

B. Ralph Sylvia
Senior Vice President

Detroit
Edison

6400 North Dixie Highway
Newport, Michigan 48166
(313) 586-4150

July 15, 1988
NRC-88-0175

Director, Office of Enforcement
U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D. C. 20555

- References:
- 1) Fermi 2
NRC Docket No. 50-341
Facility Operating License No. NPF-43
 - 2) 10 CFR 2.205
 - 3) NRC Letter, Davis to Sylvia,
dated June 16, 1988
 - 4) LER 87-052, dated November 14, 1987
 - 5) NRC Letter, Greenman to Sylvia, dated May 9, 1988
 - 6) Detroit Edison Letter, NRC-87-0209, Sylvia to NRC,
dated October 22, 1987
 - 7) Detroit Edison Letter, NRC-87-0211, Sylvia to NRC,
dated October 27, 1987
 - 8) Detroit Edison Letter, NRC-87-0212, Orser to NRC,
dated October 29, 1987
 - 9) NRC Letter, Stefano to Sylvia, dated
November 13, 1987
 - 10) Detroit Edison Letter, NRC-87-0214, dated
November 3, 1987

Subject: Answer to a Notice of Violation and
Reply to a Notice of Violation

By letter dated June 16, 1988, (Reference 3), the NRC Staff notified Detroit Edison that it was proposing to impose Civil Penalties in the amount of \$200,000 for alleged violations set forth in Notice of Violation EA 88-104. Enclosure 1 of this letter provides Detroit Edison's answer to the Notice of Violation and Proposed Imposition of Civil Penalties in accordance with 10 CFR 2.205. Enclosure 2 contains our reply to the Notice of Violation filed pursuant to 10 CFR 2.201.

8807250135 880715
PDR ADOCK 05000341
G PNU

IE14
11

USNRC
July 15, 1988
NRC-88-0175
Page 2

Detroit Edison received a strong message from the NRC letter (Reference 3). The message went beyond the specific instances to a general concern for an adequate appreciation of regulatory requirements and our ability to resolve regulatory and technical issues accurately, completely and timely. Actions which we are taking are discussed in Enclosure 1, Section II. While we recognize the need to demonstrate our strong appreciation for Technical Specifications and other regulatory requirements, we do not believe the technical facts regarding the two specific cases discussed in Reference 3 warrant escalated enforcement for the Primary Containment Radiation Monitoring System or a civil penalty for the Noninterruptible Air System. Therefore, we request mitigation and remission of the \$200,000 civil penalty to the \$50,000 level.

Detroit Edison acknowledges the errors made in 1984 with the Primary Containment Radiation Monitoring System. We discovered them in October 1987, reported, took immediate corrective action, and made design modifications to permanently correct the problem. Enclosure 1, Section I provides details of our actions and our position in relation to these additional penalties.

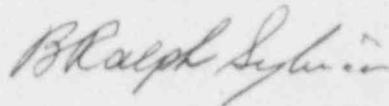
The Noninterruptible Air System case is discussed in Enclosure 1, Section II and Enclosure 2, Section II. We acknowledge that this issue is subject to interpretation but we did not believe at the time nor do we believe now that we operated Fermi 2 in violation of our Technical Specifications.

Enclosure 1 to this letter discusses each of the issues separately and the reasons why mitigation and remission, respectively, are appropriate.

Detroit Edison is committed to safe operation of Fermi 2 in accordance with our license. We would like to meet with you and other NRC management personnel, including Mr. T. Murley, Mr. V. Stello, Mr. J. Taylor and Mr. A. Davis regarding these and related matters.

If you have any questions, please contact Ms. L. Goodman at (313) 586-4211.

Sincerely,

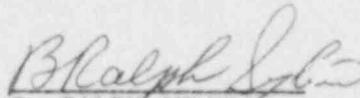


Enclosures

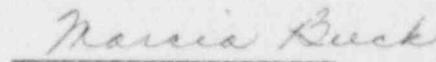
cc: Mr. R. W. Cooper
Mr. A. B. Davis
Mr. R. C. Knop
Mr. T. R. Quay
Mr. W. G. Rogers
USNRC Region III

USNRC
July 15, 1988
NRC-88-0175
Page 3

I, B. RALPH SYLVIA, do hereby affirm that the foregoing statements are based on facts and circumstances which are true and accurate to the best of my knowledge and belief.


B. RALPH SYLVIA
Senior Vice President

On this 15th day of July, 1988, before me personally appeared B. Ralph Sylvia, being first duly sworn and says that he executed the foregoing as his free act and deed.


Notary Public

MARCIA BUCK
Notary Public, Washtenaw County, MI
My Commission Expires Jan. 11, 1992

*acting in Monroe
County, MI*

ANSWER TO NOTICE OF VIOLATION

I. PRIMARY CONTAINMENT RADIATION MONITORING SYSTEM

A) Admission of Violation

The Company admits that on October 17, 1987 the containment isolation configuration for the primary containment radiation monitoring (PCRMS) system violated the requirements of GDC 56.

B) Extenuating Circumstances

The circumstances surrounding the determination that the containment isolation valve configuration for the PCRMS did not meet GDC 56, and subsequent corrective actions have been discussed in References 3, 4 and 5.

On October 17, 1987, it was determined that there was a possibility that the PCRMS isolation valves were questionable since they did not appear in Technical Specifications or the Updated Final Safety Analysis Report. Containment isolation valves in the Division I Primary Containment Atmospheric Monitoring System, upstream of the PCRMS valves, were maintained closed until successful leak rate tests were performed on the PCRMS valves the following day. The event was reported to the NRC promptly, in accordance with 10CFR50.72. On October 22, a Technical Specification change was submitted proposing the addition of the valves to the specifications (Reference 6). Onsite review continued and the PCRMS valves were maintained closed pending the outcome of the evaluation. On October 24, logic functional testing was performed on the PCRMS valves. Further review resulted in a determination that the design did not meet GDC 56. This was discussed with the NRC, who had also reached this conclusion, on October 26, 1987. A request for a temporary exemption was submitted in Reference 7 on October 27, 1987, which included proposed interim compensatory actions. Additional interim actions were provided in Reference 8. It was granted on November 13, 1987 by Reference 9. Following approval of the temporary exemption, the PCRMS valves were reopened.

Detroit Edison does not believe that these actions were minimal. Action was taken promptly to isolate the affected system and perform leakage testing. Submittals were made in a timely manner. The event was promptly reported to the NRC and frequent communications occurred between Detroit Edison and the NRC until

the interim resolution was reached. Based on the actions taken, an increase in the civil penalty is not warranted.

In the letter granting the temporary exemption (Reference 9), the NRC wrote in part:

Subsequent discussions between DECo and the Commission's staff determined that additional automatic isolation valves with proper signal diversity would be required to satisfy GDC 56.

and

The Commission further determines that special circumstances, as provided in 10 CFR 50.12(a)(2)(v), are present justifying the exemption, namely that the exemption would provide only temporary relief from the applicable regulation, and DECo has made a good faith effort to comply with the regulation. The good faith effort by DECo is demonstrated by its relatively prompt response following DECo's discovery that it misinterpreted earlier established requirements. This discovery occurred during an October 16, 1987, maintenance outage. This discovery was documented in the DECo's letters of October 27, October 29 and November 2, 1987.

Based on this prompt response and DECo's commitment to implement the long-term resolution at the earliest practical opportunity (i.e., the March 1988 leak rate test outage), the Commission concludes that DECo has made a good faith effort to come into compliance with the requirements of GDC 56.

Based on this NRC evaluation, it can again be concluded that more than minimal corrective actions were taken initially.

However, if the increased penalty is due to actions taken in 1984 rather than Detroit Edison's response in October 1987, again an escalation in the penalty amount is not appropriate. The violation is specifically against the design modification performed in 1984 and inadequate incorporation of the change into plant documents. Since the actions taken in 1984 were the cause of the violation, these actions should not also be responsible for escalation of the penalty.

The second supplemental penalty was due to past performance in the engineering area. The specific example used was Civil Penalty EA87-232, which was for the 72CF Bus design. The 72 CF Bus violation involved detection of an original electrical design deficiency in September 1987. The civil penalty for the 72 CF Bus violation was reduced based on prompt and extensive corrective action.

Detroit Edison believes that increasing the civil penalty on the PCRMS violation because of the 72 CF Bus design deficiency is inappropriate. In both cases, existing problems were detected by us, reported, and action was taken to address the situation. We believe the purpose of the provision in 10 CFR 2 for increasing a penalty based on repeat occurrences is to penalize utilities for ineffective corrective action. Use of this provision is appropriate when a licensee violates a regulation, supposedly takes corrective action, but then repeats the violation. Increasing the civil penalty is not appropriate when two existing unrelated design problems are discovered in the same general time period. While in both instances, previous design problems were identified, the 72 CF Bus event involved an original electrical design deficiency, while in the PCRMS case, a modification to valve configuration was inadequately performed. Therefore, the problems are not related. Recognition should be given for detection and reporting of these pre-existing deficiencies, as was done in the case of the 72 CF Bus. Additional penalization seems counter to our mutual efforts to ensure maximum safety. For this reason, Detroit Edison believes the additional 50% levied based on repeatedness should be remitted.

Appendix C of 10 CFR 2 addresses 5 factors which are considered in the determination of the appropriate civil penalty. This first factor is prompt identification and reporting. Reduction of up to 50% may be given for self-identification and reporting. Detroit Edison promptly reported, via the Emergency Notification System, that the containment isolation valves for PCRMS were questionable. The second factor is promptness of corrective action. We promptly closed upstream containment isolation valves and prepared and performed a leakage test procedure for the PCRMS valves. The extent of the corrective actions is discussed in Enclosure 2, Section I.

The third factor in Appendix C of 10 CFR 2 is past performance. As discussed earlier, the treatment of the 72 CF Bus design deficiency as a previous occurrence whose corrective action should have prevented this event from occurring is not appropriate. Corrective action for an original design problem discovered in September 1987 could not have affected a modification performed in 1984.

We recognize, however, that we are responsible for the design configuration of the plant, both existing and when performing modifications. We have completed a Safety System Functional Inspection (SSFI) of the High Pressure Coolant Injection System. We plan to perform additional SSFIs, with priority being given to the systems most important to plant safety.

Enclosure 1

NRC-88-0175

Page

4

The fourth and fifth factors, prior notice of the problem and multiple examples of a particular violation being discovered during the inspection period do not apply to this violation. Based on this evaluation of the factors in 10 CFR 2, Appendix C, Section V.B, increase of the base penalty was not appropriate.

II. NONINTERRUPTIBLE AIR SYSTEM PROPOSED CIVIL PENALTY

A. Denial of Violation

To Detroit Edison's knowledge the facts in this matter are not in dispute. Enclosure 2, Section II contains a discussion of NIAS and the circumstances that existed while one control air compressor was out of service. The significant material facts are:

- 1) That one of the Licensing documents for Fermi 2, the Updated Final Safety Analysis Report (UFSAR), clearly describes the situation which gives rise to these two alleged violations. It states "There is a normally closed intertie between the Division I and II noninterruptible control air system. During a maintenance outage of the supply to one of these divisions, the intertie is opened so that the division having the outage can be supplied by the other division." At the time cited in the alleged violations the Division II air compressor was out of service for maintenance and the intertie was open. The Division I compressor was capable of serving the emergency air needs of both Divisions.
- 2) With the Final Safety Analysis Report (FSAR) fully describing the above course of intended operation, the License NPF-43 was issued with no limitation or prohibition included which informed Detroit Edison that it could not operate in the manner described. Quite the opposite was true. At the time of Licensing it is the Company's belief that active discussion took place between Detroit Edison's representatives and the NRC Staff (NRR) with a resulting decision made not to include a specific Technical Specification Requirement, with a Limiting Condition of Operation, to address the noninterruptible air supply. Therefore, Detroit Edison was rightly lead to believe its proposed method of operation as described in the FSAR was acceptable to the NRC.

Detailed information concerning NIAS is contained in Enclosure 2, Section II and the NRC's Inspection Report 88-014. However, it is uncontested that there is no Regulation, Order, or License Condition which makes the method of operation of the noninterruptible air supply as described in the UFSAR illegal. Rather, to support its position that a violation occurred the Staff must rely upon an interpretation of a general provision of the Technical Specifications involving the definition of Operable or having Operability. Detroit Edison submits that the NRC Staff's interpretation of this general definition cannot support a finding of a violation when viewed in the context of the licensing history of this facility as cited above. The alleged violations

did not occur because the record shows that NIAS was available through the intertie to both the Control Room Emergency Filtration System Flowpath Dampers and Standby Gas Treatment System. Only if an additional requirement of complete independence of the two NIAS divisions is required can the result in the Staff position be achieved, resulting in the alleged violations.

However, as expressed above, no such requirement exists as a Regulation, Order or License condition and such a requirement would be contrary to the design of the system. Moreover, to now penalize Detroit Edison as a result of such an interpretation would be grossly unfair and unreasonable to Detroit Edison, who had a reasonable expectation of being allowed to operate in accordance with its licensing documents unless prohibited by the Agency from doing so by Regulation, Order or License Condition.

B. Extenuating Circumstances

Even if the NRC should find that violations did occur in this instance, for the reasons cited above, a situation is described where it would be appropriate for remission or mitigation of the proposed penalty. It is clear that Detroit Edison relied upon its understanding of the Licensing history of Fermi 2 and its resultant legal obligations in taking the actions which it took. The record in this matter asserts no facts that Detroit Edison acted otherwise. In addition, as described in greater detail in Enclosure 2, Section II, additional steps were taken and self-imposed restraints imposed by the Company on continued operations of Fermi 2. These actions were taken as a result of management involvement and recognition of an operating condition which should not be allowed to continue beyond a reasonable period of time. However, for the NRC Staff to interpret this involvement and self-imposed restraint as some type of admission that action of this type was legally mandated would be in error.

Detroit Edison believes that its actions are consistent with the NRC's views of greater management involvement and prudent operating practices. So, if the NRC finds that this staff interpretation is correct in this factual context, then Detroit Edison's actions should be considered in light of its understanding of its UFSAR and the proposed penalties should be remitted or mitigated, not doubled. As indicated above, the plant was not allowed to operate in a degraded mode from its design basis.

C. Additional Discussion

Personnel at Fermi 2 have a positive appreciation for Technical Specifications. We realize we have to demonstrate this appreciation, not just pay lip service. The necessity for strict adherence to Technical Specifications has been discussed at accountability meetings which are held following selected events involving personnel error. To increase the understanding of the prime users of Technical Specifications, the operating crews, we recently provided special training on the basis of Technical Specifications. Additionally, case studies involving use of Technical Specifications have been incorporated into the continuing training program.

These actions are part of the Technical Specification Improvement Program which was designed to improve our implementation and understanding of the specifications, as well as to identify necessary improvements to the Technical Specifications. This program commenced at the end of 1987 and will be completed during 1988.

Discussion has been conducted between NRC representatives and Detroit Edison on the merits of an "operability matrix". Currently, we have established a location in the Control Room to maintain any determinations and clarifications regarding support systems so that they will be readily available if future questions arise. We have said that we will re-evaluate the need for an "operability matrix" following completion of the Technical Specification Improvement Program. Until the evaluation of the specifications is complete, preparation of a support matrix is inappropriate. An "operability matrix" or other means of documenting support systems must be prepared with great care. An inadequate "operability matrix" would be more harmful than not having one, since currently each question requires evaluation. If a matrix exists, it will be used for such determinations without further investigation.

We are commencing development of guidelines for use by Plant Operations in the determination of operability. The guidelines will be completed by September 1, 1988. Training will be provided in the use and basis of these guidelines. Use of the guidelines will improve the operators knowledge of support system requirements, since they will be involved in the operability determinations. We feel this approach is beneficial since by requiring operator involvement it will improve their understanding. We do not want to substitute a document for understanding and operator involvement in operability

determinations. Upon completion of the Technical Specification Improvement Program, based on the knowledge gained in use of the guidelines and from the program, we will be developing a support system reference document.

It should be noted that if we had an operability matrix prior to the NIAS compressor failure, the matrix would not have established any shorter out-of-service time than was used. The difference would have been that an individual evaluation would not have been necessary.

Detroit Edison has recently augmented its management staff with nuclear experienced professionals. The collective experience in applying Technical Specifications and regulations to an operating plant will serve to strengthen Fermi 2's performance in this area in the future.

REPLY TO A NOTICE OF VIOLATION

I. PRIMARY CONTAINMENT RADIATION MONITORING SYSTEM

Statement of Violation

On June 16, 1988, the NRC issued a Severity Level III violation to Detroit Edison for the original design of the Primary Containment Radiation Monitoring System (PCRMS). The basis of the violation was that the containment isolation provided for PCRMS did not meet the requirements of General Design Criteria (GDC) 56.

In the Notice of Violation you stated:

10CFR Part 50, Appendix A, General Design Criterion 56 requires, in part, that each line that connects directly to the containment atmosphere and penetrates primary reactor containment shall be provided with containment isolation valves both inside and outside primary containment unless it can be demonstrated that the containment isolation provisions for a specific class of lines, such as instrument lines, are acceptable on some other defined basis.

Contrary to the above, as of October 17, 1987, the containment isolation configuration for the primary containment radiation monitoring (PCRMS) system violated the requirements of General Design Criteria 56 in that containment isolation valves were not provided on the system lines both inside and outside primary containment and this configuration was not accepted on some other defined basis.

Admission or Denial of the Violation

Detroit Edison concurs that the design of the PCRMS did not meet the requirements of GDC 56 and that an approved exception to the criteria did not exist.

Causes of the Violation

In 1984, it was Detroit Edison's intent to treat the piping leading to PCRMS as instrument lines as provided for in Safety Guide 11, "Instrument Lines Penetrating Primary Reactor Containment" dated March 10, 1971. While it was the belief of the Detroit Edison personnel involved in the design modification and discussions of the modification with the NRC in 1984 that the position was acceptable, no documentation of the NRC's concurrence with that position has been

discovered. Therefore, Detroit Edison either failed to accurately communicate its position on the design of the PCRMS isolation to the NRC or failed to obtain documentation of NRC concurrence to its position.

Corrective Actions Taken and Results Achieved

Upon discovery of the potential inadequacy in containment isolation design, the manual isolation valves in piping leading to PCRMS were closed on October 17, 1987 at 1640 hours. Leak rate tests were performed between October 18 and 19 which verified that the PCRMS isolation valves were capable of providing adequate isolation in the event of a loss of primary containment.

A temporary exemption from the requirements of GDC 56 was requested in Reference 7. As compensatory measures, Detroit Edison committed to testing the available containment isolation valves in accordance with Technical Specification requirements for containment isolation valves. The frequency of the testing was in accordance with the Technical Specification required frequencies with the exception of leak rate testing which was performed on an accelerated interval of at least once per every 30 days.

Daily inspections of subject isolation valves and the normally accessible associated piping were made. This verified there was no evidence of leakage, piping deformation or other abnormalities.

The appropriate Emergency Operating Procedures and Alarm Response Procedures were revised to include operator actions for isolation of the PCRMS as described in Reference 10. Training was provided to licensed operators prior to their assuming shift on the revisions. A one-time walkdown of the manual isolation valves was required upon assuming shift responsibilities for the first time following the procedure revisions.

During the local leak-rate testing outage, which began in February of 1988, the isolation of the PCRMS was modified to bring it into compliance with the requirements of GDC 56. Appropriate revisions to the Technical Specifications for containment isolation valves have been made.

Corrective Actions Taken To Prevent Recurrence

As described in Reference 7, the modification of the PCRMS took place in 1984, prior to receipt of the operating license. Since that time, a program of verification of design modifications has been formalized.

This program includes various independent reviews of the adequacy of the design. Additionally, a review of the modifications against any commitments made to the NRC (UFSAR, NUREGs, etc.) is made. Finally, the design modification receives a safety evaluation as required by 10 CFR 50.59.

Detroit Edison has undertaken an effort to improve safety evaluations in the past year and a half. Training has been provided to the appropriate employees as part of this program.

The design process and verification program will continue to evolve based on experience of Detroit Edison and other utilities. Use of the corrective action program which is used to evaluate industry experiences, NRC issuances and events that occur at Fermi 2 will facilitate this evolution.

Use of programs such as those described above will provide the basis for continued compliance with NRC regulation. These programs will serve to enhance the safe operation of Fermi 2 by provided for future enhancements to various systems.

Date of Full Compliance

Fermi 2 has been in full compliance with GDC 56 since completion of modification during the local leak rate testing outage.

II. NONINTERRUPTIBLE AIR SYSTEM

Statement of Violation

- B.1 With the unit in Modes 1, 2 or 3, Technical Specification Limiting Condition for Operation Action Statement 3.7.2.b.2 requires that if a Control Room Emergency Filtration System flowpath damper is inoperable for seven days, the unit be placed in HOT SHUTDOWN within 12 hours and COLD SHUTDOWN in the following 24 hours.

Technical Specification 1.25 defines a system, subsystem, train, component, or device to be OPERABLE or having OPERABILITY when it is capable of performing its specified functions and when all necessary attendant instrumentation, controls, electrical power, cooling or seal water, lubrication, or other auxiliary equipment that are required for the system, subsystem, train, component, or device to perform its intended functions(s) are also capable of performing their related support function.

Contrary to the above, at 10:15 p.m. on January 21, 1988, with the unit in Mode 1, a Control Room Emergency Filtration System flowpath damper, which had been inoperable for seven days because the necessary attendant noninterruptible air compressor was out-of-service, was not returned to service nor was the unit placed in HOT SHUTDOWN within 12 hours and COLD SHUTDOWN in the following 24 hours.

- B.2 With the unit in Modes 1, 2 and 3, Technical Specification Limiting Condition Action Statement 3.6.5.3.a.1 requires that if one Standby Gas Treatment subsystem is inoperable for 7 days the unit be placed in HOT SHUTDOWN within 12 hours and COLD SHUTDOWN in the following 24 hours.

Technical Specification 1.25 defines a system, subsystem, train, component, or device to be OPERABLE or having OPERABILITY when it is capable of performing its specified functions and when all necessary attendant instrumentation, controls, electrical power, cooling or seal water, lubrication, or other auxiliary equipment that are required for the system, subsystem, train, component, or device to perform its functions(s) are also capable of performing their related support functions.

Contrary to the above, at 10:15 p.m. on January 21, 1988, with the unit in Mode 1, the Division II subsystem of Standby Gas

Treatment, which had been inoperable for seven days because the necessary attendant noninterruptible air compressor was out-of-service, was not returned to service nor was the unit placed in HOT SHUTDOWN within 12 hours and COLD SHUTDOWN in the following 24 hours.

This is a Severity Level III (Supplement I). Civil Penalty - \$100,000 (assessed equally between the violations).

Admission or Denial of the Alleged Violation

Based on the considerations covered in the following Discussion and Enclosure 1, Section II of this letter, Detroit Edison believes actions taken were in conformance with Fermi 2 Technical Specifications and the above violations did not occur as described.

Actions Taken and To Be Taken

To underscore the importance that Detroit Edison attaches to the Noninterruptible Air System and the Technical Specifications, the following actions have been taken. A proposed Technical Specification specifically for the NIAS System is under preparation. In the interim, the Fermi 2 Operations Department has been issued requirements for both the determination of operability of the NIAS System and the remedial actions to be taken if a division is inoperable. The requirements which were issued in May 1988 provide for a 7-day out-of-service period if one division of NIAS is inoperable and immediate entry into Technical Specification 3.0.3 if both divisions are inoperable.

Date of Full Compliance Achieved

Detroit Edison believes it acted in compliance with Technical Specifications. The interim requirements being followed by the Operations Department until the permanent Specification is submitted to the NRC and approved will ensure that the Nuclear Regulatory Commission will also agree that Detroit Edison is in full compliance.

Discussion of Violation

The Noninterruptible Air System is a safety related system which supplies mainly instrumentation and control loops which are dependent on control air to perform their safety function. During normal operation, the station air compressors supply the Interruptible Air System and NIAS. The Interruptible Air System supplies balance of plant and various essential systems instrumentation whose safety

related functions are not dependent on control air. There are 3 non-safety related station air compressors.

Each of two 100% capacity NIAS control air compressors is normally aligned to supply a division of NIAS. The control air compressors will start on low control air header pressure, loss of offsite power, or a LOCA signal (high drywell pressure/reactor water level 2). Automatic valves will actuate to isolate NIAS from the Interruptible Air System on the low header pressure or loss of offsite power signal. By design, each NIAS division contains a receiver tank required to supply air demands for at least 10 minutes without the compressors operating. The receiver in the most limiting division actually has enough capacity for approximately 30 minutes based on installed users (does not include Main Steam Isolation Valve Leakage Control System, which is manually placed in service and so would not be expected to be in use in short term). The control air compressors are powered by the emergency power buses 35 seconds after the diesel generators start. A diagram of the Station and Control Air Systems is attached.

The basis of the civil penalty was that one train each of the Control Room Emergency Filtration System (CCHVAC) and Standby Gas Treatment System (SGTS) were inoperable with one NIAS compressor out-of-service and the Action statements of these Technical Specifications applied. The Action statements allow 7 days to return the train to operable status or the plant must be shutdown within 12 hours.

The CCHVAC and SGTS systems both contain dampers which require air to open and remain open to establish the appropriate flowpaths. In order to provide a temporary cooling flowpath to the control center on the loss of all control air the following CCHVAC dampers to open are:

For Division I Operation

T41-F031A "Div I Return Air Modulating Damper"
T41-F035 "Control Room North Air Supply Unit Shutoff Damper"
T41-F039B "East Return Fan Shutoff Damper"
T41-F068B "North Multizone Cold Deck Shutoff Damper"

For Division II Operation

T41-F031B "Div II Return Air Modulating Damper"
T41-F038 "Control Room South Air Supply Unit Shutoff Damper"
T41-F040B "West Return Air Fan Shutoff Damper"
T41-F069B "South Multizone Cold Deck Shutoff Damper"

Only one division is operated at a time. Procedure 20.413.01 "Control Center HVAC System Failure" contains instructions for manual operation of these dampers in the event of a pneumatic failure.

There are 20 dampers total in both divisions in SGTS which open to establish the appropriate flowpaths. While these dampers could be manually opened by dismantling their operators, during a postulated Design Basis Accident the local radiation levels would be too high for access.

The question is one of operability. Technical Specification Definition 1.25 defines a system, subsystem, train, component or device to be operable or have operability when it is capable of performing its specified functions and when all necessary attendant instrumentation, controls, electrical power, cooling or seal water, lubrication, or other auxiliary equipment that are required for the system, subsystem, train, component or device to perform its function(s) are also capable of performing their related support functions.

On January 14, 1988, when the Division II NIAS compressor was determined to be inoperable, the NIAS cross tie valves were opened and the necessary air was available for both Division I and Division II CCHVAC and SGTS to perform their functions. Therefore, CCHVAC and SGTS were operable.

Section 9.3.1.2 of the Fermi 2 Updated Safety Analysis Report (UFSAR) states in part:

There is a normally closed intertie between the Divisions I and II noninterruptible control air systems. During a maintenance outage of the supply to one of these divisions, the intertie is opened so that the division having the outage can be supplied by the other division.

Thus, the licensing basis document for the plant clearly states that the system divisions can be interconnected. Interconnection of the two divisions ensures that equipment supplied by either division of NIAS will be provided with air in order that it can perform its function even with one control air compressor out of service. Since both divisions of CCHVAC and SGTS would have been able to perform their functions if needed, both CCHVAC and SGTS remained, during the situation in question, operable.

The NRC Safety Evaluation Report for Fermi 2, NUREG-0798, Section 9.3.1, states:

We have reviewed the applicants design for the compressed air system necessary for the continued presence of supply air to safety-related components during anticipated plant operation conditions and have concluded that the system design is acceptable.

An analysis was available that showed one control air compressor can supply the loads of both divisions of NIAS after the first 10 minutes, during which time the receivers would be capable of fulfilling the demand. A detailed confirmatory analysis was performed to support the adequacy of one compressor to feed both divisions when cross tied, if a loss of offsite power was to occur. The confirmatory analysis demonstrated that both divisions of CCHVAC and SGTS could be supplied by a single compressor, thus showing that with the NIAS divisions cross tied, both divisions of CCHVAC and SGTS would be able to perform their functions.

The contribution to plant safety provided by cross tying the NIAS divisions was evaluated by our PRA group. Use of the cross tie when one compressor is out of service decreases the probability of core damage by a factor of approximately 1.7, demonstrating the benefit to plant safety that cross tying the NIAS divisions provides when one control air compressor is out of service.

The decision not to put NIAS in the Technical Specifications was made consciously with the NRC during the Technical Specification development process prior to licensing. However, from our experience during this event, we are preparing a change request to add the NIAS to our Technical Specifications.

Even though NIAS is not specifically covered by Technical Specifications, Detroit Edison recognizes its importance. We acted aggressively to reduce the amount of time redundancy in NIAS was not available. Repair of the compressor was given a high priority, including extraordinary measures to contact the vendor during off-hours to expedite delivery of replacement parts.

An evaluation was conducted of the implications of having a control air compressor out of service. The conclusion was that operation with one NIAS compressor available and the divisions cross-tied was acceptable per Technical Specifications and our UFSAR, but it would be prudent to consider the plant as in a 30-day action statement to limit the time period the plant was operated without operable control air compressor redundancy in the Noninterruptible Air System. All other NIAS components were operable in both trains. The NIAS System was designed to be redundant and not subject to a single failure. Therefore, it was recognized that the time spent with the NIAS subject

to a single failure should be limited and the plant should be treated as if it was in an action statement.

Based on this recommendation, the plant treated NIAS as if it was in a 30-day action statement. Considerable management attention was focused on restoring the Division II compressor to service as soon as possible. Repair of the compressor was completed February 3, 1988, within the 30-day administrative action statement.

Reference 3 described the NIAS violation as another example of the Fermi organization failing to fully appreciate its Technical Specification requirements and the proposed civil penalty was increased by 100% based on prior performance. Detroit Edison does not believe a Technical Specification violation occurred. It is our continued belief that actions taken were within the limitation of plant Technical Specifications and the UFSAR and that CCHVAC and SGTS were operable while the compressor was out of service and the NIAS divisions cross tied. At the conclusion of the April 28, 1988 Enforcement Conference on this issue, we even thought that NRC representatives felt that the cross-tie made a difference in this situation.

Based on the information above, we feel that no violation occurred and that remission of the proposed civil penalty is warranted.

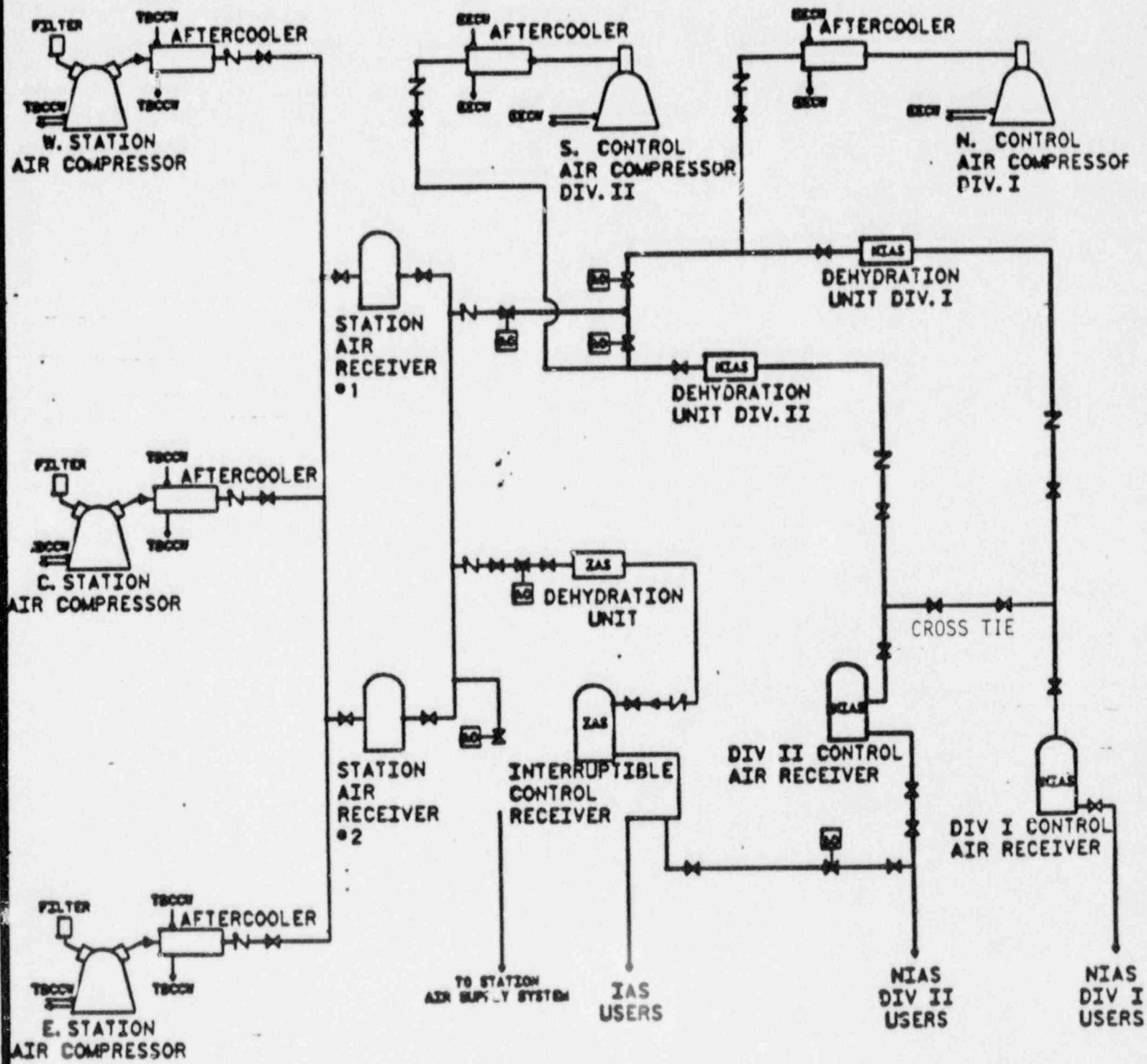


DIAGRAM STATION & CONTROL AIR SYSTEM