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November 29, 1994
C311-94-2156

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

Dear Sir:

Subject: Three Mile Island Nuclear Station, Unit 1 (TMI-1)
Operating License No. DPR-50
Docket No. 50-289
Appeal for Proposed Alternative to 10 CFR 50.55a(f)(4)(ii)
Requesting Extension of the Current 10 Year IST Interval
(TAC NO. M90018)

- References:
1. Letter from T. G. Broughton to the U. S. NRC Document Control Desk, Subject: "Proposed Alternative to 10 CFR 50.55a(f)(4)(ii) - Request to Extend the Current 120 Month IST Interval by 24 Months," dated June 29, 1994.
 2. Letter from J. F. Stolz to T. G. Broughton, Subject: "Evaluation of the 120-Month Inservice Testing Interval Extension Request," dated September 22, 1994

GPU Nuclear's request for a two year extension of the current ten year Inservice Test (IST) Interval (Reference 1) was denied by the NRC in a letter dated September 22, 1994 (Reference 2). The purpose of this letter is to provide additional information and basis for extending the IST interval and to appeal the NRC decision which denied the initial request. GPU Nuclear believes that extension of the TMI-1 IST interval is justified and will provide savings for the NRC as well as the licensee without any reduction in safety. Extension of the ten year IST interval would allow GPU Nuclear to continue using the 1980 Edition of ASME Section XI for pump and valve testing for an additional two years. Continued use of the 1980 Code would not result in a reduction in scope (number of components tested) or test frequency (number of tests for any particular component). This letter is being submitted as a Cost Benefit Licensing Action and expedited review is requested.

Because your letter gave details of a future rulemaking as part of the basis for denial, it is necessary that we comment on the concept of the draft proposed rule even though the rule may still only be in an early draft stage. The

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concept of a proposed rule, as outlined in a May 18, 1994 Internal NRC Memorandum from W. T. Russell to E. S. Beckjord and the September 2, 1994 response memorandum is intended to eliminate the unnecessary administrative burden placed on licensees and the NRC associated with requirements for updating or approving Inservice Inspection (ISI) and IST programs to meet later ASME Code editions while ensuring that any changes which are truly safety significant will be incorporated by the licensees. Code changes may also offer relief from requirements found to provide marginal benefit and the rulemaking would allow the option for relief through generic NRC approval within six months of issuance by the ASME.

Each of the four points given in Reference 2 as rationale for denial of GPU Nuclear's request are discussed as follows:

- 1) NRC's denial states that the proposed rule will require licensees, who have not already updated to the 1990 O&M Code, to provide another complete program update when the next ten year update would become due in accordance with the current regulation.

We understand that the NRC intends to go ahead with the rule change as discussed in the NRC memoranda described above. However, denying the benefits of the rule by requiring future updates appears to be in conflict with the basic concept of the rule. Rather than give up a large part of the benefits to be gained from the rule by requiring at least one more update, consideration should be given to halting the updates immediately. It would make good sense to at least place the update process on hold at this time pending a decision whether to require any further updates. This will provide the opportunity through the public comment process to show that it is in the interest of the NRC as well as the licensees and the public to stop the process of requiring complete ISI/IST programs revisions to meet later ASME Code Editions.

Extending the current practice by requiring further program updates does not appear to be consistent with the basis for the proposed rule change which would eliminate the requirement for updating ISI/IST programs except for imposing any new requirements that satisfy the backfit test of 10 CFR 50.109.

Unlike compliance with other industry codes and standards where the requirements (Code Edition) become fixed at the time the license is issued, compliance with the ASME Section XI Code for inservice inspection and testing of Class 1, 2, and 3 components as required by 10 CFR 50.55a entails updating at every ten year interval to the latest Code edition approved by the ASME and NRC twelve months prior to the beginning of the new interval. This automatic update feature of 10 CFR 50.55a excludes the backfit review process (10 CFR 50.109) in that it imposes new requirements, many of which are truly marginal to safety, without the need for screening by the NRC staff based on cost effectiveness or safety significance.

Because the NRC staff reviews and approves all Code editions and addenda, their evaluation of each Code edition for the safety significance of any changes may be readily available. Therefore, it would appear that the

update process could end with any Code edition currently approved for any plant. By choosing as the baseline Code edition the earliest edition now in use for any plant (perhaps the 1977 Code Edition), or in effect freezing the applicable Code Edition for all plants and requiring only those upgrades from later Code Editions that are safety significant, the NRC could save considerable resources that would otherwise be consumed by resolving plant specific issues.

TMI-1 is currently required to update the IST program from the 1980 Section XI Code Edition to parts 6 and 10 of the 1988 Addendum (OMa-1988) to the ASME/ANSI OM-1987 Standard, "Operations and Maintenance of Nuclear Power Plants." We do not understand why the NRC rulemaking would require still another update to the 1990 O&M Code even though NUREG-1482¹ states: "The OM Standard was rewritten, though no significant technical changes were made, and was approved by the Board on Nuclear Codes and Standards in 1990 as the Code for Operation and Maintenance of Nuclear Power Plants, ASME OM Code-1990." It appears that updating from the 1988 OMa Code to the 1990 OM Code would only amount to a change in the name of the document and changes to all of the references that would be affected; but requiring a Code update for another ten year interval invalidates any code relief previously granted and requires another NRC review and approval.

Although the 1990 O&M Code has been published by the ASME, it has not yet been approved by the NRC for use. Therefore, if the final rule were to require updating to the 1990 O&M Code as a baseline Code edition for IST, this would require TMI-1 to submit yet another updated IST program for NRC review and approval in September 2005 and deny the intended relief from future Code updates until September, 2015. GPU Nuclear does not believe that the current practice should be continued in this manner.

- 2) NRC's denial states that our letter (Reference 1) did not provide an estimate of the potential savings that would result from extension of the IST interval. Since resources have been expended, the NRC states that updating to the latest approved O&M Code will not be a burden.

Our letter did not provide the NRC with an estimate of the potential savings to be gained by extending the current IST interval. If the rulemaking were to eliminate the requirements for any additional complete IST program updates prior to TMI-1's next update, the expense of one or more future updates could be saved.

According to the NRC Memorandum which discusses a future rulemaking, the intent of a rule is to avert the cost of implementing the updated programs over the remaining life of the plants. Considerable savings would be realized from each program update eliminated. The savings would be primarily associated with preparation of the program submittal for NRC review and approval and the costs associated with the NRC's review and approval.

¹ NUREG-1482, "Guidelines for Inservice Testing at Nuclear Power Plants," Draft Report for Comment," November 1993.

GPU Nuclear obtained an estimate over the telephone from a contractor who has previously performed work for other licensees putting together IST program updates for submittal to the NRC. That estimate gave a cost of between \$40,000 and \$60,000 for a program submittal and between \$30,000 and \$40,000 for completing the revisions to the IST procedures. The estimate did not include preparation of a basis document which is recommended by NUREG-1482, §4.2.2, although not an NRC requirement.

In estimating the cost for NRC review of an IST submittal, we assumed that the cost would be comparable to the NRC's review and approval of relief requests associated with the TMI-1 ISI program update which was submitted on April 19, 1991. A total of the invoices from 1991, 1992, and 1993 shows that \$37,500.00 was billed by the NRC for review of the ISI program update. Considering the work which remains to be done by the licensee and that the NRC review of an IST program update submittal would be comparable to NRC review of a 1991 ISI program update submittal, a conservative estimate of the total savings from the elimination of one IST program update amounts to at least \$100,000 [(\$40,000 - Submittal) + (\$30,000 - Procedure Changes) + (\$30,000 - NRC Review) = \$100,000]. Therefore, this letter is being submitted as a Cost Benefit Licensing Action and expedited review by the NRC is requested.

Our previous letter stated that considerable work had been completed toward updating to the new code requirements. The work that has actually been completed includes development of a computerized database, which represents the beginnings of an IST basis document, and a review of the O&M Codes referenced by the 1989 Section XI Code [OM-1 (Relief Valves), OM-6 (Pumps), and OM-10 (Valves)] to determine the changes involved in an IST Program update. While considerable work has been accomplished, a large part of the expense associated with preparation and review of the submittal to the NRC and revisions to the IST procedures remains to be done and could be saved if the IST program update were not required.

- 3) NRC's denial expresses concern that the issue [of extending the ten year interval pending rulemaking] has become "generic" without the Committee for Review of Generic Requirements review.

In commenting on the concept of the rulemaking discussed in Reference 2, GPU Nuclear believes that consideration should be given to putting all licensee ISI/IST program updates on hold until a rule can be made effective rather than give up a large part of the benefits to be gained from rulemaking. 10 CFR 50.55a(a)(3) permits the staff to waive the update requirement in 10 CFR 50.55a(f)(4)(iv) provided that either of two conditions are satisfied. The conditions are (i) that the proposed alternatives would provide an acceptable level of quality and safety, or (ii) that compliance with the specified requirements of this section would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety. We believe that both of these conditions have been demonstrated in GPU Nuclear's submittal (Reference 1) as supplemented by this letter as well as the October 21, 1993 submittal by Entergy Operations, which initiated the generic rulemaking activity as

discussed in Reference 2.

As an alternative to granting plant specific relief for TMI-1 and other plants with similar requests, GPU Nuclear suggests that the NRC issue a generic letter granting an extension of the current ten year interval for all licensees pending the outcome of rulemaking, which may require no additional complete ISI/IST program revisions to meet later Code editions. While an extension of the IST interval for TMI-1 would allow the benefits of the rulemaking for only one licensee in addition to the Entergy plants, a generic letter applicable to all licensees would provide the advantage of a review by the NRC Committee for Review of Generic Requirements (CRGR) and considerably greater savings for the NRC as well as licensees. The number of plant specific requests would be reduced to a minimum while the rule is pending, allowing the NRC to focus resources on rulemaking. GPU Nuclear believes that placing the update process on hold should not involve a lengthy or complicated review. There have been few technical changes in the code even from the early Section XI code editions up to the OMa-1988 Code.

- 4) NRC's denial states that NRC review of similar requests would remove resources from preparing and completing the generic action.

NRC approval of all ASME Section XI code relief expires at the end of every ten year interval in accordance with 10 CFR 50.55a(f)(5)(iv). Therefore, ISI/IST program updates to later ASME code editions require review by the NRC and its contractors in order to approve the plant specific relief requests that accompany each periodic update.

Extension of the ten year interval involves only schedular relief and should not require extensive NRC review. Considerable NRC resources however could be deferred or saved entirely by deferring or waiving the update requirement. Waiving the update process would save the NRC burden of reviewing licensee program update submittals and approving the relief requests. Placing a hold on the update process would allow the staff considerably more time to focus on rulemaking and other generic Code applications.

The ASME Code allows an extension of up to twelve months, all of which can be taken during the current interval. Therefore, our June 29, 1994 request for a two year extension of the current IST interval would only allow an additional twelve months extension beyond that which is already allowed. The length of the extension requested, 24 months, was based on the extension granted by the NRC for the Entergy plants and also was based on the expectation that rulemaking would be completed within that two year period, before September 1996. However, because updating to the OMa-1988 Code would not significantly change the test program, a longer extension would also be justified if the rulemaking were to take more than two years.

Extension of the current ten year IST interval for TMI-1 until September 1996 or until a new rule is in place does not pose any safety concern because the current IST program has been reviewed and approved by the NRC and found to meet the 1980 Edition of ASME Section XI. Also, because of the IST program changes

that have been made as a result of GPU Nuclear review of NRC Generic Letter (GL) 89-04 and review of the guidance in NUREG-1482, updating to the OMa-1988 Code would not constitute a significant IST Program upgrade. Neither the number of components in the IST Program, nor the test frequencies would be expected to change. Because the pump and valve test frequencies required by both the 1980 ASME Code and the 1988 OMa Code are either quarterly, cold shutdown, or refueling interval frequency, extension of the IST interval would not affect these tests. The only exception where extension of the IST interval might affect the test frequency would be where tests are performed once each ten years. For those check valve groups (a total of ten valves) where one valve out of the group is required to be disassembled every ten years for inspection, GPU Nuclear will schedule these inspections such that the original inspection schedule will be followed. Therefore, extension of the current IST interval will not result in any reduction of the test scope or frequency.

The length of the requested extension does not appear significant considering the amount of time it generally takes from when a Code change is first proposed and when it becomes a requirement. A Code change typically takes years for approval through ASME before issuance and several more years before the NRC approves it and incorporates it into 10 CFR 50.55a. Because licensee updates occur on a ten year interval, it could take up to an additional ten years following NRC endorsement of a Code edition or addenda before implementation of the change is required for a particular licensee.

It is not the purpose of this request nor the concept of the proposed rulemaking to delay the implementation of any new requirements which add significant safety benefit. GPU Nuclear believes that the rulemaking which is under discussion as well as our request will serve to improve a process which consumes NRC and licensee resources unnecessarily with very little value added. The rulemaking currently being discussed to reengineer this process will eliminate administrative burden and at the same time speed the evaluation and resolution of issues that arise from ASME Code changes. Pumps and valves included in the IST program are required to be tested at either a quarterly, cold shutdown, or refueling interval frequency.

The NRC staff should be commended for their effort in preparing NUREG-1482, "Guidelines for Inservice Testing Programs," Draft Report for Comment. Use of this NUREG will allow the use of portions of the later code editions that have been approved by the NRC leaving very little to be accomplished by revising a complete IST program to meet a later edition of the Code. It is also commendable that the NRC has decided to end the periodic ISI/IST program update requirements. However, by baselining the program to the later Code editions as described in the September 2, 1994 NRC memorandum from E. S. Beckjord to W. T. Russell, implementation could be delayed for the majority of remaining plant life and generate additional plant specific submittals for the NRC staff to review that would otherwise be unnecessary.

In summary, this appeal is provided as a CBLA to supplement our request for extension of the ten year IST interval (Reference 1). This letter provides additional information and basis for NRC approval of the extension. Each of the four points given by the NRC in denying our request initially have been addressed. Expedited review under the CBLA review process with a response by

January 1995 is requested. It is necessary that we know by then if the requested schedular relief can be granted because TMI-1's Cycle 11 Refueling Outage (11R) is scheduled to begin in September 1995. Updating to the newer OMa-1988 Code would not be expected to result in additional testing or outage related work. However, if the extension is not granted, the changes to the IST procedures and preparation of the IST program submittal will have to be completed during the second quarter 1995 because of the volume of other unrelated outage activities that must be done several months leading up to the 11R outage.

Sincerely,



T. G. Broughton
Vice President and Director, TMI

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cc: TMI-1 Senior Project Manager
Region I Administrator
TMI Senior Resident Inspector