APPROVAL SIGNATURES

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APPROVED BY: for ROBERT MATHIAS, CHIEF FIRE EMERGENCY SERVICES	DATE 3/12/15
APPROVED BY: HUGH QUALLS, DIRECTOR BASE OPERATIONS	DATE 3/11/15
APPROVED BY: GARY AMUNSON, DLA HAWTHORNE SITE MANAGER	DATE 3/11/15
APPROVED BY: JASON BOYNTON, MERCURY PROJECT MANAGEMENT DEFENSE LOGISTICS AGENCY	DATE
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[ ] INITIAL RELEASE [ ] REVIEW, NO REVISION REQUIRED [X] REVIEW - REVISION REQUIRED (SEE HISTORY BELOW)

REVISION HISTORY

REV	CHANGE DESCRIPTION	AUTHOR	DATE
2	Change description Crosswalk Between NDEP CAPP Review Comments (dated 2014-12-09, 2015-01-30 and 2015-02-26) and Mercury Storage and Transfer Program Document Contents March 10, 2015	Burton Packard and Renee Rodriguez	03/2015
1	Changed the document number in accordance with the Control of Documents (SOC.QP.QMS.0001). Added the Mercury Storage & Transfer Maintenance Operator's Statement. Verbiage was changed to include "Mercury Storage and Transfer Program" throughout the document.	R. Little	11/2014
0	Mercury Specific Training Management Plan – Initial Release	S. Berry	9/2014

Mercury Storage & Transfer Operator's Statement

MERCURY STORAGE & TRANSFER OPERATION NAME/TYPE:	
DOCUMENT NUMBER:	SOC.QP.EMP.HG.0002
INSTRUCTION/TRAINING/DOCUMENT REVIEW PROVIDED BY:	

Employees are required to sign this statement:

1. *When initially assigned to perform this task*
2. *When there has been a change to this procedure and it has affected supporting procedures and/or a Management of Change has been initiated.*
3. *At least annually or once time per quarter during continuous operations.*
4. *After an absence of 15 days or longer from the operation.*

I have read, or have had read to me, and understand the general, specific safety and environmental requirements, the personnel limits, work description and inspection requirements required to accomplish my part in this process safely. I have been trained and I agree to follow procedure requirements as stated in this procedure without deviation.

I will bring all unsafe work conditions, environmental considerations, and/or facility defects that are beyond my control to correct, to the attention of my immediate supervisor(s) or call 7911 (945-7911) in the event of an emergency.

EMPLOYEE SIGNATURE	EMPLOYEE NAME PRINTED	POSITION/TITLE	DATE

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REFERENCE DOCUMENTS	
DOCUMENT NUMBER	**APPLICABLE LEGAL & OTHER DOCUMENTS**
ISO 14001:2004	International Standard for Environmental Management Systems – Requirements with Guidance for Use
SOC.QP.QMS.0001	SOC Quality Plan – Control of Documents
SOC.QP.QMS.0002	SOC Quality Plan – Control of Quality Records
SOC.QP.QMS.0003	SOC Quality Plan – Internal Quality Audits
SOC.QP.QMS.0004	SOC Quality Plan – Control of Non-Conforming Products
SOC.QP.QMS.0005	SOC Quality Plan – Corrective/Preventative Action
W52P1J-11-D-0002	Operating Contract for the Hawthorne Army Depot
Section 613	Clean Air Act
	Spill Prevention Control, and Countermeasures Plan
	Installation Contingency Plan
DZHC.HWAD.DP.0007	SOC Fire Prevention Manual
SOC.EMS.EMP.0001	Emergency Response Plan
AMC.R 385-100	U.S. Army Safety Manual
DoD 4145.26-M	DoD Contractors Safety Manual
QP.HRD.TTD.0005	Master Training Plan
SOC.EMP.HG.0007	Management of Change Standard Procedure

DOCUMENTS REFERENCED IN THIS PROCEDURE ARE APPLICABLE TO THE EXTENT SPECIFIED HEREIN.

1. PURPOSE

1.1 This Plan addresses the Nevada Division of Environmental Protection (NDEP) Chemical Accident Prevention Program (CAPP) regulations which require compliance with the Nevada Administrative Code (NAC) 459.95418 and its purpose is provide a trained, efficient, informed and safe workforce for the accomplishment of the Mercury Storage and Transfer Program.

1.2 This document outlines the required training and the desired training syllabus for personnel directly involved in support activities related to the MMTS and any hazards associated and tasks involving the storage or actions required to accomplish the transfer of elemental mercury from 3-liter flasks to 1-metric ton containers, inspection and systems maintenance of containerized elemental mercury and the carbon dioxide (CO_2) fire suppression systems currently in place;

1.3 This document identifies training specific to the MMTS operations and CAPP requirements to ensure personnel entering HWAD are trained and made aware of the following:

1.3.1 Internal Operating Procedures (IOP's) and Safe Work Practices (SWP) for the Mercury Storage and Transfer Program are in place and strictly adhered to;

1.3.2 The process by which changes are managed and evaluated shall be controlled in accord with the Management of Change [Management of Change – Standard Procedure for the Mercury Storage and Transfer Program to Comply with NDEP – CAPP (QP.EMS.HG0007);

1.3.3 The hazards associated with the receipt, storage, transfer and inspection operations;

1. PURPOSE (CONTINUED)

1.3.4 Maintenance Plans and schedules are in place for containerized Mercury support equipment, facilities, the MMTS and the Carbon Dioxide (CO_2) Fire Suppression System;

1.3.5 All personnel involved in the transfer of mercury from 3-liter flasks to 1-metric ton containers, the storage and inspection of containerized mercury and the inspection of CO_2 Fire Suppression Systems are knowledgeable and will be trained on the 3 Year Overview and understand the Standard Operating Procedures (SOPs), Internal Operating Procedures (IOP) and Quality Plans (QP) that are currently in place under the requirements of the Chemical Accident Prevention Program or CAPP and as such pursuant to Nevada Administrative Code (NAC) 459.95418 the Owner/Operator of a facility with a process that is subject to the CAPP regulations shall provide training in each of the following areas:

1. Process Overview
2. Operating Procedures
3. Plant/Facility Layout
4. Equipment and instrumentation Location
5. Safety and Health hazards specific to various processes
6. Emergency Operations and Instructions
7. Safe work practices specific to operations and assigned tasks
8. Management of Change (MOC) development and implementation pursuant to NAC 459.95423 to include instruction on how to recognize maintenance and repair activities that are *"replacement in kind"*.

1.4 SOC and DLA Strategic Materials employees, transient personnel, tenant activities (Marine Corps Programs Office and Naval Undersea Warfare Center) personnel, vendors, contractors, subcontractors and/or visitors shall receive General Awareness training. Employees directly involved with mercury operations, inspection and/or maintenance of facilities and support equipment to include the MMTS and CO_2 Fire Suppression Systems shall receive specific and detailed training in their procedural requirements and responsibilities.

1.5 This document refers the reader to the means by which process and procedural changes are managed, evaluated and incorporated in Management of Change (QP.EMS.HG0007), Management of Change (MOC) Standard Procedure.

2. SCOPE

2.1 This document is applicable to all personnel who participate in any part of the Mercury Storage and Transfer Program; including:

2.1.1 Storage inspection (DLA Personnel Only)

2.1.2 Inspection repair (Reported and Recorded Deficiencies/Defects)

2.1.3 Maintenance and maintenance requirements (at any interval)

2.1.4 Transport Operations for the purposes of repackaging

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2. SCOPE (CONTINUED)

2.1.5 Support equipment maintenance and repair (Specific to Mercury material handling equipment [MHE])

2.1.6 Equipment maintenance and repair (Specific to Mercury Storage Warehouse CO_2 Fire Suppression System)

2.1.7 Facility maintenance and repair (At required and regular intervals or those repairs that must be made on reported/recorded discrepancies).

2.1.8 Calibration, maintenance and repair of measurement, test and monitoring equipment (DLA Personnel Only)

2.1.9 Fire and emergency services

2.1.10 Depot protection and surveillance

2.1.11 Environmental services – testing, monitoring, measurement and reporting requirements and activities

3. TERMS, DEFINITIONS & ACRONYMS

ACO ..... Administrative Contracting Officer (Government Staff)

APPLICABLE LEGAL REQUIREMENTS ..... Legal requirements promulgated and enforced by Federal, State, or local government authorities that apply to an organization's processes, products, services or activities.

CAPA ..... Corrective & Preventative Action

CORRECTIVE ACTION ..... Action taken to eliminate the cause of a detected non-conformity

DOCUMENT ..... A document stating results achieved or providing evidence of activities performed

EMS ..... Environmental Management System (ISO 14001:2004)

POLLUTION PREVENTION ..... Use of processes, practices, techniques, materials, products, services or energy to avoid, reduce or control (separately or in combination) the creation, emission or discharge of any type of pollutant or waste in order to reduce averse environmental impacts.

PREVENTATIVE ACTION ..... An action taken to prevent a potential non-conformity

AFTER DUTY HOURS TRAINING ..... Is defined as a training program conducted outside the normal hours of work, and primarily applies to individuals who will compete for job openings in the skilled trades and crafts areas. This type of training is usually conducted by journeymen in their specific fields of expertise as they apply.

3. TERMS, DEFINITIONS & ACRONYMS (CONTINUED)

After-duty training programs serve to provide an evaluation of the capabilities and/or limitations of employees, as well as increasing the pool of employees who demonstrate potential in one or more of the critical skills of a specific classification.

AR ..... As Required

CAA ..... Clean Air Act

CAPP ..... Chemical Accident Prevention Program - State of Nevada, Division of Environmental Protection (NDEP)

CERT ..... Certified/Certificate

CFR ..... Code of Federal Regulations

CO_2 ..... Carbon Dioxide

CWA ..... Clean Water Act

EMS ..... Environmental Management System and typically refers to conformance requirements as stated in ISO 14001:2004

HARA ..... Hazard Analysis/Risk Assessment

HAZMAT ..... Hazardous Material

HAZCOM ..... Hazardous Communications

Hg ..... The Chemical Symbol for Elemental Mercury

HWAD ..... Hawthorne Army Depot

IOP ..... Internal Operating Procedure (Level II document) specific to instructional guidance for completing a job specific task

JSA ..... Job Safety Analysis

MHE ..... Material Handling Equipment

MINIMUM PASSING GRADE ..... Students that have been administered a test on any subject matter shall achieve a minimum passing score of 75%

BOP ..... Base Operations Directorate

DCA ..... Document Control Administrator

4. CHARTS FOR MERCURY PROGRAM GENERAL OPERATIONS AND TRAINING

4.1. Chart 1 is a general summary of materials flow and operator responsibility. Both SOC and DLA Strategic Materials will utilize oversight Training Officers to ensure involved personnel are adequately training and their credentials maintained as current. The SOC Training Officer is responsible from a CAPP regulatory standpoint and the DLA Strategic Materials Training officer supplies oversight/QA to assure requirements are maintained.

4.2. Chart 2 displays the Mercury Storage and Transfer Program procedures in which the DLA Strategic Materials and SOC personnel must be trained and the subject areas in which the personnel must be certified.

4.3. Training and certifications required for DLA Strategic Materials personnel to be qualified for work activity includes:

- Annual operating procedure (Tier 2) required reading
- General mercury and CAPP (certification by test)
- Hood 1 operator (classroom and OJT)
- Hood 2 operator (classroom and OJT)
- Drum Handler/Venting (classroom and OJT)
- Solid Waste Handler (classroom and OJT)
- Metric ton container handler (classroom and OJT)
- Mercury mass accountability (classroom and OJT)
- Process control and data acquisition (classroom and OJT)
- Control Room Operator (classroom and OJT)
- Fixed Mercury Monitoring System – MMS-16 (classroom and OJT)
- Solid waste management (classroom and OJT)
- Mercury monitoring – portable Jerome (certification)
- Forklift operator (certification)
- Annual Respirator – mercury (certification)
- Annual Personnel Medical Industrial Hygiene Tests
- HAZWOPER (certification)

4.4. The SOC personnel performing working in the mercury storage and transfer areas are required to have general mercury and CAPP (certification by test) training. SOC is providing several services, including:

- Fire protection and emergency services
- Incident investigation
- Facility security
- Documents and records management
- Equipment maintenance, special calibrations
- Solid waste certification

4. CHARTS FOR MERCURY PROGRAM GENERAL OPERATIONS AND TRAINING (CONTINUED)

- Solid waste management to meet RCRA interim storage requirements
- Truck delivery of pallets of mercury drums from storage to 110-66 as needed
- Truck pick-up of pallets of drummed solid waste
- Routine sanitary waste material pick-up

4.5. The development, design, functional testing, informational video, vendor data and current operating procedure records are maintained in the Personnel Trailer (110-66 area) for use in performing maintenance and support work. The overview presentations developed by ORNL for worker training (Mobile Mercury Transfer Training Presentations A-Z April 29 – May 1, 2014) may be used as initial elements of annual refresher training.

4. CHARTS FOR MERCURY PROGRAM GENERAL OPERATIONS AND TRAINING (CONTINUED)

Chart 1: Mercury Program General Operations and Training Information

Chart 1: Mercury Program General Operations and Training Information

Storage, Inspection, and Maintenance
Mercury Drum: 1 ... 14
Metric Ton: 1 ... 6

Quarterly Mercury Inspections: Floor, Catch Pan, Pallet, Drum, Metric Ton, Inventory Control
DLA-SM

Building Inspections, Fire Protection, Security, Communications
SOC

Intra-Site Transport
Forklift Operations and Inventory Control
Mercury Drum Pallet Handling and Waste Drum Pallet Handling
Mercury Drums Solid Waste → Interim Storage/Disposal
DLA-SM

Truck Transport and Logistics/Waste Management
SOC

Mobile Mercury Transfer System (MMTS) Operations
110-66
Material Handling, Staging, Operations
28 Procedures, Inventory Management and Metric Ton Handling, Filling, Final Storage, Solid Waste Handing/Packaging
DLA-SM

Maintenance, Solid Waste Certification, Fire and Emergency Services (FES), Security, Truck Transport
SOC

Waste Management
110-66
Solid Waste Loading, Staging, Handling
DLA-SM

Solid Waste Certification, Interim Storage, Disposal
SOC

110-66 Operations for Mercury Inventory in Place Will Require >1 year to Complete

Training Qualifications and Records – SOC

a) Primary: G-drive SOC
Secondary: IAMTHEKEY DLA-SM
b) Position description
Position qualifications/dates
Records validating qualifications
c) Training plan SOC.QP.EMP.HG.0002 defines requirements that must be administered by SOC for SOC staff, DLA-SM staff and visitors
d) Changes to processes must be done in accordance with Management of Change (MOC) QP.EMS.HG0007 and training plan SOC.QP.EMP.HG.0002

Records must be maintained by the SOC and the DLA Strategic Materials responsible training officers to document that each mercury storage and transfer program worker maintains operating procedure reading qualifications prior to work activities. The CAPP program procedures are considered Tier 1 documents. Operating procedures are considered Tier 2 documents and both Tier 1 and 2 and some Tier 3 document types are under configuration management by SOC. Changes to operating procedures by DLA Strategic Materials are red-lined and provided to SOC for incorporation as official revisions with strict adherence to the MOC procedure. The documents and records used for the mercury storage and transfer program are listed in Chart 2.

Training on operating procedure is conducted for each activity and/or change occurrence below:

1. Before the worker begins the task(s) covered by the procedure;
2. When management of change creates new or modified procedure(s);
3. Within three years for CAPP and retraining annually for Tier 2 procedures;
4. When the worker expresses a lack of understanding of the information covered in a procedure; and
5. When the manager or supervisor observes the worker performing actions that are not in accord with the procedure.

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4. CHARTS FOR MERCURY PROGRAM GENERAL OPERATIONS AND TRAINING (CONTINUED)

Chart 2: Mercury Program General Operations and Training Procedures

Chart 2: Mercury Program General Operations and Training Procedures

MMTS Operating Procedures (Tier 2)

2015-MMTS-0	Mobile Mercury Transfer System Procedures Executive Summary
2015-MMTS-1	Metric Ton Container Acceptance and Staging
2015-MMTS-2	Metric Ton Container Setup
2015-MMTS-3	Metric Ton Container Transport and Storage
2015-MMTS-4	Pallet Transport and Handling
2015-MMTS-5	Drum Handling
2015-MMTS-6	Fume Hood 1 – Mercury Access
2015-MMTS-7	Fume Hood 2 – Mercury Transfer
2015-MMTS-8	Metric Ton Container Unhook and Close
2015-MMTS-9	Empty Flask Disposition and Transport
2015-MMTS-10	Waste Management
2015-MMTS-11	Routine Cleaning
2015-MMTS-12	Emergency Response and Spill Clean Up
2015-MMTS-13	Data Acquisition and Inventory Management
2015-MMTS-14	Mercury Vapor Monitoring System
2015-MMTS-15	Inspection, Testing and Maintenance
2015-MMTS-16	Fire Protection
2015-MMTS-17	Equipment Calibration
2015-MMTS-18	Security
2015-MMTS-19	Training (retired with full reliance on SOC.QP.EMP.HG.0002)
2015-MMTS-20	Mercury Medical Surveillance
2015-MMTS-21	Decontaminating and Decommissioning
2015-MMTS-22	Personnel Notifications
2015-MMTS-23	Operations Under Adverse Conditions
2015-MMTS-24	Diesel Generator Operations-Startup, Shutdown, Refueling and Periodic Maintenance
2015-MMTS-25	Air Handling System — Startup, Shutdown and Filter Replacement
2015-MMTS-26	Mercury Transfer from Mercury Drum
2015-MMTS-27	Defense National Stockpile Mercury Inventory Control

Mercury Storage and Transfer Program (Tier 1)

QP.EMS.HG0001	Management System and Implementation Plan Chemical Accident Prevention Program (CAPP)
QP.EMS.HG0002	Process Safety Information Standard Procedure
QP.EMS.HG0003	Process Hazard Analysis for Mercury Storage and Transfer Program and the CO_2 Fire Suppression System
QP.EMS.HG0004	Standard Operating Procedure Program for the Mercury Storage and Transfer Program to Comply with the NDEP-CAPP
SOC.QP.EMP.HG.0002	Mercury Training Plan
QP.EMS.HG0006	Mechanical Integrity Procedure for the CO_2 Fire Suppression System and the Mercury Storage and Transfer Program to Comply with the NDEP-CAPP
QP.EMS.HG0007	Management of Change - Standard Procedure for the Mercury Storage and Transfer Program to Comply with the NDEP - CAPP
QP.EMS.HG0008	Pre-Startup Safety Review - Procedure for Mercury Storage and Transfer Program to Comply with NDEP - CAPP
QP.EMS.HG0009	Compliance Audit Program for Mercury Storage and Transfer Program to Comply with NDEP-CAPP
QP.EMS.HG0010	Incident Investigation - Standard Procedure for the Mercury Storage and Transfer Program to Comply with the NDEP-CAPP
QP.EMS.HG0011	Employee Participation - Standard Operating Procedure for the Mercury Storage and Transfer Program to Comply with the NDEP-CAPP
QP.EMS.HG0012	Emergency Response Plan
QP.EMS.HG0013	Contractor Program for Mercury Storage and Transfer Program to Comply with NDEP-CAPP

SOC Operating Procedures (Tier 2)

DPD.IOP.FES.0015	Test, Inspection & Maintenance of CO_2 Fire Suppression System 110 Hg Storage
DPD.IOP.FES.0017	110 H Storage Warehouses with CO_2 Fire Suppression & Manual Activation System
DPD.IOP.FES.0019	Mercury Monitoring & Response
QP.SOC.PCH.0001	SOC Purchasing Manual
SOC.QP.QAD.0002	Mercury Storage Site & Stockpile Inspection
BOP.IOP.EMB.1300	Refrigeration and Maintenance Plan
QP.BOP.EMD.1301	Base Operations Start Up/Shut Down and CO_2 Tank Fill/Refill Procedure
BOP.IOP.EMB.1302	Electrician Maintenance Plan
BOP.IOP.EMB.1303	Electric Technician Mercury Storage
QP.HRD.TT.0005	Master Training Plan

SOC Safety Work Permits/Supporting Documents (Tier 3)

SOC.OHS.SP.0002	Lock-Out/Tag-Out Chapter 21
SOC.OHS.SP.0002	Hot Work Permits Chapter 10
QP.BOP.001	Carbon Dioxide Line Breaking Procedure for the Mercury Storage Warehouses
MAXIMO	Computerized Maintenance Management System Sequential Work Order Management Plan for Mercury Storage Facilities and Equipment HWAD
No document number	Forklift Operator Training

5. RESPONSIBILITIES

5.1 **SOC ENVIRONMENTAL SERVICES ASSISTANT MANAGER AND DLA STRATEGIC MATERIALS MERCURY PROGRAM MANAGER ARE RESPONSIBLE FOR THE TECHNICAL ADMINISTRATION OF THIS TRAINING PLAN TO ENSURE:**

5.1.1 This plan is reviewed, reissued and updated as necessary on at a minimum of an annual basis.

5.1.2 The CAPP Overview Training Module and all other procedures pertaining to the Mercury Storage and Transfer Program, to include any tests, are administered to affected personnel.

5.1.3 Training and examinations are provided, as required

5.1.4 Examination documentation is evaluated

5.1.5 Course materials are administered and critiqued by personnel receiving the training provided by the utilization of the Instruction Course Content & Instructor Evaluation Form – DZHC 328-E.

1. Evaluations will be provided to Human Resources for review and evaluation of course materials and Instructor/Instructional value and presentation.
2. Mercury Storage and Transfer Program documents are intended to provide clear instruction to the affected employees/operators; if instruction is not clear, then the trainees submit comments to the author through their chain of command and/or utilize form DZHC 328-E.

5.5.6. The training roster prepared by the DCA will be examined monthly to ensure all elements of the training program are being implemented. Notices will be issued to any manager or supervisor needing to train employees (both upcoming and overdue). A report of progress and deficiencies will be made to senior management at SOC and DLA Strategic Materials.

5.2 **BASE OPERATIONS DIRECTOR & DLA STRATEGIC MATERIALS PROJECT MANAGER ARE RESPONSIBLE TO ENSURE:**

5.2.1 Employees within their organizations are trained to meet the performance standards, defined by this plan to include NAC 459.95418.

5.2.2 Employees within their organizations are trained to meet the safety requirements of their respective position assignments as found in Appendix A of this plan.

5.2.3 All training, site-specific or formal, is documented, and forwarded to the Base Operations Document Control Administrator for the purposes of documentation and records retention.

5.3. **SOC MANAGERS/SUPERVISORS & DLA STRATEGIC MATERIALS FACILITY MANAGER ARE RESPONSIBLE TO ENSURE:**

5.3.1 The provisions of this plan are met and followed.

5. RESPONSIBILITIES (CONTINUED)

5.3.2 Site specific and/or informal training is documented on a Training Report (HWAD 84-E) and forwarded to the Base Operations Document Control Administrator (DCA) for documentation of training and records retention.

5.5 **THE BASE OPERATIONS DOCUMENT CONTROL ADMINISTRATOR WILL ENSURE**:

5.5.1 All documented training provided is stored, readily identifiable and retrievable. Training will be documented and recorded on the Mercury Storage and Transfer Program training roster. The DCA will review the Mercury Storage and Transfer Program training roster on a monthly basis to verify all SOC and DLA Strategic Materials employees that participate in the Mercury Storage and Transfer Program are trained in accordance with the CAPP and MMTS documents.

5.5.2 Any changes to this plan are made in a timely fashion, routed for review and signature and controlled distribution is made and accomplished.

5.6 **THE HWAD COMMANDER & CIVILIAN EXECUTIVE ASSISTANT WILL ENSURE:**

5.6.1 Ensure employees within their organizations are trained to meet the performance standards outlined in this plan to include NAC 459.95418.

5.6.2 Ensure employees within their organizations are trained and aware of the specific safety requirements of their respective position with respect to the scope of this Mercury Training Plan.

5.6.3 Ensure that all Mercury Storage Program training, site-specific or formal, is documented.

6. PROCEDURES

6.1 Procedures and instructional materials are developed by subject matter experts with vendor and contractor documentation included or referenced where possible. Feedback from affected employees is encouraged during documentation development.

6.2 The MMTS development, design, and functional testing records along with informational videos and vendor data are maintained in the DLA Strategic Materials Personnel Trailer (110-66 area) for review by procedure writers and trainees and in performing maintenance and support work.

6.3 Comprehension is determined by testing (written, oral and on the job performance) and through feedback from the workers that receive the training. Training documentation for all SOC and DLA Strategic Materials employees in the Mercury Storage and Transfer Program is maintained by SOC. Duplicate records for DLA Strategic Materials employees are maintained by DLA Strategic Materials on the "IAmTheKey" website.

6. PROCEDURES (CONTINUED)

6.4 SOC with DLA have developed and implemented training for employees participating in Mobile Mercury Transfer Station (MMTS) operations either directly, in support capacities in addition to General Awareness for all depot personnel to include but not limited to the ACO staff and tenant personnel. The following information summarizes what training is provided, how the training is provided, who is responsible for providing the training and how training is validated.

1. Course 121 addresses process 3 Year Overview and CAPP requirements, to include specific CAPP operating procedures

2. Addresses the health, safety and environmental aspects associated with processes in the Mercury Storage and Transfer Program and support operations for those processes and operations.

6.5 Training may be conducted via classroom instruction, electronically (CD) and/or web-based instruction and includes the following:

1. An overview of the process
2. A general understanding of the CAPP elements and requirements
3. An overview of relevant CAPP-specific operating procedures
4. Mercury storage concept of operations/layout
5. The location of equipment and instrumentation
6. Specific health and safety aspects for Mercury
7. Emergency Operations and Emergency Shut down
8. Safe Work Practices for dealing with and/or handling Mercury and support activities to include maintenance, transportation, inspection, storage and transfer operations.
9. Management of Change(s) to any processes relating to Mercury
10. Process-specific procedures for the MMTS.

6.6 General Awareness level training is provided by HR refer to Master Training Plan (QP.HRD.TTD.0005) to all SOC Employees, the ACO Staff, and Tenant Activity Employees.

6.7 Training on operating procedures is conducted for each activity and/or change occurrence below:

1. Before the worker begins the task(s) covered by the procedure
2. When management of change creates new or modified procedure(s)
3. Within three years for CAPP and retraining annually for Tier 2 procedures
4. When the worker expresses a lack of understanding of the information covered in one or more procedures.
5. When the manager or supervisor observes the worker performing actions that are not in accord with one or more procedures.

6.7.1 Site Specific training on current operating procedures is to be provided and documented on a Training Report (Form DZHC 84-E) annually or more frequently if the employee has not been assigned to work within the scope of the MMTS processes but whose position bears responsibility within these processes for longer than thirty (30) days.

6. PROCEDURES (CONTINUED)

6.7.2 Site Specific training shall be given when a change in processes and procedures occurs. Process changes shall be documented on a Management of Change Checklist (SOC Form 684-E).

6.7.3 Training requirements for each position identified within the scope of the MMTS can be found in Appendix A.

1. Oral tests when used, to include testing in a field application will have documented criteria to ensure and determine the required level of understanding has been achieved – Oral testing shall be documented on an HWAD 84-E Report of Training and forwarded to the BOP DCA.

2. Supervisors may choose to use the Hourly Employee Performance Review (DZHC 198-E Form) to evaluate an employee's position and critical attributes within the scope of the MMTS processes.

3. Any employee testing and not receiving a minimum score of seventy-five (75%) or more shall receive remedial training and additional testing to ensure an adequate level of understanding has been achieved.

6.7.4 Employees who are requested to Self-Study and/or perform a Required Reading curriculum, for example written procedures, shall sign an "Operator's Statement" as follows:

Example:
The undersigned has been trained, understands and will comply with the stated procedure. The undersigned also understands that he/she may withhold their signature if they have any questions or do not understand the content or requirements of this procedure. The undersigned understands that they may contact any member of management to resolve any questions or concerns they may have.

EMPLOYEE NAME PRINTED	EMPLOYEE SIGNATURE	DATE
John Doe	John Doe	9/15/2014

Supervisor Signature _____ *Supervisor Name (Printed* _____ *Date* _____

6.7.5 Operators will sign an operator statement as shown page 2 of this document.

6.8 Training Records must contain the minimum information as follows:

6.8.1 The identity of the SOC or DLA Strategic Materials employee completing the training (for an SOC employee, this includes his/her payroll/badge number).

6.8.2 The date of the training

6. PROCEDURES (CONTINUED)

6.8.3 The substance and/or content of the training

6.8.4 The means by which verification was achieved to ensure understanding of the training materials including without limitation any written test records from such verification.

6.9 Environmental Services will retain responsibility for the technical administration of the Mercury Storage and Transfer Training Program. This includes but is not limited to administering and updating the CAPP overview training module and keeping site specific training.

6.10 CAPP 3 Year Overview training and refreshers shall be coordinated through Environmental Services to ensure all affected personnel receive required training specific to the Mercury Storage and Transfer Program.

6.11 Fire and Emergency Services will provide Mercury Awareness and Emergency Response training to anyone who has cause to enter into a Mercury storage warehouse IAW their Standard Operating Procedure.

6.12 The MMTS Facility Manager and <u>all</u> DLA Strategic Materials workers in the MMTS must be trained in <u>all</u> the following categories to perform the associated tasks (each DLA Strategic Materials worker is cross trained to perform <u>all</u> tasks needed for MMTS operations):

6.12.1 Hood 1 operator (classroom and OJT – initial and annual refresher)

6.12.2 Hood 2 operator (classroom and OJT – initial and annual refresher)

6.12.3 Drum Handler/Venting (classroom and OJT – initial and annual refresher)

6.12.4 Solid Waste Handler (classroom and OJT – initial and annual refresher)

6.12.5 Metric ton container handler (classroom and OJT – initial and annual refresher)

6.12.6 Mercury mass accountability (classroom and OJT – initial and annual refresher)

6.12.7 Process control and data acquisition (classroom and OJT – initial and annual refresher)

6.12.8 Control Room Operator (classroom and OJT – initial and annual refresher)

6.12.9 Fixed Mercury Monitoring System – MMS-16 (classroom and OJT – initial and annual refresher)

6.12.10 Solid waste management (classroom and OJT – initial and annual refresher)

6.13 Further, each DLA Strategic Materials worker in the MMTS must have <u>all</u> the following certifications and approvals:

6.13.1 Forklift operator (certification)

6. PROCEDURES (CONTINUED)

6.13.2 Respirator fit and fitness to wear (annual examination and certification)

6.13.3 Personnel medical/industrial hygiene, including heavy metal uptake (annual examination and approval)

6.13.4 Hazardous waste operations [HAZWOPER] (initial and annual refresher

6.13.5 Mercury monitoring – portable Jerome (certification and 3-year refresher)

6.13.6 General mercury and CAPP (certification by test, initial and 3-year refresher)

6.14 The original training scope of DLA Strategic Materials included a classroom presentation and review of detailed power point presentations documented in a CD issued June 2014 (see Index of Mercury Stockpile Stewardships program Index of Selected Records and Reports). The special training was conducted in the Personnel Trailer adjacent to 110-66 at HWAD on April 29 - May 1, 2014. These classroom presentation materials will be used for training new MMTS employees as updated and delivered by experienced DLA Strategic Materials staff. These materials may also be used as initial elements of annual refresher training.

7. METRICS

7.1 Training given and the means by which it was administered

7.2 Passing grades will be seventy-five percent (75%) or higher

8. QUALITY RECORDS

8.1 The following Quality Records are applicable to these processes and will be managed and maintained IAW SOC.QP.0002, Control of Quality Records.

QUALITY RECORDS			
RECORD REQUIRED	CUSTODIAN	RETENTION	DISPOSITION
SOC 676-E	Environmental Services, Supervisors/Managers	5 Years (ENV Records)	Long Term Storage
Training Report 84-E	Supervisors/Managers		
Corrective/Preventative Action	Initiator & Recipient	5 Years	Long Term Storage

9. FORMS

9.1 The following Forms are applicable to these processes and will be managed and maintained IAW SOC.QP.0002, Control of Quality Records.

APPLICABLE FORMS	
FORM NUMBER	TITLE
DZHC 84-E	Training Report
DHZC 372-E	Corrective and Preventative Action Notice (CAPA)

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APPENDIX A — MERCURY TRAINING SYLLABUS

COURSE #20 – General Awareness

COURSE INFORMATION		TYPE		FORUM			VALIDATION		
COURSE NAME	COURSE CONTENT	INITIAL	ANNUAL (REFRESHER)	CLASS -ROOM	REQ'D READ	OJT	TEST (O = ORAL W=WRITTEN)	PROFICIENCY	CERT (C) OR OPERATOR STATEMENT (OS)
DURATION OF TRAINING – As Required									
Mercury Storage & General Awareness	General description, location, & awareness	X	X	X	N/A	N/A	N/A	N/A	OS
COURSE #121 – MERCURY STORAGE PROGRAM 3 YEAR OVERVIEW									
Mercury Storage Program Overview	Operations, descriptions, safety, regulatory standards, Management of Change	X	X	X	N/A	N/A	W	>75%	C OS

COURSE INFORMATION		TYPE		FORUM			VALIDATION		
NAME	CONTENT	INITIAL	REFRESHER (3 YRS)	CLASS ROOM	REQ'D READ	OJT	TEST (O = ORAL W=WRITTEN)	PROFICIENCY	CERT (C) OR OPERATOR STATEMENT (OS)
1 HR - Process Safety Information	Procedure	X	X		X	N/A	N/A	N/A	OS
1 HR Process Hazard Analysis									
1 HR SOP									
1 HR Training Program									
1 HR Mechanical Integrity									
1 HR Management of Change									
1 HR Pre Start Up Safety Review									
½ HR Compliance Audit									
1 HR Incident Investigation									
1 HR Employee Participation									
2 HR Emergency Response Plan						X			
½ HR Management Sys. & Implementation Plan						N/A			

TIER II PROCEDURES – Course Numbers Vary

COURSE INFORMATION		TYPE		FORUM			VALIDATION		
NAME	CONTENT	INITIAL	ANNUAL REFRESHER	CLASS ROOM	REQ'D READ	OJT	TEST (O = ORAL	PROFICIENCY	CERT (C) OR

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							W=WRITTEN)		OPERATOR STATEMENT (OS)
½ HR DPD.IOP.FES 0015	PROCEDURE			N/A			132	N/A	OS
½ HR DPD.IOP.FES 0017									
½ HR DPD.IOP.FES 0019									
1 HR QP.EMS.HG 0005							133		
1 HR - EMB.1300							138		
1 HR - EMD 1301									
1 HR EMB.1302									
1 HR EMB.1303									
½ HR Lock-Out/Tag Out Chapter 21 – SOC.OHS.SP 0002							51		
½ HR Hot Work Permits Chapter 10 – SOC.OHS.SP 0002							52		
4 HRS - MAXIMO	OJT SYSTEM TRNG			N/A			135		
4 HRS SOC.QP.HRD.0005							134		
½ HR Line Breakage QP.BOP.001	PROCEDURE						137		
10 HRS - Forklift Operator Training (MHE)	KNOWLEDGE, SKILLS, ABILITY – EQUIP. MAINT.		N/A				50	>75%	C

COURSE DESCRIPTION/CATEGORY/NAME	COURSE CODE MASTER TRAINING PLAN	FREQUENCY
MERCURY STORAGE PROGRAM SPECIALIZED TRAINING (TIER 1 - MSP)		
• Compliance Overview • Process Overview • Chemical Accident Prevention Program Elements • An overview of relevant CAPP-specific operating procedures • Mercury storage concept of operations/ layout • The location of equipment and instrumentation • Specific health and safety aspects for Mercury • Emergency Operations and Emergency Shut Down • Safe Work Practices of Mercury and support activities applicable to the job task • Management of Change(s) to any processes relating to Mercury • Verify that Employees Understand Training	122	3 Year

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ATTACHMENT 1- MERCURY STORAGE PROGRAM SPECIALIZED TRAINING (TIER 2- MSP)

MERCURY STORAGE PROGRAM SPECIALIZED TRAINING (TIER 2 - MSP)		
Test, Inspection & Maintenance of CO_2 Fire Suppression System 110 Hg Storage – DPD.IOP.FES.0015	132	Annual; AR
110 Hg Storage Warehouses with CO_2 Fire Suppression Response & Manual Activation of System – DPD.IOP.FES.0017		
Mercury Monitoring & Response – DPD.IOP.FES.0019		
Mercury Storage Site & Stockpile Inspection – SOC.QP.QAD.0002	133	
Equipment Maintenance Division IOP's 1300, 1301, 1302, 1303	138	
Lock Out/Tag Out Procedure Chapter 21 – SOC.OHS.SP.0002	51	
Safety Hot Work Permit Chapter 10 – SOC.OHS.SP.0002		
MAXIMO	135	
Master Training Plan – QP.HRD.TTD.0005	134	
Carbon Dioxide Line Breaking Procedure for the Mercury Storage Warehouses – QP.BOP.001	137	
Forklift Operator Training (MHE)	50	

ATTACHMENT 2- TRAINING SYLLABUS FOR MMTS OPERATIONS

Course Information		Type		Length	Forum			Validation			
Name	Content	Initial	Refresher (3 Yrs.)		Class Room	Rq'd Read	Ojt	Written Test	Oral Test	Performance Proficiency	Certification
Mercury Storage and Transfer Program Overview	Operations descriptions, safety, regulatory standards,	x	x	3 hrs.	x			x		>75%	X
Tier 1 Procedures											
Course Information		**Type**		**Length**	**Forum**			**Validation**			
Name	**Content**	**Initial**	**Refresher (3 Yrs.)**		**Class Room**	**Rq'd Read**	**Ojt**	**Written Test**	**Oral Test**	**Performance Proficiency**	**Certification Or Operator Statement**
Management System & Implementation Plan	Procedure	x	x	2 hours		x					C
Process Safety Information	Procedure	x	x	2 hours		x					C
Process Hazard Analysis	Procedure	x	x	2 hours		x					C
Standard Operating Procedure Program	Procedure	x	x	2 hours		x					C
Training Program	Procedure	x	x	2 hours		x					C
Mechanical Integrity	Procedure	x	x	2 hours		x					C
Management of Change	Procedure	x	x	2 hours		x					C
Pre-Start Up Safety Review	Procedure	x	x	2 hours		x					C
Compliance Audit	Procedure	x	x	2 hours		x					C
Incident Investigation	Procedure	x	x	2 hours		x					C
Employee Participation	Procedure	x	x	2 hours		x					C
Contractor Program	Procedure	x	x	2 hours		x					C
Emergency Response Plan	Procedure	x	x	2 hours		x	x				C

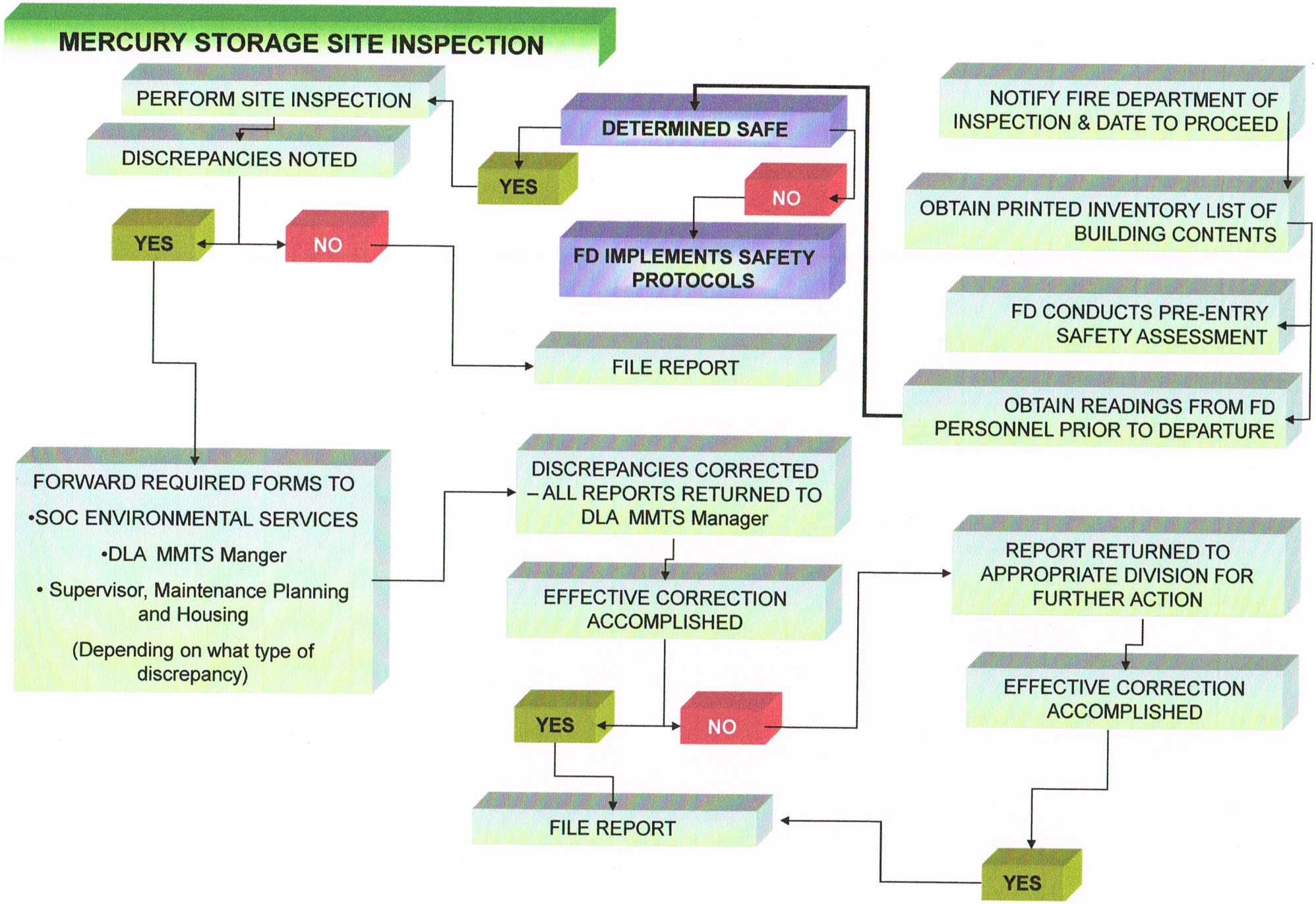
Tier 2 Procedures

Mobile Mercury Transfer System Operating Procedures Course Information		**Type**		**Length**	**Forum**			**Validation**			
Name	**Content**	**Initial**	**Refresher (Annual)**		**Class Room**	**Rq'd Read**	**Ojt**	**Written Test**	**Oral Test**	**Performance Proficiency**	**Certification Or Operator Statement**
Mobile Mercury Transfer System Procedures Executive Summary, 2015-MMTS-0	Procedure	x	x	2 hours		x	x				OS
Metric Ton Container Acceptance and Staging, 2015-MMTS-1	Procedure	x	x	2 hours		x	x			x	OS
Metric Ton Container Setup, 2015-MMTS-2	Procedure	x	x	2 hours		x	x			x	OS
Metric Ton Container Transport and Storage, 2015-MMTS-3	Procedure	x	x	2 hours		x	x			x	OS
Pallet Transport and Handling, 2015-MMTS-4	Procedure	x	x	2 hours		x	x			x	OS
Drum Handling, 2015-MMTS-5	Procedure	x	x	2 hours		x	x			x	OS
Fume Hood 1 – Mercury Access, 2015-MMTS-6	Procedure	x	x	2 hours		x	x			x	OS
Fume Hood 2 – Mercury Transfer, 2015-MMTS-7	Procedure	x	x	2 hours		x	x			x	OS
Metric Ton Container Unhook and Close, 2015-MMTS-8	Procedure	x	x	2 hours		x	x			x	OS
Empty Flask Disposition and Transport, 2015-MMTS-9	Procedure	x	x	2 hours		x	x			x	OS
Waste Management, 2015-MMTS-10	Procedure	x	x	2 hours		x	x			x	OS
Routine Cleaning, 2015-MMTS-11	Procedure	x	x	2 hours		x	x			x	OS
Emergency Response and Spill Clean Up, 2015-MMTS-12	Procedure	x	x	2 hours		x	x			x	OS

Data Acquisition and Inventory Management, 2015-MMTS-13	Procedure	x	x	2 hours		x	x			x	OS
Mercury Vapor Monitoring System, 2015-MMTS-14	Procedure	x	x	2 hours		x	x			x	OS
Inspection, Testing and Maintenance, 2015-MMTS-15	Procedure	x	x	2 hours		x	x			x	OS
Fire Protection, 2015-MMTS-16	Procedure	x	x	2 hours		x	x			x	OS
Equipment Calibration, 2015-MMTS-17	Procedure	x	x	2 hours		x	x			x	OS
Security, 2015-MMTS-18	Procedure	x	x	2 hours		x	x			x	OS
Training, 2015-MMTS-19 (retired with full reliance on SOC.QP.EMP.HG.0002)											
Mercury Medical Surveillance, 2015-MMTS-20	Procedure	x	x	2 hours		x	x			x	OS
Decontaminating and Decommissioning, 2015-MMTS-21	Procedure	x	x	2 hours		x	x			x	OS
Personnel Notifications, 2015-MMTS-22	Procedure	x	x	2 hours		x	x			x	OS
Operations Under Adverse Conditions, 2015-MMTS-23	Procedure	x	x	2 hours		x	x			x	OS
Diesel Generator Operations-Startup, Shutdown, Refueling, and Periodic Maintenance, 2015-MMTS-24	Procedure	x	x	2 hours		x	x			x	OS
Air Handling System — Startup, Shutdown, and Filter Replacement, 2015-MMTS-25	Procedure	x	x	2 hours		x	x			x	OS
Mercury Transfer from a Mercury Drum, 2015-MMTS-26	Procedure	x	x	2 hours		x	x			x	OS
Defense National Stockpile Mercury Inventory Control, 2015-MMTS-27	Procedure	x	x	2 hours		x	x			x	OS

Tier 2 Certifications

Mobile Mercury Transfer System Operating Procedures Course Information		**Type**		**Length**	**Forum**			**Validation**			
Name	**Content**	**Initial**	**Refresher**		**Class Room**	**Rq'd Read**	**Ojt**	**Written Test**	**Oral Test**	**Performance Proficiency**	**Certification Or Operator Statement**
Mercury monitoring – portable Jerome	Training by equipment manufacturer	x	3-yr								C
Forklift operator	Training by acknowledged industry expert	x	3-yr								C
Annual Respirator – mercury	Fit test and medical examination for suitability	x	annual								C
HAZWOPER	OSHA standard coursework	x	annual								C


MERCURY STORAGE SITE INSPECTION
PERFORM SITE INSPECTION
DISCREPANCIES NOTED
YES
NO
FILE REPORT
FORWARD REQUIRED FORMS TO
•SOC ENVIRONMENTAL SERVICES
•DLA MMTS Manger
• Supervisor, Maintenance Planning and Housing
(Depending on what type of discrepancy)
DISCREPANCIES CORRECTED – ALL REPORTS RETURNED TO DLA MMTS Manager
EFFECTIVE CORRECTION ACCOMPLISHED
YES
NO
FILE REPORT
REPORT RETURNED TO APPROPRIATE DIVISION FOR FURTHER ACTION
EFFECTIVE CORRECTION ACCOMPLISHED
YES
DETERMINED SAFE
YES
NO
FD IMPLEMENTS SAFETY PROTOCOLS
NOTIFY FIRE DEPARTMENT OF INSPECTION & DATE TO PROCEED
OBTAIN PRINTED INVENTORY LIST OF BUILDING CONTENTS
FD CONDUCTS PRE-ENTRY SAFETY ASSESSMENT
OBTAIN READINGS FROM FD PERSONNEL PRIOR TO DEPARTURE