



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

DOCKET  
SD-10

June 12, 1978

GL-78-17

Licensees for all Plants in the Systematic  
Evaluation Program

Gentlemen:

Due to an administrative error, the wrong May 17, 1978, letter regarding information on heavy loads over spent fuel was sent to you. Accordingly, please disregard that letter. The correct letter is attached.

Sincerely,

A handwritten signature in cursive script, appearing to read "Victor Stello, Jr.", written over a printed name.

Victor Stello, Jr., Director  
Division of Operating Reactors  
Office of Nuclear Reactor Regulation

Enclosure:  
Letter to Systematic Evaluation  
Program Licensees dtd. 5/17/78

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May 17, 1978

Licenses for all Plants in the Systematic  
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In January, 1978, the NRC published NUREG-0410 entitled "NRC Program for the Resolution of Generic Issues Related to Nuclear Power Plants." As part of this program, the Task Action Plan for Category A Technical Activity No. A-36, "Control of Heavy Loads Near Spent Fuel", was approved.

As you are aware, overhead handling systems are used to lift heavy objects in the vicinity of spent fuel in both PWRs and BWRs. If a heavy object, e.g., a spent fuel shipping cask or a shielding block, were to fall or tip onto spent fuel in the storage pool or the reactor core during refueling and damage the fuel, there could be a release of radioactivity to the environment and a potential for radiation over-exposures to inplant personnel. If the dropped object is large, and the damaged fuel contained a large amount of undecayed fission products, radiation releases to the environment could exceed 10 CFR Part 100 guidelines. These concerns are currently considered in licensing reviews. We believe there is a need to systematically review NRC requirements, facility designs and technical specifications regarding the movement of heavy loads, to assess safety margins and to improve those margins where warranted.

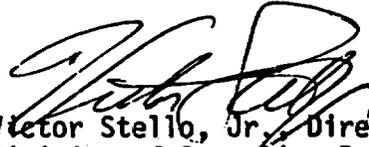
The staff efforts currently underway commenced with a detailed evaluation of current NRC requirements and licensee procedures for the movement of heavy loads near spent fuel. Based on the results of that evaluation assessments will be performed of the probabilities and consequences of heavy loads damaging spent fuel. A determination will then be made of the need for revising the Standard Review Plan, the Standard Format and Content of Safety Analysis Reports for Nuclear Power Plants and the Standard Technical Specifications.

All licenses except those in the Systematic Evaluation Program are being requested to provide information regarding the movement of heavy loads near spent fuel at their facilities. A copy of the information request is enclosed for your use. You need not submit this information for your facility at the present, however, it will be required and reviewed during the SEP program for your plant. This request has been reviewed by the General Accounting Office and approved under Clearance No. B-180225(R0522). This clearance expires February 28, 1981.

May 17, 1978

In the interim, while these efforts are ongoing, you should review your current procedures for the movement of heavy loads over spent fuel to assure that the potential for a handling accident which could result in damage for spent fuel is kept to a minimum.

Sincerely,



Victor Stello, Jr., Director  
Division of Operating Reactors  
Office of Nuclear Reactor Regulation

Enclosure:  
Information Request

Enclosure

INFORMATION REQUESTED

1. Provide a diagram which illustrates the physical relation between the reactor core, the fuel transfer canal, the spent fuel storage pool and the set down, receiving or storage areas for any heavy loads moved on the refueling floor.
2. Provide a list of all objects that are required to be moved over the reactor core (during refueling), or the spent fuel storage pool. For each object listed, provide its approximate weight and size, a diagram of the movement path utilized (including carrying height) and the frequency of movement.
3. What are the dimensions and weights of the spent fuel casks that are or will be used at your facility?
4. Identify any heavy load or cask drop analyses performed to date for your facility. Provide a copy of all such analyses not previously submitted to the NRC staff.
5. Identify any heavy loads that are carried over equipment required for the safe shutdown of a plant that is operating at the time the load is moved. Identify what equipment could be affected in the event of a heavy load handling accident (piping, cabling, pumps, etc.) and discuss the feasibility of such an accident affecting this equipment. Describe the basis for your conclusions.
6. If heavy loads are required to be carried over the spent fuel storage pool or fuel transfer canal at your facility, discuss the feasibility of a handling accident which could result in water leakage severe enough to uncover the spent fuel. Describe the basis for your conclusions.
7. Describe any design features of your facility which affect the potential for a heavy load handling accident involving spent fuel, e.g., utilization of a single failure-proof crane.
8. Provide copies of all procedures currently in effect at your facility for the movement of heavy loads over the reactor core during refueling, the spent fuel storage pool, or equipment required for the safe shutdown of a plant that is operating at the time the move occurs.
9. Discuss the degree to which your facility complies with the eight (8) regulatory positions delineated in Regulatory Guide 1.13 (Revision 1, December, 1975) regarding Spent Fuel Storage Facility Design Basis.

Commonwealth Edison Company

cc

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