

U. S. NUCLEAR REGULATORY COMMISSION  
REGION I

Report Nos.: 50-54/92-02 and 70-687/92-01

Docket Nos.: 50-54 and 70-687

License Nos.: R-81 and SNM-639

Licensee: Cintichem, Inc.  
P. O. Box 816  
Tuxedo, New York 10987

Facility Name: Research Reactor and Radiochemical Processing Laboratory

Inspection At: Tuxedo, New York

Inspection Conducted: February 6, 1992

Inspector: *W. Dragoun* 3/9/92  
Thomas Dragoun, Project Scientist, Effluents  
Radiation Protection Section (ERPS), Facilities  
Radiological Safety and Safeguards Branch (FRSSB)  
date

Approved By: *Robert J. Bokes* 3/09/92  
Robert J. Bokes, Chief, ERPS, FRSSB,  
Division of Radiation Safety and Safeguards  
date

Areas Inspected: Status of improvements to the health physics program, conduct of interim and final closeout radiological surveys.

Results: No safety concerns or violations were identified. The licensee's progress with previously identified HP program improvements was satisfactory. The licensee's closeout radiological survey techniques were generally acceptable. No difficulties in coordinating surveys between ORAU/NRC and the licensee are anticipated.

## DETAILS

### 1.0 Persons Contacted

J. Adler, Manager, Health, Safety, and Environmental Affairs (TLG)  
J. McGovern, Plant Manager  
F. Morse, Project Manager, Decommissioning

Above personnel attended the exit interview on 2/6/92.

### 2.0 Health Physics Program

During an inspection in December 1991, the inspector noted that several HP positions were vacant as the result of a reorganization, and weaknesses were observed in the contamination control program. At that time the licensee also initiated action on several self-identified improvements in the HP program. The status of these items was determined from discussions with selected personnel and observations made by the inspector.

Both HP supervisory positions in the newly formed Dismantling and Decommissioning (D&D) Radiation Safety group were filled by highly experienced personnel. Two of eight new D&D HP Technician and three of five new Support-HP Technician positions were filled. The licensee expects to increase the number of HP Technicians in May 1992 to support two-shift operations. The inspector reviewed the resumes of the new HP supervisors and found these personnel qualified for the positions.

Improved signs and barricades for contaminated areas were in use. All D&D technicians attended a three-hour training session regarding the new control techniques.

Within the scope of this review, the licensee's progress was adequate.

### 2.0 Closeout Surveys

The licensee's equipment and techniques to be used for the closeout surveys of building surfaces and residual soil contamination were compared with the standard approach used by Oak Ridge Associated Universities (ORAU). ORAU is the organization that the NRC normally utilizes to conduct independent surveys for the agency to confirm that the NRC approved final release criteria for radiologically contaminated facilities have been met. It was determined that the techniques and sensitivities to be used by ORAU and the licensee were similar.

ORAU requested that the licensee provide split soil samples during the D&D and prior to the final survey to allow early identification of the radionuclide mixes. The licensee agreed. ORAU stated that their analytical results would be discussed with the licensee to allow comparison of results and verification of the licensee's laboratory

techniques. These matters will be reviewed in a future inspection.

The licensee stated that limits for residual building contamination are being developed based on guidance in NRC Regulatory Guide 1.86. The limits will reflect the radionuclide mixes found inside the buildings. The licensee stated that the results of these efforts will be provided to the inspector as soon as they are finalized. This matter will be reviewed in a future inspection.

The licensee noted that Task #33 of the Decommissioning Plan involves a termination survey of the buildings prior to razing the structures to allow removal of potential contamination behind walls and floors. The inspector stated that the NRC will conduct a confirmatory survey to verify the decontamination of the building prior to demolition. This is expected to occur in about May 1993.

#### 5.0 Exit Interview

The inspector met with the licensee representative indicated in Section 1.0 on February 6, 1992 and summarized the scope and findings of this inspection.