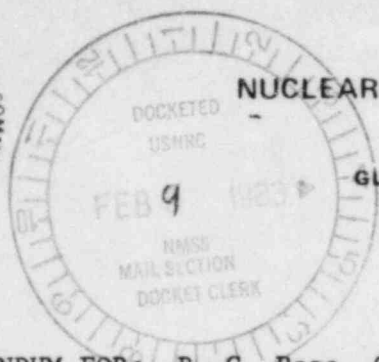


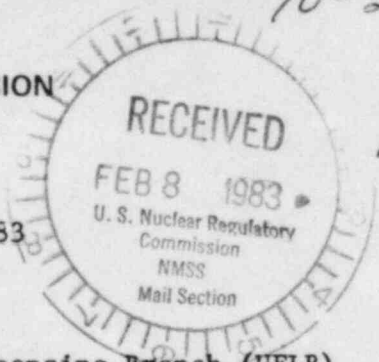
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39655



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
799 ROOSEVELT ROAD
GLEN ELLYN, ILLINOIS 60137

January 19, 1983



MEMORANDUM FOR: R. G. Page, Chief, Uranium Fuel Licensing Branch (UFLB)

FROM: C. J. Paperiello, Chief, Emergency Preparedness and Program Support Branch, Region III

SUBJECT: DEMOLITION OF THE KERR MC GEE FACTORY SITE, WEST CHICAGO, ILLINOIS - NRC LICENSE STA-583

This is in response to a UFLB information request from W. Nixon, of your staff, regarding the above licensee relevant to the informal hearings being conducted by Mr. D. B. Mausshardt. The following summary of demolition activities is based on inspection notes, reports, and onsite/near site observations. Should further or more detailed information be required, please refer to the inspection reports forwarded to your office or call me.

In general, building demolition has been conducted neatly and with minimal offsite impact. Region III inspectors have been onsite and/or near site during significant demolition with the greatest offsite potential, including demolition of certain exterior wall segments of Buildings 1 and 3, the thorium oxide room, the barnsite room, and the removal and cleaning with a vacuum cleaner the barnsite and Building 4A baghouses. During demolition, exterior walls are shored to prevent rubble from breaking the perimeter fence and spilling into the street. The walls are surveyed, washed to remove any loose contamination, and spray painted in the case of fixed contamination (thorium oxide room). The walls are either misted with water as they are knocked down or collapsed into a layer of fire fighting foam. Rubble is segregated into piles onsite, i.e. combustibles, bricks, metals; some of the metal is surveyed for compliance with "Draft Guidelines for Unrestricted Release" and shipped offsite for scrap reclamation. Contaminated material is boxed for ultimate disposal. An abutment or retainer wall is maintained around demolished sections to minimize offsite runoff.

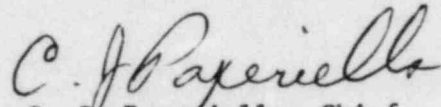
Baghouses are vacuummed to remove any loose particulate activity. Filters are removed and boxed as contaminated material prior to dismantling of the baghouse. A tent-like structure maintained under negative pressure to promote inflow air leakage was built around the Building 4A baghouse during cleanup operations. Workers wore full face respirators inside the baghouse and half face respirators inside the tent. Two air samples collected by NRC inspectors from each baghouse demolition indicated no detectable long lived concentrations above ambient background levels when analyzed for gross alpha and beta activities. Licensee values for grab air samples collected offsite downwind during baghouse operations were

less than 20% MPC unrestricted concentrations; the average concentrations for the continuous environmental air sample stations in this case were approximately 2% or less MPC unrestricted values. Reported offsite air sampling values during factory demolition are approximately one to two orders of magnitude less than MPC unrestricted levels.

Releases to the storm sewer - water runoff collection from misting procedures and rainwater runoff - are less than 10% MPC unrestricted for 1982. Laundry releases to the sanitary sewer are less than unrestricted MPC values when monthly averaging and dilution factors are applied.

Direct whole body exposures to the workers average 10-20 millirem per month according to film badge records. The highest reported exposure to a worker was 80 millirem per month during packaging of rare earth material in Building 19 on the disposal site. The highest confirmed worker airborne exposure was 32.5 MPC hours for the second quarter, 1982 during Building 4A baghouse cleaning and dismantling.

A twenty-four hour guard service makes hourly patrols after normal working hours. The perimeter fence integrity is intact.



C. J. Paperiello, Chief
Emergency Preparedness and
Program Support Branch

cc: ✓ W. Nixon, UFLB, NMSS
D. B. Mausshardt,
Deputy Director, NMSS