

SEP 9 1975

Mr. George F. Murphy, Jr.
Executive Director
Joint Committee on Atomic Energy
Congress of the United States

POOR ORIGINAL

Dear Mr. Murphy:

This is in reply to your letter of July 25, 1975, to the Chairman requesting a full report on the remarks entered in the July 15, 1975, Congressional Record by Congressman Mottl of Ohio.

The NRC staff identified six matters in the remarks made by the Congressman which they believe should be addressed. The six are listed below in their order of appearance in the Congressional Record.

1. " ... nearly half of the vital safeguard systems at the Davis-Besse nuclear power plant were recently found to be defective."
2. " ... the probability of an accident is extremely remote. Obviously, this statement depends upon a 100 percent efficient operation of the nuclear power plant's safety-related equipment."
3. "Only a few weeks ago, workers at the nuclear power plant at Lusby, Maryland, were exposed to dangerous radiation after a reactor coolant pump malfunctioned."
4. "The short history of our operation of nuclear power stations has been replete with malfunctions of the safety-related systems. Luckily, the public has not yet been subjected to a catastrophic accident."
5. "It must be stressed that a large nuclear reactor accumulates an enormous amount of dangerous and highly toxic materials during normal operation, roughly 1-1/2 tons of such material, nearly one-fifth of which is gaseous or volatile. The detonation of the nuclear weapon over Hiroshima produced only about two pounds of these materials."

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- 6. "I wish ... to urge more stringent inspections of this plant, the projected Parry nuclear complex and all nuclear power plants under construction."

The staff has prepared a response to each of Congressman Mottl's concerns and each is included as a separate enclosure to this letter. Both the newspaper article by Mr. Thomas J. Quinn and the editorial which Congressman Mottl read into the Congressional Record have to do with the electrical problems NRC inspectors recently discovered at the Davis-Besse Nuclear Power Station. These electrical problems are fully described in Enclosure 1.

I trust this will be responsive to your needs.

Sincerely,

(Signed) Lee V. Gossick

Lee V. Gossick
Executive Director for
Operations

Enclosures (6):

1. Response to statement concerning electrical problems at Davis-Besse with 5 attachments
2. Response to statement concerning necessity for 100% efficient operation of safety-related equipment
3. Response to statement concerning event at Calvert Cliffs Nuclear Station with 3 attachments
4. Response to statement concerning malfunctions of safety-related systems
5. Response to statement comparing the amounts of radioactive materials in a reactor and an atomic bomb
6. Response to request for more stringent inspections at nuclear power plants

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FO:IE ^{RFW}
RFWarnick
8/26/75

FO:IE
HDThornburg
8/ /75

EDO ^{LVG}
LVGossick
8/ /75

OCA
8/ /75

OFFICE	FO:IE	IE	Concurred by phone NRR Memo to Follow.	SD concerned by telephone	Hartfield MIPC concerned by phone for	T P Engstrom ELD concerned memo
SURNAME	JGDavis	BFKnuth	BCRusche	RBMingue	WGMcdonald	JPMurray
DATE	8/ /75	8/4/75	8/27/75	8/26/75	8/26/75	8/27/75

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Enclosure 1

Response to Congressman Mottl's statement that "... nearly half of the vital safeguard systems at the Davis-Besse nuclear power plant were recently found to be defective" and to the quoted newspaper article and editorial concerning recent electrical problems found by the NRC at Davis-Besse, Unit 1.

Congressman Mottl's statement that "... nearly half of the vital safeguard systems at the Davis-Besse nuclear power plant were recently found to be defective" would have been more precise if it stated that "... nearly half of the electrical control and power cable installations for vital safeguard systems examined by NRC inspectors at the Davis-Besse nuclear power plant were recently found to be defective." The NRC inspectors sampled 51 out of about 700 cable installations.

On May 19-22, 1975, the Nuclear Regulatory Commission's Office of Inspection and Enforcement, conducted an inspection of installed safety-related electrical work at the Toledo Edison Company's Davis-Besse Nuclear Power Station construction site. In a sample of 51 cables examined, NRC inspectors found one or more installation deficiencies with 24 of the cables. These installation problems included failure to meet separation and seismic criteria, improper routing, inadequate testing, and damage to cable insulation. Details of the inspection and the findings are contained in IE Inspection Report No. 50-346/75-09 (Attachment 1) and in the letter to Toledo Edison Company dated August 1, 1975 (Attachment 2).

The problems found were indicative of a failure in that portion of the Company's quality assurance program which is intended to make certain the safety-related components are installed in accordance with applicable specifications and standards. The primary cause of the problem was attributed by the NRC Regional inspection staff to Toledo Edison's overreliance on its contractors and subcontractors for quality assurance inspection without providing an adequate check on the activities.

After discussions with NRC's Region III (Chicago, Illinois) staff, Toledo Edison agreed to reinspect all previously installed safety-related wiring beginning in early June (Attachment 3). The problems were also discussed in a top management meeting in June between NRC representatives and utility officials.

An investigation was conducted by NRC on June ⁴ 8, 1975, after a former employee of the electrical subcontractor made allegations about the electrical installations at the plant. The allegations, which were generally verified, were similar to the problems identified in the earlier NRC inspection. Details of the allegations, the investigation, and the findings are contained in the letter to Toledo Edison Company dated August 5, 1975 (Attachment 4), and in Investigation Report No. 50-346/75-10 (Attachment 5).

The Toledo Edison Company has taken steps to augment its own quality assurance program. The number of Toledo Edison quality assurance inspectors has been increased from seven to eleven, and the utility has asked all construction workers to notify it directly of any construction problems or deficiencies noticed.

The reinspection and corrective action commitments are judged to be appropriate to deal with the problems encountered. Any deficiencies identified by either Toledo Edison personnel or the NRC will have to be corrected before the NRC will license the plant to begin operation.

NRC inspectors are monitoring the licensee's electrical reinspection effort and they (NRC inspectors) will perform additional inspections of the electrical work. Because of the quality assurance problems encountered at the plant site, NRC has intensified its inspection effort. Additional NRC inspections of safety-related construction work are being scheduled. In late July one such inspection was made of safety-related piping. Utilizing the same inspection technique that was used in the wiring inspection - checking a representative sample of the systems from beginning to end - the NRC inspection team did not find any significant deficiencies in the piping work.

We believe the problems identified at the Davis-Besse facility are being dealt with effectively.

Attachments:

1. IE Inspection Report
No. 50-346/75-09
2. Letter to Toledo Edison Company
from John G. Davis, dtd 8/1/75
3. Immediate Action Letter
to Toledo Edison Company
from James G. Keppler, dtd 5/30/75
4. Letter to Toledo Edison Company
from D. M. Hunnicutt, dtd 8/5/75
5. IE Investigation Report
No. 50-346/75-10