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SUBJECT: Requests waiver of compliance from TS 3.6.5.1.a re secondary containment integrity & 3.6.3.a re primary containment isolation valves, per Generic Ltr 89-10.

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REGION V

May 27, 1992
G02-92-130

Docket No. 50-397

J.B. Martin, Regional Administrator
U. S. Nuclear Regulatory Commission
Region V
1450 Maria Lane, Suite 210
Walnut Creek, CA 94596

Subject: WNP-2, OPERATING LICENSE NPF-21
REQUEST FOR WAIVER OF COMPLIANCE TO TECHNICAL SPECIFICATIONS
3.6.5.1.a, SECONDARY CONTAINMENT INTEGRITY AND 3.6.3.a, PRIMARY
CONTAINMENT ISOLATION VALVES

Technical Specification Action statement 3.6.5.1.a requires that with secondary containment inoperable it must be restored "within 4 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours." Technical Specification Action statement 3.6.3.a requires inoperable primary containment isolation valves to be restored to operable within 4 hours or, failing to meet three other alternatives, the plant must "be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours." This letter requests a temporary waiver of compliance to these Action statements so that motor-operated valve (MOV) testing per the guidance of Generic Letter (GL) 89-10 can be conducted on five MOVs located inside secondary containment. The valves to be tested are MS-V-19 (on the drain line from the inboard main steam line isolation valves) and MS-V-67A, B, C, & D (on separate drain lines from the outboard main steam line isolation valves).

The requirements and circumstances necessitating this waiver request are as follows:

GL 89-10 specifies that all safety-related MOVs be demonstrated operable at, or as near as possible to, design-basis differential pressure and flow conditions determined per guidance provided in the letter. Operating restrictions on these five valves require that they be open during startup and be closed before exceeding 5% power and remain closed thereafter. As a result, Mode 1 conditions with power less than 5% and maximum available test pressure approximately 920 to 1000 psig are necessary to satisfy GL 89-10 guidance for these valves.

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SPECIFICATIONS 3.6.5.1.a AND 3.6.3.a

These MOVs are located in the WNP-2 steam tunnel which is a compartment enclosing the outboard containment isolation valves for the main steamlines, steamline drains and reactor feedwater lines. A door and removable equipment plugs allow access to the tunnel from the reactor building and a personnel hatch allows access from the turbine generator building. In order to conduct the testing, continuous access to the tunnel is necessary to accommodate personnel entry and safety, temporary testing equipment and instrumentation leads. Although the tunnel is a separate enclosed compartment it is still considered to be a part of secondary containment. Therefore, opening the hatch violates secondary containment. Also opening the door exposes the reactor building to a main steam line break (MSLB). The reactor building has not been analyzed for the environmental affects of a MSLB. As discussed below, the hatch is the preferred access path. With the hatch open during the test, secondary containment integrity will not be satisfied.

Because the test equipment is not safety related, the valve being tested must be declared inoperable while the equipment is attached. However, the valves and their isolation logic are expected to remain fully functional during testing. With a declaration of inoperability, Action statement 3.6.3.a must be entered. The nature of the valves, test and test equipment is such that the three alternatives to restoring the valve to operability (Action statements 3.6.3.a.2, .3, and 4.) cannot be satisfied. Hot and Cold Shutdown conditions would then need to be established within the 12 and 24 hour time frames.

Although each individual valve being tested is assumed to be inoperable during the test because of non-safety related equipment being attached; the Supply System considers that the test equipment will not impede valve closure. Also, the closure isolation signal will not be removed during the testing. Hence, the equipment will not interfere with normal operation nor defeat any protective features. As such, the valve has approximately the same probability of failing to perform it's safety function (closing) with the test equipment attached as it does without the test equipment. In effect even though the valve is declared inoperable it has not lost the capability of performing it's safety function.

The amount of time needed to test these MOVs is estimated at a minimum of 17 hours. As discussed above, during the test secondary containment integrity can not be satisfied nor can credit for the operability of the valve being tested be taken. Without a temporary waiver of compliance both Action statements will require secession of the necessary test conditions.

Supplement 1 to GL 89-10 does allow consideration of alternatives to testing a MOV in situ if such a test is not practicable. The Supply System has evaluated these valves and determined that a viable alternative to testing the valves in situ is questionable. Further, testing at power, as justified herein, is considered as having minimum risk compared to the benefit of performing the testing of the MOVs. Hence, a waiver to the operability requirements of secondary containment and primary containment isolation valve Technical Specifications 3.6.5.1.a and 3.6.3.a is necessary to conduct the GL 89-10 testing.

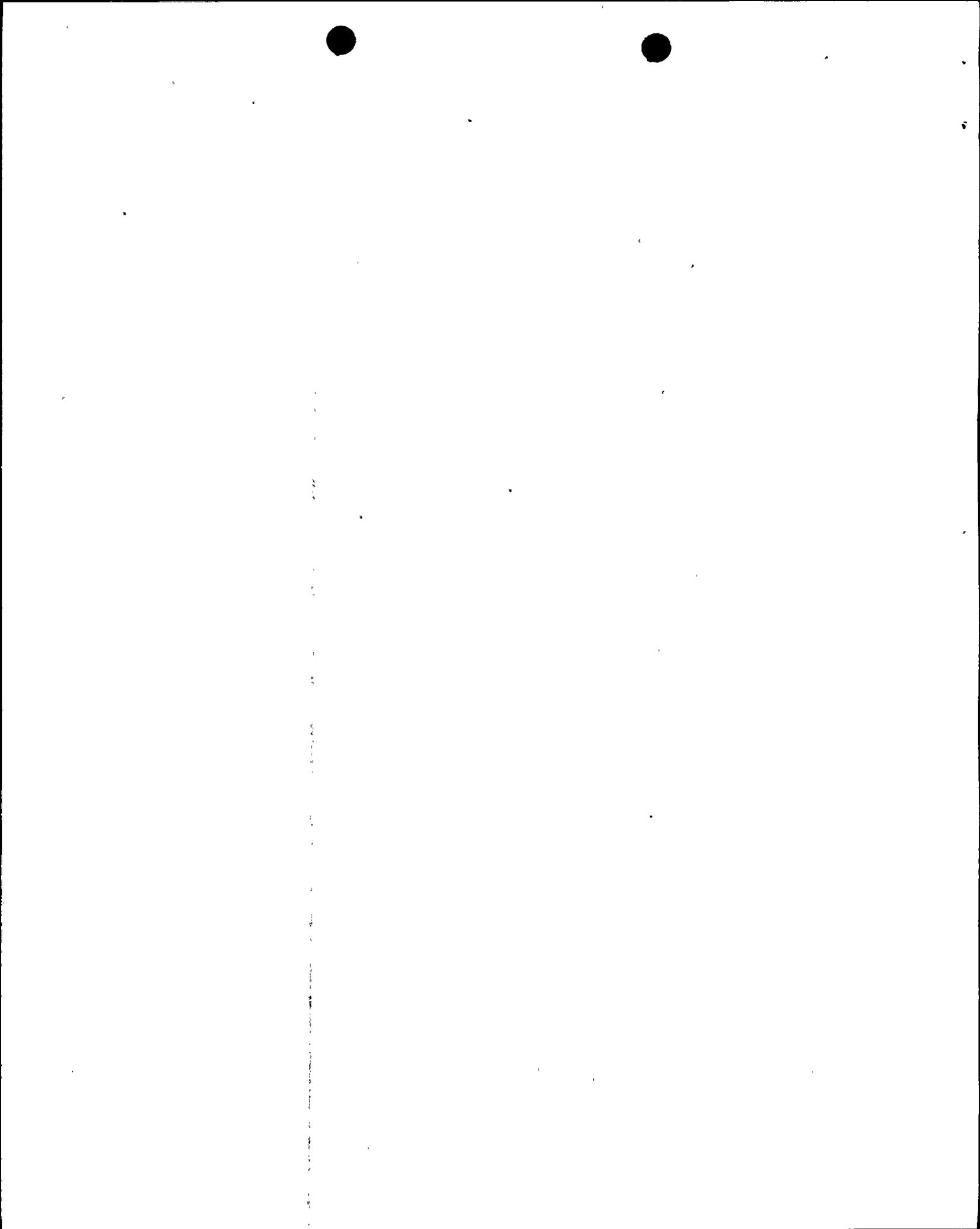
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The preferred access to the tunnel for this testing is the hatch from the turbine generator building rather than the door to the reactor building. The concern for performing the test with the reactor building door open is that a steam line break in the tunnel would expose redundant trains of safe shutdown equipment in the reactor building to the environmental effects of a high energy line break to which they have not been qualified. Having the hatch to the turbine generator building open is not a concern for the steam line break as the hatch is a part of a blow out panel that is designed to relieve pressure following a steam line break in the tunnel. Having the hatch open does not need to be evaluated for an impact on accident analyses that take credit for secondary containment and Standby Gas Treatment operation. Two concerns to be addressed are possible leakage through the hatch of any radionuclides leaked directly into the steam tunnel and the ability to achieve drawdown of the secondary containment to -0.25 inches water gauge within the specified time period. The probability of leakage into the tunnel is minimized in part, by the loop seals on the reactor feedwater lines in the steam tunnel. Leakage through the main steam lines during the testing is minimized because the Main Steam Line Isolation function is not affected by the testing and any leakage that does occur can be processed by the Main Steam Leakage Control System which can be started (when pressure decreases to the operating pressure of the MSLC). The capability of a single SGT train to perform with the hatch open will be verified prior to starting the MOV testing so the consequences of an accident elsewhere can be contained in accordance with the WNP-2 accident analysis. The performance of the SGT function is further enhanced because both SGT trains have two 100% capacity fans powered from different divisions thereby making it very likely that double the assumed SGT flow will be available.

Because of the need to demonstrate operability of these valves per GL 89-10 at design pressure and/or flow and viable alternatives to in situ testing being questionable, the need for a temporary waiver of compliance to these Technical Specification Action statements could not be avoided. Justification could be proposed for not doing the test but in considering the low probability of an event occurring during the test and the resultant minimal consequences even should the event occur, a waiver and completion of the test as required by GL 89-10 are appropriate. It is anticipated that this is a one time test situation and a long term program will be developed such that repeated in situ testing will not be necessary.

This test is presently scheduled for the return to power following our current refueling outage scheduled to end June 29, 1992. As such, the waiver is requested for a total test period of 40 hours for the specific purpose of testing MS-V-19, 67A, 67B, 67C, and 67D. Although not anticipated, it may be necessary to stop the test, return conditions in the steam tunnel to normal, and resume testing at a later date. As such, the 40 hours requested is a cumulative time accounting for all separate periods of testing. With the exact return to power being dependent on the outage duration it is proposed that the waiver be approved for a total 40 hour test period to be conducted between June 29 and August 1, 1992. Although 17 hours is the minimum estimated time necessary to conduct the test, 40 hours is being requested to decrease the probability of requiring a second waiver request and to promote a cautious and deliberate test environment.



The Supply System has concluded that testing these MOVs under a temporary waiver of compliance for secondary containment integrity and primary containment isolation valves does not involve a significant hazards consideration for the following reasons:

- 1) The testing would not involve a significant increase in the probability or consequences of an accident previously evaluated because the capability of the SGT System to perform with the hatch open will be verified prior to starting the MOV testing so that the consequences of an accident can be contained in accordance with the WNP-2 accident analysis. Credit for a secondary containment function is provided by loop seals on the reactor feedwater lines in the steam tunnel and the Main Steam Line Isolation Valve function is unaffected. Further, as discussed above, both trains of SGT will be available and by design availability is further assured by each train having 100% capacity fans powered from different divisions. The consequences of leakage through the main steam lines being tested is minimized because the leakage can be processed by the Main Steam Leakage Control System which can be started (when pressure decreases to the operating pressure of the MSLC) in the event of a LOCA during the test.

A fuel handling event (requiring secondary containment) is not credible during the test as fuel movements will have been completed prior to the end of the current outage and return to power. Additional fuel handling will not be allowed during the testing.

The consequences of a steam line break in the tunnel at the low power test conditions required for the test are bounded by the consequences of the break analysis for 100% power. The equipment hatch that will be open during the test is a part of the blow out panel that is designed to relieve tunnel pressure under the assumptions of a break at 100% power. Therefore, the consequences of a break at 5% power during the test with the hatch open are bounded by the consequences of the analyzed event at 100% power. Also the source term available in the event of an accident is smaller than that assumed for design basis accidents because reactor power will be at 5% or less. The returned to use fuel will have no recent operating history of any significance.

As a result, no significant increase in the probability or consequences of a previously evaluated accident in either the tunnel or the remainder of the plant during the testing will occur.



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- 2) It would not create the possibility of a new or different kind of accident from any accident previously evaluated. As discussed above, the test parameters established and test equipment imposed on plant systems do not create any conditions out of the normal that could initiate a new or different kind of accident. Further, the isolation feature and secondary containment function are accident mitigating features and cannot singularly contribute to the creation of a new or different accident.

Therefore the MOV testing under the proposed waiver of compliance does not create the possibility of a new or different kind of accident.

- 3) It would not create a significant reduction in a margin of safety because as stated above, the primary containment isolation valve and secondary containment functions are not significantly affected, and the consequences of an accident occurring under the test conditions is bounded by previous analysis. Hence, the MOV testing under the proposed waiver of compliance does not create a significant reduction in a margin of safety.

During the conduct of the test, compensatory actions will include ensuring that the tunnel door remains closed, no fuel handling is in progress, power remains at or below 5%, both trains of SGT will be operable, and the capability of a single SGT train to perform as required will be proven prior to the testing. With these precautions the consequences of the postulated accident requiring containment isolation and secondary containment will remain bounded by the WNP-2 accident analyses. The consequences of a LOCA are not significantly increased as the source term will be smaller than that assumed for the design basis analysis and the MSLC System will be available to process any leakage past the valves being tested as discussed above. The low power conditions of the testing will further provide a mitigating impact on any event that might occur.

The GL 89-10 testing of these 5 MOVs under the requested waiver and test conditions does not involve irreversible environmental consequences as both the probability of an accident occurring during the test interval and the consequences of such an accident are not significant.

Very truly yours,



G. C. Sorensen, Manager
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