



UNITED STATES  
ATOMIC ENERGY COMMISSION  
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File (KER, Docket No. 50-172)

THRU: R. J. Schemel, Chief, ORB #1, DRL  
*R. J. Schemel*

TERMINATION OF OPERATION (AMENDMENT NO. 10 AND CHANGE NO. 8)

By letter dated August 14, 1970, Lockheed-Georgia Company (LG) notified DRL that it is in the process of suspending operation of its Nuclear Laboratory at Dawsonville, Georgia, and that further operation of the Radiation Effects Reactor (RER) is not planned. The letter included an application for an amendment to License No. R-86 for the RER and for a change to the Technical Specifications appended to the license. The proposed amendment, which we have designated as Amendment No. 10, would permit LG to own but not to operate RER; and the proposed change, which we have designated as Change No. 8, would replace the existing Technical Specifications in their entirety and would reduce the surveillance and staff requirements for RER.

Proposed Change No. 8 is deficient in several respects. For example, the condition in which the reactor is to be maintained and control of contaminated areas are not specified. Further, the application does not contain a safety analysis.

In a letter dated October 6, 1970, LG stated that the reactor is in a safe condition and that they are not complying with certain technical specifications relating principally to operation of the reactor.

On January 29, 1971, LG revised their Proposed Change No. 8 in its entirety. The revised application was prepared after reviewing each section of the existing Technical Specifications to assure that all relevant areas are included in Change No. 8. The proposed specifications require that the reactor remain unloaded, include an inventory of core components, specify proper storage of them, permit the receipt of no additional fuel from outside the laboratory, and allow for disposal of all core components and byproduct material by approved means. The only installed instrumentation required by the proposed specifications is the criticality alarm located near the fuel storage pool and the pool level monitor. Use of portable instrumentation is permitted for radiation monitoring and for measuring the purity of the pool water. LG considers the control of water purity necessary to minimize fuel cladding corrosion. We conclude that LG has adequately defined the condition in which the reactor and its components will be maintained.

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The revised application satisfactorily shows that the used fuel will be adequately cooled by convective flow of air in the event that water is lost from the fuel storage pool. On this basis, LG proposes to delete the requirement for emergency power. To detect loss of water in the fuel storage pool and hence loss of shielding if it were to occur during a power outage, LG proposes periodic monitoring of the water level in the pool. Likewise, to provide the criticality alarm function during a loss of electrical power, LG proposes periodic monitoring of the radiation level above the pool with a portable instrument. We conclude that LG has supplied adequate justification for deletion of the requirement for emergency power.

Although LG proposes a specification requiring a criticality alarm in conjunction with 10 CFR 70.24, they have not provided a local alarm in the reactor building. In a telephone conversation on February 12, 1971, Mr. Dewar of LG agreed to a wording change in proposed Specification C.3 which would add a requirement for a local alarm. With this revision, we conclude that the criticality alarm is adequate.

LG proposes to continue unchanged environmental monitoring of the river, soil and vegetation, to reduce air sampling because the reactor will not be operated, and to eliminate the requirement for air sampling when fuel is removed from the pool. On February 16, 1971, Mr. Dewar agreed to make elimination of the air sampling requirement contingent on shipment of all fuel from the site. We conclude that the environmental monitoring is adequate.

By referring to 10 CFR 20 and delineating staff requirements in the proposed specifications, LG has satisfactorily provided for identification and control of radiation areas.

LG proposes to reduce the size of the reactor safety committee to four members having appropriate qualifications and the staff to a minimum of two, namely the reactor supervisor and a health physicist. These reductions are commensurate with the proposed status of the reactor.

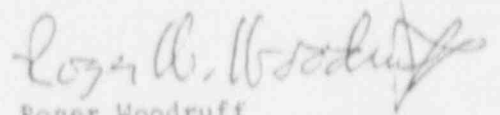
By memorandum dated October 9, 1970, Compliance commented on LG's proposal of August 14, 1970; and we conclude that their comments, except for 4 and 5.a, are significant. Comment 4 and part of Comment 5.a deal with portions of the nuclear laboratory not covered by License No. R-86 and hence these comments are not relevant to the requested action. The remaining comments are properly treated in LG's submittal of January 29, 1971.

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The proposed change does not present significant hazards considerations not described or implicit in the safety analysis report and there is reasonable assurance that the health and safety of the public will not be endangered.



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