Commonwealth Edison
One First National Plaza, Chicago, Illinois
Address Reply to: Post Office Box 767
Chicago, Illinois 60690

March 24, 1980

Mr. A. Bournia
Division of Project Management
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Subject: LaSalle County Station Units 1 and 2
Fire Protection Review
NRC Docket Nos. 50-373/374

Reference (a): A. Bournia memorandum for O. D. Parr
dated March 10, 1980

Dear Mr. Bournia:

In order to facilitate your preparation of the fire protection input to the LaSalle County Unit 1 Safety Evaluation Report, and to satisfy the commitments made by Commonwealth Edison in our recent meetings of February 7-8, 1980, enclosed are the Commonwealth Edison positions on the fire protection issue. These positions have been consolidated in the form of minutes to our February 7-8, 1980 meeting which followed telephone conferences of January 18, 1980 and January 24, 1980.

It is our judgement that these positions accurately reflect commitments made in the course of those discussions both by Commonwealth Edison, and by the NRC Staff in its identification of issues as resolved based on information supplied by this applicant.

Following the February 7-8, 1980 meeting there were five issues left unresolved. These five issues were defined in the context of NRC questions: 10.56(1), 10.56(4), 10.56(7, 8B), 10.58(4) and 10.69. As a result of a site visit made by the NRC on February 28, 1980 one item was identified concerning the potential need for an additional sprinkler system in one area of EL 740 in the reactor building. Three acceptable options were identified by the NRC to the applicant, one of which will be implemented prior to fuel loading on Unit 1 (see Reference (a)).

B002
~~A006~~
S
1/1

8004010352

Subsequent to the meetings previously discussed, the applicant was notified that the NRC had completed its review of items 10.56(1), 10.56(7, 8B) and 10.58(4) and that the applicant's response is acceptable. There remain, therefore, two as yet unresolved issues: (1) Q10.56(4) concerning the use of fire proof carpeting in the main control room, and (2) Q10.69 concerning the review of Class IE cable identification and routing.

With regard to the two remaining unresolved issues, Commonwealth Edison has requested a Management Review by the NRC. Our position on Q10.56(4) is outlined in the enclosure to this letter. Our position on Q10.69, outlined in the enclosure, is further supported by the following facts which we offer here for your review:

1. The Directorate of Inspection and Enforcement (Region III-Mr. P. Barrett) has reviewed in depth the cable identification and routing procedures at LaSalle County Station. Numerous enforcement items were identified during 1979 to address this issue. All of these issues have been resolved based on action taken by the applicant.

2. Cable routing at LaSalle County, based on existing commitments to Region III, is subject to multiple redundant levels of review. First, the electrical contractor (QC) performs a 100% in process inspection on every safety related cable pull, verifying routing by field check. Second, the electrical contractor (QC) performs a final (redundant) 100% inspection of all safety related cable after the cable is routed, confirming the proper routing by node point inspection. Third, an independent inspection agency performs a cable routing inspection of safety related cables; this inspection has involved significantly more than 10% of the safety related cable in the plant. Fourth, Commonwealth Edison (Site-QA) performs periodic audits of safety related cable pulls to assure proper routing, and to verify proper performance of work by the electrical contractor (QC) and the independent inspection agency.

Therefore, it is judged that another independent routing verification or high frequency tracing is not warranted. This is particularly true because NRC-Region III has thoroughly reviewed this issue and resolved it by developing the program of over-inspection which has been used on this project.

In the event you have any questions relative to this letter or the enclosure, please contact this office. It is requested that you review our positions relative to the remaining issues on control room carpeting and cable routing. In the event our positions are not judged to be acceptable please schedule a management appeal.

We will formally docket the responses outlined in the enclosure to this letter in an amendment to the FSAR. That documentation is expected to be submitted by June, 1980.

Very truly yours,

L. O. DelGeorge

L. O. DelGeorge
Nuclear Licensing
Administrator

2527A

SARGENT & LUNDY
ENGINEERS
CHICAGO

Project Nos. 4266/4267-00

Commonwealth Edison Company
LaSalle County Station - Units 1 and 2

Notes of Meeting Held in
NRC Offices, Bethesda, Maryland
February 7-8, 1980

Fire Protection

THOSE PRESENT

L. O. DelGeorge	Commonwealth Edison Company (CECo)
*H. L. Massin	
*C. Schroeder	
*H. K. Stolt	
T. E. Watts	
**R. Barnes	Nuclear Regulatory Commission (NRC)
*V. Benaroya	
A. Bournia	
G. Harrison	
S. Hudson	
*J. Knox	
J. J. Byrne	Sargent & Lundy (S&L)
C. H. Furlow	
D. C. Haan	
P. N. Mehrotra	
J. S. Mowbray	
B. A. Rioch	
G. T. Seeley	

* Part-time
** from Gage-Babcock, Inc., consultant to NRC for fire protection

1. Purpose

The meeting was held to answer informal questions from the NRC on answers presented earlier (FSAR Amendments 45 and 47, April and October 1979, respectively) to the NRC questions on fire protection.

The NRC's informal questions had been discussed with them in two telephone conversations, on 1-18-80 and 1-24-80. Preliminary responses had been discussed between CECo and S&L in a meeting on 2-4-80.

February 19, 1980

Notes of Meeting
February 7-8, 1980

1. Continued

The agenda consisted of a brief overview of the Safe Shutdown Analysis given in FSAR Appendix H.4 and then a detailed discussion of each question.

2. Safe Shutdown Analysis

S&L (NSLD) summarized the Safe Shutdown Analysis (SSA), which is given in FSAR Appendix H.4, as an opening to the meeting, once all NRC attendees had arrived. This was done to help the NRC realize why and how the SSA was used as the justification for so many of CECo's answers to NRC questions.

3. Discussion

In the rest of these notes, each question in the FSAR is covered, whether or not there was discussion of it at the meeting, in order that these notes form a complete record of the latest position on all questions. Where possible, we have included at least a qualitative assessment of our ability to implement commitments we made to the NRC by fuel load, assuming for these purposes that it occurs on October 31, 1980.

Questions are identified with 0, 1, 2 or 3 asterisks in the left margin next to the question number. These mean:

A. No asterisk for no action required
B. One asterisk for minor commitments, resolvable by words or a paper change
C. Two asterisks for major commitments requiring design, construction and/or operational changes
D. Three asterisks for open items, awaiting either further direction or information from the NRC or an appeal by CECo

4. Question Q10.32

NRC accepts our present+ answer. No action required.

+"present answer" refers to the answer already given in the FSAR, Amendment 45 or 47

*5. Question Q10.33

CECo will commit to NRC guidelines. Semantic differences, if any, will be discussed in a revised answer. NRC accepts our revised answer.

6. Question Q10.34

NRC accepts our present answer. No action required.

7. Question Q10.35

*1. We explained our answer and read from a letter from Carboline Inc., the vendor for fire proofing material used on floor structural supports. We will amend our answer to refer to the Carboline letter, and we will send the NRC a copy separately. NRC accepts our revised answer.

NRC also brought up the question of concrete block ratings. We will amend our answer to refer to test data from Illinois Brick Co. The NRC accepts our revised answer.

We will also refer to the UL design D-902 for floor assembly ratings.

*2. The NRC agrees that two 1½-hour dampers in series are acceptable in lieu of one 3-hour damper. We noted we are upgrading dampers in battery room walls to 3 hours. We will amend our answer to say so. The NRC accepts our revised answer.

*3. We will amend our answer to refer to the US Gypsum test reports for fire stops in floor and wall penetrations and to the test report from Tech-Sil, Inc., the vendor for mechanical penetration seals. We will discuss symmetry of the penetration seal sample that was tested. We will send a copy of the Tech-Sil report to the NRC separately. The NRC accepts our revised answer.

4 & 5. The NRC accepts our present answers. No action required.

Notes of Meeting
February 7-8, 1980

8. Question Q10.36

The NRC accepts our present answer. No action required.

*9. Question Q10.37

We said all floor drains are designed for a flow rate of 300 gpm, which accounts for hose stream flow of 100 gpm plus sprinkler flow of 0.3 gpm/sq. ft. We will amend our answer to say so. The NRC accepts our revised answer.

**10. Question Q10.38

Regarding fire zones 2I4 and 3I4 (see Fig. H.2-1, sheet 7; Fig. 9.5-1, sheet 32 and 33), we agreed to apply a fire-proofing material to the existing metal hatch over the oil separator. We clarified for the NRC that it is a depressed sump, not an elevated tank. The NRC accepts our revised answer.

We clarified for the NRC that the discharge filter oil separator shown on Fig. 9.5-1, sheet 32, has been removed.

*11. Question Q10.39

CECo clarified for the NRC that the flammable liquid container referred to by the NRC has been removed. We will amend our answer. The NRC accepts our revised answer.

*12. Question Q10.40

We said we would amend our answer to refer to portions of the SSA that show no impact on safe shutdown if failure of a recirculation flow control valve hydraulic line containing Fyrquel occurs. The NRC accepts our revised answer. They agreed no further information or references to test data for Fryquel are required.

13. Question Q10.41

The NRC accepts our present answer. No action is required.

14. Question Q10.42

*1. CECo discussed the type of portable smoke removal equipment the station plans to use. We will amend our answer to document this. The NRC accepts our revised answer.

2. The NRC accepts our present answer. No action required.

3. See Item 39, Question Q10.67, part 1.

**4. CECo agreed to dedicate five air packs for fire brigade use only. These packs will be located in a designated area where fire brigade members can get them when they are needed. We will amend our answer to document this. The NRC accepts our revised answer.

**15. Question Q10.43

We agreed to upgrade 4-hour emergency lighting packs to 8-hour packs in areas required to be accessible for safe shutdown. We will amend our answer to say so. The NRC accepts our revised answer.

16. Question Q10.44

1 & 2. The NRC accepts our present answers. No action is required.

*3. CECo discussed and clarified its plant communication system. We will amend our answer. The NRC accepts our revised answer.

17. Question Q10.45

1. We agreed:

**A. We will upgrade existing fire detector circuits, in zones where ionization detectors initiate an automatic suppression system, to meet NFPA 72D Class A requirements.

Notes of Meeting
February 7-8, 1980

17. Continued

**B. All new fire detection circuits that actuate suppression systems will meet NFPA 72D Class A requirements.

There was some discussion, but no resolution of the schedule for this work. CECo noted it needs more time to upgrade the existing detection system to Class A requirements. The NRC indicated informally that it may be possible for them to justify or allow giving us more time for "upgrading" than for adding a new system.

2. The NRC accepts our present answer. No action is required.

*3. We clarified the scope of work being done by Johnson Controls, Inc., and review performed by Marsh & McLennan. We will revise our answer to document this. The NRC accepts our revised answer.

*18. Question Q10.46

We explained the set points and conditions that initiate fire pumps. We will revise our answer to document this. The NRC accepts our revised answer.

19. Question Q10.47

The NRC accepts our present answer. No action is required.

*20. Question Q10.48

We agreed to confirm, in a revised answer, that in the calculation of fire pump capacity the hose demand assumed is taken at the point of sprinkler demand, to maximize line losses. The NRC accepts our revised answer.

21. Question Q10.49

1. The NRC accepts our present answer. No action is required.

21. Continued

*2. We said access exists on the safe side to reset any isolated damper from an inspection opening. We will amend our answer to say so. The NRC accepts our revised answer.

*3. We clarified our answer to indicate that heat detectors provided for automatic actuation of the CO_2 system will set off an alarm in the control room independently of actual discharge of CO_2 into the protected area. We will amend our answer to document this. The NRC accepts our revised answer.

4. The NRC accepts our present answer. No action is required.

*5. We clarified our answer, confirming that manual push-button actuation of CO_2 system closes dampers. We will revise our answer to document this. The NRC accepts our revised answer.

*22. Question Q10.50

The NRC had overlooked a sentence in the Fire Hazards Analysis (Appendix H) that answers their question. We will amend our answer. We will also add a clarification that the SSA assumes total loss of any one zone. The NRC accepts our revised answer.

23. Question Q10.51

In discussing this question, we agreed there were three zones that may require consideration. One, the auxiliary electric equipment room, is discussed in more detail below in Item 28, Question 10.56, part (7, 8). The other two are covered here.

**1. Zone 4E3-Unit 1 Division 2 Essential Switchgear Room

In this zone, we agreed to install a 3-hour rated fire barrier with door at J-13 on Elevation 731'-0", to separate the Division 2 switchgear room from the Division 1 cable tray riser corridor. We will amend our answer to document this. The NRC accepts our revised answer.

23. Continued

*2. Zone 4B-Lower Ventilation Equipment Floor

We clarified our answer by emphasizing that the SSA showed that safe shutdown is not impaired if a fire is assumed in this zone. We discussed the control room and auxiliary electric equipment room ventilation system panels that could be involved in a fire. We will amend our answer to document this. The NRC accepts our revised answer. Also see Item 44, Question Q10.72, part (7).

*24. Question Q10.52

We will amend our response to indicate that a fire at the remote shutdown panel (RSP) will not affect the capability to shut down from the control room using the basic shutdown method. The NRC accepts our revised answer.

25. Question Q10.53

**1. We agreed to engineer and install a fire detection system on a portion of the refueling floor. It will be based on an evaluation by a qualified fire protection engineer (Schirmer Engineering Corporation) of the fire hazard that could exist during refueling if small amounts of combustibles are temporarily located on the refueling floor. We will revise our answer to document this. In our revised answer, we will discuss temporary measures we could take if it proves impossible to complete this commitment in the time given. The NRC accepts our revised answer.

*2. We agreed to clarify our answer regarding k_{eff} with optimum moderation. We will revise our answer to document this. The NRC accepts our revised answer.

26. Question Q10.54

**1. We agreed to install fire detection in zones containing equipment required for safe shutdown. We agreed that in our revised answer documenting this commitment we will list the zones that will receive additional fire detection and the zones containing safety-related equipment not required for safe shutdown, which will not

26. Continued

receive additional fire detection. We agreed that our fire protection engineers will review the specific zones in which we intend to add fire detection. The NRC accepts our revised answer.

*2. We agreed we would put portable fire extinguishers in the drywell only when access to the drywell is acceptable (not during operation). The NRC agreed with us that locating them inside the drywell while the plant is in operation would mean that access to inspect them monthly would be impossible. We will document our commitment in a revised answer. The NRC accepts our revised answer.

3. The NRC accepts our present answer. No action required.

4. See above, part (1) of this question.

*5. We clarified our answer about a steel beam in the ceiling of Zone 2D, and will revise our answer to document it. The NRC accepts our revised answer.

6, 7 & 8. The NRC accepts our present answers. No action is required.

27. Question Q10.55

1 & 2. The NRC accepts our present answers. No action is required.

3. We explained to the NRC the construction details of the dampers we provide in the zones in question. They accept our present answer. No action is required.

**4. We agreed to install 3-hour rated fire dampers in the control room and auxiliary electric equipment room HVAC air risers. We expressed our concern that initiation of those dampers could weaken control room habitability. We noted that we are required to meet not only 10CFR50, Appendix A, General Design Criterion 3, Fire Protection, but also General Design Criterion 19, Control Room Habitability. The NRC did not seem to share our concern that they could be requiring something to meet one

27. Continued

criterion (3) that could weaken our ability to meet another (19). We will amend our answer to document our commitment. The NRC accepts our revised answer.

*5. We said we had looked at charcoal as part of the fire loading in this zone, and it does not change our conclusion. We will revise our answer to document this. The NRC accepts our revised answer.

**6. We agreed that the fire hose station referred to in our present answer will be installed such that a single failure of the fire protection line will not simultaneously eliminate both the primary and the secondary protection system to the area protected by the hose station. We will revise our answer to document this. The NRC accepts our revised answer.

**7. We agreed to provide enough hose at stations designed to protect the auxiliary electric equipment room and cable spreading rooms. The NRC advised us to look also at hose stations designed to protect Zones 4A-Auxiliary Building Upper Ventilation Equipment Floor and 4E3-Unit 1 Division 2 Essential Switchgear Room. We said we would, as part of a general review of all hose stations. We will revise our answer to document this agreement. The NRC accepts our revised answer.

8. The NRC accepts our present answer. No action is required.

9. See above part (4) of this question.

10. The NRC accepts our present answer. No action is required.

11. See above Item 26, Question Q10.54, part (1).

28. Question Q10.56

***1. We discussed the fire detection system presently installed above cable trays in the control room ceiling. The NRC discussed the possibility of covering these trays with Kaowool, but after discussion, they indicated they might agree to less than that, once they have had a

28. Continued

chance to review our present answer further. They said we could expect their answer in about a week from the meeting. This item is still open.

*2. We discussed and clarified the existing fire detection system throughout the control room and in particular, in concentrated cable areas. We will revise our answer to document it. The NRC accepts our revised answer.

3. See above Item 27, Question Q10.55, part (4).

***4. CECo discussed its postion on carpeting in the control room, including recent increased concerns following the TMI-2 accident for better "human engineering". They pointed out several advantages of carpeting, including noise and floor vibration abatement, increased "ambience", etc. The NRC stated its position and refused to admit credit for a suitable UL flame propagate index for any carpet, particularly if it is replaced many years from now. This item remains open.

5 & 6. The NRC accepts our present answers. No action is required.

7 & 8. Three issues were discussed here:

A. The first was the auxiliary electric equipment room. After much discussion, we agreed:

**1. If possible, we will install a 3-hour rated fire wall in the auxiliary electric equipment room between Division 1 and Division 2 panels and firestops in cable trays at junctions between Division 1 and 2. The wall will include 3-hour rated roll-up type doors, normally closed, in front of each panel in one row along which the wall is installed. The wall will abut one row of panels as close as possible, to avoid encroaching on any more access space in the aisle between the rows than is absolutely necessary.

28. Continued

We said to the NRC that our early judgement was that such a barrier appears feasible, but more study is required to be sure. They agreed that such a barrier, by itself, would be acceptable without an automatic suppression system.

If such a wall proves impractical or impossible, we agreed to install a ½-hour rated barrier, firestops in cable trays at junctions between Divisions 1 and 2, Kaowool over the trays, and a Halon system.

This commitment may involve some risk of not being finished by October 31, 1980. It depends on deciding what is possible and what is necessary.

**2. Regardless of (1) above, we agreed to provide separate local breaker controls for the RHR loop B equipment on the remote shutdown panel (which is not Division 1). This may add to the list of zones implied in our answer to Items 15, Question Q10.43 (lighting in areas required for safe shutdown) and 26, Question Q10.54, part (1) (detection in areas required for safe shutdown). We will amend our answer to reflect this commitment. The NRC accepts our revised answer.

B. As clarified by the NRC site visit on February 28, 1980, the NRC accepts a revised answer that protects one cable by either adding sprinklers, providing Kaowool or rerouting the cable. (HLM 3-4-80)

28. Continued

**C. The third issue was a portion of Zone 5C11-Turbine Building Ground Floor General Area. This zone includes a corridor between each unit's diesel-generator building and its reactor building. In this corridor are cables for each unit's Division 1 and 2 diesel-generators. Earlier, in the present answer, we had agreed to covering one division's cable trays with 1½-hour barrier of Kaowool. In the meeting, we also agreed to add a dry pipe sprinkler system in the corridor over the Division 1 and 2 cable trays.

29. Question Q10.57

*1. We explained the structural design of turbine and auxiliary building interface walls and floors and the reasons why failure of the turbine building roof or floors will not affect the structural integrity of the auxiliary building. We will revise our answer to document this. The NRC accepts our revised answer.

*2. We explained the construction of the wall between Zones 8A1 and 8A2, pointing out the few openings and the low fire loading on either side. We also noted that we will fireproof the roof steel in those zones. We will revise our answers to document this. The NRC accepts our revised answer.

3, 4 & 5. The NRC accepts our present answers. No action is required.

30. Question Q10.58

1. The NRC accepts our present answer. No action is required.

*2. We clarified our answer by discussing fireproofing on the roof and structural steel. We will document it in a revised answer. The NRC accepts our revised answer.

3. The NRC accepts our present answer. No answer is required.

4. As clarified by the NRC site visit on February 28, 1980, the NRC accepts our present answer. No action is required. (HLM 3-4-80)

5, 6 & 7. The NRC accepts our present answers. No action is required.

8. See below Item 37, Question Q10.65, part (9).

9. The NRC accepts our present answer. No action is required.

10. See above, part (4) of this question.

11. See above, part (4) of this question.

**31. Question Q10.59

The NRC reiterated that all system control valves, including those on preaction, deluge, or wet sprinkler systems, require electrical supervision if closing the valve could shut off fire protection to an area. They said loop isolation valves do not require electrical supervision. We agreed to install breakaway locks on all outdoor loop isolation valves.

32. Question Q10.60

The NRC accepts our present answer. No action is required.

33. Question Q10.61

The NRC accepts our present answer. No action is required.

34. Question Q10.62

The NRC accepts our present answer. No action is required.

*35. Question Q10.63

We agreed to give the NRC a list of combustibles (including amounts assumed in calculating a fire loading) that could exist on each floor of the reactor building near the large permanently open equipment hatch. The NRC defined "near" as approximately the ¼ of the quadrant of each floor in which the hatch is located. This list will be provided separately. No revision to the present answer is required.

36. Question Q10.64

*1. We agreed to provide 100 feet of hose at the hose station in question. We will revise our answer to document this. The NRC accepts our revised answer.

2, 3 & 4. The NRC accepts our present answers. No action is required.

37. Question Q10.65

*1. We discussed fire proofing provided on the structural steel in the zone in question. We will revise our answer to document this. The NRC accepts our revised answer.

*2. Same as part (1) of this question, for another zone.

3. This will be covered in our response to Q10.34, Item (6). A revision to this answer may or may not be added, to refer to the revised answer to Q10.34. The NRC accepts our revised answer.

4. See Item 11, Question Q10.39.

5. See Item 28, Question Q10.56, part (7, 8), subpart (A).

6, 7 & 8. The NRC accepts our present answers. No action is required.

37. Continued

**9. We agreed to install either fire and vapor barriers inside or barriers around the non-segregated phase bus ducts that penetrate through floors between ESF switchgear rooms. We will revise our answer to document this. The NRC accepts our revised answer.

**10. We agreed to install a water sprinkler system above the cable trays in the labs. We will revise our answer to document this. The NRC accepts our revised answer.

38. Question Q10.66

1, 2 & 3. The NRC accepts our present answers. No action is required.

**4. We agreed to reroute the main feed cables for Unit 2 Division 1 battery so these cables are not exposed to Zone 5C11. We will revise our answer to document this. The NRC accepts our revised answer.

39. Question Q10.67

**1. We discussed a seismic category I supported stack or metal enclosure that could be built around the air intake for the swing diesel-generator, to prevent combustion products from a transformer fire from entering the diesel air intake. We also clarified the existing separation between the existing diesel intakes and exhausts. The NRC agreed the solution appeared feasible. We will revise our answer to document it. The NRC accepts our revised answer.

2. We described the removable curb. The NRC accepts our present answer. No action is required.

*3. CECo agreed to send the NRC a separate copy of the test report for the CO_2 system, and to refer to it in a revised answer. The NRC accepts our revised answer.

39. Continued

*4. We described the operator actions if a low level alarm on the storage tank or a high level alarm on the sump is received. We added an explanation of the timer feature on the transfer pump, to detect inordinately long pump operation, another way of identifying a leak or break downstream of the pump. We will revise our answer to document this. The NRC accepts our revised answer.

5. See above, Item 30, Question Q10.58, part (4).

40. Question Q10.68

The NRC accepts our present answer. No action is required.

***41. Question Q10.69

The NRC's electrical reviewer insists on asking Region III of the NRC's Inspection and Enforcement Division to verify that a field check had been made of the degree of cable separation actually achieved by inspecting approximately 10% of the safety-related cables in trays. CECo said it has not agreed to perform an augmented inspection of the cables. This remains an open item.

Obviously, resolution of this item could pose risk of not being complete by fuel load, particularly if it results in required changes.

42. Question Q10.70

The NRC accepts our present answer. No action is required.

43. Question Q10.71

The NRC accepts our present answer. No action is required.

44. Question Q10.72

1. The NRC electrical reviewer accepted the answers given to Question Q10.56, part (7, 8), subpart (B), (Item 28), as an acceptable way to resolve his concerns about the large reactor building zones with redundant cable trays separated by at least 20 feet.

44. Continued

*2. We agreed to clarify the safe shutdown analysis (SSA) in the way it discusses an alternate means to achieve cold shutdown without having to rely on the shutdown cooling mode of RHR. The NRC's concern is that it may be impossible to manually or automatically operate both isolation valves in series in the RHR shutdown cooling line, if a fire were to occur in one of the zones in which one of those valves is located. We pointed out to the NRC that the wording of their formal question presumes repairs are made in an affected zone within 72 hours and cold shutdown is only required to be achieved in 72 hours, so it should be reasonable to assume access to an affected zone. The NRC seemed unmoved. We will revise our answer to document the discussion. The NRC accepts our revised answer.

*3. In the SSA, in Table H.4-9, -20 and -24, the NRC asked that we clarify or eliminate the footnote, to indicate clearly that cables ending at a MCC in a zone are assumed lost when we assume that the MCC itself is lost due to a fire in that zone. We agreed to revise our answer to indicate that. The NRC accepts our revised answer.

4. The NRC electrical reviewer indicated he would be satisfied with the results of the field check of cable separation by more than 20 feet in reactor building zones 2E, 2F, 2G, 2H1 and 2I1 (see Item 28, Question Q10.56, part (7, 8), subpart (B)). Note: this is not the field check that is disputed in Item 41, Question Q10.69.

The NRC electrical reviewer also put redundant cable for Division 1 and 2 ADS valves in the drywell in the category discussed in the preceding paragraph.

Based on the above, the NRC accepts our present answers. No action is required.

*5. We agreed to send the NRC's electrical reviewer a separate advance copy of electrical schematics in FSAR Section 1.7 that are being revised to reflect this meeting, before the formal FSAR amendment is completed.

44. Continued

*6. We agreed to give the NRC's electrical reviewer a list of the schematics already in FSAR Section 1.7 that pertain to the Remote Shutdown Panel.

7. We agreed to justify our answer to Question Q10.51 regarding Zone 4B-Auxiliary Building Lower Ventilation Equipment Floor (see Item 23, Question Q10.57, part (2)).

The NRC's concern is the effect of loss of control room or electric equipment room ventilation on electrical equipment overheating. This will be covered in our answer to Item 23. The NRC accepts our revised answer.

*8. We agreed to review and verify that adequate separation exists between redundant cables for reactor pressure and level so that no fire in any one zone could disable all control room indication of reactor pressure and level. The NRC electrical reviewer emphasized that the decision whether additional protection and/or relocating cable is necessary to solve a possible problem with this instrumentation will be made not by CECo et al., but by the NRC's fire protection consultant, on the recommendation of the NRC's electrical reviewer. The NRC accepts our revised answer.

45. Question Q10.73

This is covered adequately by Item 44, Question Q10.72. No action is required.

G. T. Seeley

GTS:chm
Copies:
T. E. Watts (1)
A. W. Kleinrath (1)
T. E. Quaka (1)
R. H. Holyoak (1)
C. W. Fruehe (1)
G. E. Peterson (1)
D. E. Brown (1)
LEA (1)
WAC (1)
RNB (1)
WGH (4)
DCM (5)
JMM (4)
RJM (1)
W. G. Schwartz (1)
E. R. Weaver/V. Reklaitis (1)
D. C. Haan (1)
J. J. Byrne (1)
G. C. Jones (1)
R. M. Schiavoni (1)
C. H. Furlow (1)
J. S. Mowbray (1)
B. A. Rioch (1)
P. N. Mehrotra (1)
J. B. Gouvas (1)
J. W. Dingler (1)