DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 20, 1996

TO: G. W. Cunningham, Technical Director

FROM: P.F. Gubanc & D.G. Ogg, Hanford Site Representatives

SUBJECT: Activity Report for Week Ending December 20, 1996

A. Construction Inspection: At Hanford, the final acceptance inspection for the government on construction projects is called the Title III Inspection. Since DOE-RL does not employ inspectors, past practice was to use the site M&O contractor to perform Title III inspections. Under the new M&I contract, however, Fluor Daniel *Northwest* (FDNW, not the integrating contractor), has acquired the Title III inspection duties. Unfortunately, FDNW also commonly acts as a constructor on site projects and is not directly under contract to DOE-RL. This apparent conflict of interest and lack of DOE-RL control is discussed in a DOE-RL "white paper" dated November 4, 1996. Mr. Gubanc has provided this paper to the technical and legal staff (Blackman and Azzaro) for their review.

In addition to the above, the site reps have seen a variety of indicators in 1996 that suggest construction projects on-site are not sufficiently controlled to assure long-term safety and functionality. The site reps will be in touch with the Board's staff to suggest possible focus areas for additional staff review.

B. Cesium Transport Under Leaking Tanks: A long-held position at Hanford is that Cs-137 released from leaking tanks is highly immobile in the vadose zone and thus not a substantial threat to the watertable. This past summer, the site's vadose zone monitoring program announced that it had detected Cs contamination in tank farm drywells at depths up to 130 feet (tank bottom is at about 55 feet). Unfortunately, due to past flooding of these drywells, the source of the Cs contamination was indeterminate (i.e., tank leakage or surface contamination washed down the drywell.) DOE-RL undertook to drill new drywells in SX farm to eliminate this uncertainty.

This week, the survey of a new drywell adjacent to tank SX-109 identified Cs contamination levels similar to an "old" drywell 5.3 feet away. The data suggests that Cs migration may occur much faster than previously thought. We are providing the data to Steven Stokes as we receive it.

C. Spent Nuclear Fuel (SNF) Project: Mr. Ogg attended two meetings of the SNF project during the week. The first was a Critical Decision meeting in which Duke Engineering Services Hanford (DESH) requested that DOE-RL approve early release for the fabrication of the first two SNF cask and transportation systems. Currently, DESH is conducting their final review of the Safety Analysis Report for Packaging (SARP) and has delivered a draft to DOE, but approval of the final SARP is not expected until March, 1997. DESH and DOE-RL indicated that they are confident that the current design of the cask and transportation system will not change as a result of the SARP review.

In the second meeting, DESH presented the monthly SNF program review. In general, all sub- projects are proceeding as planned, but are straining to meet schedule and budget commitments. DESH confirmed that, due to rebar placement delays, the earliest that concrete placement can occur for the deck of the Canister Storage Building (CSB) is January 21, 1997. Additionally, DESH reported that a fully integrated project schedule had been developed, but DESH did not present details as the schedule had not been fully reviewed.

Further detailed information should be available at the end of the month. However, it is possible that the integrated schedule will indicate a slip in the milestone date for commencement of SNF removal from the K-Basins.

D. Fluor Daniel Hanford (FDH) ES&H Management Plan: On December 19, FDH presented its draft ES&H Management Plan to DOE-RL (final issuance is due December 31). During this presentation, DOE-RL and Mr. Gubanc made the following observations:

1. FDH has not defined how the ES&H Plan relates to and is sequenced with other FDH plans. These plans include the Management and Integration Plan, the Systems Engineering Management Plan, the Risk Management Plan and others (there are over 15 different plans due in the next three months). All of these plans were required of FDH by their contract with DOE.
2. FDH has not defined the sequence and content of ES&H Plan implementation. The current ES&H Plan (not unexpectedly) is not implementable at the working level.
3. Plans do not implement, working-level procedures do. FDH has not clearly coupled ES&H Plan implementation to the review of existing procedures.
4. FDH's ES&H Plan is silent on how the existing ES&H system will be maintained until deliberately supplanted by FDH's new ES&H system.

The Site Reps will review the FDH ES&H Plan when it is issued.

cc: Board Members