



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

October 22, 1998

Docket file  
-50-498

Mr. William T. Cottle  
President and Chief Executive Officer  
STP Nuclear Operating Company  
South Texas Project Electric  
Generating Station  
P. O. Box 289  
Wadsworth, TX 77483

SUBJECT: NOTICE OF ENFORCEMENT DISCRETION FOR STP NUCLEAR OPERATING  
COMPANY (STPNOC) REGARDING SOUTH TEXAS PROJECT, UNIT 1  
(TAC NO. MA3856) (NOED NO. 98-6-017)

Dear Mr. Cottle:

By letter dated October 20, 1998, you requested that the Office of Nuclear Reactor Regulation (NRR) of the Nuclear Regulatory Commission (NRC) exercise discretion not to enforce compliance with the actions required by Technical Specification 3.0.3, because repairs to the failed Unit 1, fuel handling building exhaust booster Fan 11A will require you to temporarily render all three trains of the fuel handling building exhaust systems inoperable. Your request for a Notice of Enforcement Discretion (NOED) was reviewed by the staff in accordance with the NRC's policy regarding exercise of discretion for an operating facility, set out in Section VII.c, of the "General Statement of Policy and Procedures for NRC Enforcement Actions," NUREG-1600.

Specifically, you requested discretion to not enforce Technical Specification 3.0.3 as it applied to the requirements of Technical Specifications 3.7.8(b), "Fuel Handling Building Exhaust Air System," and 3.3.2, "Engineered Safety Features Actuation System Instrumentation," which requires that three independent fuel handling building exhaust booster fans, three independent fuel handling building main exhaust fans, and certain instrumentation be operable. In addition, the letter dated October 20, 1998, requested discretion not only for the current problem with Fan 11A on Unit 1, but that the discretion also be applicable should similar situations arise with these fans on either unit until your previously submitted technical specification change request, dated September 28, 1998, is approved.

During discussions with your staff on October 21, 1998, we learned that modifications to the fuel handling building exhaust air system planned in 1999 would obviate the need for the September 28, 1998, technical specification change request, and we concluded that the modification would be the ultimate resolution of your exhaust booster fan problems and that the relevant portion of the proposed technical specification change will not be necessary once the modification is installed. You subsequently modified your request verbally on October 21, 1998, and then by letter dated October 21, 1998, to decouple the request for enforcement discretion from the technical specification change request and requested a one-time enforcement discretion for Fan 11A, similar to the request for enforcement discretion that was granted by Region IV in May of 1998 for a similar problem. Your October 21, 1998, revision also provided additional information in selected areas. NRR, in consultation with Region IV, decided to retain

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the lead in the review of your request for this enforcement discretion, and Region IV agreed to concur with the final determination.

Your October 20 and 21, 1998, letters documented information discussed with the NRC in a telephone conversation on October 21, 1998. During that telephone conversation, you stated that, in order to facilitate repairs to failed exhaust booster Fan 11A, that shared a common supply plenum and a common exhaust plenum with the remaining trains, you would have to disable the fuel handling building exhaust air system to maintain adequate personnel safety while installing and removing a temporary modification. While installed, the temporary modification would allow the remaining portion of the fuel handling building exhaust air system to operate while the exhaust booster Fan 11A motor was being replaced. However, to facilitate this approach, the NRC would need to exercise discretion not to enforce compliance with the actions required by Technical Specification 3.0.3, for a maximum period of 8 hours to install the temporary modification and a maximum period of 6 hours to remove the temporary modification. This temporary modification would be done during the 7-day allowed outage time for a single failed fan, which began on October 19, 1998, at 3:14 p.m. (EDT), when exhaust booster Fan 11A was declared inoperable.

NRC Inspection Manual, Part 9900, "Operations - Notices of Enforcement Discretion," Section B, Item 1, states:

For an operating plant, the NOED is intended to (a) avoid undesirable transients as a result of forcing compliance with the license condition and, thus, minimize the potential safety consequences and operational risks or (b) eliminate testing, inspection, or system realignment that is inappropriate for the particular plant conditions.

The safety basis for the staff's exercise of discretion was to avoid an undesirable plant transient as a result of forcing compliance with the license condition for which no compensatory benefit to public health and safety existed. Compensatory measures proposed by you for the duration of the NOED and considered in the staff's evaluation included: (1) stopping the movement of any loads over the spent fuel pool or any loads (as defined in your heavy loads program) over the emergency core cooling system pumps or suction piping in the fuel handling building; (2) stopping any movement of irradiated fuel assemblies; (3) stopping all activities which could potentially affect spent fuel pool level or cooling; and (4) developing a pre-job briefing and other administrative controls to restore the fuel handling building exhaust system within 16 minutes of an increase in reactor containment building radioactivity that would be an indication of a reactor coolant system leak, an increase in fuel handling building radiation levels, or reactor trip. These compensatory measures were determined to be sufficient to prevent any increase in either onsite and offsite dose consequences following a postulated fuel handling or loss of coolant accident and, as such, the proposed NOED did not involve an unreviewed safety question. As a result, a shutdown of Unit 1 to repair fuel handling building exhaust Fan 11A would constitute an unnecessary operational risk. Therefore, the criteria of NRC Inspection Manual, Part 9900, Section B, Item 1(a), are met.

It is the NRC's policy to not exercise discretion involving recurring problems, such as requests for the same reasons or some similarly avoidable situation. You have made requests for and

the lead in the review of your request for this enforcement discretion, and Region IV agreed to concur with the final determination.

Your October 20 and 21, 1998, letters documented information discussed with the NRC in a telephone conversation on October 21, 1998. During that telephone conversation, you stated that, in order to facilitate repairs to failed exhaust booster Fan 11A, that shared a common supply plenum and a common exhaust plenum with the remaining trains, you would have to disable the fuel handling building exhaust air system to maintain adequate personnel safety while installing and removing a temporary modification. While installed, the temporary modification would allow the remaining portion of the fuel handling building exhaust air system to operate while the exhaust booster Fan 11A motor was being replaced. However, to facilitate this approach, the NRC would need to exercise discretion not to enforce compliance with the actions required by Technical Specification 3.0.3, for a maximum period of 8 hours to install the temporary modification and a maximum period of 6 hours to remove the temporary modification. This temporary modification would be done during the 7-day allowed outage time for a single failed fan, which began on October 19, 1998, at 3:14 p.m. (EDT), when exhaust booster Fan 11A was declared inoperable.

NRC Inspection Manual, Part 9900, "Operations - Notices of Enforcement Discretion," Section B, Item 1, states:

For an operating plant, the NOED is intended to (a) avoid undesirable transients as a result of forcing compliance with the license condition and, thus, minimize the potential safety consequences and operational risks or (b) eliminate testing, inspection, or system realignment that is inappropriate for the particular plant conditions.

The safety basis for the staff's exercise of discretion was to avoid an undesirable plant transient as a result of forcing compliance with the license condition for which no compensatory benefit to public health and safety existed. Compensatory measures proposed by you for the duration of the NOED and considered in the staff's evaluation included: (1) stopping the movement of any loads over the spent fuel pool or any loads (as defined in your heavy loads program) over the emergency core cooling system pumps or suction piping in the fuel handling building; (2) stopping any movement of irradiated fuel assemblies; (3) stopping all activities which could potentially affect spent fuel pool level or cooling; and (4) developing a pre-job briefing and other administrative controls to restore the fuel handling building exhaust system within 16 minutes of an increase in reactor containment building radioactivity that would be an indication of a reactor coolant system leak, an increase in fuel handling building radiation levels, or reactor trip. These compensatory measures were determined to be sufficient to prevent any increase in either onsite and offsite dose consequences following a postulated fuel handling or loss of coolant accident and, as such, the proposed NOED did not involve an unreviewed safety question. As a result, a shutdown of Unit 1 to repair fuel handling building exhaust Fan 11A would constitute an unnecessary operational risk. Therefore, the criteria of NRC Inspection Manual, Part 9900, Section B, Item 1(a), are met.

It is the NRC's policy to not exercise discretion involving recurring problems, such as requests for the same reasons or some similarly avoidable situation. You have made requests for and

received enforcement discretion for similar failures of fuel handling building exhaust booster fan motors, one in April 1998 for Fan 11B on Unit 1, and one in August 1992 for Fan 21C on Unit 2.

Regarding the April 1998 failure, you indicated at that time that the symptoms of the April 1998 and August 1992 failures were different. In addition, you outlined corrective actions implemented by your staff following the 1992 failure and committed in a letter dated May 4, 1998, to take several additional actions, including performing a root cause evaluation of the 11B exhaust fan motor failure, evaluating physical plant modifications to enhance the ability to isolate the individual components, reviewing applicable technical specifications to determine if there might be changes to facilitate the ability to work on these components in the future, and reviewing periodic and preventative maintenance to identify actions that could be taken to preclude failures.

Since the April 1998 time frame, as indicated in your letters dated October 20 and 21, 1998, you have determined that inspection of the failed 11B exhaust fan motor revealed inadequate strand to strand varnish adhesion, and you have indicated that you would finalize a plan of action to rewind failed and spare motors to improved standards and systematically replace/repair all fuel handling building exhaust booster fan motors. You stated that you also are developing a modification that will allow maintenance and/or replacement of a fuel handling exhaust booster fan without rendering the other two fans inoperable, and have scheduled implementation of this modification in the spring and fall of 1999 for Units 1 and 2, respectively. You also submitted a technical specification change request on September 28, 1998, that would essentially provide up to 12 hours to allow repair of an exhaust booster fan, without entering Technical Specification 3.0.3, when all exhaust air system components would be made inoperable during the maintenance activity. Based on discussions with your staff and your letter dated October 21, 1998, we now understand that the technical specification change would not be needed for the types of failures discussed above, once the modifications planned in 1999 are implemented (that amendment is under review by the NRC staff). In addition, you have initiated preventative maintenance activities on the exhaust booster fan motors that require direct current step voltage testing at 1000 VDC (nominally twice nameplate voltage), you will be conducting insulation resistance (megger) testing using improved techniques, and you may also include vibration analysis if further evaluation determines that this technique will provide meaningful data to predict future motor performance.

In view of your activities discussed above, while it is the NRC's policy to not exercise enforcement discretion involving recurring problems, we have concluded that you have taken reasonable steps to avoid a similar situation (root cause evaluation, planned plant modification, proposed technical specification change, and additional preventative maintenance activities).

On the basis of the staff's evaluation of your request, including the compensatory measures described above and the considerations involving your actions to resolve the recurring problems with the fuel handling building exhaust air system, the staff has concluded that an NOED is warranted because we are clearly satisfied that this action involves minimal or no safety impact and has no adverse radiological impact on public health and safety. Additionally, we determined that your request satisfied the NRC's policy for enforcement discretion.

Therefore, it is our intention to exercise discretion not to enforce compliance with Technical Specification 3.0.3 as it relates to Technical Specification 3.7.8(b) and 3.3.2 for a maximum of 8 hours to install and 6 hours to remove the temporary modification noted above. This discretion is allowed to be used once during the 7-day allowed outage time for the applicable technical specification discussed above. This letter documents our telephone conversation on October 21, 1998, at 12:55 p.m. (EDT) when we orally issued this notice of enforcement discretion.

As stated in the Enforcement Policy, action will normally be taken, to the extent that violations were involved, for the root cause that led to the noncompliance for which this NOED was necessary. This determination will be made during planned NRC inspection.

Sincerely,

ORIGINAL SIGNED BY

John N. Hannon, Project Director  
 Project Directorate IV-1  
 Division of Reactor Projects III/IV  
 Office of Nuclear Reactor Regulation

Docket No. 50-498

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