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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

DEC 15 1980



MEMORANDUM FOR: W. T. Crow, Section Leader
Uranium Process Licensing Section
Uranium Fuel Licensing Branch

FROM: N. Ketzlach
Uranium Process Licensing Section
Uranium Fuel Licensing Branch

SUBJECT: UNION CARBIDE FACILITY SITE VISIT TO REVIEW FUEL HANDLING
OPERATIONS RELATED TO LICENSE NO. SNM-639 (DECEMBER 10,
1980)

Purpose

To review the fuel handling operations of the Union Carbide facilities related to their SNM license which is now subject to renewal.

Place and Date

Union Carbide facilities at Tuxedo, New York, December 10, 1980.

Discussion

As project manager of the Union Carbide (UC) facility in Tuxedo, New York, A. T. Clark made a site visit in preparation for the review of the UC license renewal application (separate report to be prepared by Clark). I accompanied him on December 10, 1980, to become more familiar with the fuel handling activities and particularly with the nuclear criticality safety of the operations. The principal UC attendees during my visit were the following:

1. M. H. Voth, Manager Nuclear Operations
2. D. D. Grogan, Hot Laboratory Supervisor
3. F. J. Morse, Process Engineer

I reviewed the operations from receipt of the target U_3O_8 powder, preparation of the targets, uranium dissolution after irradiation, the uranium waste form processing and the packaging of the uranium wastes. The processing is a batch operation involving single targets ($\leq 15 \text{ g } ^{235}\text{U}/\text{target}$) and multiple groupings of target materials as solids or in solution. A good understanding of the operations and their locations within the facility was obtained.

UC has submitted an amendment application dated December 5, 1980 (which had not been received by the date of the site visit) requesting an exemption from the 70.24 (a) criticality alarm requirements. The application was discussed and the operation of the current criticality monitoring program reviewed. It appears that justification for the exemption has not been provided. A more

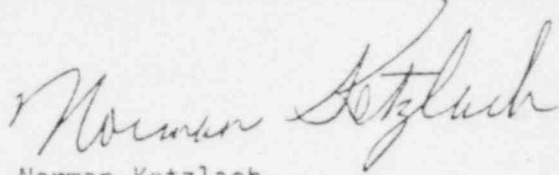
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detailed review of the application will be made after its formal receipt by the NRC. The site visit should provide good background information for our review.

Conclusion

The site visit was very useful in providing a better understanding of the UC operations and should help in the review of the renewal application and requests for license amendments.



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