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July 27, 1982

NUCLEAR REGULATORY COMMISSION

IN THE MATTER OF:	)	
	)	
COMMONWEALTH EDISON COMPANY	)	Docket Nos. 50-373
	)	50-374
La Salle County Nuclear	)	
Generating Station, Unit 1 and	)	
Unit 2	)	

Mr. Harold Denton, Director
Nuclear Reactor Regulation
9720 Norfolk Avenue
Bethesda, MD 20814

Re: Commonwealth Edison Company, La Salle County Station,
Report No. 50-373/82-35 (DETP); 50-374/82-06 (DETP)

Dear Mr. Denton:

At a meeting held on July 19, 1982, the Region III staff presented the above-referenced report on its investigation into allegations of construction practices at the La Salle County Nuclear Station. Among the allegations considered were those raised in the Request filed by this Office on March 24, 1982 under 10 C.F.R. §2.206. This letter presents the comments of the People of Illinois on the results of the investigation into the effect of damage to reinforcing steel (rebar).

Sargent & Lundy performed a detailed structural analysis of the effect of rebar damage on safety related elements outside the primary containment for Unit 1 between March 25 and May 7, 1982. In a report of May 7, 1982, Commonwealth

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Edison Company advised the NRC that in every one of the 647 elements which experienced rebar damage the design margin was found to be above 1.0. On May 18, 1982, Edison reported that a similar detailed analysis had been made of rebar damage in the primary containment during the time the coring and drilling was done. Based on the reported results of these analyses, it appears that Edison has adequately assessed the structural weakening due to coring and drilling in Unit 1.

The staff report of July 19 and the discussion which followed it raised several points which should be noted. Only nine of the 647 structural elements analyzed have been reported on in any detail by Edison. The NRC staff did not specify the size of the sample it checked, nor the drawings and other data it reviewed. The staff did report that it reviewed and approved the method by which the analysis had been performed. However, the staff also indicated that it did not have the results of unreported calculations. At the request of Regional Administrator James E. Keppler, Edison agreed to provide a table of all the results, similar to the table of the 9 results shown in Edison's report of May 7, 1982. Table 2.7-2. Please advise this office when the additional analysis results have been provided.

Three different types of drilling/coring operations were conducted, which yielded three different types of documents for recording rebar damage. RHS (Rebar Hit Schedule) drawings recorded damage as reported in the field from drilling expansion anchor holes. (90 of the 118 RHS drawings were given to the NRC staff in Bethesda on March 31, 1982.) CHS (Cored Hole Schedule) drawings show the location of some, but not all, partially penetrating cored holes for grouted anchor bolts. Structural design drawings show the location of the larger cored passageway holes. All three sets of drawings were combined by Sargent & Lundy in their final assessent and calculation of rebar damage. However, the staff inspection report of April 6-8, 1982 referred only to two of the three types of operations and documents, and did not mention the partially penetrating cored holes for grouted anchors. (Attachment C to Report of July 19, 1982.) This omission was corrected in the July report itself.

The staff concluded on July 19 that no non-conformances were reported in relation to the program of drilling and coring, and that all rebar damage has been accounted for in Sargent & Lundy's recent analysis. We are somewhat puzzled by the staff's explanation that the passageway cores reported by the laborer whose affidavit we submitted were not non-conformances. One core, 7" in diameter and 4' 8" deep, hit a beam by mistake, and the hole was later grouted in. On March 31, 1982 Edison stated that a non-conformance report was written on this hole. (Transcript, at p. 62) However, based upon the staff's assurance that all damaged rebar has been accounted for, we have no further comment on this question.

The staff also concluded that the absence of field verification of the use of metal detectors in the coring program was not a problem, since the engineers conservatively assumed that damage would occur. While this explanation satisfies the immediate question of the impact of rebar damage, it is something of a retreat from Edison's previous emphasis on drawing instructions which called for metal detection. As we understand the staff's explanation of the instructions for using metal detection, the workers who cored passageway holes and holes for grouted anchor bolts in mechanical and electrical equipment foundations were not prohibited from cutting rebar, even though they were instructed to use metal detectors to avoid rebar. On the other hand, workers who cored grouted anchor bolt holes for pipe support baseplates interpreted their instructions as prohibitions against cutting rebar, (Report of July 19, 1982, p. 17) and it has been assumed by Sargent & Lundy that no rebar was damaged in coring the latter holes. Understandably this assumption is bolstered by the instructions to expose the rebar by "notching" the walls before the coring was done. In the absence of a written procedure for performing the coring or for verifying that a procedure has been followed, the staff has no choice but to accept these assumptions

The NRC staff report of July 19, 1982, in describing the method used by Sargent & Lundy to control rebar damage during the coring of passageway holes, speaks of "conservative engineering analysis." (Report of July 19, at p. 8) In response to a question by our consultant Dale Bridenbaugh, the staff acknowledged that it would have been more accurate to say that "engineering judgment," rather than "analysis", had been applied by the engineers prior to March 24, 1982 to assess the effects of rebar damage. Upon further inquiry

by Mr. Bridenbaugh, it was established tha. the NRC has no guidelines for making such changes in safety related structures, or for assessing their impact upon structural integrity, other than "engineering judgment." It continues to be our position that detailed analysis should be applied to coring and drilling activities in all safety related structures at some point in the construction modification process.

The staff report of July 19, 1982, and the cover letter accompanying it, have highlighted the need for a continuing review of the quality assurance techniques employed at La Salle. We learned that a serious deviation from proper procedures had occurred in the torque wrench calibration program. Apparently, the NRC learned of the problem from an unidentified informant after the operating license was issued and fuel loading had begun. A second question, concerning the assurance of the quality of materials used in safety related portions of the HVAC system, has also arisen in recent days. Mr. Keppler has made a public commitment to investigate and resolve the HVAC concerns before he recommends that full power operation be approved. We support this approach and will be watching the investigation with interest.

Very truly yours,

Judith A. Goodie

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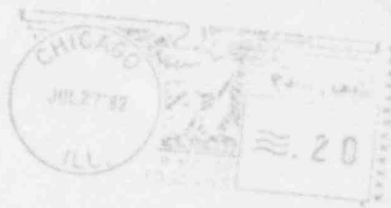

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