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February 6, 2003
RC-03-0036

Document Control Desk
U. S. Nuclear Regulatory Commission
Washington, DC 20555

ATTN: Ms. K. R. Cotton

Ladies and Gentlemen:

Subject: VIRGIL C. SUMMER NUCLEAR STATION
DOCKET NO. 50/395
OPERATING LICENSE NO. NPF-12
NOTICE OF ENFORCEMENT DISCRETION (NOED)
REQUEST FOR RELIEF FROM TECHNICAL SPECIFICATION 3.8.1.1.b

Attached is the written documentation for the background and technical information supporting the Virgil C. Summer Unit 1 Notice of Enforcement Discretion (NOED) request. This information was discussed with the NRC staff in a telephone conference call on February 6, 2003.

As discussed in detail in the attached pages, SCE&G is requesting discretion from enforcing TS Limiting Condition for Operation (LCO) 3.8.1.1.b as it pertains to action b.4. This action applies to the case of one emergency diesel generator (EDG) being inoperable. At the time of the request, SCE&G was engaged in repair efforts on "B" EDG and the completion times for the above actions expired on February 6, 2003 at 1700 hours. As shown in the attached justification, SCE&G maintains that granting of discretionary enforcement in this case does not present an unreasonable risk to nuclear safety.

The Virgil C. Summer Nuclear Plant Safety Review Committee (PSRC) approved this request for enforcement discretion on February 6, 2003.

If you have any questions or require additional information, please contact Mr. Melvin N. Browne at (803)-345-4141.

Very truly yours,

A handwritten signature in black ink that reads "Stephen A. Byrne". The signature is written in a cursive, flowing style.

Stephen A. Byrne

JT/SAB

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0-C-03-0338

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Request for Notice of Enforcement Discretion

SCE&G hereby requests that the NRC grant discretion in enforcing Technical Specification (TS) Limiting Condition for Operation 3.8.1.1.b relative to compliance with the 72 hour completion time of action b.4, and allow the unit to remain in Mode 1 (Power Operation) until all administrative work related to the "B" EDG is completed. Problems with the "B" EDG were identified due to a generator trouble alarm in the control room on February 3, 2003. The cause of the alarm was identified as a faulty speed switch. SCE&G has corrected the speed switch problem and performed the necessary calibration and testing activities. It is expected that the administrative activities will be completed by February 7, 2003, at 0500 hours. SCE&G is requesting that the completion time of action b.4 be extended from the current 72 hours by an additional 12 hours, for a total of 84 hours. The basis for this request is delineated in the discussion below.

1. Applicable TS

SCE&G is requesting enforcement discretion from TS LCO 3.8.1.1.b. This LCO governs AC power sources operating for Modes 1, 2, 3, and 4. LCO 3.8.1.1.b requires in part that two separate and independent EDGs be operable. Action b.4 for this LCO states that with one EDG inoperable, the EDG must be restored to operable status within 72 hours. Action b.4 states that if the EDG cannot be returned to operable status within 72 hours, the unit must be in Mode 3 within 6 hours and in Mode 5 within the following 30 hours.

2. Circumstances Surrounding the Situation

At SCE&G, a dedicated EDG is utilized as the standby emergency power source for each 7.2kv emergency bus. The EDGs will start automatically on a safety injection signal or on a bus loss of voltage or degraded bus voltage signal. Loads will be automatically connected to the bus as required by the respective load sequencer. The voltage regulator controls power factor and reactive power output (VARs) from the generator.

On February 3, 2003, at approximately 1700 hours, with the "B" EDG in standby, an engine trouble alarm was received on the main control board. An investigation by Operations determined that relays were heard chattering in the voltage regulator panel, the field ground relay had actuated on the EDG control panel, the engine speed tachometer was oscillating around 100 rpm, various alarms actuated and indicating lights for engine components were turning on and off. Following this event a Failure Modes Analysis (FMA) was performed and a troubleshooting plan developed to establish the cause of the problem. Following implementation of the troubleshooting plan and evaluation of the results, it was determined that the problem was associated with the Synchro Start speed switch. A new speed switch, procured from the onsite warehouse stock, was installed and calibrated satisfactorily in accordance with plant procedures. Since relays had been rapidly and repeatedly actuated during this event, additional testing was performed to verify that the relays had not been damaged or adversely affected by this event. During testing of the final relay, a repeat event occurred with spurious actuation of the relays, alarms, and indications. Additional troubleshooting was performed and it was determined that a ground existed in the cable from the engine mounted speed generator which provides the input signal to the speed switch. The speed generator cable was then repaired and satisfactorily tested.

However, following the cable repair, the speed switch output to the tachometer could not be calibrated and the tachometer was oscillating.

Additional testing was conducted on both speed switches and it was determined that both switches could be calibrated satisfactorily in the maintenance shop. The new speed switch was reinstalled but the tachometer still could not be stabilized and calibrated. Satisfactory EDG runs were performed with the new speed switch. The speed switch performed as required with the only exception being speed indication on the tachometer. However, the speed switch could be calibrated while installed in the panel if it was connected to a temporary regulated DC power supply, but not connected to the DC bus supply in the panel. Further testing was performed on these two speed switches. Two additional speed switches were obtained from another nuclear facility and Fairbanks-Morse (engine supplier). The speed switch from the other nuclear facility was installed, but the tachometer indication failed high and would not calibrate. The switch from Fairbanks-Morse was installed, but had the same tachometer oscillations as the initial two switches. The output relays were tested and they operated properly at the required set-points. This switch could also be calibrated satisfactorily in the maintenance shop when connected to a regulated power supply with proper indication on the tachometer. Field monitoring was performed, using sensitive test equipment, and identified noise in the bus DC power supply to the speed switch. This noise had not been previously observed. Research determined that the noise identified was within the design requirement for the bus battery charger and no immediate actions were needed. A decision was made to install a capacitor across the power supply leads to filter out the noise. With the addition of this capacitor, the tachometer indication was stable and could be calibrated. Therefore, engineering determined that this situation could be remedied by repair to permanently install the capacitor to filter out the DC power supply noise. This modification was installed through the station nonconformance program.

It should be noted that the analog signal that is sent to the tachometer is independent from the digital signal that supplies the relays that control the engine support equipment. Therefore, failure of the tachometer would not affect the ability of the EDG to perform the intended safety function.

Our request to extend the TS out of service time for 12 hours beyond the TS limit of 72 hours is to ease the TS Action b.4 time restraint. This request provides a means to accomplish a thorough evaluation and review of the 10 CFR 50.59 considerations needed to complete all activities for return to operability.

Since the "B" EDG is currently functional and capable of performing all required safety functions, there is no increase in risk as a result of this request.

3. Safety Analysis for Request

There is minimal safety consequence associated with this request. Granting of enforcement discretion will not have any significant adverse safety impact, as "A" EDG is operable and remains capable of fulfilling its design basis accident mitigation function.

As of 1500 on February 6, 2003, repairs to the diesel generator were complete and post maintenance/surveillance testing had demonstrated its functionality prior to the end of the existing action statement.

Therefore, the safety basis for this request is that the "B" Emergency Diesel Generator is functionally equivalent to being in compliance with Technical Specifications and is only awaiting completion of administrative paperwork to be declared operable.

In addition, compensatory measures, as discussed in Response 7, will be implemented.

4. Justification for the Duration of the Non-compliance

The duration of the non-compliance is limited to the time required to complete repair and post-maintenance testing. SCE&G is therefore requesting that the current 72 hour completion time be extended by an additional 12 hours to 84 total hours. This will provide for adequate time to complete the activities. As stated in items 3 and 5, there is no safety significance or potential detriment to the health and safety of the public.

5. The Basis for the Licensee's Conclusion that Noncompliance Will Not Be of Potential Detriment to the Public Health and Safety and that No Significant Hazards Consideration is Involved.

Granting this request for enforcement discretion will not have any adverse consequences from the standpoint of public health and safety. The "B" EDG is functional and will complete its intended functions. SCE&G has evaluated the consequences of this request from a safety standpoint and the results were found to be acceptable. During the period covered by this request, all "A" train safety related components would continue to remain fully operable and capable of fulfilling their required safety functions. Should any unplanned adverse situation occur which renders "A" EDG inoperable, the plant would then comply with the required action and completion time of Condition E of LCO 3.8.1 (two EDGs inoperable).

There are no significant hazards considerations associated with this request for enforcement discretion. This is demonstrated as follows:

This request for enforcement discretion does not involve a significant increase in the probability or consequences of an accident previously evaluated. Granting of this request will have no adverse effect on accident probabilities. Granting of this request would not result in any adverse impact from the standpoint of availability or reliability of the "A" EDG. Therefore, there will be no significant increase in any accident consequences.

This request for enforcement discretion does not create the possibility of a new or different kind of accident from any accident previously evaluated. No new accident causal mechanisms are created as a result of the NRC granting of this request for enforcement discretion. No changes are being made to the plant that will introduce any new accident causal mechanisms.

This request for enforcement discretion does not involve a significant reduction in a margin of safety. Margin of safety is related to the confidence in the ability of the fission product barriers to perform their design functions during and following an accident situation. These barriers include the fuel cladding, the reactor coolant system, and the containment system. The performance of these fission product barriers will not be degraded by the NRC's granting of this request. No safety margins will be impacted.

6. The Basis for the Licensee's Conclusion that the Noncompliance Will Not Involve Adverse Consequences to the Environment.

Granting of this relief actually decreases the amount of radwaste that would be generated as compared to the requirement to shutdown the plant. Approval of this relief will prevent the necessity of generating additional radwaste that a shutdown involves. Therefore, it can be concluded that the NRC's granting of this request for enforcement discretion will not involve any adverse consequences to the environment.

SCE&G has evaluated the NOED request against the criteria for identification of licensing and regulatory actions requiring environmental assessment in accordance with 10 CFR 51.21.

SCE&G has determined that the requested action meets the criteria for a categorical exclusion set forth in 10 CFR 51.22(c)(9). This determination is based on the fact that the proposed action is being requested as enforcement discretion to a license issued pursuant to 10 CFR 50, and that the change involves no significant hazards considerations.

Although the proposed action involves noncompliance with the requirements of an LCO:

(i) The proposed action involves no significant hazards consideration.

(ii) There is no significant change in the types or a significant increase in the amounts of any effluent that may be released offsite, since the proposed action does not affect the generation of any radioactive effluent nor does it affect any of the permitted release paths.

(iii) There is no significant increase in individual or cumulative occupational radiation exposure. The action proposed in this NOED will not significantly affect plant radiation levels, and, therefore, does not significantly affect dose rates and occupational exposure.

Accordingly, the proposed action meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9).

7. Proposed compensatory measures

In conjunction with this request, SCE&G has taken or will take the following compensatory measures until the "B" EDG is declared operable:

- "B" EDG will be maintained in a functional state.
- The continued operability of "A" EDG will be ensured for the period during which the request is applicable.
- No planned work on "A" Train safety related components or their supporting systems would be undertaken while the NOED is in effect.

- The Turbine Driven Emergency Feedwater Pump will be barricaded and protected.

Also, since the diesel is important in mitigating events involving offsite power, the following actions shall be taken to help ensure availability of offsite power:

- Communications will be made periodically with the load dispatcher to ensure grid stability is maintained.

- The weather will be monitored periodically to verify no adverse environmental conditions exist. If it is determined that adverse weather conditions threaten the ability to maintain reliable offsite power, the unit will be shut down.

-No switchyard work will be permitted while the NOED is in effect.

8. Statement that the Request Has Been Approved By the Facility Organization that Normally Reviews Safety Issues.

This request was reviewed and approved by the Virgil C. Summer Nuclear Station Plant Safety Review Committee in a special meeting on February 6, 2003.

9. How the NOED Criteria for Appropriate Plant Conditions Specified in Section B is Satisfied.

This request is intended to avoid an undesirable unit shutdown transient as a result of requiring compliance with the TS and, thus, minimize potential safety consequences and operational risks.

10. If a Follow-up License Amendment is Required, the NOED Request Must Include Marked-up TS Pages Showing the Proposed TS Changes.

No follow-up license amendment is required in conjunction with this NOED request.

11. Severe Weather NOED's

Not applicable to this request.