



Docket No. 50-346
License No. NPF-3
Serial No. 605
April 1, 1980

RICHARD P. CROUSE
Vice President
Nuclear
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Director of Nuclear Reactor Regulation
Attention: Mr. Robert N. Reid, Chief
Operating Reactors Branch No. 4
Division of Operating Reactors
United States Nuclear Regulatory Commission
Washington, D. C. 20555

Dear Mr. Reid:

On February 25 and 26, 1980 Mr. C. Long of your staff led an NRC team visit to the Davis-Besse Nuclear Power Station Unit 1 facility to review the Toledo Edison implementation of short-term recommendations of your Lessons Learned Task Force. These recommendations were documented in your letter of October 30, 1979. On March 21, 1980 (Serial No. 601), Toledo Edison partially responded to requests and questions raised during the site visit. The attachment to this letter provides additional responses.

Very truly yours,

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Davis-Besse Unit 1
NRC Lessons Learned
Site Visit Documentation
February 25-26, 1980

2.1.6.b

2. Document effect of Auxiliary Building radiation levels on environmental qualification of ESF equipment. Provide schedule (3/31/80).

RESPONSE

On January 31, 1980 (Serial No. 585) Toledo Edison submitted "Design Review of Plant Shielding for Spaces Outside Containment Which May Be Used In Post-Accident Operations For Davis-Besse Nuclear Power Station, Unit 1". This evaluation produced post-accident radiation zone maps consistent with the assumed source terms requested in your letter of October 30, 1979 (Log No. 454).

Copies of the accident radiation zone maps and revision 1 of the design review were forwarded to you as Attachment D of Toledo Edison's March 31, 1980 letter (Serial No. 601). This study is being utilized as the basis for documenting the radiation effects on environmental qualification of safety grade equipment.

As discussed during the site visit, this request duplicates a detailed study already in progress in response to IE Bulletin 79-01B. The evaluation methodology uses an integrated 180 day dose that has been determined for each room based on the shielding review. Rooms that result in a 180 day dose greater than 10^5 rads are identified. They include room numbers:

105	227
113	236
115	303
208	304
209	314

The ongoing review of IE Bulletin 79-01B will cross-correlate the equipment locations with the high radiation dose areas. On a case-by-case basis the safety grade equipment will be:

- 1) Evaluated to determine what post-accident functioning is required, if any.
- 2) Identified as to the conditions it has been qualified to.
- 3) Reanalyzed, if necessary, to provide a realistic integrated radiation dose,
- 4) Shielded, if necessary, to reduce the radiation effects.
- 5) Requalified, if necessary, for the radiation conditions required.
- 6) Replaced, if necessary, with equipment qualified for the radiation condition.

This will ensure that safety grade equipment in the auxiliary building will be able to perform its intended function in a post-accident condition consistent with the results of the DB-1 shielding review. A copy of this evaluation being done in response to IE Bulletin 79-01B will be forwarded to your staff. It is expected to be submitted August 15, 1980.

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2.1.8.a

3. Describe the proposal for long term containment air/liquid sample analysis capability and schedule.

RESPONSE

A. Reactor Coolant Liquid Sampling

In order to improve the reactor coolant liquid sample location, DB-1 will be modified to add a sample line directly off a reactor coolant loop drain. This line will join with an existing pressurizer sample line to allow sample location selection remotely from the control room.

Reactor coolant analytical capability will be provided through the use of on-site evaluation of grab samples. This analytical capability is presently planned to include:

- 1) Radiological isotopic quantification
- 2) Boron concentration determination
- 3) Dissolved gas (hydrogen and oxygen) determination

The current target date for completion of this capability is the 1981 DB-1 refueling outage.

B. Containment Vessel Atmosphere Sampling

Hydrogen concentration of the containment vessel is currently provided by a hydrogen analyzer with a 0-5 percent range. This capability will be maintained and the current system modified to include a 0-10 percent range capability. This conversion is presently scheduled to be completed by January 1, 1981.

Toledo Edison will install a containment vessel atmosphere gross monitor with grab sample capability for particulate, iodine and noble gases. Current plans identify this modification to be installed during the 1981 refueling outage.

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2.1.8.b

4. Document position on installing high activity effluent monitors/in-containment monitors.

RESPONSE

Toledo Edison will modify the plant to provide high range noble gas and radioiodine effluent monitors for the containment vessel atmosphere and the station vent. Subject to equipment availability these monitors shall meet the requirements of Table 2.1.8.b.2 of your October 30, 1979 letter with the exception of ANSI N320-1979.

Toledo Edison will also modify the plant to provide high range in-containment vessel radiation monitors. Subject to equipment availability these will meet the requirements of Table 2.1.8.b.3 of your October 30, 1979 letter with the exception of ANSI N320-1979.

The current schedule is projected to have these monitors installed at DB-1 during the 1981 refueling outage.