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Rules Review and Directives Branch
Division of Freedom of Information
and Publications Services
Office of Administration
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Re: Federal Register Notice, October 5, 1994, page 50777.
Docket No. 50-286, Indian Point Unit 3.
Notice of Consideration of Issuance of Amendment to Facility
Operating License, Proposed No Significant Hazards
Consideration Determination, and Opportunity for a Hearing.

I am writing to oppose the NRC's proposed no significant hazards consideration determination and the licensee's requested amendment to the Indian Point Unit 3 technical specifications.

By letter dated September 29, 1994, the licensee requested an exemption from the current requirement to perform Type C leak rate tests of containment isolation valves in the Residual Heat Removal System at intervals no greater than 30 months. On the same day, claiming that it had reviewed the licensee's analysis, the NRC staff proposed to grant the requested license amendment.

However, a careful review of the licensee's application would have revealed that the proposed amendment does not comply with the requirements of 10 CFR 50.12(a)(1) because it involves a significant hazards consideration in that it would increase the risk to the public. Furthermore, the proposed amendment does not meet the requirements of 10 CFR 50.12(a)(2) which states that "the Commission will not consider granting an exemption unless special circumstances are present." As discussed below, none of the "special circumstances" presented in 10 CFR 50.12(a)(2) apply, despite the licensee's assertions to the contrary.

The Exemption Would Increase The Risk To Public Health and Safety

10 CFR 50, Appendix J requires that Type C tests be performed during each reactor shutdown for refueling but in no case at intervals greater than 2 years. However, in February 1993, the NRC granted an exemption from this requirement to the extent that the interval for Type C tests may be extended greater than 2 years but in no case greater than 30 months for Indian Point 3.

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This exemption was granted to accommodate the 2-year fuel cycle that Indian Point 3 adopted beginning in August 1992.

In granting the February 19, 1993 exemption from the 2-year test interval, the Commission found that there were special circumstances that satisfied the requirements of 10 CFR 50.12(a)(2)(iii). Specifically, strict compliance with the 10 CFR 50, Appendix J requirement for test intervals no greater than 24 months could require mid-cycle outages which would result in undue hardship or other costs that would be significantly in excess of those contemplated when the regulation was adopted. With respect to the risks posed by extending the test interval from no more than 24 months to no more than 30 months, the NRC staff found that the 25 percent increase in test interval was balanced by a 25 percent increase in the safety margin. Specifically, the permissible amount of containment leakage was reduced from 0.60 La to 0.50 La. (La, as defined in 10 CFR 50, Appendix J, means the maximum allowable leakage rate at the calculated peak containment internal pressure during a design basis accident.) Thus, the safety margin was increased from 0.40 La to 0.50 La, a 25 percent increase.

However, in its September 29, 1994 application for an exemption from the 30 month test interval, the licensee proposes no measures to increase the safety margin to justify extending the interval between Type C tests to at least 46 months, with no upper limit. The license is requesting a waiver of the Type C test requirement "until the next scheduled refueling outage" after restart from the current extended outage. Since the restart date from the current shutdown is unknown, since it is not known how poorly the plant will operate after restart, and since the licensee can postpone the scheduled Spring 1996 refueling, the licensee is effectively requesting an open-ended exemption with no limit on the maximum interval before the Type C tests are performed.

In Generic Letter 91-04, "Changes in Technical Specification Surveillance Intervals to Accommodate a 24-Month Fuel Cycle," the NRC indicated that two issues should be addressed to justify extending the 2-year Type C local leak rate tests: 1) a possible reduction in the combined leakage limit, i.e., La and 2) a basis for concluding that the containment leakage rate would be maintained within acceptable limits with a test interval increase of up to 30 months. As discussed above, the licensee has not proposed any reduction in combined leakage rate or any method of compensating for the increased risk that containment leakage will be greater than acceptable limits. Nor has the licensee provided any valid reason for concluding that the containment leakage rate will be maintained within acceptable limits until the next refueling, whenever that may occur.

No Special Circumstances Are Present To Justify This Exemption

There are no "special circumstances" that would justify an exemption from the current requirement for a test interval no greater than 30 months or a doubling (or more) of the 24 month test interval specified in the underlying requirement of 10 CFR 50, Appendix J. The following discussion addresses the licensee's claims that the special circumstances of 10 CFR 50.12(a)(2) apply to the present exemption request.

The Exemption Would Violate the Purpose of the Regulation

When the Appendix J regulation was adopted, it was envisioned that some leak tests could only be conducted when the plant was shut down. Appendix J requires that the Type C leak tests be performed during each refueling, but in no case at intervals greater than 2 years. At the time the regulation was adopted, the most common refueling interval was 12 months. Thus, the regulation clearly envisioned that even if refuelings did not occur within an interval of 2 years, the Type C leak tests would nevertheless have to be performed at intervals no greater than 2 years. Similarly, the current requirement applicable to Indian Point 3 requires that the Type C leak tests be performed during each refueling but in no case at intervals greater than 30 months. Thus, the current requirement envisioned that even if the interval between refuelings was greater than 30 months, the Type C leak tests would nevertheless have to be performed at intervals no greater than 30 months. Thus, the licensee has failed to demonstrate that application of the current requirement would not serve or is not necessary to achieve the underlying purpose of the requirement. Therefore, the special circumstances presented in 10 CFR 50.12(a)(2)(ii) do not apply to this exemption request.

The licensee states correctly that "the underlying purpose of Section III.D.3 of Appendix J to 10 CFR Part 50 is to provide an interval short enough to prevent serious deterioration from occurring between tests" However, the licensee is incorrect in claiming that "the underlying purpose of Section III.D.3 of Appendix J to 10 CFR Part 50 is to provide an interval . . . long enough to permit testing to be performed during regular plant outages." There is no valid basis for this claim. First of all, the regulation does not use the phrase "regular plant outages" and the licensee does not define it. In fact, one could argue that being shut down for reasons other than refueling is a "regular" condition for Indian Point 3. More importantly, the claim that the underlying purpose of the regulation is to permit testing only during refueling or "regular" plant outages ignores the actual wording of the regulation. Appendix J requires that Type C leak tests be performed at intervals no greater than 2 years without regard to the interval between refuelings. Thus,

the exemption would negate the underlying purpose of the regulation and the special circumstances of 50.12(a)(2)(ii) do apply.

The licensee also claims that, "in recognition of the fact . . . that certain [containment isolation] valves can not be tested during non-refueling outages, the NRC has granted schedular exemptions to Section III.D.3 for many licensees including the James A. Fitzpatrick Nuclear Power Plant." The licensee makes no attempt to even identify the other exemptions, much less to provide a detailed comparison of the specific circumstances for those exemptions with the present circumstances at Indian Point. In any event, whether those other exemptions were justifiable or not, the specific circumstances at Indian Point 3 do not meet the special circumstances presented in 50.12(a)(2)(ii).

The Current Requirement Does Not Cause Undue Hardship

The licensee argues that compliance with the current requirement for Type C tests at intervals no greater than 30 months "would result in undue hardship and costs that are significantly in excess of those contemplated when the regulation was adopted." The licensee presents a number of assertions in an attempt to support this argument, but none are valid.

The licensee states that "current procedures" require that the plant be placed in a refueling configuration and that the entire Residual Heat Removal (RHR) system be removed from service. It is not surprising that the current procedures envision testing during a refueling since Appendix J specifically requires that the testing be done during each refueling. However, the licensee does not address the possibility of revising the procedures to permit testing of the RHR containment isolation valves without removing the reactor vessel head and flooding the reactor cavity, recognizing that revised procedures could require an exemption different than the one requested. Nevertheless, even if it is not possible to perform the leak tests without placing the plant in a refueling configuration, that would not constitute "undue hardship." As discussed above, both Appendix J and the current plant-specific requirements for Indian Point 3 specify a maximum interval between leak tests without regard to the interval between refuelings. Thus, the special circumstances presented in 10 CFR 50.12(a)(2)(iii) do not apply to the requested exemption.

Next the licensee states that removing the entire RHR system from service would leave the steam generators as the only available means for decay heat removal. The licensee then states, albeit incorrectly, that "therefore, there would be no redundant means available for decay heat removal." Indian Point 3 has four steam generators, any one of which has sufficient capacity to remove the decay heat, and an emergency feedwater system that has

redundant trains and is supposed to function even in the event of any single random failure. Thus, there would still be redundant means of decay heat removal even if the RHR system were removed from service. The licensee also chooses to ignore the fact the decay heat level is very low because the plant has been shut down since February 1993. The licensee offers no analysis of how long it would take to test the RHR valves compared to how long it would take for the decay heat to increase reactor temperature above an acceptable limit. Nor does the licensee analyze how long it would take to restore the RHR system to service if it was needed for some unforeseen reason in the midst of conducting the Type C leak tests.

Next, the licensee tries the argument that the steam generators do not provide the forced circulation that is required to prevent boron dilution. Once again, the licensee provides no analysis of how boron dilution could occur, the magnitude of dilution that would be necessary to pose a safety risk, how fast such a dilution could occur or how long it would take to restore one train of the RHR system to service to provide the forced circulation that the licensee implies could prevent unacceptable consequences. To sustain its argument, the licensee would have to show: (1) that there is a high probability of a boron dilution accident during the time necessary to conduct the leak tests of the RHR containment isolation valves; (2) that the magnitude of the boron dilution would be large enough to pose a risk to the public but small enough to be counteracted by the RHR system if it was in service; and (3) that boron dilution would occur so rapidly that there would be insufficient time to restore the RHR system to service if the Type C tests were under way when the boron dilution occurred. Perhaps the licensee's real concern is that its Restart and Continuous Improvement Program has been so ineffective that the plant's physical condition is so poor that a boron dilution is likely or that the Indian Point 3 workers are still prone to not following procedures or taking other unauthorized actions that could cause a boron dilution accident during the time necessary to conduct the Type C leak tests.

The licensee also frets about the "increased occupational radiation exposure associated with [Type C leak] testing." Clearly, the radiation exposure to plant workers associated with conducting these leak tests before restart from the current outage is less than that associated with testing during a refueling following 2 years of plant operation.

In sum, despite a number of miscellaneous statements of varying degrees of invalidity, the licensee has failed to demonstrate that compliance with the requirement to perform Type C leak tests of the RHR containment isolation valves at intervals no greater than 30 months would result in undue hardship or other costs that are significantly in excess of those contemplated when the requirement was adopted. Therefore, the special circumstances

presented in 10 CFR 50.12(a)(2)(iii) do not apply to the requested exemption.

The Licensee Has Not Made a Good Faith Effort to Comply

In its final attempt to demonstrate "special circumstances," the licensee claims that the exemption is only temporary (but failed to state that it is open-ended) and that it "has made a good faith effort to comply" with the current requirement. The record does not support those assertions.

The Type C leak tests were last performed on the RHR containment isolation valves on May 7, 1992 (valve AC-732), May 25, 1992 (valves AC-MOV-743, AC-MOV-744 and AC-MOV-1870) and June 5, 1992 (valve AC-741). Under the current plant-specific requirement, the next leak tests are required to be performed within 30 months, i.e., before November 7, 1994 for valve AC-732 and in November and December 1994 for the other valves.

Nevertheless, the licensee waited until September 29, 1994 to request an exemption. In a letter dated the same day, the NRC staff notified the licensee that it intended to grant the exemption. The NRC promptly published a notice in the Federal Register on October 5, 1994 allowing 30 days, i.e., until November 4, 1994, for public comment. Thus, unless the NRC grants the requested exemption this weekend, the exemption can not be issued until Monday, November 7, 1994, the very day on which the licensee will be in violation of the current requirement if the exemption is not granted.

My personal interaction with the Authority during the licensing process for Indian Point 3 could serve as a basis for concluding that the failure to consider alternatives to an indefinite postponement of the leak tests and the filing of an exemption request at the last possible moment are simply brinkmanship on the part of the licensee. However, the contemporary record of the licensee's performance indicates a continuing disregard for the importance of the proper functioning of valves in safety systems.

For example, consider the NRC's own views expressed just last month in an October 20, 1994 letter to the licensee (Subject: Indian Point 3 Motor-Operated Valve Inspection 94-19) and the accompanying NRC Inspection Report 50-286/94-19.

Our inspectors found that development of the MOV program at Indian Point 3 was not sufficiently complete to enable a full assessment of your implementation of Generic Letter 89-10, "Safety-Related Motor-Operated Valve Testing and Surveillance." Fifteen of the 22 program commitments identified during the initial NRC

team inspection conducted over two years ago were not yet complete. Most notably, dynamic test procedures have not been adequately prepared, many of the MOV program position papers were still in draft form, and no dynamic testing has been performed since 1992. Personnel rotations also contributed to a lack of dedicated program personnel. The MOV program reflected a general lack of management, leadership, and ownership."

Letter to Leslie Hill from Eugene Kelly, October 20, 1994, p.1, emphasis added.

After its initial inspection of the MOV program in August 1992, the NRC reported that it appeared that the licensee would complete the program by August 1994. However, the August 1994 inspection revealed that "development of the MOV program was not complete, and no significant progress has been made in the program in the past two years." NRC Inspection Report No. 50-286/943-19, p. 2, emphasis added. The NRC also "recognized that NYPA would not be able to complete the GL 89-10 program during the current outage." Id. That statement is incorrect. It is not literally correct to state that the licensee is not "able" to complete the MOV program. A correct statement is that the licensee chooses not to complete it before restart. It appears that there are two reasons why the licensee will not complete either its commitments to the motor-operated valve program under Generic Letter 89-10 or the required Type C leak tests of the RHR containment isolation valves during this outage. First, there has been a "general lack of management, leadership, and ownership" associated with ensuring safe operation of the plant. Second, the licensee has assigned a higher priority to resumption of plant operation than to assuring that it is safe to do so. The remaining question is whether the NRC will acquiesce.

The licensee also claims that the exemption request is only temporary but, as discussed above, if the exemption is granted it will be valid for an unlimited time until the next refueling. Furthermore, if the NRC accepts the "reasoning" in the licensee's exemption request, there would be no basis to deny the same request in the future. Thus, the licensee's request meets the definition of "temporary" due only to semantics.

In sum, the licensee has failed to demonstrate that it has made a good faith effort to comply with the requirement to perform Type C leak tests on the RHR containment isolation valves at least every 30 months. Having tested other valves does not demonstrate a good faith effort to test the RHR valves. Thus, the special circumstances presented in 50.12(a)(2)(v) do not apply to this exemption request.

The Exemption Would Pose An Undue Risk To The Public

In support of its argument that this exemption would not present an undue risk to public health and safety, the licensee recites one of the bases used to support an earlier license amendment to accommodate the 24-month fuel cycle. In that case, the licensee concluded that the unspecified number of leakage failures that occurred in the past (except for one valve which was replaced in 1990) were random and nonrecurring. From this, the licensee concluded that past failures were not indicative of a poor performance trend and that there was no evidence that the containment leakage was a function of time. Then, based on the NRC acceptance of this conclusion in approving an earlier license amendment, the licensee concludes that it is equally applicable to the present request for an exemption.

The licensee's conclusion is not valid. First of all, it is precisely because past leakage failures were random and nonrecurring that they can not be used to predict leakage failures in the future. Second, while the NRC may have been justified in accepting this argument as one basis for extending the test interval from 24 months to 30 months, it does not follow that it is an adequate basis for extending the test interval from 30 months to at least 46 months (with no upper limit). Third, the previous 25 percent extension of the test interval was also based on a 25 percent increase in the safety margin by reducing the allowable leakage. In the present case, the licensee is requesting more than a 50 percent increase in the test interval from 30 months to 46 months (almost a 100 percent increase in the Appendix J test interval) but is proposing no increase in the safety margin. Finally, the current lengthy outage has resulted in the Indian Point 3 RHR system being in service for an unusual, perhaps unprecedented, length of time. This could have caused deterioration of the RHR valves that has not previously been encountered. For all of these reasons, the licensee has failed to demonstrate that there is reasonable assurance that the containment leakage rate will remain within acceptable limits until the RHR containment isolation valves are leak tested in the spring of 1996 or later, approximately 4 years after the last leak tests. Therefore, the licensee has failed to demonstrate that the requested exemption does not present an undue risk to public health and safety and the NRC's proposed no significant hazards consideration determination has not been justified.

The licensee also states that periodic surveillance is performed on RHR system components that are located outside the containment and that are used during the recirculation phase following an accident. The licensee asserts that corrective actions are taken to ensure that leakage from the recirculation system is limited to less than two gallons per hour. From this the licensee concludes that even if there was unacceptable leakage past the RHR containment isolation valves, leakage from the RHR components

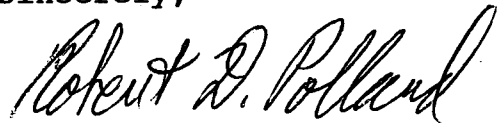
outside the containment would not significantly affect off-site exposures.

The RHR containment isolation valves are part of the reactor coolant system pressure boundary. The reactor coolant system is designed for and operates at a pressure in excess of 2000 psi. The RHR components outside containment that are used for recirculation are designed to operate at a pressure less than 500 psi. The licensee does not explain how leakage from a high pressure system into a low pressure system will be retained within the low pressure system. Furthermore, if the periodic surveillance of the recirculation system components were sufficient to limit containment leakage, there would be no need to conduct Type C leakage tests of the RHR containment isolation valves. Thus, the licensee is, in effect, attacking the requirement of Appendix J. The NRC never hesitates to remind the public it may not ask for more protection than the regulations require. The NRC should not hesitate to remind the licensee that the NRC may not accept less protection for the public than the regulations require.

Conclusion

The licensee has failed to demonstrate that any special circumstances, as defined in 10 CFR 50.12(a)(2), are present; the licensee has not made a good faith effort to comply with the current requirement; the licensee has proposed no measures to increase the safety margin to compensate for the increased risk of unacceptable leakage from the containment; and the licensee has failed to demonstrate that containment leakage is and will remain within acceptable limits until the next refueling, whenever that may occur. Therefore, the NRC should deny the licensee's September 29, 1994 application for an amendment to the Indian Point 3 technical specifications that would allow an unlimited extension of the 30-month interval for leak rate testing of the RHR containment isolation valves.

Sincerely,



Robert D. Pollard
Nuclear Safety Engineer

cc: William J. Cahill, Jr., NYPA

September 12, 1994

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