X			
Mechanical Technician	X	X	X	X		X			
PM/CM Technician	X	X							
Preventative Maintenance Coordinator	X	X		X					
Modification Maintenance Supervisor	X	X		X					
Warehouse Supervisor	X	X							
Hazardous Waste Manager	X	X	X	X	X				
Hazardous Waste Coordinator	X	X	X	X	X				
Senior Hazardous Waste Technician	X	X	X	X	X				
Hazardous Waste Technician	X	X	X	X	X				
Laboratory Manager/Battelle Senior Site Manager	X	X		X			X	X	
Project Manager-Secondary Waste and Closure	X	X		X				X	
Laboratory QC Manager	X	X		X			X	X	
QC Analytical Inspector	X	X		X			X	X	
QC Analytical Inspector Supervisor / QC Specialist	X	X		X			X	X	
Quality Engineer	X	X		X	X				X
Special Projects Chemist	X	X	X	X				X	
QC Monitoring Inspector Supervisor / QC Specialist	X	X		X			X	X	
QC Monitoring Inspector	X	X		X			X	X	
Laboratory Monitoring Manager	X	X		X			X		
CEMS Specialist	X	X		X			X		
Monitoring Operations Manager	X	X		X			X	X	
Monitoring Coordinating Manager	X	X		X			X	X	
Master Technician	X	X		X			X		
Monitoring Foreman	X	X		X			X		

Table 7-1 Initial/Advanced Training Requirements									
Initial Training	X	X	X	X					
Advanced Training					X	X	X	X	X
Curriculum Number	1	2	3	4	5	6	7	8	9
CURRICULUM TITLE	General Employee	Safety and Health	Toxic Area PPE	Systems Descriptions	Plant Operations	Plant Maintenance	Monitoring	Laboratory	Process Controls
JOB TITLE									
Senior Instrument Tech/Lead	X	X		X			X	X	
Senior Monitoring Technician	X	X		X			X	X	
Monitoring Technician I	X	X	X	X			X		
Monitoring Technician II	X	X	X	X			X		
Senior Laboratory Support Technician	X	X	X	X				X	
Monitoring Scientist	X	X		X			X	X	
Operations Analytical Support Manager	X	X	X	X			X	X	
Instrument Technician	X	X		X			X	X	
Laboratory Analytical Manager	X	X		X				X	
Laboratory Shift Supervisor	X	X		X				X	
DAAMS Team Lead	X	X		X				X	
Senior GC Operator	X	X		X				X	
GC Operator	X	X		X				X	
Logistician	X	X		X				X	
Solutions Chemistry Lead	X	X	X	X				X	
Agent Standards Chemist Solutions Chemistry Lead	X	X	X	X				X	
Metals Chemist	X	X	X	X				X	
Mercury Metals Chemist	X	X		X				X	
Laboratory Data Analyst Demil Tech I	X	X		X				X	
Laboratory Data Analyst Demil Tech II	X	X		X				X	
Plant Systems Engineering Manager	X	X		X					
Project Engineering Supervisor	X	X		X					
Engineering Manager	X	X		X					
Engineering Supervisor	X	X		X					
Electrical Engineer Design	X	X		X					X
Electrical Engineer	X	X		X					X
Mechanical Engineer – Design	X	X		X					
Engineering Technologist – Design	X	X		X					
Engineering/Technologist	X	X		X					
Engineering Technician	X	X		X					
PDAR Engineer	X	X		X					

Table 7-1 Initial/Advanced Training Requirements									
Initial Training	X	X	X	X					
Advanced Training					X	X	X	X	X
Curriculum Number	1	2	3	4	5	6	7	8	9
CURRICULUM TITLE	General Employee	Safety and Health	Toxic Area PPE	Systems Descriptions	Plant Operations	Plant Maintenance	Monitoring	Laboratory	Process Controls
JOB TITLE									
PDAR Technician	X	X		X					
Environmental Engineer/Technologist	X	X		X					
Project Specialist	X	X		X					

Table 7-2 Annual Review/Process Change Requirements									
Annual Review Training	X	X	X						
Process Change Training					X	X	X	X	
Curriculum Number	1	2	3	4	5	6	7	8	9
CURRICULUM TITLE	General Employee	Safety and Health	Toxic Area PPE	Systems Descriptions	Plant Operations	Plant Maintenance	Monitoring	Laboratory	Process Controls
JOB TITLE									
General Manager	X	X							
Deputy General Manager – Technical Support/Risk Manager	X	X							
Deputy General Manager – Plant Operations	X	X							
Deputy General Manager – Closure Integration	X	X						X	
Permitting Supervisor	X	X							
Environmental Programs Manager	X	X							
Environmental Shift Inspector	X	X							
Environmental Inspector/Auditor	X	X							
Compliance/Audit Supervisor	X	X							
Permitting Technician/Specialist	X	X							
Environmental Test Specialist	X	X							
Closure Electrical Engineer	X	X							
Closure Environmental Engineer Technologist	X	X							
Closure Mechanical Engineer	X	X							
Closure Planning & Integration Manager	X	X							
Secondary Waste Manager	X	X							
Environmental Technician	X	X							
Project Manager-Mustard	X	X							
Trial Burns Project Manager	X	X							
Mustard Sampling Manager/Secondary Waste Processing Manager	X	X						X	
Operations Supervisor - Mustard	X	X			X				
Environmental Leader	X	X							
Changeover Manager	X	X	X					X	
Facility Modification Specialist	X	X	X					X	
Surety & Security Manager	X	X							
Quality Manager	X	X							
Quality Support Specialist	X	X							

Table 7-2 Annual Review/Process Change Requirements									
Annual Review Training	X	X	X						
Process Change Training					X	X	X	X	
Curriculum Number	1	2	3	4	5	6	7	8	9
CURRICULUM TITLE	General Employee	Safety and Health	Toxic Area PPE	Systems Descriptions	Plant Operations	Plant Maintenance	Monitoring	Laboratory	Process Controls
JOB TITLE									
Quality Technician	X	X							
Quality Oversight Specialist	X	X							
Quality Support Supervisor	X	X							
Quality Management Support Technician	X	X							
Safety Manager	X	X							
Shift Safety Specialist	X	X							
Safety Engineer/Technologist	X	X							
Industrial Hygienist	X	X							
Agent Munitions/Safety Specialist	X	X							
Security Specialist	X	X							
Emergency Preparedness Administrator	X	X							
Training Manager	X	X							
Training Instructor /Simulator Specialist	X	X							
Training Specialist Instructor	X	X							
Instructional Technologist	X	X							
Operations Manager	X	X							
Assistant Operations Manager	X	X							
Plant Shift Manager	X	X							
Maintenance Manager	X	X							
Systems Engineer	X	X							
Controls Engineer	X	X							
Controls Engineer Supervisor	X	X							
Operations Supervisor	X	X			X				
Control Room Supervisor	X	X	X			X	X		
Hazmat/Hotline/DSA/Supervisor	X	X	X		X				
Control Room Operator	X	X			X				
PAS Operator	X	X	X		X				
BRA/RHA Operator	X	X			X				
Utilities Operator	X	X			X				
DSA Operator	X	X	X		X				

Table 7-2 Annual Review/Process Change Requirements									
Annual Review Training	X	X	X						
Process Change Training					X	X	X	X	
Curriculum Number	1	2	3	4	5	6	7	8	9
CURRICULUM TITLE	General Employee	Safety and Health	Toxic Area PPE	Systems Descriptions	Plant Operations	Plant Maintenance	Monitoring	Laboratory	Process Controls
JOB TITLE									
CHB/UPA Operator	X	X	X		X				
Operations Munition Coordinator	X	X	X		X				
Maintenance Supervisor	X	X	X						
Maintenance Engineer	X	X							
Calibration Coordinator	X	X							
Planner	X	X							
Electrical Technician	X	X	X			X			
Instrument Installer	X	X							
I&C Technician	X	X	X			X			
Mechanical Technician	X	X	X			X			
PM/CM Technician	X	X							
Preventative Maintenance Coordinator	X	X							
Modification Maintenance Supervisor	X	X							
Warehouse Supervisor	X	X							
Hazardous Waste Manager	X	X	X		X				
Hazardous Waste Coordinator	X	X	X		X				
Senior Hazardous Waste Technician	X	X	X		X				
Hazardous Waste Technician	X	X	X		X				
Laboratory Manager/Battelle Senior Site Manager	X	X					X	X	
Project Manager-Secondary Waste and Closure	X	X						X	
Laboratory QC Manager	X	X					X	X	
QC Analytical Inspector	X	X					X	X	
QC Analytical Inspector Supervisor / QC Specialist	X	X					X	X	
Quality Engineer	X	X			X				
QC Monitoring Inspector Supervisor / QC Specialist	X	X					X	X	
QC Monitoring Inspector	X	X					X	X	
Special Projects Chemist	X	X						X	
Laboratory Monitoring Manager	X	X					X		
CEMS Specialist	X	X					X		
Monitoring Operations Manager	X	X					X	X	

Table 7-2 Annual Review/Process Change Requirements									
Annual Review Training	X	X	X						
Process Change Training					X	X	X	X	
Curriculum Number	1	2	3	4	5	6	7	8	9
CURRICULUM TITLE	General Employee	Safety and Health	Toxic Area PPE	Systems Descriptions	Plant Operations	Plant Maintenance	Monitoring	Laboratory	Process Controls
JOB TITLE									
Monitoring Coordinating Manager	X	X					X	X	
Master Technician	X	X					X		
Monitoring Foreman	X	X					X		
Senior Instrument Tech/Lead	X	X					X	X	
Senior Monitoring Technician	X	X					X	X	
Instrument Technician	X	X					X	X	
Monitoring Technician I	X	X	X				X		
Monitoring Technician II	X	X	X				X		
Senior Laboratory Support Technician	X	X	X					X	
Monitoring Scientist	X	X					X	X	
Operations Analytical Support Manager	X	X	X				X	X	
Laboratory Analytical Manager	X	X						X	
Laboratory Shift Supervisor	X	X						X	
DAAMS Team Lead	X	X						X	
Senior GC Operator	X	X						X	
GC Operator	X	X						X	
Logistician	X	X						X	
Solutions Chemistry Lead	X	X	X					X	
Agent Standards Chemist Solutions Chemistry Lead	X	X	X					X	
Metals Chemist	X	X	X					X	
Mercury Metals Chemist	X	X						X	
Laboratory Data Analyst Demil Tech I	X	X						X	
Laboratory Data Analyst Demil Tech II	X	X						X	
Plant Systems Engineering Manager	X	X							
Project Engineering Supervisor	X	X							
Engineering Manager	X	X							
Engineering Supervisor	X	X							
Electrical Engineer - Design	X	X							
Electrical Engineer	X	X							
Mechanical Engineer - Design	X	X							

Table 7-2									
Annual Review/Process Change Requirements									
Annual Review Training	X	X	X						
Process Change Training					X	X	X	X	
Curriculum Number	1	2	3	4	5	6	7	8	9
CURRICULUM TITLE	General Employee	Safety and Health	Toxic Area PPE	Systems Descriptions	Plant Operations	Plant Maintenance	Monitoring	Laboratory	Process Controls
JOB TITLE									
Engineering Technologist - Design	X	X							
Engineering/Technologist	X	X							
Engineering Technician	X	X							
PDAR Engineer	X	X							
PDAR Technician	X	X							
Environmental Engineer Technologist	X	X							
Project Specialist	X	X							

**Table 7-1 and Table 7-2
Initial and Continuing Training Requirements**

ACRONYM LIST FOR JOB TITLES

DSA Operator	Demilitarization Protective Ensemble Support Area Operator
CHB/UPA Operator	Container Handling Building/Unpack Area Operator
BRA/RHA Operator	Brine Reduction Area/Residue Handling Area Operator
PAS Operator	Pollution Abatement System Operator
I&C Technician	Instrumentation and Control Technician Operator
DAAMS Process Supervisor	Depot Area Air Monitoring System Process Supervisor
GC Operator	Gas Chromatograph Operator
Senior GC Operator	Senior Gas Chromatograph Operator
PDAR Engineer	Process Data Acquisition and Recording Engineer