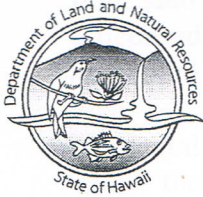


LINDA LINGLE
GOVERNOR OF HAWAII



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LAND
STATE PARKS

REF:OCCL:TM

ENF: HA 09-53

OCT 13 2009

Richard Chamberlain, Manager
Caltech Submillimeter Observatory (CSO)
111 Nowelo Street
Hilo, HI 96720

Dear Mr. Chamberlain:

SUBJECT: Hydraulic Fluid Release at the Caltech Submillimeter Observatory (CSO) Located at Mauna Kea, island of Hawaii, TMK: (3)

The Office of Conservation and Coastal Lands (OCCL) has reviewed your information regarding the response to a hydraulic fluid release that occurred on or about May 17, 2009. What is believed to be 22.7 gallons of Chevron Rykon Oil AE hydraulic fluid, spilled onto the concrete floor inside the observatory. The majority of the fluid was recovered as it was contained on the concrete floor of the facility. However, approximately (\approx) 7 gallons \pm 5 gallons may have been released to backfill beneath the observatory through a 6" drain hole in the concrete floor used to drain seasonal snowmelt.

This fluid release was reported to the Office of Mauna Kea Management (OMKM) and the Coast Guard's National Response Center (NRC). Myounghee Noh & Associates, LLC (MNA), an environmental consulting firm, was contracted by CSO to assist with the required notifications, assessment, cleanup and mitigation of the released hydraulic fluid. Consultant MNA, carried out the required notifications to the State Department of Health (DoH) Office of Hazard Evaluation and Emergency Response (HEER), the Hawaii County Fire Department and the County's Local Emergency Planning Committee. HEER had received the NRC Incident Report and the release was assigned case # 20090527-1500. In addition, the OCCL is in receipt of MNA's Report and Response to this incident.

The concrete floor slab in the area of the drain was \approx 12" thick. MNA hand excavated into the drain hole \approx 24" and removed visibly contaminated material and collected soil samples. The sample was handled and tracked in accordance with the HEER Office and transported to Curtis and Tompkins analytical laboratory in Berkeley, Ca. for analysis of Total Petroleum Hydrocarbons (TPH) as diesel (TPH-D), motor oil (TPH-O), and hydraulic fluid (TPH-HF) by the U.S. Environmental Protection Agency Method 8015M.

Based upon the initial findings, additional backfill was removed from under the concrete slab floor. The total excavation extents were between 55"-57" inches in depth from the top of the

floor slab and $\approx 4'$ in width and length. The potentially contaminated backfill was removed and a licensed waste transporter, Pacific Commercial Services transported 3,500 lbs. of the backfill and 1,000 lbs. of spent absorbent material from the CSO to the West Hawaii landfill.

Incidental to the mitigation efforts, MNA found a shallow 2-inch contaminated backfill just below the slab of unknown lateral extent. It was concluded that this was a previous incident possibly during the construction phase before the slab was poured more than 20 years ago. It has been recommended that the cleanup of this material be deferred until the decommissioning of the CSO facility in 2016.

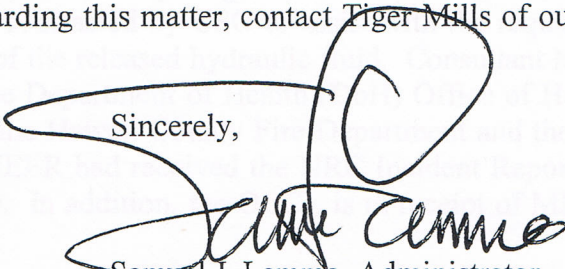
The DoH has concluded that the completion of the removal actions for the hydraulic spill has been completed. A "No Further Action" is pending upon completion of additional investigation and/or cleanup actions that will be undertaken when the CSO is decommissioned.

The faulty hydraulic line was replaced with a higher psi-rated line. The excavated drain hole in the slab was temporarily sealed with a metal plate and inspection and preventative maintenance procedures were improved to prevent fluid releases. With concurrence from DoH and DLNR, the CSO proposes to backfill the excavation with clean fill material sourced from an OMKM source and repair the opening in the observatory floor with concrete. No drain hole will be present.

Based upon the appropriate actions taken by the CSO, the OCCL believes that this matter has been resolved as CSO has taken measures to comply with all applicable statutes, ordinances, rules and regulations of the Federal, State and County governments and applicable Public Health regulations as specified in Conservation District Use Permit (CDUP) HA-1492. The OCCL concurs that the subject area may be backfilled with clean fill material sourced by the OMKM to repair the floor opening. As a decommissioning plan is part of the Mauna Kea Comprehensive Management Plan, please share your plans for the 2016 decommissioning of the CSO facility with the OMKM.

Should you have any questions regarding this matter, contact Tiger Mills of our Office at (808) 587-0382.

Sincerely,



Samuel J. Lemmo, Administrator
Office of Conservation and Coastal Lands

C: Chairperson
HDLO
OMKM