

DOCKET NO. 70-687

REGULATORY FILE CY



UNION CARBIDE CORPORATION

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STERLING FOREST  
RESEARCH CENTER



June 29, 1973

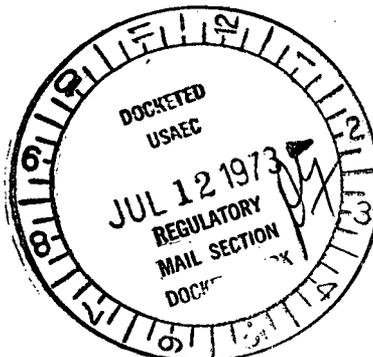
Mr. Ferman Stubblefield  
U.S. Atomic Energy Commission  
Division of Materials Licensing  
Fuel Fabrication & Transportation Branch  
Washington, D. C. 20545

Dear Mr. Stubblefield:

Pursuant to our telephone conversation today, the following supplemental information regarding the Hot Laboratory monitoring system is submitted in support of our license amendment application dated 2/8/73.

There was some question regarding the ability of the Hot Laboratory radiation monitoring system to detect an incident of criticality in a hot cell, particularly in the presence of a high background radiation level in the cell.

In the event of such an occurrence, there are particulate, gaseous and iodine radiation monitors on the exhaust ventilation system of the Hot Cells which would sound an alarm. Using the same basis for calculating the resultant radiation dose in the operating area of the Hot Laboratory, as was stated in our letter of 6/13/73, it can be determined that there would be no hazard to personnel. In the event of a criticality incident in a hot cell the magnitude of which is  $10^{17}$  fissions, the resultant dose from fission neutrons and gamma rays would be  $\leq 0.75$  Rem.



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In consideration of this analysis and the criticality controls to be utilized as outlined in our license amendment application dated 2/8/73 and 6/13/73, we believe that the granting of this amendment will not result in a hazardous condition. Thank you for your prompt consideration in this matter.

Very truly yours,

  
J. J. McGovern  
Superintendent  
Nuclear Operations

JJMcG:js

