

Information Bulletin

This Bulletin is being provided to you for review, analysis, and internalization as applicable.

Date: February 13, 2006

Identifier: 2006-RL-HNF-0004

Title: Nuances in a Documented Safety Analysis (DSA) May Cause Inadvertent Violations of the Safety Basis

Lessons Learned Summary: Technical Safety Requirements (TSR) and Administrative Controls (AC) are placed in DSA documentation to provide guidance and direction to ensure operational activities do not cause scenarios that are outside the boundaries of analyzed events. Personnel conducting work under the controls specified in the TSR and AC of the DSA must have reasonable knowledge of these controls to recognize how nuances caused by unusual/abnormal operational activities may affect the safety basis.

Discussion of Activities: During routine operations in a Transuranic (TRU) Waste storage area, a forklift became stuck in loose soil. No AC precluded abandoning the forklift in the TRU storage area. It was later determined that once the forklift became immobile it was considered to be a non-transient combustible material, for which there was an AC requiring action. However, none of the personnel involved recognized this subtle change in the classification of the forklift, its impact on the safety basis, or the controls to be implemented. This misunderstood change in classification led to a potential to exceed a TSR.

Analysis: This event highlights subtleties of administrative controls within a DSA. A vehicle is recognized as a transient combustible and is usually allowed by the DSA. When the forklift became stuck it became a non-transient combustible. Non-transient combustibles are a hazard anticipated in the Safety Basis. The hazard control requires the establishment of a fire watch and remove the non-transient combustible within 8 hours or to stop hot work (to protect the assumption of an unlikely fire). Personnel involved in the activity did not understand how the safety basis was impacted by the immobile forklift and did not take immediate actions to ensure compliance with the AC. The forklift was removed within the allotted 8 hours preventing a violation, but this was primarily due to circumstances versus awareness and taking the proper actions to mitigate the event.

Recommendations: Personnel must have an awareness of unusual conditions which may occur during operational activities and have a questioning attitude about how those conditions may impact their safety envelope. Training and qualification activities for personnel should provide sufficient knowledge to be able to assess abnormal conditions and take appropriate actions or to take an action to notify someone with sufficient knowledge and expertise to make an appropriate determination.

Priority Descriptor: BLUE/Information

Originator: Fluor Hanford, Inc., Submitted by Chuck Ames

Contact: Project Hanford Lessons Learned Coordinator; (509) 372-2166; e-mail:
[PHMC Lessons Learned@rl.gov](mailto:PHMC_Lessons_Learned@rl.gov)

References: Occurrence Report: EM-RL-PHMC-2005-0021

Distribution: General