From: Richard Laufer
To: MTC1117@aol.com
Date: 4/25/01 8:23AM
Subject: RESPONSE TO COMMENTS ON ILRT TEST INTERVAL EXTENSIONS

This e-mail is in response to your February 26, 2001, e-mail to the Nuclear Regulatory Commission's (NRC's) Office of Public Affairs.

Thank you for your comments on the proposed license amendment for Indian Point Nuclear Generating Unit No. 3 (IP3) that would allow a one time extension of the containment integrated leak rate test (ILRT) from 10 years to 15 years. Your comments were made in response to the NRC's "Notice of Consideration of Issuance of Amendment to Facility Operating License, Proposed No Significant Hazards Consideration Determination, and Opportunity for a Hearing," published in the Federal Register on January 24, 2001(66 FR 7665).

The NRC response to your comments, provided below, has also been included in the Safety Evaluation for the license amendment approving the one time ILRT extension for IP3, which was issued on April 17, 2001. In the near future, a Notice of Issuance of the amendment will be published in the Federal Register. The amendment is available at the NRC's Public Document Room, located at One White Flint North, 11555 Rockville Pike (first floor), Rockville, Maryland, and accessible electronically through the ADAMS Public Electronic Reading Room link at the NRC Web site (http://www.nrc.gov) (ADAMS Accession no. ML011070447).

In your e-mail, you asked if the proposed license amendment amounted to rulemaking by exemption. As part of the 1995 change to Title 10 of the Code of Federal Regulations (10 CFR) Part 50, Appendix J, the ILRT interval was removed from the rule under Option B. When IP3 adopted Appendix J, Option B, the ILRT interval was incorporated by reference in its Technical Specifications and must be changed through a license amendment. Because the interval is not specified in the rule under Appendix J, Option B, and since IP3 has adopted Option B, no exemption is required. License amendments are granted only after review of individual applications; any other licensee requiring a TS change to extend their ILRT interval will have to apply for an amendment and that amendment request will be evaluated by the staff.

You noted that in 1995 the Commission was not willing to approve an ILRT interval longer than 10 years. This is true; however, since 1995 the staff has gained additional insight in using probabilistic risk assessment (PRA) to support decisions to modify an individual plant's licensing basis. In 1998, the Commission issued Regulatory Guide (RG) 1.174, "An Approach For Using Probabilistic Risk Assessment in Risk-Informed Decisions on Plant-Specific Changes to the Licensing Basis," to provide guidance on an approach that is acceptable to the staff. In using PRA to evaluate changes to a plant's licensing basis, the staff reviews how the proposed change affects both the core damage frequency (CDF) and the large early release frequency (LERF). In the case of a change to the ILRT interval, there is no effect on the CDF. In the case of IP3, extending the ILRT interval from 10 years to 15 years increases the LERF by an estimated 5.1E-8 (5.1 X 10 -8) per year. This estimate is based on an analysis of data from 144 ILRTs performed at U.S. reactors from 1987 to 1993. RG 1.174 defines very small changes in the risk-acceptance guidelines as those changes that result in increases in CDF less than 1E-6 per reactor year and changes in LERF of less than 1E-7 per reactor year. The extension of the ILRT frequency at IP3 from once in 10 years to once in 15 years meets the definition of a change involving a very small increase in risk. In the context of the IP3 amendment request, the staff considers this small increase in risk to be acceptable.

In your e-mail, you cited three examples to demonstrate that reactor containments are not holding up as well as it was originally thought they would. In one case, the degraded containment was detected through the ILRT. The staff was aware of this instance and considered it when making the 1995 rule change. As you noted in your e-mail, licensees must perform inspections required by Sections IWE and IWL of the ASME Code. You also noted that two of the instances cited were detected by visual inspection, not by an ILRT. The NRC regulations, 10 CFR 50.55a(b)(2)(ix)(E), require licensees to conduct visual inspections of the accessible areas of the interior of the containment, including the dome, 3 times every 10 years. This requirement will not be changed as a result of the extended ILRT interval. Furthermore, Appendix J, Type B tests performed on containment penetration bellows, airlocks, seals, and gaskets are also not affected by the change to the Type A test frequency.

Because historical data shows that the probability of an ILRT failure is low, because the PRA for IP3 shows a very small increase in LERF, and because the licensee is required to perform visual inspections in accordance with the ASME Code, the staff has concluded that the one time ILRT extension for IP3 is acceptable. The staff believes that a 15-year interval for the ILRT at IP3 is adequate to protect public health and safety.

I trust this addresses your concerns. If you have any other questions, please do not hesitate to contact us.

CC: Dricks, Victor

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CC: Dricks, Victor

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INCOMING EMAIL:

From: <MTC1117@aol.com>
To: <opa@nrc.gov>
Date: 2/26/01 9:31AM
Subject: ILRT Test Interval Extensions

Good morning. I read the Public Comment notice on Indian Point Unit 3's request for a "one-time extension" to 15 years between integrated leakage rate tests of the primary reactor containment (isn't this the plant right next door to the one that just shutdown because of tube leaks in the S/G?). I'm now told that several other utilities are planning on jumping on the bandwagon (Crystal River, TMI, the rest of the Entergy plants...).

Is this a form of rule-making by exemption request? Didn't the Commission and the industry go through a revision to 10CFR50 Appendix J in 1995? From my understanding, the same "science" was available then as now, and intervals lomger than 10 years (including 15, 20 years) were considered and rejected. Less thought and attention has been put into this area since.
In fact since that rulemaking, a relatively new Commonwealth Edison plant "failed" the ILRT because of a cracked liner weld, the North Anna and Brunswick plants experienced incidents of through-wall corrosion of their primary containment liners.

I know there are new inspection programs in place under sections IWE/IWL of the boiler-pressure vessel code, but those are visual inspection programs. In the face of increasing evidence that the reactor containments are NOT holding up as well as originally thought, do you think it wise to replace actual tests of the containments' integrity with simple visual inspections, and over-turn the logic behind the rulemaking of 1995? Some may say the recent failures indicate the new, less costly inspection programs are working. I believe the pronouncement pre-mature. Do you think the North Anna problem would have been discovered had it been up in the dome region? From my understanding the initial inspection revealed a "coating" problem, and it was the coating expert's inspection that revealed the through-wall corrosion problem.

It seems the NRC is asking the public to accept the "warranty" of these plant's safety when there originally scheduled "oil change" was every 3-4 years, then changed to once every ten years, and before the first round of ten-years maintenance can be completed (let alone evaluated - the Commission doesn't even receive the reports or observe these tests anymore), we're asked to accept a 15 year service interval. Why?

CC: <tips@baynews9.com>