

Subject: Environmental Permit and Hazardous Waste Management Program Assessment, Causal Analyses for P2 findings

Objective: Complete causal analyses for Environmental Program items P2-001 through P2-003 by March 18, 2009. Use these causal analyses to develop a Corrective Action Plan (CAP) and their subsequent CATS items.

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Methodology: The causal analysis effort was conducted in a single two hour event. The facilitator hoped to maximize the teams' time together, thus the appropriate OSHA and CFR documents were provided, with relevant sections called out.

Findings and Causal Analyses:

P2-001 – The accumulation start date was not marked on universal waste labels, in accordance with 40 CFR273 (c) (1).

Joint Assessment Report text: Joint Assessment team members conducted two work observations associated with hazardous waste. The first was the crushing of fluorescent lamps, a RCRA-regulated Universal Waste, with a bulb crushing apparatus that collects any mercury therein. An SOP for this procedure was available at the work location and was reviewed...One minor regulatory compliance issue was noted. There is a requirement that the accumulation start date is included on universal waste labels, and that date was initially lacking. That information was added within 24 hours.

Supplementary Information: There are five fields on each label. The other four fields were completed. The team could not confirm the exact cause of why this one particular field was left blank.

Causal Analysis Determination: Lack of training or system with dedicated labels for each drum, leading to human error

P2-002 – The last record of submission of chemical inventory for the cooling tower unit does not reflect the current inventory of cooling tower chemicals in use in accordance with DEQ VPDES permit 0089320. The permit requires that the updated inventory be submitted 30 days prior to any intended changes.

Joint Assessment Report text: The last record of submission of chemical inventory for the cooling tower unit does not reflect the current inventory of cooling tower chemicals in use. The permit requires that the updated inventory be submitted 30 days prior to any intended changes. There is evidence of the permit-required annual inspection for the cooling tower; in fact inspections are conducted more frequently. There have been no reports of unusual or extraordinary discharges associated with the permit.

Supplementary Information: The team leader stated this information had been sent and copied to the DOE Log. The sent email could not be found on the sender's email, nor was it found in the DOE Log. The team focused on the DOE Log aspect, since it is used pervasively across the site and it's organization could be a significant benefit to JLab.

Causal Analysis Determination: An organizational structure for retaining submitted information to the DOE Log is not available.

P2-003 – Confined space signage has fallen off the water meter pit cover in front of VARC Building. Permit- required confined spaces must be posted per 1910.146 (c) (2) and warrants an extent of condition assessment.

Joint Assessment Report text: One safety-related finding associated with the observation was noted: confined space signage has fallen off the water meter pit cover in front of VARC Building 28. This finding warrants an extent of condition assessment

Supplementary Information: JLab has pursued more robust solutions such as using bolts or integrated metal signs, however the water meter and pit are owned by the City of Newport News and this request has been denied per an FML team member. This caused us to steer the causal analysis away from mechanical solutions.

An extent of condition analysis has been completed; there are two other locations on site, both owned by the City of Newport News, susceptible to this issue.

References

1910.146(c)(2)

If the workplace contains permit spaces, the employer shall inform exposed employees, by posting danger signs or by any other equally effective means, of the existence and location of and the danger posed by the permit spaces.

NOTE: A sign reading DANGER -- PERMIT-REQUIRED CONFINED SPACE, DO NOT ENTER or using other similar language would satisfy the requirement for a sign.

TITLE 40--PROTECTION OF ENVIRONMENT AGENCY (CONTINUED) PART 273--STANDARDS FOR UNIVERSAL WASTE MANAGEMENT--Table of Contents Subpart B--Standards for Small Quantity Handlers of Universal Waste Sec. 273.14 Labeling/marking.

A small quantity handler of universal waste must label or mark the universal waste to identify the type of universal waste as specified below:

(a) Universal waste batteries (i.e., each battery), or a container in which the batteries are contained, must be labeled or marked clearly with any one of the following phrases: ``Universal Waste--Battery(ies), or ``Waste Battery(ies)," or ``Used Battery(ies);"

(b) A container, (or multiple container package unit), tank, transport vehicle or vessel in which recalled universal waste pesticides as described in 40 CFR 273.3(a)(1) are contained must be labeled or marked clearly with:

- (1) The label that was on or accompanied the product as sold or distributed; and
- (2) The words ``Universal Waste-Pesticide(s)" or ``Waste- Pesticide(s);"

(c) A container, tank, or transport vehicle or vessel in which unused pesticide products as described in 40 CFR 273.3(a)(2) are contained must be labeled or marked clearly with:

(1)(i) The label that was on the product when purchased, if still legible; (ii) If using the labels described in paragraph (c)(1)(i) of this section is not feasible, the appropriate label as required under the Department of Transportation regulation 49 CFR part 172; (iii) If using the labels described in paragraphs (c)(1) (i) and (ii) of this section is not feasible, another label prescribed or designated by the waste pesticide collection program administered or recognized by a state; and

(2) The words ``Universal Waste-Pesticide(s)" or ``Waste- Pesticide(s)." [[Page 415]]

(d) Universal waste thermostats (i.e., each thermostat), or a container in which the thermostats are contained, must be labeled or marked clearly with any one of the following phrases: ``Universal Waste- -Mercury Thermostat(s)," or ``Waste Mercury Thermostat(s)," or ``Used Mercury Thermostat(s)".

(e) Each lamp or a container or package in which such lamps are contained must be labeled or marked clearly with one of the following phrases: ``Universal Waste-- Lamp(s)," or ``Waste Lamp(s)," or ``Used Lamp(s)". [60 FR 25542, May 11, 1995, as amended at 64 FR 36489, July 6, 1999]

TITLE 40--PROTECTION OF ENVIRONMENT AGENCY (CONTINUED) PART 273--STANDARDS FOR UNIVERSAL WASTE MANAGEMENT--Table of Contents Subpart B--Standards for Small Quantity Handlers of Universal Waste Sec. 273.15 Accumulation time limits.

(a) A small quantity handler of universal waste may accumulate universal waste for no longer than one year from the date the universal waste is generated, or received from another handler, unless the requirements of paragraph (b) of this section are met.

(b) A small quantity handler of universal waste may accumulate universal waste for longer than one year from the date the universal waste is generated, or received from another handler, if such activity is solely for the purpose of accumulation of such quantities of universal waste as necessary to facilitate proper recovery, treatment, or disposal. However, the handler bears the burden of proving that such activity is solely for the purpose of accumulation of such quantities of universal waste as necessary to facilitate proper recovery, treatment, or disposal.

(c) A small quantity handler of universal waste who accumulates universal waste must be able to demonstrate the length of time that the universal waste has been accumulated from the date it becomes a waste or is received. The handler may make this demonstration by:

- (1) Placing the universal waste in a container and marking or labeling the container with the earliest date that any universal waste in the container became a waste or was received;
- (2) Marking or labeling each individual item of universal waste (e.g., each battery or thermostat) with the date it became a waste or was received;
- (3) Maintaining an inventory system on-site that identifies the date each universal waste became a waste or was received;
- (4) Maintaining an inventory system on-site that identifies the earliest date that any universal waste in a group of universal waste items or a group of containers of universal waste became a waste or was received;
- (5) Placing the universal waste in a specific accumulation area and identifying the earliest date that any universal waste in the area became a waste or was received;
or
- (6) Any other method which clearly demonstrates the length of time that the universal waste has been accumulated from the date it becomes a waste or is received.

Parking Lot

- No issues