AEOD ENGINEERING EVALUATION REPORT*

UNITS: Three Mile Island Unit 1; Davis Besse Unit 1; Sequoyah Unit 1; Palisades; St. Lucie Unit 1

EE REPORT NO. AEOD/E427

DOCKET NOS.: 50-289; 50-346; 50-327; 50-255; 50-335

DATE: November 6, 1984

LICENSEES: General Public Utilities; Toledo Edison Company; Tennessee Valley Authority; Consumers Power Company; Florida Power & Light Company

EVALUATOR/CONTACT: F. Ashe

NSSS/AEs: B&W/Gilbert; B&W/Bechtel; W/Utility; CE/Bechtel; CE/Ebasco

SUBJECT: LICENSEE EVENT REPORTS THAT ADDRESS SITUATIONS WHICH POTENTIALLY COULD RESULT IN OVERLOADING ELECTRICAL EQUIPMENT IN THE EMERGENCY POWER SYSTEM OR PREVENT OPERATION OF THE ONSITE POWER SYSTEM SEQUENCER

EVENT DATES: January 23, 1980; July 9, 1980; December 12, 1980; January 17, 1981; August 27, 1982; November 30, 1982; March 7, 1984.

REFERENCES:
(1) General Public Utilities, LER 80-001 Rev. 1 Docket No. 50-289, dated May 30, 1980.
(2) Toledo Edison Company, LER 80-053 Rev. 1 Docket No. 50-346, dated July 22, 1980.
(3) Tennessee Valley Authority, LER 80-195 Docket No. 50-327, dated December 24, 1980.
(4) General Public Utilities, LER 81-009 Docket No. 50-289, dated October 6, 1981.
(5) Consumers Power Company, LER 82-025 Docket No. 50-255, dated September 10, 1982.
(6) Consumers Power Company, LER 82-044 Docket No. 50-255, dated December 13, 1982.
(7) Florida Power & Light Company, LER 84-001 Docket No. 50-335, dated April 6, 1984.

SUMMARY

This Engineering Evaluation Report provides information concerning situations involving onsite emergency power systems which could result in degradation or loss of safety-related electrical equipment when needed. These situations are identified in the seven referenced licensee event reports (LERs) and were considered to have significant safety implications. In view of this, searches were conducted for the purpose of identifying additional similar LERs which address similar or related situations. The result of these searches was that no such additional recent reports were identified. This result, along with

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previous NRC actions and Industry reports which related to similar situations and safety concerns, tends to suggest that these items have been adequately addressed previously and in general are not a concern for most nuclear plants but rather may be a concern for a small number of specific plants. In view of the possibility that these situations and resulting concerns may exist at specific plants and their potential consequences as well as for awareness purposes, the report suggests that these situations and resulting concerns be included in a forthcoming issue of Power Reactor Events. However, beyond this action we believe that further AEOD actions regarding these items are not warranted at this time.

DISCUSSION

Reference 1 provides the results of an analysis of the engineered safety loads on Class 1E safety buses and their feeds at the Three Mile Island Unit Number 1 Station. As a result of this analysis, it was determined that under normal operating plant conditions and with the loads reasonably balanced between Class 1E 480-volt safety busses identified as 1P and 1S no overload condition would exist. However, another result of this load analysis indicated that an overload condition could exist on buses 1P and 1S upon loss of one engineered safety channel concurrent with one or more adverse conditions. The adverse conditions identified were: 1) load during one-hundred percent power at degraded bus voltage, 2) load during loss of offsite power, 3) load during safety system operation at nominal bus voltage, and 4) load during safety system operation at degraded bus voltage. During the worst case (condition 4) the loads on the 1P and 1S buses could have exceeded the nominal trip settings by approximately 110 and 10 kilowatts, respectively. The consequences for such an overload condition could be the loss of closed cooling water systems which are required to support the emergency core cooling system. To assure integrity of the Class 1E electrical system for the above adverse conditions, three corrective actions were taken. One of these actions involved selecting certain non-safeguard loads to be automatically tripped on receipt of an engineered safeguards signal. Another was the addition of administrative controls applied through the use of procedures to prevent exceeding the bus loading by manually applying loads. The remaining action involved increasing the P and S bus breaker settings so as to assure that these breakers do not trip at less than the largest predicted load for the adverse conditions described.

Reference 2 provides a description of a potentially significant problem involving overloading of the emergency diesel generators at the Davis Besse Station. As described in this reference, on July 9, 1980 a meeting was held between Toledo Edison, the Architect Engineer and the Vendor for the Safety Features Actuation System to review the results of an Integrated Safety Features Actuation System Test. The results of this review indicated a potential problem in that some of the logic modules associated with sequencer steps 2, 3, 4 and 5 actuated before being blocked by the sequencer during actuation of the safety features coincident with a loss of offsite power. Such a condition could result in all of the possible safety loads attempting to start at the same time, thus overloading the associated emergency diesel generator (with high starting torques).

The cause of this potential problem was attributed to the design in that the same signal that actuated the output modules also started the sequencer. Corrective actions taken for this potential problem was to implement a facility change request which added a forty-five to eighty-two millisecond time delay to ensure that the engineered safety feature output logic modules are properly blocked by the sequencer and do not actuate simultaneously during a loss of offsite power. This action should ensure that the sequencer will then unblock the trip logic modules and allow the equipment to be loaded on the emergency diesel generators in the predetermined sequence.

Reference 3 addresses a potentially significant problem involving the emergency diesel generator sets at the Sequoyah Nuclear Station. On December 12, 1980, it was identified that interlocks associated with the emergency feeder breakers to the 6.9-kV shutdown boards could allow a diesel generator set to connect to a shutdown board without operating the load stripping relays and thus overload the emergency diesel generators. Such an overloading condition could occur if a blackout signal was initiated with a diesel generator set already running at rated voltage and frequency but was not connected to the shutdown boards. This situation was attributed to circuit design in that it failed to incorporate provisions for the load shedding logic timing sequences with a diesel generator set already operating at rated voltage and frequency. To correct this potential problem, interlocks were added to the closure circuits of the emergency feeder breakers to ensure that load shedding has occurred before the emergency feeder breakers are allowed to close.

Reference 4 provides the description of a potential problem involving overloading of the diesel generators at the Three Mile Island Unit 1 Nuclear Station. As described in this reference, if actuation of the engineered safeguards is followed by a loss of offsite power, the diesel generator breaker would close immediately after the feeder breaker to the bus tripped. The closure of the diesel breaker could occur while residual voltage remained on the bus and in some cases before bus load shedding has occurred. Potential consequences for this situation are possible damage to motor or generator end turns and excessive voltage dip on the bus the diesel generator is supplying. This potential problem was attributed to the design in that provisions for such a low probability sequence of events was apparently not incorporated into the original design. Corrective action for this potential problem was to implement a design change which would delay closure of the diesel generator breaker.

Reference 5 addresses a potentially significant problem involving the sequencer logic circuits for the onsite power system at the Palisades Nuclear Plant. As described in this reference, during a review of the sequencer logic circuits by the Architect Engineer, it was determined that following a loss of offsite power and normal shutdown sequencer operation, the design bases sequencer would not operate if a safety injection signal was received more than fifty-five seconds after loss of power. This situation probably resulted from determining during system design and review that such a sequence of events was not credible. Corrective action for this item was to install a modified design to eliminate the potential problem.

Reference 6 addresses a potentially significant problem involving selected motor control centers, feeder breakers, and cables at the Palisades Nuclear Station. This reference addresses two conditions involving a postulated loss of coolant accident (LOCA) in which the projected loads could exceed the trip settings of the feeder breakers and the rating of the cables. One of these conditions requires that the station batteries be discharged thereby causing the battery chargers to draw maximum current. This would result in an overload situation of motor control centers identified as MCC-1 and MCC-2 during the first few minutes after a safety injection signal is initiated.

The second condition occurs approximately two hours following a LOCA when the hydrogen recombiners could potentially be loaded onto MCC-1 and MCC-2. Even with the station batteries fully charged, loading the hydrogen recombiners could result in an overload situation.

The conditions described above developed after the hydrogen recombiners and the security system transformer were added as loads to MCC-1 and MCC-2. The load studies conducted in each instance utilized the load data provided in the Final Safety Analysis Report for the Palisades Station. The load data for MCC-1 and MCC-2 apparently contained minor errors and did not consider the possibility of a discharged battery. As a result, although the load studies showed the addition of new loads to be acceptable, a potential overload situation was in fact created.

These potential overload problems were corrected by modifying the appropriate circuits. In addition, plant procedures were modified to require performance of a thorough load study prior to adding any new loads to safety-related load centers or switchgear.

Reference 7 addresses a potential situation at St. Lucie Unit Number 1 involving the diesel generator loading sequences under certain accident conditions. At this station the undervoltage relaying in the 480-volt switchgear is used to shed the connected load on 480-volt buses and start the emergency diesel generators on detection of loss of normal ac power. The conditions to start an emergency diesel generator at this plant are: 1) loss of offsite power and/or 2) receipt of a containment isolation signal, a safety injection actuation signal or containment spray actuation signal. Following a loss of offsite power or undervoltage condition subsequent to the receipt of any one or a combination of the signals identified in item 2, an emergency diesel generator may attempt to pick up an additional 780 kilowatts (maximum) of load due to a time delay load shedding scheme associated with the 480-volt buses. This load shedding scheme has a time delay of eight seconds prior to actuation. Thus, if a diesel generator is already running when loss of offsite power occurs, the associated output circuit breaker for the diesel generator would close immediately and load shedding would not occur due to the built-in eight-second time delay. To prevent this situation, this time delay will be bypassed during a loss of offsite power condition.

Six of the seven licensee event reports addressed above provide descriptions of situations which could potentially result in overloading safety-related electrical equipment such as emergency diesel generators, cables, buses and feeder breakers. Most of these potential overloading problems for the identified situations may be attributed to the design of the control circuitry for onsite Class 1E systems. However, another factor which contributes to overloading of Class 1E electrical equipment is the one identified in Reference 6. That is, in many nuclear stations additional electrical loads have been added to the Class 1E system since its original installation. These loads were added to the system with no increase in the emergency electrical system capacity. Thus, the original capacity margins have been decreased. Reviews of operating experiences have not shown that this factor is one which is cause for concern at this time. Also, the voltage analyses which were performed within the last five years for Class 1E systems at operating reactors should have identified any concerns resulting from this contributing factor.

The remaining report addresses a situation in which the sequencer for the onsite emergency power system would not operate. These seven reports address potentially significant safety problems in that such situations may result in degradation or loss of safety-related electrical equipment when needed.

In view of safety implications for these reports, searches were conducted for additional license event reports (LERs) which addressed similar conditions or situations. The result of these searches was that no such additional reports were identified. Based on this result along with previous AEOD and Industry reports which addressed similar concerns and actions taken by NRC and licensees, we believe that the potentially significant concerns identified and described above have been adequately addressed previously and that in general they are not applicable to most nuclear plants. This being the case, we conclude that these potential concerns are not generic although the identified or similar concerns may apply to a few specific nuclear plants.

FINDINGS

Based on the information presented in the discussion above, the following findings are provided:

1. Four of the seven licensee event reports addressed above provide descriptions of situations which potentially could result in overloading the emergency diesel generators. Two of the remaining three reports address situations which potentially could result in overloading safety buses or feeder breakers and cables. The remaining report addresses a situation in which the design bases sequencer would not operate. These seven reports have potentially significant safety implications in that the situations identified could result in degradation or loss of safety-related electrical equipment when needed.

2. Most of the potential overload problems identified in this report can be clearly attributed to the design of the control circuitry for onsite Class 1E systems. Another contributing factor to overloading of Class 1E electrical equipment in nuclear plants has been the addition of electrical loads to this system without modifying its original installed capacity.

However, reviews of operating experiences have not shown that this factor is one which is cause for concern at this time. Further, the voltage analyses which were performed within the last five years for Class 1E systems at operating reactor stations should have identified any concerns resulting from this contributing factor.

3. The result of searches for additional similar reports (as those identified above) was that no such additional reports were identified. This result along with previous AEOD and Industry reports which address similar concerns and actions taken by licensees tends to suggest that these types of concerns have been adequately addressed previously and in general do not apply to most nuclear plants but rather may apply to a few specific plants.

CONCLUSION

Based on the above information, we believe that the situations discussed in the seven referenced licensee event reports would not result in similar or related safety concerns for most nuclear plants, although for these situations similar or related concerns may be applicable to a few specific plants. In view of the possibility that these or similar situations and resulting concerns, and their potential consequences, may exist at specific plants as well as for awareness purposes, we believe that it is appropriate to include these items in a forthcoming issue of Power Reactor Events. However, beyond this action, we believe that further AEOD actions regarding these items are not warranted at this time.

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

NOV 6 1984

AEOD/E427

MEMORANDUM FOR: Karl V. Seyfrit, Chief
Reactor Operations Analysis Branch
Office for Analysis and Evaluation
of Operational Data

THRU: Matthew Chiramal, Lead Engineer
Plant Systems Unit
Reactor Operations Analysis Branch

FROM: Frank Ashe, Engineer
Plant Systems Unit
Reactor Operations Analysis Branch

SUBJECT: LICENSEE EVENT REPORTS THAT ADDRESS SITUATIONS WHICH POTENTIALLY COULD RESULT IN OVERLOADING ELECTRICAL EQUIPMENT IN THE EMERGENCY POWER SYSTEM OR PREVENT OPERATION OF THE ONSITE POWER SYSTEM SEQUENCER

The enclosed Engineering Evaluation Report is forwarded for your information. This report provides information concerning situations involving onsite emergency power systems. The report addresses seven licensee event reports which provide descriptions of situations which potentially could result in overloading safety related electrical equipment or prevent operation of the sequencer associated with an onsite emergency power system. The resulting safety concern relating to such situations is that the operation of safety related electrical equipment could be degraded or lost at a time when needed.

Based on our review of these situations, we do not believe that they would result in similar or related concerns at most nuclear plants, although they may result in such concerns at a few specific plants. In view of the latter possibility and potential consequences of these situations as well as for awareness purposes, we believe that it is appropriate to include these situations and concerns in a forthcoming issue of Power Reactor Events. However, beyond this action we believe that further AEOD actions for these items are not warranted at this time.

Frank Ashe

Frank Ashe, Plant Systems Engineer
Plant System Unit
Reactor Operations Analysis Branch

Enclosure:
As stated

cc: J. Crooks, AEOD
M. Srinivasan, NRR

AEOD ENGINEERING EVALUATION REPORT*

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(7) Florida Power & Light Company, LER 84-001 Docket No. 50-335, dated April 6, 1984.

SUMMARY

This Engineering Evaluation Report provides information concerning situations involving onsite emergency power systems which could result in degradation or loss of safety-related electrical equipment when needed. These situations are identified in the seven referenced licensee event reports (LERs) and were considered to have significant safety implications. In view of this, searches were conducted for the purpose of identifying additional similar LERs which address similar or related situations. The result of these searches was that no such additional recent reports were identified. This result, along with

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previous NRC actions and Industry reports which related to similar situations and safety concerns, tends to suggest that these items have been adequately addressed previously and in general are not a concern for most nuclear plants but rather may be a concern for a small number of specific plants. In view of the possibility that these situations and resulting concerns may exist at specific plants and their potential consequences as well as for awareness purposes, the report suggests that these situations and resulting concerns be included in a forthcoming issue of Power Reactor Events. However, beyond this action we believe that further AEOD actions regarding these items are not warranted at this time.

DISCUSSION

Reference 1 provides the results of an analysis of the engineered safety loads on Class 1E safety buses and their feeds at the Three Mile Island Unit Number 1 Station. As a result of this analysis, it was determined that under normal operating plant conditions and with the loads reasonably balanced between Class 1E 480-volt safety busses identified as 1P and 1S no overload condition would exist. However, another result of this load analysis indicated that an overload condition could exist on buses 1P and 1S upon loss of one engineered safety channel concurrent with one or more adverse conditions. The adverse conditions identified were: 1) load during one-hundred percent power at degraded bus voltage, 2) load during loss of offsite power, 3) load during safety system operation at nominal bus voltage, and 4) load during safety system operation at degraded bus voltage. During the worst case (condition 4) the loads on the 1P and 1S buses could have exceeded the nominal trip settings by approximately 110 and 10 kilowatts, respectively. The consequences for such an overload condition could be the loss of closed cooling water systems which are required to support the emergency core cooling system. To assure integrity of the Class 1E electrical system for the above adverse conditions, three corrective actions were taken. One of these actions involved selecting certain non-safeguard loads to be automatically tripped on receipt of an engineered safeguards signal. Another was the addition of administrative controls applied through the use of procedures to prevent exceeding the bus loading by manually applying loads. The remaining action involved increasing the P and S bus breaker settings so as to assure that these breakers do not trip at less than the largest predicted load for the adverse conditions described.

Reference 2 provides a description of a potentially significant problem involving overloading of the emergency diesel generators at the Davis Besse Station. As described in this reference, on July 9, 1980 a meeting was held between Toledo Edison, the Architect Engineer and the Vendor for the Safety Features Actuation System to review the results of an Integrated Safety Features Actuation System Test. The results of this review indicated a potential problem in that some of the logic modules associated with sequencer steps 2, 3, 4 and 5 actuated before being blocked by the sequencer during actuation of the safety features coincident with a loss of offsite power. Such a condition could result in all of the possible safety loads attempting to start at the same time, thus overloading the associated emergency diesel generator (with high starting torques).

The cause of this potential problem was attributed to the design in that the same signal that actuated the output modules also started the sequencer. Corrective actions taken for this potential problem was to implement a facility change request which added a forty-five to eighty-two millisecond time delay to ensure that the engineered safety feature output logic modules are properly blocked by the sequencer and do not actuate simultaneously during a loss of offsite power. This action should ensure that the sequencer will then unblock the trip logic modules and allow the equipment to be loaded on the emergency diesel generators in the predetermined sequence.

Reference 3 addresses a potentially significant problem involving the emergency diesel generator sets at the Sequoyah Nuclear Station. On December 12, 1980, it was identified that interlocks associated with the emergency feeder breakers to the 6.9-kV shutdown boards could allow a diesel generator set to connect to a shutdown board without operating the load stripping relays and thus overload the emergency diesel generators. Such an overloading condition could occur if a blackout signal was initiated with a diesel generator set already running at rated voltage and frequency but was not connected to the shutdown boards. This situation was attributed to circuit design in that it failed to incorporate provisions for the load shedding logic timing sequences with a diesel generator set already operating at rated voltage and frequency. To correct this potential problem, interlocks were added to the closure circuits of the emergency feeder breakers to ensure that load shedding has occurred before the emergency feeder breakers are allowed to close.

Reference 4 provides the description of a potential problem involving overloading of the diesel generators at the Three Mile Island Unit 1 Nuclear Station. As described in this reference, if actuation of the engineered safeguards is followed by a loss of offsite power, the diesel generator breaker would close immediately after the feeder breaker to the bus tripped. The closure of the diesel breaker could occur while residual voltage remained on the bus and in some cases before bus load shedding has occurred. Potential consequences for this situation are possible damage to motor or generator end turns and excessive voltage dip on the bus the diesel generator is supplying. This potential problem was attributed to the design in that provisions for such a low probability sequence of events was apparently not incorporated into the original design. Corrective action for this potential problem was to implement a design change which would delay closure of the diesel generator breaker.

Reference 5 addresses a potentially significant problem involving the sequencer logic circuits for the onsite power system at the Palisades Nuclear Plant. As described in this reference, during a review of the sequencer logic circuits by the Architect Engineer, it was determined that following a loss of offsite power and normal shutdown sequencer operation, the design bases sequencer would not operate if a safety injection signal was received more than fifty-five seconds after loss of power. This situation probably resulted from determining during system design and review that such a sequence of events was not credible. Corrective action for this item was to install a modified design to eliminate the potential problem.

Reference 6 addresses a potentially significant problem involving selected motor control centers, feeder breakers, and cables at the Palisades Nuclear Station. This reference addresses two conditions involving a postulated loss of coolant accident (LOCA) in which the projected loads could exceed the trip settings of the feeder breakers and the rating of the cables. One of these conditions requires that the station batteries be discharged thereby causing the battery chargers to draw maximum current. This would result in an overload situation of motor control centers identified as MCC-1 and MCC-2 during the first few minutes after a safety injection signal is initiated.

The second condition occurs approximately two hours following a LOCA when the hydrogen recombiners could potentially be loaded onto MCC-1 and MCC-2. Even with the station batteries fully charged, loading the hydrogen recombiners could result in an overload situation.

The conditions described above developed after the hydrogen recombiners and the security system transformer were added as loads to MCC-1 and MCC-2. The load studies conducted in each instance utilized the load data provided in the Final Safety Analysis Report for the Palisades Station. The load data for MCC-1 and MCC-2 apparently contained minor errors and did not consider the possibility of a discharged battery. As a result, although the load studies showed the addition of new loads to be acceptable, a potential overload situation was in fact created.

These potential overload problems were corrected by modifying the appropriate circuits. In addition, plant procedures were modified to require performance of a thorough load study prior to adding any new loads to safety-related load centers or switchgear.

Reference 7 addresses a potential situation at St. Lucie Unit Number 1 involving the diesel generator loading sequences under certain accident conditions. At this station the undervoltage relaying in the 480-volt switchgear is used to shed the connected load on 480-volt buses and start the emergency diesel generators on detection of loss of normal ac power. The conditions to start an emergency diesel generator at this plant are: 1) loss of offsite power and/or 2) receipt of a containment isolation signal, a safety injection actuation signal or containment spray actuation signal. Following a loss of offsite power or undervoltage condition subsequent to the receipt of any one or a combination of the signals identified in item 2, an emergency diesel generator may attempt to pick up an additional 780 kilowatts (maximum) of load due to a time delay load shedding scheme associated with the 480-volt buses. This load shedding scheme has a time delay of eight seconds prior to actuation. Thus, if a diesel generator is already running when loss of offsite power occurs, the associated output circuit breaker for the diesel generator would close immediately and load shedding would not occur due to the built-in eight-second time delay. To prevent this situation, this time delay will be bypassed during a loss of offsite power condition.

Six of the seven licensee event reports addressed above provide descriptions of situations which could potentially result in overloading safety-related electrical equipment such as emergency diesel generators, cables, buses and feeder breakers. Most of these potential overloading problems for the identified situations may be attributed to the design of the control circuitry for onsite Class 1E systems. However, another factor which contributes to overloading of Class 1E electrical equipment is the one identified in Reference 6. That is, in many nuclear stations additional electrical loads have been added to the Class 1E system since its original installation. These loads were added to the system with no increase in the emergency electrical system capacity. Thus, the original capacity margins have been decreased. Reviews of operating experiences have not shown that this factor is one which is cause for concern at this time. Also, the voltage analyses which were performed within the last five years for Class 1E systems at operating reactors should have identified any concerns resulting from this contributing factor.

The remaining report addresses a situation in which the sequencer for the onsite emergency power system would not operate. These seven reports address potentially significant safety problems in that such situations may result in degradation or loss of safety-related electrical equipment when needed.

In view of safety implications for these reports, searches were conducted for additional license event reports (LERs) which addressed similar conditions or situations. The result of these searches was that no such additional reports were identified. Based on this result along with previous AEOD and Industry reports which addressed similar concerns and actions taken by NRC and licensees, we believe that the potentially significant concerns identified and described above have been adequately addressed previously and that in general they are not applicable to most nuclear plants. This being the case, we conclude that these potential concerns are not generic although the identified or similar concerns may apply to a few specific nuclear plants.

FINDINGS

Based on the information presented in the discussion above, the following findings are provided:

1. Four of the seven licensee event reports addressed above provide descriptions of situations which potentially could result in overloading the emergency diesel generators. Two of the remaining three reports address situations which potentially could result in overloading safety buses or feeder breakers and cables. The remaining report addresses a situation in which the design bases sequencer would not operate. These seven reports have potentially significant safety implications in that the situations identified could result in degradation or loss of safety-related electrical equipment when needed.

2. Most of the potential overload problems identified in this report can be clearly attributed to the design of the control circuitry for onsite Class 1E systems. Another contributing factor to overloading of Class 1E electrical equipment in nuclear plants has been the addition of electrical loads to this system without modifying its original installed capacity.

However, reviews of operating experiences have not shown that this factor is one which is cause for concern at this time. Further, the voltage analyses which were performed within the last five years for Class 1E systems at operating reactor stations should have identified any concerns resulting from this contributing factor.

3. The result of searches for additional similar reports (as those identified above) was that no such additional reports were identified. This result along with previous AEOD and Industry reports which address similar concerns and actions taken by licensees tends to suggest that these types of concerns have been adequately addressed previously and in general do not apply to most nuclear plants but rather may apply to a few specific plants.

CONCLUSION

Based on the above information, we believe that the situations discussed in the seven referenced licensee event reports would not result in similar or related safety concerns for most nuclear plants, although for these situations similar or related concerns may be applicable to a few specific plants. In view of the possibility that these or similar situations and resulting concerns, and their potential consequences, may exist at specific plants as well as for awareness purposes, we believe that it is appropriate to include these items in a forthcoming issue of Power Reactor Events. However, beyond this action, we believe that further AEOD actions regarding these items are not warranted at this time.