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June 24, 1994  
 C311-94-2048

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

SUBJECT: Three Mile Island Nuclear Station, Unit 1 (TMI-1)  
 Operating License: DPR-50  
 Docket No: 50-289  
 Request for Deletion of Conditions of Operation

Dear Sir:

This letter requests the deletion of conditions of operation imposed by the NRC by letter (Denton to Hukill, dated October 2, 1985) as part of the authorization to restart TMI-1. Two of these conditions of operation previously have been deleted (1(a) and 1(d)); two have been modified (1(s) and 1(u)). The conditions of operation applicable to TMI-1 activities (1(b, c, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t and u), 2(a - f), 3(a and b), 4(a) and 5(a, b and c)) have been overtaken by changes in NRC regulations, incorporation into TMI-1 Technical Specifications and/or by plant activities including modifications of the TMI-1 plant. Ongoing Conditions of Operation involving plant operations and maintenance have been incorporated into TMI-1 Technical Specifications and/or plant procedures. The continued compliance with ongoing Conditions of Operation involving personnel restrictions is specifically addressed in this letter. The Conditions of Operation imposed by the NRC prior to restart are no longer required to ensure safe operations of the TMI-1 plant. For the reasons enumerated in Attachment 1, GPU Nuclear requests that the conditions of operation applicable to TMI-1 be deleted.

If you have any questions regard this matter, please contact John Schork, TMI Licensing Engineer at (717) 948-8832.

Sincerely,

T. G. Broughton  
 Vice President and Director, TMI

JSS/emf  
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cc: M. Evans - TMI Senior Resident Inspector  
 R. Hernan - TMI Project Manager  
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**Condition Of Operation 1(b) reads:**

- (b) Unit 1 solid waste handling capabilities shall not be relied upon for decontamination or restoration of Unit 2. LBP-81-59, 14 NRC 1211, 1454 (1981); LBP-82-27, 15 NRC at 757.

Condition of Operation 1(b) was instituted to ensure that decontamination and/or restoration operations at TMI-2 would not affect safe operations at TMI-1. At the time the condition was imposed, the TMI-2 cleanup involved major area and equipment decontamination activities which generated thousands of cubic feet of solid radioactive waste each year. Condition of Operation 1(b) was satisfied throughout the duration of the TMI-2 cleanup.

The TMI-2 cleanup has been completed and the TMI-2 plant entered Post-Defueling Monitored Storage on December 28, 1993. The TMI-2 solid radioactive waste projected to be generated during PDMS consists of small volumes of contaminated materials. These volumes will be generated by the performance of the monitoring activities required for PDMS and small PDMS-related work projects. The amount of solid radioactive waste projected to be generated during PDMS is less than 500 cubic feet per year, compared to of the 3,000 cubic feet of radioactive waste projected to be generated annually at TMI-1.

Deletion of Condition of Operation 1(b) will allow the common processing of all solid waste generated at TMI. The intermingling of the small amount of TMI-2 solid radioactive waste throughout PDMS with the TMI-1 solid radioactive waste will promote the handling of solid radioactive waste in the most efficient manner and will not impact the safe operation of TMI-1. Therefore, Condition 1(b) can be deleted.

**Condition of Operation 1(c) reads:**

- (c) After the restart of Unit 1 and prior to the movement within the Unit 1 fuel handling building of any irradiated Unit 1 fuel, GPU Nuclear shall install, and have operable, an engineered safety features (ESF) filtration system for the Unit 1 fuel handling building. The ESF filtration system for Unit 1 shall be operable whenever irradiated Unit 1 fuel is moved within the Unit 1 fuel handling building. LBP -82-27, 15 NRC at 756

Condition of Operation 1(c) has been met. An engineered safety features (ESF) filtration system for the Unit 1 fuel handling building was installed after restart but prior to the handling of any irradiated Unit 1 fuel within the Unit 1 fuel handling building.

The requirement for the system to be operable during fuel handling activities within the Unit 1 fuel handling building was incorporated into the TMI-1 Technical Specifications (TS section 3.15.4) by License Amendment 122, Ross to Hukill, December 12, 1986.

Condition of Operation 1(c) is covered by existing Technical Specification 3.15.4 and therefore can be deleted as a condition of operation.

**Condition of Operation 1(e) states:**

- (e) At all times when the plant temperature is above 200°F (cold shutdown), GPU Nuclear Corporation will man all shifts at TMI-1 with a minimum of one NRC-licensed SRO, who will act as Shift Supervisor; a second individual, either NRC-licensed as an SRO or NRC licensed as an RO and trained as an SRO, who will act as Shift Foreman; and a minimum of two NRC-licensed ROs who will act as Control Room Operators.

Condition of Operation 1(e) is covered by Technical Specification 6.2.2.2(a) and Table 6.2-1 which specify the minimum shift crew composition. Specifically, Table 6.2-1 requires the following shift manning when the plant temperature is above 200° F: two licensed senior reactor operators (SROs), two licensed reactor operators (ROs), two non-licensed AOs, and one shift technical advisor (STA). Therefore, Condition of Operation 1(e) can be deleted.

**Condition of Operation 1(f) states:**

- (f) GPU Nuclear Corporation shall employ all reasonable efforts to ensure personnel will be scheduled on a six-shift rotation, so long as there is a sufficient number of qualified individuals who normally stand shift watches to man six shifts, each of which meets condition (1)(e), above (6 SROs and 18 ROs, recognizing that SROs may act as either SROs or ROs),\* LBP-81-32, 14 NRC at 580.

- \* Conditions (1)(e) through (j) are minimum conditions imposed by the Licensing Board on the evidentiary record. The requirements of NRC regulations on shift manning, which in some respects are more restrictive than these conditions, are also applicable.

Condition of Operation 1(f) was imposed prior to restart in response to concerns expressed by the Commonwealth of Pennsylvania during the restart hearings that GPU Nuclear might be unable to staff a six (6) shift rotation because there might be a limited number of licensed operators available at the time of restart and a less than 6 shift rotation could adversely impact requalification training. Specifically, the Commonwealth was concerned that the number of hours per year of training for Licensed Operators would be reduced from the approximately 200 hours of training that occur with a six-shift cycle to as little as 60 hours of training. The Commonwealth was also concerned with the lack of recent operating experience among the Licensed Operators because of the extended shutdown of TMI-1 beginning in 1979. These concerns were the genesis of Condition of Operation 1(f).

For the past eight years TMI-1 has had a six-shift rotation for licensed operators. The Licensed Operator staff has grown both in numbers and years of operating experience. The six-shift rotation includes approximately 5 1/2 weeks of training per year.

TMI-1 is evaluating a change in the shift rotation schedule that will replace the current six-shift rotation with an alternate rotation. The alternate shift rotation schedule will retain a training cycle of 5 weeks of training per year.

Licensed operator training programs have undergone substantial improvements since the time of restart. An on-site full-scale replica simulator was delivered and installed at the TMI training facility in 1986. The Licensed and Non-Licensed Operator training programs have been accredited by INPO (Institute for Nuclear Power Operations). These improvements have considerably enhanced the effectiveness of licensed operator training.

The TMI-1 Licensed Operator training program is required to meet the requirements of 10 CFR 55. Any future revision to the current training program will continue to meet these requirements and the training standards established by INPO for Licensed Operator initial and requalification training.

The bases for Condition of Operation 1(f) are no longer germane because the Licensed Operator staff at TMI-1 has increased in numbers and has gained extensive experience in the safe operation of the TMI-1 plant since restart over 8 years ago. Improvements in the TMI-1 Licensed Operator training program and facilities have enhanced the effectiveness of operator training. Condition of Operation 1(f) may have been justified prior to restart, but the TMI-1 record of safe and successful plant operations since restart removes any justification for the continuation of Condition of Operation 1(f). Therefore, Condition of Operation 1(f) can be deleted.

**Condition of Operation 1(g) reads:**

- (g) In the event there is an insufficient number of qualified personnel who normally stand shift watches available to meet condition (1)(f), above, GPU Nuclear Corporation shall schedule its normally on-shift plant operating personnel on a five-shift schedule, each of which meets condition (1)(e), above, unless additional relief is granted pursuant to condition (1)(j), below." LBP-81-32, 14 NRC at 580

**Condition of Operation 1(h) reads:**

- (h) In the event there is an insufficient number of qualified operators who normally stand shift watches available to meet condition (1)(g), above, GPU Nuclear Corporation may employ on shift qualified and licensed individuals from its organizations who do not normally stand shift watches, in addition to those operators who do normally stand shift watches, to meet condition (1)(g), above." LBP-81-32, 14 NRC at 580-81.

Conditions of Operation 1(g) and (h) allow GPU Nuclear to operate with a five shift rotation and, if necessary, with Licensed Operators who do not normally stand shift watches, in the event there is an insufficient number of qualified full time operators to staff a six-shift rotation. Conditions of Operation 1(g) and 1(h) were instituted for restart because of concerns that the TMI-1 plant would not have a sufficient number of licensed, qualified operators to staff a six-shift rotation.

GPU Nuclear has successfully maintained a sufficient number of licensed qualified personnel to routinely staff a six-shift rotation for over 8 years since restart. In addition, with the maturing of the nuclear power industry, the recruitment of licensed operators from existing plants for jobs at plants coming on line has ceased. TMI-1 has a stable, highly experienced staff of licensed qualified operators. Because TMI-1 is an operating plant and there are no new plants coming on line, there is little motivation for licensed operators to leave for other employment. Natural attrition from the licensed operator program because of retirements, etc. will be handled through the normal operator training program. Conditions of Operation 1(g) and (h) can be deleted because they are no longer necessary to ensure GPU Nuclear maintains an adequate staff of qualified Licensed Operators.

Condition of Operation 1(i) reads:

- (i) In the event there is an insufficient number of qualified operators in GPU Nuclear Corporation organization to meet condition 1(h), above, for any period longer than ten consecutive days, GPU Nuclear Corporation shall inform the Commonwealth of Pennsylvania and the NRC staff and seek from the NRC staff their concurrence to man TMI-1 shifts and operate TMI-1 for a limited period of time with available qualified and licensed personnel, specifically bearing in mind the then current and applicable NRC criteria or guidance on overtime policies." LBP-81-32, 14 NRC at 580-81.

Condition of Operation 1(i) was instituted because of concerns that the TMI-1 plant would not have a sufficient number of licensed, qualified full time operators to staff a six-shift rotation. Condition of Operation 1(i) can be deleted because GPU Nuclear has demonstrated for the past eight years that it has maintained an adequate number of licensed, qualified, full-time operators to operate the TMI-1 plant. GPU Nuclear has successfully maintained a sufficient number of licensed qualified personnel to routinely staff a six-shift rotation for over 8 years since restart. In addition, with the maturing of the nuclear power industry, the recruitment of licensed operators from existing plants for jobs at plants coming on line has ceased. TMI-1 has a stable, highly experienced staff of licensed qualified operators. Because TMI-1 is an operating plant and there are no new plants coming on line, there is little motivation for licensed operators to leave for other employment. Any attrition from the licensed operator program because of other reasons for separation, e.g. retirement, etc. will be handled through the normal operator training program. Therefore, Condition 1(i) can be deleted.

Condition of Operation 1(j) reads:

- (j) At all times when TMI-1 is operating at power levels above 20% rated power and there is only one licensed SRO on shift, the SRO-licensed individual on shift shall remain within the control room (including the shift supervisor's office) or within the plant at a location from which the control room is accessible in less than five minutes. Further, at all times when TMI-1 is operating at power levels above 20% rated power and the SRO-licensed individual on shift is not in the control room (including the shift supervisor's office), GPU Nuclear Corporation shall ensure that the control room (including the shift supervisor's office) is manned by a minimum of two ROs, acting as Control Room Operators, a third individual with an RO license and SRO-trained, and by the on-shift STA.\* LBP-81-32, 14 NRC at 581

TMI-1 Technical Specification 6.2.2.(d) states:

- (d) The Shift Supervisor or Shift Foreman\* shall be in the control room at all times other than cold shutdown conditions ( $T_{\text{cve}} < 200^{\circ} \text{F}$ ) when he shall be onsite.

Condition 1(j) is unnecessary because the requirements for the location of the Shift Supervisor or Shift Foreman\* with the plant at other than cold shutdown conditions is addressed by TMI-1 Technical Specification 6.2.2.2(d). Therefore, Condition 1(j) can be deleted.

Condition 1(k) reads:

- (k) GPU Nuclear Corporation shall employ all reasonable efforts to maintain at all times sufficient numbers of individuals in training to become licensed operators in order to account for possible future attrition of licensed operators. To this end, GPU Nuclear shall employ all reasonable efforts to maintain in training at all times that number of trainees which, when combined with the actual number of NRC-licensed SROs and ROs in GPU Nuclear Corporation's organization, will total at least 30. GPU Nuclear Corporation shall report to the Commonwealth of Pennsylvania and the NRC staff at least annually whenever this condition is not met, and shall describe to the NRC staff the corrective actions being employed by GPU Nuclear Corporation to achieve compliance. LBP-81-32, 14 NRC at 581.

\* If not SRO licensed, he shall have completed the SRO Training program.

Condition of Operation 1(k), like Conditions of Operation 1(g), 1(h) and 1(i), was based on a concern that prior to restart the number of qualified licensed operators would be insufficient to staff a six-shift rotation. This concern was valid at that time because TMI-1 licensed operators were susceptible to being recruited for employment at plants that were being completed and were preparing to begin commercial operation. There is no longer a basis for this concern. There are currently 54 qualified licensed operators for TMI-1 in GPU Nuclear. TMI-1 has been in operation over eight (8) years since restart in 1985. The number of qualified, full time licensed operators at TMI-1 has been very stable and the recruitment of licensed operators from existing plants for employment at plants under construction has essentially ceased. Condition of Operation 1(k) can therefore be deleted.

Condition of Operation 1(l) reads:

- (1) At the time of restart, GPU Nuclear Corporation shall provide and shall thereafter maintain a management system to perform the following functions:
  - (i) Review operating experience information originating both within and outside the facility;
  - (ii) Promptly supply information pertinent to plant safety, including proposed procedural changes and plant modifications, to operators and other appropriate plant personnel; and
  - (iii) Assure that such information is incorporated into training and requalification programs. LBP-81-32, 14 NRC at 581-82

Condition of Operation 1(l)(i) has been met since prior to restart (NRC Inspection Report 84-33, Starostecki to Hukill, dated January 16, 1985). GPU Nuclear has in place several management programs to ensure operators and other appropriate plant personnel are kept informed of operating experience information from within TMI-1, GPU Nuclear and the nuclear industry in general. As stated in the GPU Nuclear Technical Functions procedure 5000-ADM-7370.02, "Review of Industry Operating Experience," the TMI Plant Analysis Section is responsible for the review, analysis and the tasking of action items in response to nuclear plant event reports from GPU Nuclear facilities and other nuclear plants. GPU Nuclear reviews event reports issued by INPO, NRC, NUS and the Nuclear Network. Condition of Operation 1(l) has been met and GPU Nuclear has successfully implemented several programs to ensure it continues to be met. Therefore, Condition of Operation 1(l)(i) can be deleted.

Condition of Operation 1(l)(ii) has been met since prior to restart (NRC Inspection Report 84-33, Starostecki to Hukill, dated January 16, 1985). TMI-1 Administrative Procedure (AP) 1043, "Control of Plant Modifications", section 5.1.8 assigns the Director, Operations and Maintenance (O&M) the task of determining training requirements for Operations/Maintenance personnel as a

result of a plant modification and responsibility to verify that required training has been completed prior to placing the modified system or component in normal service and verifying appropriate training aids necessary to train plant personnel have been provided by Technical Functions. Methods for conduct of training are outlined in GPU Nuclear TMI-1 Training Department procedure 6211-PGD-2613, section 4.4, "Operational Review Program". Condition of Operation 1(1)(ii) has been met and GPU Nuclear has successfully implemented via approved procedures administrative controls to ensure it continues to be met. Therefore, Condition of Operation 1(1)(ii) can be deleted.

Condition of Operation 1(1)(iii) has been met since prior to restart (NRC Inspection Report 84-33, Starostecki to Hukill, dated January 16, 1985). TMI-1 Operations Department procedure OS-1 governs the revision review for licensed operators. TMI-1 Training Department procedure 6210-ADM-2600.09, "Required Reading", governs the required reading for licensed operator training instructors. The INPO-certified cyclic training programs for the operations and maintenance personnel include appropriate training on recent industry events. General employee training also includes a recent industry events review and the technical engineering staff training includes an industry events update and review. Condition of Operation 1(1)(iii) has been met and GPU Nuclear has implemented via approved procedures administrative controls to ensure it continues to be met. Therefore, Condition of Operation 1(1)(iii) can be deleted.

**Condition of Operation 1(m) reads:**

- (m) Any participation of Gary P. Miller in the start-up, testing or operation of TMI-1 shall be under the direct supervision of an appropriately qualified official of GPU Nuclear Corporation. LBP-82-56, 16 NRC 281, 384 (1982).

Mr. Miller has not been employed by GPU Nuclear since prior to the restart of TMI-1. He is currently an employee of Metropolitan Edison, a subsidiary of GPU. GPU Nuclear commits, via this letter that Mr. Miller will not be employed by GPU Nuclear in the future. Therefore, Condition 1(m) can be deleted.

**Condition of Operation 1(n) reads:**

- (n) GPU Nuclear shall preserve all records pertaining to the investigation recommended at Partial Initial Decision 99-2312-14, pertaining to the false certification of an employee. LBP-82-56, 16 NRC 281, 384 (1982).

Condition of Operation 1(n) was instituted to ensure that records were available for an investigation of a former GPUN employee. The investigation recommended in the PID for which records were to be preserved was conducted by the NRC Office of Investigations and ultimately led to the indictment and conviction of the former employee. On appeal, the conviction was affirmed on January 2, 1986. Therefore, Condition 1(n) can be deleted.

**Condition of Operation 1(o) reads:**

- (o) Until the backup display system for the incore thermocouples is made fully safety-grade (including environmental qualification), the TMI-1 emergency procedures shall direct that operators rely on the redundant indication closest to saturation in determining if the criteria to permit throttling of High Pressure Injection (HPI) have been met. ALAB-729, 17 NRC 814, 897 (1983).

The NRC confirmed the backup display system for the incore thermocouples was safety-grade and environmentally qualified prior to restart (Kane to Hukill, July 18, 1985, Special Safety Inspection 85-19, Section 5.5, page 16). The TMI-1 Technical Specifications Section 3.5.5.1 requires the backup Incore Thermocouple display channel operability as described in Table 3.5-2. Condition 1(o) has been met and is redundant to existing Technical Specification requirements. Therefore, Condition of Operation 1(o) can be deleted.

**Condition of Operation 1(p) reads:**

- (p) Until the emergency feedwater (EFW) system is made fully safety-grade, an auxiliary operator shall be dispatched to the EFW flow control valve area, upon any EFW auto-start condition, in order to take normal control of the valves, if needed; that person shall not be required to perform any other duties until the control room operators verify that EFW flow is being delivered to the steam generators and the EFW system is controlled by the Integrated Control System (ICS) or through the manual station in the control room. ALAB-729, 17 NRC at 894.

Condition 1(p) has been completed. The safety grade modifications to the EFW system were completed during the 6R outage. The NRC approved the design and operation of the EFW system in the safety evaluation of license amendment 124 issued March 9, 1987 (Thoma to Hukill); SER "TMI-1 EFW System," dated February 18, 1987; and SER "TMI-1 Main Steam Line Rupture Detection System," dated April 18, 1988. Technical Specifications applicable to the operation and surveillance of the modified EFW system at TMI-1 were incorporated into TMI Technical Specifications via license amendment 124. Therefore, Condition of Operation 1(p) can be deleted.

**Condition 1(q) reads:**

- (q) Before the pressurizer heaters are connected to the emergency power supply at TMI-1, the reactor shall be subcritical or in a hot standby condition. ALAB-729, 17 NRC at 894.

Condition 1(q) has been satisfied and continues to be met. This condition is addressed in TMI-1 procedures 1202-29 "Pressurizer System Failure" and 1202-2 "Station Blackout" as verified in NRC inspection report IR-85-19. Changes to these procedures are governed by the requirements of 10 CFR 50.59 and the associated NRC reporting requirements. Therefore, Condition 1(q) can be deleted.

**Condition of Operation 1(r) reads:**

- (r) GPU Nuclear Corporation shall modify its emergency plan to address changing capabilities of plant instrumentation. CLI-7908, 10 NRC 141, 145 (1979); LBP-81-59, 14 NRC at 1702.

Condition 1(r) has been completed. 10 CFR 50 Appendix E, Section G requires that provisions be employed to ensure the Emergency Plan and Emergency Planning Implementing Procedures are maintained up to date. Thus, changes to plant instrumentation are required to be reflected in the Emergency Plan and procedures. The GPUN Corporate Emergency Plan, Section 8.2 describes the process of changing the plan and procedures. Condition 1(r) has been met and will continue to be met in accordance with existing NRC regulations and established procedures. Therefore, Condition 1(r) can be deleted.

**Condition 1(s) reads:**

- (s) No pre-accident TMI-2 operator, shift supervisor, shift foreman, or any other individual both in the operating crew and on shift for training as a licensed operator at TMI-2 prior to the accident shall be employed at TMI-1 in a responsible management or operational position without specific NRC approval.

"Operational position" as used here includes any position involving actual operation of the plant, the direction or supervision of operators, or independent oversight of operations.

This condition shall also apply to the pre-accident Vice-President, Generation; TMI-2 Station Manager; TMI-2 Supervisor of Technical Support (from January 1977 to November 1978); TMI-2 Superintendent of Technical Support (from December 1978 to the accident); and TMI-2 Supervisor of Operations.

CLI-85-02, 21 NRC 282, 341-342 (1985)

Condition 1(s) was modified in NRC commission Order CLI-88-02 dated April 28, 1988 to read:

The pre-accident TMI-2 Supervisor of Operations, James R. Floyd, shall not be employed at TMI-1 in a responsible management or operational position without specific NRC approval. "Operational Position" as used here includes any position involving actual operation of the plant, the direction or supervision of operations, or independent oversight of operations.

Condition 1(s) was met and continues to be met. Mr. Floyd left the employment of GPU Nuclear several years ago. GPU Nuclear is committing via this letter that Mr. Floyd will not be employed by GPU Nuclear in the future. Therefore, Condition 1(s) can be deleted.

**Condition 1(t) reads:**

- (t) GPU Nuclear, in the absence of NRC authorization to the contrary, is to retain its expanded Board of Directors and its Nuclear Safety and Compliance Committee. CLI-85-02, 21 NRC at 342

Condition 1(t) has been met since restart. GPU Nuclear requests Condition 1(t) be deleted because the basis for the condition no longer exists. The NSCC and the expanded GPU Nuclear Board of Directors were established during the restart process at a time when there were several ongoing investigations that raised questions regarding management competence and integrity. The intent in establishing the NSCC was to resolve any lingering concerns that regulators or the public may have had regarding management competence and integrity vis a vis the safe restart and operation of the TMI-1 plant.

Condition 1(t) can be deleted as a condition of operation for TMI-1 because the investigations that were in process when it was established have been long since completed and closed. GPU Nuclear management has successfully and safely operated the TMI-1 for the past eight years. The record of operation of TMI-1 from the time of restart to the present clearly evidences that there is no regulatory basis to require additional internal oversight beyond that of other licensees to ensure GPU Nuclear has the management competence and integrity to safely operate TMI-1. Since 1986, TMI-1 has undergone eight SALP evaluations. The average SALP rating in that time period is 1.36. The last three SALP evaluations have resulted in an average rating of 1.11. Therefore, Condition 1(t) can be deleted.

GPU Nuclear currently intends to keep the NSCC and the expanded Board of Directors irrespective of the deletion of Condition 1(t). The independence of the NSCC and its direct reporting relationship to the GPU Nuclear Board of Directors will remain unchanged. However, some changes in NSCC support staff and the distribution of NSCC reports may be instituted concurrent with deletion of Condition 1(t) as a condition of operation. Currently, the NSCC support staff is directly employed by the GPU Nuclear Board of Directors. Subsequent to the deletion of Condition 1(t), GPU Nuclear may have NSCC

support staff employed by GPU Nuclear. When the NSCC was established GPU Nuclear committed to providing NSCC reports to the NRC and the public. Subsequent to the deletion of Condition 1(t), GPU Nuclear will make NSCC reports available to the NRC consistent with access to any other permanent plant record.

**Condition 1(u) reads:**

- (u) GPU Nuclear Corporation is to notify the NRC before returning either Mr. Robert Arnold or Mr. Edward Wallace to responsible positions at TMI-1. CLI-85-02, 21 NRC at 323.

Condition 1(u) originated in CLI-85-2, NRC 282, 363, where the Commission stated: "Since the Commission has decided that [an issue as to the accuracy of Met Ed's response to the NOV concerning the TMI-2 accident] is no longer significant because of the removal [by the Licensee] of Arnold and Wallace, Licensee is to notify the Commission before returning either of these individuals to responsible positions at TMI-1." In CLI-85-19, 22 NRC 886, the Commission addressed all the allegations and concerns regarding Messrs. Arnold and Wallace, deciding that none save the accuracy of the December 5, 1979 response to the NOV was a constraint on their employment in activities regulated by the Commission. On the NOV response issue, CLI-85-19 solicited comments. After receiving comments from interested parties, the Commission next addressed this issue in CLI-86-9, 23 NRC 165.

Regarding Arnold, the Commission found "it does not view Arnold's involvement in the NOV as requiring any constraint on his employment in the regulated nuclear industry." However, because Arnold did not object to a continuation of the restriction and did not know of any plans by GPU to involve him in TMI-1 activities, the Commission did not lift the restriction.

For Wallace, a hearing was ordered. Subsequently, the Administrative Law Judge terminated that proceeding and removed the restriction on Wallace. The Appeal Board decision (ALAB-850) which affirmed the Administrative Law Judge's Order became final NRC action on November 26, 1986 when the Commissioners declined to review it. On October 13, 1987, the U.S. Court of Appeals for the Third Circuit dismissed the Commonwealth of Pennsylvania's petition for review of the NRC action.

There is no reason now to continue this condition in any form. The issues which underlay the Commission's concerns in CLI-85-02 have long since been addressed. Therefore, Condition 1(u) can be deleted.

**Conditions of Operation 2(a - f) read:**

- (2) Power Escalation Test Requirements For Initial Restart After Lifting Immediately Effective Shutdown Order of July 2, 1979
  - (a) Prior to operation above 5% power, GPU Nuclear Corporation shall complete the Special Low Power Test Program in

accordance with GPU Nuclear Corporation's Restart Test Specification (letter of April 5, 1983 or NRC-approved later submittal) and Item I.G.1 of NUREG-0694. LBP-82-27, 15 NRC at 757.

- (b) Prior to operation above 48% power, GPU Nuclear Corporation shall demonstrate automatic initiation of EFW pumps upon loss of both feedwater pumps. CLI-85-09, 21 NRC 1118, 1157 (1985).
- (c) Prior to operation above 5% power, GPU Nuclear Corporation shall demonstrate that EFW system initiation and operation is assured independent of any AC source for at least two hours. CLI-85-09, 21 NRC at 1157.
- (d) Prior to completion of Power Escalation Test program, GPU Nuclear Corporation shall demonstrate safety-grade automatic anticipatory reactor scram on loss of feedwater and upon turbine trip. CLI-85-09, 21 NRC at 1157.
- (e) Prior to completion of the Power Escalation Test program, GPU Nuclear Corporation shall demonstrate performance of the saturation meter, the incore thermocouples, and the wide range hot leg temperature instrumentation systems installed to recognize inadequate core cooling. CLI-85-09, 21 NRC at 1157.
- (f) Prior to completion of the Power Escalation Test program, GPU Nuclear Corporation shall demonstrate EFW initiation on loss of all four reactor coolant pumps. CLI-85-09, 21 NRC at 1157.

Conditions of Operation 2(a) through 2(f) are specific requirements related to the restart of TMI-1 that occurred in 1985. These requirements specify several actions that were required to be completed prior to completion of the Power Escalation Test during restart. GPU Nuclear notified the NRC that Conditions of Operation 2(a) through 2(f) had been met on April 24, 1985 (Hukill to Murley, "Startup Report for Restart", 5211-86-2070). Therefore, Conditions of Operation 2(a) through 2(f) can be deleted.

Conditions of Operation 3(a) and 3(b) read:

(3) Cycle 6 Requirements

- (a) Prior to startup following Cycle 6 refueling, GPU Nuclear Corporation shall upgrade the EFW system to provide safety grade automatic control and to provide other system improvements to include redundant control and block valves, automatic start on once through steam generator (OTSG) low level, and upgrades of the main steam rupture detection

system and the condensate storage tank low-low level alarm to safety grade. LBP-82-27, 15 NRC at 747.

- (b) GPU Nuclear Corporation shall correct the human factors deficiency in TMI-1 control room design that is identified in Item 4c of NUREG-0752 and its Supplement 1 prior to startup following Cycle 6 refueling, and GPU Nuclear Corporation shall address final resolution of the human factors design deficiencies that are identified in Items 3b, 3e, 3g and 10b of NUREG-0752 and/or its Supplement 1 in its detailed control room design review (DCRDR) report for TMI-1. LBP-81-59, 14 NRC at 1320-24; LBP-82-27, 15 NRC at 751-52.

Condition of Operation 3(a) has been completed. Modifications were completed during the Cycle 6 refueling outage. The NRC approved the system design and operation in NRC SER "TMI-1 Emergency Feedwater System" dated February 18, 1987; TMI-1 License Amendment 124 dated April 9, 1987; and NRC SER "TMI-1 Main Steam Line Rupture Detection System" dated April 18, 1988. Therefore, Condition 3(a) can be deleted.

Condition of Operation 3(b) has been completed. NRC SER "Detailed Control Room Design Report for TMI-1" dated April 8, 1985 concluded the requirements for NUREG-0737 Item I.D.1, Control Room Design Review were completed and deficiencies identified in NUREG-0752 had been corrected. Therefore, Condition 3(b) can be deleted.

**Condition of Operation 4(a) states:**

- (a) Within the first two years after any restart authorization, GPU Nuclear Corporation's qualification and requalification testing and training program shall be subjected to an in-depth audit by independent auditors, approved by the NRC Director of Nuclear Reactor Regulation, such auditors to have had no role in the TMI-1 restart proceedings. LBP-82-56, 16 NRC at 384

Condition of Operation 4(a) was completed on February 13, 1987 when DDL OMNI Engineering Corp. completed an assessment of GPU Nuclear Corporation's qualification and requalification testing and training program. The assessment report from DDL OMNI Engineering Corporation was transmitted to the NRC on May 15, 1987 (Hukill to NRC DCD, 5211-87-2094). Therefore, Condition of Operation 4(a) can be deleted.

**Condition of Operation 5(a) states:**

- (a) Annually, in October of each year, GPU Nuclear Corporation shall provide to the NRC reports of progress toward installation of a TMI-1 exact replica simulator. GPU Nuclear Corporation shall make reasonable and diligent efforts to have such simulator installed by the end of 1985. LBP-81-32, 14 NRC at 578-79.

GPU Nuclear informed the NRC on September 11, 1986 that the TMI-1 exact replica simulator had been delivered and installed (Hukill to Stolz, 5211-86-2154, dated September 11, 1986). Therefore, Condition of Operation 5(a) can be deleted.

Condition of Operation 5(b) states:

- (b) Following availability of a basic principles trainer, GPU Nuclear Corporation shall provide for each operator as a part of the annual requalification training at least one week training per year on this trainer in addition to the week each year at Babcock and Wilcox's simulator, at least until GPU Nuclear Corporation's exact replica simulator is available.

As stated above, the TMI-1 exact replica simulator was delivered and installed in 1986. Operator training conducted since the installation of the replica simulator includes training on both the basic principles trainer and the replica simulator. Therefore, Condition 5(b) can be deleted.

Condition 5(c) states:

- (c) A program to reduce leakage from those portions of systems outside containment that could contain highly radioactive fluids during a serious transient or accident shall be implemented and maintained. LBP-82-27, 15 NRC 747.

GPU Nuclear established a periodic leak reduction program in March 1983 and established several surveillance procedures to implement the program. Since 1984 annual reports of the results of information from the periodic leak reduction program have been submitted to the NRC in accordance with TMI-1 Technical Specifications (Technical Specification 6.9.1.B.3 requires the annual reporting of information from the periodic Leak Reduction Program tests including the results of leakage measurements, visual inspections and maintenance undertaken as a result of Leak Reduction Program tests or Inspections).

A Leak Reduction Program has been established via approved procedures and the information from the program is required by Technical Specifications to be reported to the NRC on an annual basis. Therefore, Condition of Operation 5(c) can be deleted.