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**IE HQ FILE COPY**

September 10, 1982

Mr. James G. Keppler, Regional Administrator  
Directorate of Inspection and  
Enforcement - Region III  
U.S. Nuclear Regulatory Commission  
799 Roosevelt Road  
Glen Ellyn, IL 60137

Subject: Commonwealth Edison Company  
Response to Inspection Report  
50-237/81-39, 50-249/81-32, 50-254/81-23,  
50-265/81-23, 50-295/81-31 and 50-304/81-29  
NRC Docket Nos. 50-237/249, 50-254/265 and  
50-295/304

- References (1): J. G. Keppler letter to Cordell Reed  
dated July 12, 1982
- (2): D. G. Eisenhut letter to S. T. Rogers (BWR  
Owners Group) dated October 21, 1980
- (3): R. W. Jurgenson (W Owners Group) letter to  
D. G. Eisenhut dated November 30, 1981
- (4): NRC Internal Memorandum from R. J. Mattson/H.  
L. Thomson to D. G. Eisenhut dated May 26,  
1982. (NRC response to Reference 3 - DRAFT).

Dear Mr. Keppler:

The purpose of this submittal is to address the remarks contained in the Special Inspection Report prepared by your office, and transmitted by Reference (1). Given the thorough review evidenced by that report, it is encouraging to note that no items of noncompliance with regulatory requirements were identified by your review. Serious consideration has been given to the areas your staff suggests for further improvement in performance. This review and recommended actions, some of which had been initiated prior to the issuance of your report, are documented in Enclosure 1. Also provided, in Enclosure 2, are the results of the review of your report by our Department of Nuclear Safety.

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In the event you have any questions related to this response, please direct them to the Nuclear Licensing Department (L. O. DelGeorge).

Very truly yours,



Cordell Reed  
Vice President

Enclosure

cc: NRC Resident Inspector - D/QC/Z  
File - IE Reports

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ENCLOSURE 1

Reference (1) described four areas of "apparent weakness" and requested a description of the corrective actions Commonwealth Edison has taken or plans to take in each area. Section 'D' (Summary of Findings) of the "Special Inspection Report" which was attached to Reference (1) itemized specific findings supporting the four areas of "apparent weakness". In order to provide clarity to our response, the following is a correlation of the specific NRC findings from Section D with the four areas of "apparent weakness" outlined in the NRC letter followed by the Commonwealth Edison response.

Area (1) - plans to clarify policies and procedures and improve training to assure no conflict exists in the minds of plant operators between continued plant availability and conservative operating practices.

Finding 1. The intent of Vice President Instruction No. 1-0-17 dated March 1, 1981, is still open to misinterpretation and the policy needs to be re-written to be more definitive. Most of the plant operator training on this instruction has been passive and not as comprehensive as needed or as recommended by the licensee's Special Nuclear Safety Review Committee in their meeting minutes dated December 23, 1980. (Note: This reference is an apparent reference to the C. Reed to J. J. O'Connor memo of the same date outlining the status of the Nuclear Safety Review Committee recommendations.)

Response

Apparent Weakness 1 - Finding 1

There are two corporate policy documents which address and are intended to resolve the potential conflict between unit availability and safety (i.e. conservative operating practices). These documents are: Vice President's Instruction No. 1-0-17 and Production Instruction No. 1-3-B-11. These documents have been in existence for quite some time and contain the requirement that they be included in ongoing station training programs. Neither of these documents stand alone to define the operating philosophy relative to safe operation. They were and continue to be intended as supplemental guidance to reinforce the management commitment to safe operation of the plant.

As a result of the Special Nuclear Safety Review Committee recommendations which were contained in that Committee's June 18, 1980 report, corporate management made presentations to the three operating nuclear stations and LaSalle County Station to underscore the importance of these issues. The mechanism used to outline management's priorities was the speech by Mr. D. P. Galle referenced in the Special Inspection Report. The intent of this speech was to give station management support in its efforts to

articulate and implement the two policy documents as well as to enhance training program efforts.

The Galle speech does indicate the relationship of the two documents; both having been discussed in the context of the potential conflict between safe (or conservative operating practices) and plant availability. It was always intended that continued training from the reading of the two Corporate directives, coupled with classroom discussions and day-to-day decisions facing operators which result in correct decisions, as well as the attendant reinforcement given by management would provide a clearer understanding of management's priorities; i.e. safe plant operation.

Based on our review of the NRC Special Inspection Report and its criticisms, it is the intent of Commonwealth Edison to take the Galle speech outline and develop a report which will be submitted to the stations by December 1, 1982 in order to augment the already existing training program. Furthermore, this report, coupled with additional information will be developed into a lesson plan on the subject by the Corporate Training Department. This lesson plan will then be sent to the stations, and will serve as the one, consolidated document that will be the basis for all future training in our stations on this subject. Lesson plan completion is scheduled for May 1, 1983.

One of the observations by the NRC was that Vice President's Instruction 1-0-17 should be rewritten to provide clarity. It was suggested that clarity would be achieved by including specific examples of deviations from technical specifications. The Special Nuclear Safety Review Committee concluded that the policy statement itself could not be reworded to provide better guidance. This conclusion is still strongly held by Commonwealth Edison; especially in light of the recent NRC proposed rule change which appeared in the Federal Register on Wednesday, August 18, 1982, proposing clarification to 10 CFR Part 50. The proposed change provides for licensees taking reasonable action that departs from a license condition or technical specification in an emergency when such action is immediately needed to protect the public health and safety. As was pointed out in the solicitation for comments in the proposed rule change, the NRC requested that utilities supply those situations in which deviations from license conditions or technical specifications are allowable since they are difficult to develop save the one known difference which now exists between the newly developed emergency operating procedures and the technical specifications. (See BWR Reference 2 and PWR References 3 and 4).

We will include this known example in our training program. However, it is felt that the training program and not the policy statement is the proper place for discussing such examples because generic examples themselves can be confusing without

explanation and discussion. Any other useable examples will be included, and notice will be given to information published by the NRC as a result of industry comments on the proposed change to 10 CFR 50.

This difficulty in developing clear, meaningful examples to define when technical specifications should be superceded was explained in the Galle speech. The examples used therein and intended for continued use in our ongoing training are those in which an operator might conclude that he should deviate but (with the benefit of hindsight) it has been determined that such a deviation would be incorrect. The thrust of the presentation was to clearly articulate the Edison management philosophy that conservative operations, and not plant availability, is the more important consideration.

In summary, training on this subject will be made less passive and more interactive. It is important, however, to keep in mind the result expected. Specifically, it is not expected that perfect clarity on this subject can be achieved in the form of a written policy, because the issues presented cover a potentially broad spectrum of events. Our continued training efforts and the new rule, if promulgated, will adequately address these issues. The comments of the affiant referenced in the NRC Report, and the analysis provided in that Special Inspection Report have been helpful in our continuing review. Our mutual understanding of this complex issue is enhanced significantly by this dialogue.

Area (2) - improvements in on site and off site reviews and evaluations of plant events including timeliness, adequacy of content and recommendations and corrective measures to prevent recurrence.

Finding 2. The initial Deviation Report (DVR) reviews and evaluations, as to reportability and assignment to responsible group leaders for action, appeared to be adequate and timely; however, subsequent reviews and evaluations, as to cause and corrective action, are not adequate nor timely. Tendency is to treat each event as "ad hoc" with inadequate attention to root causes, trending or corrective measures to prevent recurrence. This is especially applicable to the Zion Station and is not as much a problem at Dresden or Quad Cities with Quad Cities having the most acceptable program.

Problems relative to the content, timeliness and followup of DVRs were also identified by the Special Nuclear Safety Review Committee in their report to Mr. J. J. O'Connor dated June 18, 1980. The committee made several recommendations for corrective action in regard to this matter but these were either not implemented or were ineffective.

Response

Apparent Weakness 2 - Finding 2

Our Deviation Report (DVR) system is designed to document events which could have potential regulatory significance or even news information value. The threshold for reporting events in the DVR system is extremely low, resulting in a significant number of DVR's. Therefore, a large backlog is not necessarily indicative of a significant number of unaddressed or unresolved problems. As was pointed out in the Special Inspection Report, the events outlined by DVR's are initially reviewed and handled adequately and in a timely way with respect to reportability and assignment to persons responsible for resolution.

This initial review is the mechanism by which events of obvious significance are addressed in a timely fashion since the result is the submission of a more detailed Licensee Event Report (LER). The essence of the concern, which we share, is that the backlog of DVR's sometimes gets too large. As was pointed out in the Special Inspection Report, all of the stations are aware of the situation and have established goals for maintenance of a reasonable backlog. It is judged, therefore, that the Edison operating facilities have and will continue to address the problems of significance in a timely and adequate fashion. Improvement in maintaining the backlog at a reasonable level can and should be pursued.

In that regard, the Nuclear Safety Department of our company has recently instituted a DVR aging report which summarizes outstanding DVR's and their status. This report is provided to senior management as well as Nuclear Stations Division management. As a result of this summary of status, it is the Department of Nuclear Safety's opinion that greater attention to the DVR backlog is occurring and the number of outstanding DVR's is decreasing.

Furthermore, the Nuclear Stations Division has always reviewed DVR's to ascertain (1) if any trends exist and (2) to get a "feel" for potential recurring problems in all of our stations. The Nuclear Stations Division at the corporate level is now in the process of reviewing the whole situation of management's follow-up on DVRs. A new DVR trending evaluation program is expected to be completed in the Nuclear Stations Division General Office and implemented by January 1, 1983.

Area (3) - steps to assure root causes of scrams and equipment malfunctions are identified and corrected prior to resumption of plant operation.

Finding 3. Further management attention and action is needed in the area of assuring that root causes of scrams and/or equipment malfunction are identified and corrected prior to plant startup and resumption of operation. Again, this primarily applies to the Zion Station and to a lesser degree at Dresden. No significant problems in this area were identified at the Quad Cities Station. The Special Nuclear Safety Review Committee in their June 1980 report, considered the applicable Zion procedure, EOP-1 in regard to this item to be ambiguous and recommended that it and similar procedures at the other nuclear stations be revised to clarify and emphasize company policy on this area. The applicable procedure at Dresden Station was identified by the licensee as DPG-1 and at the Quad Cities Station as QGP-1. The results of the investigation found that better measures are needed to assure that the source of problems are identified and corrected before startup and that the three procedures, EOP-1, DPG-1, and QGP-1 are still not specific on this point.

Finding 4. Followup and corrective action on identified problems is inadequate. This is evidenced by CECO management's failures to fully implement and verify effectiveness of the recommendations made by the Special Nuclear Safety Review Committee in their June 18, 1980, report. Further, review of recent plant events show that this continues to be a weakness. Problems continue to recur where corrective action is either not taken, is delayed, or is ineffective.

Response

Apparent Weakness 3 - Findings 3 & 4

The entire concern of determining the root cause of a scram or equipment malfunction prior to resumption of plant operation is one that is a subject of much frustration and misunderstanding within this utility and the rest of the nuclear industry (NRC, INPO, etc.). First, decisions are made with respect to startup of a unit based upon the best information at the time, and an intensive review by the licensee of this information. All of these decisions are subject to "after-the-fact" detailed review. Furthermore, correcting root causes is very often a long-term, trial and error process because of the complexity and elusiveness of the failure mode.

There are many examples of this, not the least of which is the feed water regulating valve failure history experienced by the Edison BWR's in the early 1970's. The actual correction of these problems took several years and major modifications. The Zion steam generator feedwater controller problem is another example of the same nature.

It is extremely important to point out, however, that in all cases the one question that is asked and resolved by Edison station management to the best of its ability before allowing startup following a scram or in ascertaining the significance of an equipment malfunction is - "If the failure were to occur again, would it be unsafe?" The response to this question has never been in the affirmative, given our analysis of the situation with the facts at hand. Nor have we felt that we "glossed over" the search for the facts.

Clearly, because of the elusive nature of some of the root causes of unit trips, a unit has been started with a subsequent recurrence of the same event. However, any such failure has always been in a safe direction; that is, tripping the reactor. Although such a situation is a challenge to the system and is an availability concern, it is not in the category of a violation of the safe operation of the plant.

As a result of the Safety Review Committee recommendations and practices, each of the stations was thoroughly reviewed with respect to the procedure for startup following a scram. It was concluded that, in the case of Dresden and Quad Cities, their procedures had the Superintendent or his designated alternative approving startup. Our solution to this concern was to elevate the approval following a scram at Zion Station to the Superintendent level, as was being done at Dresden and Quad Cities Stations. It is our philosophy that the Superintendent be held responsible to assure that proper corrective actions are taken such that (1) a startup can be commenced and all safety concerns resolved and (2) a reasonable effort has been taken to preclude reoccurrence of a problem.

In the Special Inspection Report it was pointed out that, in the opinion of the reviewers, our procedures are still ambiguous on the point of requiring an intensive search for the root cause prior to startup. We will review these procedures once again and add statements regarding the importance of finding root causes prior to startup. However, such language is not, in our opinion, the main corrective action. The main corrective action has already been taken in that we have the Plant Superintendent clearly responsible for authorizing startup following a scram. It is he who makes that decision and it is he who is subject to subsequent reviews. By placing the approval at the Superintendent level, the individual having the best understanding of what should or should not be done relative to startup following a scram is charged with the responsibility.

Further, the constant dialogue regarding these decisions made by one individual, is a reinforcement mechanism most useful in modifying and sharpening the decision making process.

Finding 4 relates to followup and corrective actions on identified equipment malfunctions. All of the examples listed relative to Finding 4 are equipment malfunctions of either an elusive nature or those requiring long-term solutions. The real concern suggested is that, based on an after-the-fact review enhanced by hindsight, an aggressive resolution has not been pursued. As pointed out in all of the responses to the listed inspection reports, aggressive and intensive efforts toward the resolution of these issues has always been taken. Be that as it may, this concern will continue to be discussed between the Superintendents and Corporate Office personnel with the intent of trying to improve the NRC perception and our performance on this issue. This is an ongoing effort to improve.

Area (4) - plans to improve uniform implementation of company wide policies and procedures between stations and to assure that benefits from station experiences are being fully shared.

Finding 5. Some company policies and administrative procedures are apparently being implemented differently at each station such that benefits from station experiences are not being fully shared. Examples are: processing, review, and evaluation of DVRs including the system for assigning priorities; on-site review and implementation of off-site recommendations on plant events; application and use of AIR (Action Item Record) Program; trending of plant operational problems; and training on common company policies and procedures.

Response

Apparent Weakness 4 - Finding 5

This concern relates to uniform implementation of company policy and procedures between stations. It is important to note that the term "uniform implementation" is itself vague. Our plants are of different ages, different locations, have different NRC and QA inspectors and, because of their vintage have significantly differing technical specifications. All of these differences create a unique plant such that a carbon copy organization or exact duplication of implementation of all policies is impossible to achieve.

However, it is recognized by the Nuclear Station Division office management that a concerted effort is needed to consolidate and coordinate corporate direction to the stations. A task force was formed for the purpose of reviewing the way policy is communicated to all stations. The task force has been working on the project for one month and it is expected that unified policy documents will be developed such that each of the stations will receive more cohesive direction from the General Office in the future. The approach is expected to be formulated and the issuance of policies begun within the new framework starting early in 1983. It is clearly an ongoing, long-term effort. We do expect to achieve results starting in the spring of next year, i.e. clearly articulated policies for all of our stations.

It must be emphasized that we cannot expect each station to be a carbon copy of other stations because each one is in many ways unique, as explained above. However, it is felt that such an approach will lead to better coordination and better understanding of existing company wide policies. This is the reason for embarking on such an endeavor because it is expected that its result will be a better understanding of policy amongst all of our stations, but not necessarily exact duplication.

Another issue raised by the Special Inspection Report concerns exchange of information among stations to assure that benefits are being fully shared. Starting in 1979 with the expansion and reorganization of the general office staff; this exchange has been improved and enhanced beyond that achieved by the off-site review function. It is a continuing process, employing experienced managers and personnel in the general office who disseminate information between the stations. This has been done on an informal basis and little documentation exists. The impact of this organization, though undocumented, should not be underestimated because it does provide a real tie between functional areas at each station.

Again, in order to formalize this process, and as a result of a self evaluation conducted by the company against INPO corporate management criteria, a task force has been appointed to address trending as well as other related matters. This will serve to improve and document that a meaningful exchange between stations is being achieved. This task force will recommend areas where comparisons of our performances with other utilities as well as in-house experiences can be made. These recommendations will be implemented by January, 1983, and the Nuclear Stations Division Corporate office will perform the review of trends.

ENCLOSURE 2

The Commonwealth Edison Department of Nuclear Safety has reviewed the Special Inspection Report transmitted by Reference (1) and has the following general comments related to the four areas emphasized by the NRC Staff:

1. Plans to clarify policies and procedures and improve training, etc:
  - Observations of the practices at the stations will be made by the Safety Engineering Groups (where they exist) and by Off-Site Review personnel during visits to plants to see if increasing improvement in these areas is appropriate.
2. Improvements in On-Site and Off-Site Reviews, etc:
  - Nuclear Safety has instituted a DVR aging report which summarizes outstanding DVR's and their status. This report is provided to senior management. It is noted that greater attention is resulting from the report with the number of outstanding DVR's decreasing.
3. Steps to assure what causes of scrams are identified and corrected before restart:
  - This is a station operating function but implementation will be monitored by Nuclear Safety. (See Enclosure 1).
4. Plans to improve communications, etc:
  - The OPEX (Operating Experience) System to provide information to the stations has been significantly improved. A NOTEPAD terminal has been provided to the Safety Engineering Group at LaSalle, and additional terminals will be provided as Safety Engineering Groups are established at other stations.

In addition, the following detailed comments are offered with respect to Area 1 (Finding 1) and Area 2 (Finding 2).

Area 1 (Finding 1)

With regard to the NRC Special Inspection Report, one of the issues had to do with the Vice-President's Instruction 1-0-17. This instruction permitted operation outside the limits of Technical Specifications. The outside source referred to by the NRC contended that there should never be operation outside the Technical

Specifications. There are two issues:

1. Should operation outside Technical Specifications be permitted?
2. Is operator understanding of the instruction and its intent inadequate?

With regard to whether operations outside Technical Specifications should be permitted, it is judged that the Commonwealth Edison position is fully justified as set forth in the words of 1-0-17. These words were very carefully negotiated to convey an exact meaning. The NRC has issued a proposed rule in the Federal Register of August 18, 1982 that conveys the same meaning of authorizing operation outside technical specification in unusual circumstances. The wording of the proposed rule is very much like our 1-0-17.

The issue of operator understanding appears to be valid but easily curable. The supplemental action described in Enclosure 1 relative to this question is judged to fully resolve this question.

The Nuclear Safety Department has reviewed 1-0-17 and recommends no change. The possibility of providing examples was considered and believed to be possibly misleading and limiting. Examples could be used in the training program where explanations of any challenges or limitations can be handled interactively between instructor and student.

#### Area 2 (Finding 2)

In the NRC review, a comment was made to the effect that a great number of LER's were signed off by the Off-Site Review on one day, indicating that not much time had been spent in the review. (pg. 37 quoting Dresden Personnel)(pg. 42 Zion reviews).

DVR's require a large variation in the types of reviews required. Some, such as instrument drift resetting, do not require detailed investigation by Off-Site review. At times a larger than usual group of such DVR's or LER's may be processed at the same time during the gaps between the handling of DVR's or LER's that require significant investigation or correlation to identify root causes. The processing in a group did not reflect any less attention than each report required. Using only the signature dates on the completed Off-Site Reviews to determine the time spent by the individual reviewers can be misleading. At Edison all of the three reviewers work in the same office within about fifteen feet of each other and communication during the review process often results in several drafts and discussions before the review is completed. Therefore, it cannot be concluded that dates of final sign off are

indicative of the time spent by each reviewer. The final signed reports are also given another review by the Director of Nuclear Safety in his weekly reading file to assure consistency and quality of reviews.

The whole system of handling and reviewing of DVR's and LER's has been improved and reviews are now handled in much shorter periods than before.

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