

MEMORANDUM FOR: Richard E. Cunningham, Director

Division of Industrial and Medical Nuclear Safety  
Office of Nuclear Material Safety and Safeguards

FROM: i. Philip Stohr, Director  
Division of Radiation Safety and Safeguards  
SUBJECT: REGION II REVIEW OF OAK RIDGE NATIONAL  
LABORATORY (ORNL) LIST OF POTENTIALLY  
CONTAMINATED SITES

In response to your memorandum dated June 22, 1992, my staff has performed a review of those terminated licensees in Region II with evaluation rankings above 300 on the ORNL list. Information used for the evaluation included a review of the retired files sent to us by members of your staff and ORNL, the ORNL evaluation sheets, interviews with current and former Region II staff, representatives from the State of Tennessee, and in the case of Babcock & Wilcox, Naval Nuclear Fuel Division (B&W, NNFD), a discussion with licensee representatives. The original ORNL listing of licenses identified six sites with evaluation rankings above 300. However, a subsequent ORNL reevaluation provided to RII subsequent to your June 22, 1992 memorandum, resulted in the removal of United States Nuclear Corporation from the original list. As noted on the enclosed Region II fact sheets which were generated from our evaluation, five former Region II licensees have a ranking of 300 or greater.

Based upon our review of the original six RII sites ranked above 300, we are recommending that four of the sites be removed from the list with our justification for those recommendations being described in the enclosed fact sheets. For the remaining sites on the list, we are evaluating available options to assess the current condition of the site.

If you have any questions regarding our evaluation please contact George B. Kuzo of my staff at (404) 331-2560. We will keep you apprised of our followup actions for any of the sites mentioned above.



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION II  
101 MARIETTA STREET, N.W.  
ATLANTA, GEORGIA 30323

SEP 14 1992

*J. Philip Stohr*  
J. Philip Stohr

Enclosure: (See page 2)

Enclosure:  
Region II Fact Sheets

cc /encl:  
R. Cooper, RI  
C. Norelius, RIII  
L. Callan, RIV  
R. Scarano, RV  
R. Bangart, NMSS

Union Carbide Corporation (SNM-007 24, 70-00784)

Location: Building 10  
(3 miles south of Lawrenceburg,  
TN)  
Lawrenceburg, TN 38464

Activity: Nuclear fuels development using high-  
enriched uranium.

ORNL

Concerns:

- materials
- 1) License was for loose materials, or handled in loose form.
  - 2) High likelihood that activity could have generated significant contamination.
  - 3) There was evidence of serious releases to the environment.
  - 4) There was high turnover of materials in the facility.
  - 5) There was limited use of glove boxes, hoods, or protective clothing.
  - 6) There was significant generation of waste material in routine cleanup of facility.
  - 7) There was some check for alpha *contamination*, but not thorough.
  - 8) There was not an NRC final *inspection of the* facility.

Region II Remarks:

- 1) Based on September 1992 discussions with the inspector who reviewed the adequacy of decommissioning activities, decon of the facility and machinery was effective.
- 2) January 6, 1965 report of explosion at facility stated that no offsite release of license material was identified as a result of a December 6, 1965 event.

- 3) A vendor conducted and documented results of a thorough closeout survey. These results were reviewed by a RII inspector and were determined to have met the criteria for release of buildings for unrestricted use. However, surveys of soil from outside areas were not conducted.
- 4) Closeout survey results of building/facilities were verified by a confirmatory survey conducted by RII personnel. Results of the NRC survey were summarized in a RII IR 70-0784/74-1, dated May 20, 1974. However, no confirmatory surveys of soil adjacent to the facility were conducted.

Regional Recommendation :

RII representatives are evaluating options for determining the current status-of the facility. From discussions with cognizant inspectors, all buildings and equipment were determined to be free of contamination. However, results regarding level of contamination for soil in the immediate area were not available. RII is currently evaluating the need to collect supplemental building and soil samples for additional confirmatory measurements.