

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 30, 2000

TO: K. Fortenberry, Technical Director

FROM: M. Sautman and S. Stokes, Hanford Site Representatives

SUBJ: Activity Report for the Week Ending June 30, 2000

Hanford Fire: On Tuesday, a traffic accident on a highway passing through the Hanford reservation started a fire that quickly spread through the Hanford reservation. Nonessential workers in 200 West were sent home Wednesday morning due to thick smoke. When the fire crossed the highway late Wednesday afternoon and started to move toward 200 West, the Hanford Emergency Operations Center (EOC) was activated. An alert was declared and Take Cover sirens were initiated for 200 East and West. Wednesday evening, firefighters battled fires that threatened the Central Waste Complex (CWC) and the 222-S analytical laboratory (which contains several hot cells). The CWC stores thousands of 55-gallon drums containing radioactive and hazardous waste. Plutonium facilities such as 233-S and REDOX are immediately behind 222-S. A loss of power, caused a 1 second loss of alarms at several facilities. The EOC lost power Thursday morning but emergency operations were not impacted due to emergency power activation. As the night progressed, 222-S and the HAMMER training facility were evacuated. Thursday morning, fires approached the 300 area and the Fast Flux Test Facility. The major concern were 260 drums containing depleted uranium metal turnings and chips in mineral oil stored above ground near the 618-4 burial ground north of the 300 area. Luckily, the fire was halted by fire breaks and was eventually put out prior to reaching these drums. Throughout the day, firefighters established fire breaks along the 200, 300, and 400 areas and several aerial drops of fire retardant were made. Late Thursday night, 200 East tank farms lost power. This shut down their ventilation systems for approximately 3 hours. Recovery actions after resumption of power have returned the farms to normal operating conditions. By Friday morning, there were no active fires and demobilization of firefighters had begun.

The fires burned over 3 closed radioactive waste sites: the B/C cribs (contains low-level uranium-bearing waste from U Plant), the 216-S-16 and -19 Ponds (accepted low-level liquid effluents from REDOX and 222-S), as well as the Bechtel Nonradioactive Dangerous Waste Landfill. Although smoke was heavy at times, there were no reports of inlet filters plugging anywhere. The Plutonium Finishing Plant was never in danger although it had only one 13.8 kV electrical supply available and no backup steam supply to the ventilation exhaust fan turbines for a while.

Nearly 1000 firefighters from multiple public agencies and private contractors helped fight the fire on the Hanford reservation and surrounding areas. Reports indicate that 250 square miles of the Hanford reservation have burned. Throughout the event, several field sampling teams consisting of site personnel, the Washington Department of Health, and the Environmental Protection Agency took air and other environmental samples. All reports to date have found only background levels of contamination and radiation. The Washington governor was on-site Thursday and the Secretary of Energy visited the site Friday. Access to the Hanford reservation was still being restricted on Friday. The Recovery Plan has been developed and re-entry teams began entering facilities to assess damage and survey for contamination Friday.

The Site Representatives have been observing operations in the EOC during this event. Actual firefighting strategies are being directed from the incident command post, which has been at a variety of off-site locations. Benton County has been responsible for off-site protective actions and on-site protective actions have been limited to the initial Take Cover alarm (which was lifted early Thursday morning). Since there have not been any releases of radioactive material no other response actions have been needed. Thus the EOC's responsibilities have been mostly limited to harnessing and directing site resources, providing technical support, directing field sampling teams, and related activities. Things went fairly smooth in the EOC, although status updates became more infrequent as the firefighting efforts progressed. The Department of Energy made sure that several of the lessons learned from the Los Alamos fire were addressed.

cc: Board members