22 – (B) PERSONNEL NOTIFICATIONS

Title: Personnel Notifications **Doc. No.** 2015-MMTS-22

Approval Signatures and Date

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	Initial Release		Annual Review/No Revision Required		Annual Review/Update (see history below)

NOTE: This document will be reviewed at least annually to ensure its suitability.

Revision History

Rev. No.	Change description	Author
1	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

NOTE: It is the user's responsibility to ensure, prior to use, the revision of this document is the latest available.

Reference Documents

Document number	Document title
SOC.QP.EMP.HG.0002	Mercury Training Plan

22.1 PURPOSE

This section discusses the various Personnel Notifications that exist to alert workers in the MMTS that an off-normal situation has occurred or is about to occur, and describes the workers' response to each. All personnel working in the MMTS must be aware of the following five notification sources:

- Mercury pump automatic shutoff,
- Fume hood face velocity monitor,
- Mercury monitoring system (MMS) annunciator,
- Camera surveillance at the supervisor's station, and
- Visual indicators identifying safe entry.

22.2 SCOPE

Personnel notifications are an integral part of the following systems and equipment in the MMTS:

- The peristaltic pump shutoff prevents overfilling a metric ton (MT) container. The pump will be shut off if 2280 lb is exceeded, or if the level of mercury in the MT container reaches a preset limit. There is no audible signal. The mercury weight limit shutoff (2280 lb) and the mercury height (level) limit shutoff (2 in below the bottom of the upper plate) are designed to prevent overfilling the metric ton container. The mercury weight shutoff is set to occur first; if it does not shut off the peristaltic pump, the mercury level shutoff actuates and shuts off the peristaltic pump.
- The fume hood monitor alerts an operator if the fume hood face velocity drops substantially below 100 ft/min. The monitor has a digital readout of face velocity mounted outside the fume hood and activates an audible signal at levels below the threshold.
- The mercury monitoring system (MMS) samples and records environmental data from sixteen (16) stations in the MMTS. The data for mercury vapor concentration in air related to mercury operations is of specific interest. If the preset level (<25,000 ng/m^3 = 25 $\mu g/m^3$) is exceeded, an audible signal is emitted. The location(s) of, and level of mercury vapor is recorded on the supervisor's computer.
- Camera surveillance provides multiple views to a dedicated video monitor in the supervisor's office. This notification is available only to someone who is watching the video monitors.

- Red light-green light visuals are located above the west exterior entrance leading into the MMTS. The red light warning indicates that the mercury vapor concentration in air within the MMTS exceeded 25,000 $ng/m^3 = 25\ \mu g/m^3$.

22.3 STAFF RESPONSES TO PERSONNEL NOTIFIERS

- If the peristaltic pump has an unexpected shut off, the operator shall release the foot-activated remote controller and turn off the main power supply to the pump with the toggle switch at the back of the pump motor; notify the supervisor; determine the reason for the shut off, i.e. overfilling a MT container or a local power outage. Operations resume at the discretion of the Facility Manager.
- If the fume hood audible alarm sounds, cease operations and reduce the open area of the hood by closing one or more of the sliding doors, or lowering the sash. If that does not stop the alarm, reduce the net open area to ~10% of the maximum permitted (13.5 ft^2.) open area and notify the Facility Manager. Operations resume at the discretion of the Facility Manager.
- If the MMS audible signal is activated, cease all operations, render the work area to a safe condition (if the worker's safety is not compromised), all staff leave the building, and notify the Guard Operations Center (GOC) at 775.945.7911. Operations resume at the discretion of Fire and Emergency Services and the Facility Manager.
- Camera stations are monitored by the supervisor or his designee in the supervisor's office. If an off-normal occurrence is observed, the Facility Manager or designee shall investigate personally and determine an appropriate action. Operations resume at the discretion of the Facility Manager.
- Before entering the MMTS, all personnel shall observe the area over any entrance to determine if it safe to enter. A green light indicates safe entry; a red light indicates an unsafe condition inside and entry is prohibited. Upon observing a red light, the worker shall notify the GOC at 775.945.7911 (the GOC will pass on the request for assistance to Fire and Emergency Services) and the supervisor, and shall remain outside to ensure that others do not enter. The Fire and Emergency Services will determine when entry is safe after they assess conditions inside the MMTS. Operations resume at the discretion of the Facility Manager.