

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 23, 2009

MEMORANDUM FOR: Timothy Dwyer, Technical Director
FROM: Jonathan Plaue, DNFSB Site Representative
SUBJECT: LLNL Activity Report for Week Ending October 23, 2009

Management: The Office of Health, Safety and Security (HSS) was at the laboratory this week to perform its biennial independent Environmental, Safety, and Health inspection. Given recent HSS management direction, this will likely be the last large-scale oversight inspection. Elements of this review already appeared to transition to a style of mission support and assistance. The two week effort will also include a substantial portion of the data gathering and work observation necessary to support Phase II verification of the site's Integrated Safety Management system.

Plutonium Facility: On October 19, 2009, the Livermore Site Office (LSO) directed the laboratory to delay efforts to install pressure differential monitoring equipment across the first bank of the final stage of the facility's High Efficiency Particulate Air (HEPA) filters. This upgrade, with an estimated cost of \$250-500K, would have provided indication of potential filter plugging to the facility operations center. The need for this upgrade first arose during a previous HSS inspection from questions surrounding the ability of the HEPA filters to survive soot loading during fire scenarios. A precursor of this upgrade was also identified in a letter to the Board dated July 8, 2008, which provided the results of the confinement ventilation system evaluation report per Recommendation 2004-2, *Active Confinement Systems*. As a result of a complex-wide working group on the matter, the upgrade approach evolved from using a threshold pressure differential to trigger an automated shutdown of the fans to simply providing the information to a location accessible by emergency responders and incident command. These individuals would then decide if action was necessary to prevent HEPA filter failure. Currently, incident command has indication of HEPA filter failure via stack monitors—HSS plans to examine the adequacy of the procedures and training supporting a response using this information. The LSO letter stated that this upgrade was not required for compliant operations of the facility in its current state and that future operations at lower inventory levels may no longer require a credited active confinement ventilation system. LSO further stated that it will make a final determination once the enduring radiological inventory is established based upon future programmatic needs. A timeframe for establishing this baseline inventory was not provided and has not been otherwise formalized.

Tritium Facility: The laboratory readiness assessment of the tritium device grinder system was performed this week. The grinder system is used to recover tritium from illumination devices (e.g., telephone dials) and the resulting debris is disposed of as low-level waste. Results of the assessment are expected next week.

A critique was held to discuss the response to the contaminated rainwater leaks identified in last week's occurrence report. Issues discussed for corrective action included: timely response to reports of abnormal situations, spill size definitions and response, and contamination reportability criteria for liquid puddles versus surface area.