



# THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

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MURRAY R. EDELMAN

VICE PRESIDENT  
NUCLEAR

May 29, 1985

PY-CEI/NRR-0237 L

Mr. B. J. Youngblood, Chief  
Licensing Branch No. 1  
Division of Licensing  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Perry Nuclear Power Plant  
Docket Nos. 50-440; 50-441  
License Condition Status

Dear Mr. Youngblood:

Several issues have been identified as potential License Conditions in the Perry Nuclear Power Plant Safety Evaluation Report (SER) and its Supplements. The attachment to this letter provides a compilation of the proposed license conditions identified through Supplement 6 to the SER, along with information concerning the present status and expected completion date for each. The license conditions which are of a continuing nature and do not lend themselves to closeout (e.g. Security Plan, Fire Protection) have been omitted from the attachment. This attachment will be included as Appendix 1B to the FSAR to document CEI's license commitments to resolve the identified issues.

Two specific programs, requested by the staff in the statement of these License Conditions are provided by this letter. They are the HPCS Diesel Generator Wear Test Program (L.C.-9) and the Leakage Surveillance and Preventive Maintenance Program (L.C.-16). These programs are provided in the respective Resolution statements in the attachment.

Additionally, design details (drawings) associated with ESF Reset Control (L.C.-6) are attached which should resolve staff concerns in this area.

We will continue to update this License Commitments listing as status changes and will include it as an appendix to the FSAR in a future amendment. Please feel free to contact me if you have any questions concerning this matter.

Very truly yours,

Murray R. Edelman  
Vice President  
Nuclear Group

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Attachment

cc: Jay Silberg, Esq.  
John Stefano (2)  
J. Grobe

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Appendix 1 B

PNPP LICENSE COMMITMENTS

May 1, 1985

Appendix 1B is a compilation of the proposed license conditions for the Perry Nuclear Power Plant identified in the SER and supplements thru #6 and the resolution/status for each of the identified issues. The information contained in this appendix provides CEI's commitments which form the basis for resolving those issues which are a condition for issuance of an operating license and ensuring that NRC requirements for other longer term issues are met during plant operation.

## License Condition 1

### Permanent Slope Protection System

SER - 2.5.5

Final design of a permanent slope protection system described in Section 2.4.5.5.3 of the FSAR, will be initiated if the toe or crest of the 3H:IV bluff encroaches closer than 250 ft or 115 ft, respectively, of the emergency service water pumphouse. The staff requires, as a license condition, that the permanent slope protection system be constructed if these limits are reached.

#### Resolution

Monitoring of the shoreline will be accomplished as required by the Environmental Protection Program. CEI will initiate final design of a permanent slope protection system as described in FSAR Section 2.4.5.5.3 if the toe or crest of the 3 H:1 V bluff encroaches closer than 250 ft or 115 ft, respectively, to the emergency service water pumphouse. The permanent slope protection system will be constructed if the limits in the FSAR are reached.

## License Condition 2

### Measurement of Fuel Channel Box Deflections

SSER 2 - 4.2.3.1

Final measurement of channel box deflection must be resolved before startup of the second refueling cycle of operation (4.2.3.1) \* - the staff, through its generic evaluation of this license condition, discussed in Section 4.2.3.1 of SSER No. 2, concluded that the LRG-II measures and test program adopted by CEI for Perry would preclude excessive channel bowing in the Perry plant, and that the LRG-II measures and test program will appropriately be referenced in the operating licenses issued for Perry Units 1 and 2.

#### Resolution

CEI has adopted the LRG-II position on channel box deflection and will incorporate it into the Perry Fuel and Technical Instruction. Based upon this, NRC closed this issue by letter dated May 17, 1985, (B. J. Youngblood-NRC to M. R. Edelman-CEI).

## License Condition 3

### Thermal Hydraulic Stability

SER - 4.4.4

The Perry stability analysis resulted in a maximum decay ratio of 0.97 for the end-of-life cycle. The staff has approved for operation previous core designs having calculated maximum decay ratio values as high as 0.7 for the Susquehanna initial cycle (NUREG-0776). Because Perry and Susquehanna have similar core designs, the staff concludes that Perry core design stability is acceptable for Cycle 1. However, in order to provide additional margin for stability, natural circulation operation of Perry will be prohibited until the staff's review of these conditions is completed. Any action resulting from the staff's study will be applied to Perry.

The Perry operations license will be conditioned to require that a new stability analysis be submitted and approved before second-cycle operation. Also, because no analysis has been presented for minimum critical power ratio limits or stability characteristics for single-loop operation, the staff will require by Technical Specifications that single-loop operation not be permitted until supporting analyses are provided and approved.

#### Resolution

Technical Specifications Section 3.4.1.1 prohibit natural circulation operation and single-loop operation for the first cycle.

The staff is presently reviewing NEDE-22277-P-1 Rev 1., dated October, 1984, "Compliance of the GE BWR Fuel Designs to Stability Licensing Criteria," which will eliminate the need for a new stability analysis for second-cycle operation.

The single-loop operation analysis will be submitted to NRC for review prior to the first refueling outage. Operation will not be permitted until staff approval is received.

## License Condition 6

### I.E. Bulletin 80-06, ESF Reset Control

SER - 7.3.2.5

In reviewing the BOP systems, the applicant has identified four systems found to have conditions in which equipment did not remain in the emergency mode when the isolation actuation signals are reset. The applicant has agreed to revise the design to alleviate the concerns identified in this review.

When the applicant completes the design changes they will be formally submitted to the staff for review and verification that the changes will be implemented before plant operation. This is acceptable to the staff as a confirmatory item. However, as a licensing condition, the staff will require the applicant to perform preoperational tests to demonstrate that all equipment remains in its emergency mode upon removal of the actuating signal and/or resetting of the various isolating or actuation signals. An operating license will be conditional upon satisfactory completion of these preoperational tests.

#### Resolution

The required design changes have been made and the applicable drawings are hereby submitted to the staff for review and verification. The preoperational test procedures for the four systems which have been revised to address this issue are 1E12-P-001, 1E21-P-001, 1E22-P-001, 1E51-P-001, 1E51-P-002, 1B21B-P-001, 1B21C-P-001. Preoperational testing will demonstrate that this and all safety-related equipment will remain in its emergency mode upon removal of the actuating signal and/or resetting of the various isolation or actuation signals. These preoperational tests will be satisfactorily completed prior to fuel load.



## License Condition 9

### HPCS Diesel Generator Wear Test Data

SER - 9.6.4

Normally, the diesel generator room is maintained at 65°F or higher. No alarm has been provided to warn the control room operator that HPCS diesel generator room temperature is below 65°F. This is not acceptable. The staff requires an alarm in the HPCS diesel generator room to annunciate in the control room when room temperature drops below 65°F. There would be enough time available to take corrective actions, before engine cooling water temperatures would drop to unacceptable levels. In a letter dated April 29, 1982, the applicant proposed a test program of a minimum of 24 months to demonstrate the HPCS diesel engine's capability to start and accept load within 10 sec. during low ambient (40°-65°) temperatures. The tests will be performed during preoperational testing, the monthly surveillance tests, and diesel engine maintenance periods to demonstrate that the HPCS diesel engine does not experience undue wear or degradation of performance when started at the low room temperatures, and that upgrading the preheating capability of the engine to improve first-start reliability is not necessary. At the end of the test period (24 months), the results will be submitted to the staff for review and evaluation. At that time a determination will be made on whether sufficient test data have been presented for the staff to determine that the present design is adequate or that a modification to the diesel engine preheating system is necessary. If insufficient data are available, the applicant has agreed to extend the test program as necessary to obtain an adequate data base. The staff finds the proposed test program acceptable and will make it a condition of the license. The details of the test program (for example, data to be taken and parameters to be monitored) will be submitted to the staff for approval before the start of the test program.

#### Resolution

PTI-E22-P003 "Division 3 HPCS Diesel Generator Trend of Failures at Room Temperatures Below 65°F" describes the program we intend to use to satisfy this License Condition. This procedure requires monitoring the HPCS Diesel Generator starting performance over a range of temperatures. The room and engine block temperatures will be recorded the day prior to and the day of each diesel start test. Verification of proper starting will also be made for each attempted start. Testing will be performed at least once per month for a minimum of 24 months. At the conclusion of the test period, the HPCS diesel generator will be inspected per CMI-0012, "1 and 2 E22S001 Power Assembly Maintenance" which will provide a comparison of the measurements after 24 months with the original measurements. These two procedures provide a means of trending failure and wear.

Data will be collected over the test period (24 months), or until an adequate data base has been obtained. CEI will evaluate the data to trend the HPCS diesel engine start capability over a range of room temperatures. The results of our evaluation and any recommendations for design modifications, will be submitted to the staff for review and approval.

## License Condition 10

### Shift Operating Experience

SSER 6 - 13.1.2.3

To ensure that Perry Unit 1 retains a sufficient number of experienced senior operators during the initial stages of operation, License Condition (10), listed in Section 1.11 of the SER, is being modified to require that before licensing, a licensed senior operator on each shift has had at least 6 months of hot operating experience at a large commercial BWR, including at least 6 weeks at power levels greater than 20% of full-rated thermal power, and has had BWR startup and shutdown experience. This license condition shall be effective for a period of 1 year from fuel loading or until the attainment of a 100% rated thermal power level, whichever occurs later. At that point most, if not all, licensed operators should have accumulated at least 6 months of hot operating experience, and the license condition can be deleted.

#### Resolution

There are presently at least six (6) individuals who will be qualified to meet this requirement. This includes at least two (2) shift supervisors and at least four (4) STA's all of whom will be licensed Senior Reactor Operator by fuel load. One of these six will be assigned to each of the six shifts. Thus, the license condition will be met.

CEI letter PY-CEI/NRR-0209L - "Verification of Operating Crew Qualifications," dated March 21, 1985 contains the resumes of those personnel filling the STA positions. Resumes of the Shift Supervisors can be found in the FSAR - Table 13.1-3. NRC letter from B. J. Youngblood to M. R. Edelman dated March 5, 1985 closes this license condition pending confirmation by NRC Regional Staff that the six individuals in question have acquired senior operator licenses prior to Unit 1 fuel load.



## License Condition 11

### Test and Maintenance Procedures Associated with Engineered Safety Features

SER - 13.5.2.3

TMI II.K.1.5

TMI Item II.K.1.5 requires the applicant to review all valve positions, positioning requirements, positive controls, and related test and maintenance procedures to ensure proper engineered safety features functioning. The applicant has indicated that valve position directives, and test and maintenance procedures associated with engineered safety features, are currently in preparation, and will be completed before fuel loading of Unit 1. The staff will condition the operating license on verification that these procedures are completed before fuel loading, and that all of the requirements of TMI Item II.K.1.5 have been met.

#### Resolution

The Mandatory Format instructions associated with Valve Lineup Procedures (OAP-0503), Surveillance Test Procedures (TAP-0503), Inservice Inspection Procedures (TAP-0506) and Periodic Test Instructions (PAP-0518) are complete and approved. These instructions comprise the valve position directives for the test and maintenance procedures associated with engineered safety features systems. The tagout procedures controlling all test and maintenance activities (POP-1402, PA-1104 and PAP-1401) are complete and approved.

Thus, the requirements of license condition 11 are met.

## License Condition 12

### Operability Status Procedures

SER - 13.5.2.4

TMI II.K.1.10

TMI Item II.K.1.10 requires the applicant to review and modify (as required) procedures for removing safety-related systems from service (and restoring to service) to ensure that their operability status is known to plant operators. The applicant has indicated that the procedures for removing safety-related systems from service are in preparation and will be completed before fuel loading of Unit 1. The staff will condition the operating license for Perry on verification that these procedures are complete before fuel load, and that all requirements of TMI Item II.K.1.10 are met.

#### Resolution

Project Administrative Procedure - PAP-0205 - "Operability of Safety Systems" controls removal of safety-related systems from service (and restoration to service) to ensure that the operability status is known to plant operators. This procedure is complete and approved. Thus the requirements of license condition 12 are met.

## License Condition 14

### Initial Test Program

SSER 3 - 14  
TMI I.G.1

The applicant shall complete the Initial Test Program (ITP), set forth in Chapter 14 of the FSAR, without making any major modifications unless such modifications have received prior NRC approval. Major modifications are defined as (1) elimination of any test described in Chapter 14 of the FSAR as a preoperational, acceptance, startup, or special test; (2) modification of test objectives, test conditions, test methods, or acceptance criteria (except those tests identified in Chapter 14 of the FSAR as acceptance tests); and (3) deviations from ITP administrative procedures or quality assurance provisions described in the FSAR. It should be noted that the isolated reactor stability test and the simulated loss-of-all-ac-power test (see Section 14 in SSER No. 1) will be included or deleted from the ITP subject to the conditions stated in Section 14.2.12.2.32 and Q&R 640.54 of the FSAR, respectively.

#### Resolution

##### 1) Pre-Fuel Load Initial Test Program

The Initial Test Program as set forth in Chapter 14 of the FSAR, will be completed without making any major modifications as defined above (with the possible exception of "test conditions: and "test methods") unless such modifications and the test results following such modifications receive Test Program Review Committee (TPRC) approval prior to implementation. NRC (I&E) typically receives TPRC meeting minutes for review within one week of the meeting date.

It is possible that certain "test methods " and "test conditions" may require alteration to improve test accuracy or to accommodate test equipment availability during or prior to the performance of the test. These "modifications" will be noted in the test results package and reviewed by TPRC and NRC (I&E).

##### 2) Post-Fuel Load Initial Test Program

Any changes to the post-fuel load Initial Test Program described in Section 14 of the FSAR made in accordance with the provisions of 10 CFR 50.59 shall be reported in accordance with 50.59(b) within one month.

## License Condition 16

### Leakage Surveillance and Preventive Maintenance Program

SER - 11.5  
TMI III.D.1.1

In accordance with the requirements of NUREG-0737 TMI Action Plan Item III.D.1.1, the applicant shall implement a program to reduce leakage from systems outside containment that would or could contain highly radioactive fluids during serious transient or accident to a level as low as possible. The applicant has formally committed to develop procedures and a scheduled maintenance program to monitor leakage and to reduce detailed leakage to acceptable levels for systems outside containment that could contain radioactivity. He has also agreed to furnish a leakage surveillance and preventative maintenance program to the staff at least 4 months before the anticipated date of issuance of the operating license. The staff finds this acceptable and will evaluate and report on this program in a supplement to this report. It should be noted, however, that the program to meet Item III.D.1.1 is not a prerequisite for fuel loading, but must be implemented before full-power operation as specified in NUREG-0694 (page 26).

#### Resolution

The Leakage Surveillance and Preventative Maintenance Program will be applied to the following systems in the manner summarized below: Low Pressure Core Spray, High Pressure Core Spray, Residual Heat Removal, Reactor Core Isolation Cooling, Feedwater Leakage Control, Combustible Gas Control Hydrogen Analysis, and Post Accident Sampling.

Visual Examination - Water systems will be inspected while the systems are operating and visually checked for leaks. Potential leakage paths include valve, pump, and flange seals and test connections. Leakage will be eliminated to the extent practicable; any leakage not eliminated will be measured and compared to an overall water leakage limit.

Leakage Collection Past Boundary Valves - Leakage past valves in branch lines that are potential leakage paths to the atmosphere will be measured. Leakage will be collected downstream of the boundary valves while the system is operating. Where it is impractical to measure leakage while the system is operating, the boundary valves will be removed and bench-tested. Leakage will be compared to an overall water leakage limit.

Radioactivity Grab Sample - While RCIC is in operation using reactor steam, a grab air sample will be taken from the RCIC room and an isotopic analysis performed to determine if steam leakage exists. Steam leaks will be identified and eliminated.

Ultrasonic Leak Detection - The H<sub>2</sub> Analysis System will be pressurized with air or nitrogen to the post-LOCA operating pressure and then inspected. Leaks will be identified with an ultrasonic leak detector. Leaks will be eliminated.

Systems Not Tested/Justification:

Personnel Airlock Leakage Control System (PAL-LCS) - The PAL-LCS routes contaminated air from between the airlock door seals to the annulus. The Annulus Exhaust Gas Treatment System (AEGTS) maintains the annulus at a vacuum. Any post-LOCA containment atmosphere in the airlock leakage control lines will flow into the annulus. As a result, no containment atmosphere will bypass the annulus. Therefore, a leakage test of the airlock leakage control lines is unnecessary.

Main Steam Isolation Valve Leakage Control System (MSIV-LCS) - This system is maintained at a vacuum post-LOCA for MSIV leakage control, therefore, a leak test is unnecessary.

Annulus Exhaust Gas Treatment System (AEGTS) - The AEGTS takes suction on the annulus between the containment vessel and the shield building. The air is treated before being recirculated back into the annulus or to the atmosphere. Since the suction lines are at a vacuum, and since the discharge lines contain treated air, a leakage test on the system is unnecessary.

Reactor Water Cleanup (RWCU), Fuel Pool Cooling & Cleanup (FPC&CU), and Suppression Pool Cleanup (SPCU) System - These systems may be used for long-term cleanup efforts post-LOCA. The systems will be used only after the plant has stabilized and plant personnel have assessed each system's condition. Unidentified leakage from these systems is not expected to occur.

## License Condition 17

### ADS Logic Modifications

SSER 4 - 6.3.1.3  
TMI II.K.3.18

In a letter dated July 1, 1983 (M. R. Edelman to B. J. Youngblood), the applicant committed to install the option that deletes the high drywell pressure permissive and adds a manual switch, which may be used by the operator to inhibit ADS actuation, if necessary. In acknowledging this selection (letter from B. J. Youngblood to M. R. Edelman, dated July 18, 1983), the staff amplified License Condition (17) introduced in SSER No. 2, requiring that installation of this modification in Unit 1 be made after startup following the first refueling outage, and that installation in Unit 2 be accomplished prior to initial criticality. In addition, the staff required that a Technical Specification be provided for the manual inhibit switch (see Section 16 of this supplement), and that the use of the inhibit switch be addressed in the plant emergency procedures.

#### Resolution

The design modifications discussed above have been completed and are described in FSAR Section 7.3.1.1.1.2. The proposed Technical Specifications (Table 3.3.3-1) have been submitted. Plant emergency instruction PEI-1 addresses use of the inhibit switch consistent with the generic emergency procedure guidelines.



## License Condition 19

### Turbine System Maintenance Program

SSER 3 - 3.5.1.3.3

Within 3 years of obtaining an operating license, the applicant shall submit for staff approval a turbine system maintenance program based on the turbine manufacturer's calculations of missile generation probabilities. Until the turbine system maintenance program is approved, the applicant shall volumetrically inspect all low-pressure rotors at the second refueling outage and every alternate outage thereafter, and conduct turbine steam valve maintenance (following initiation of power) in accordance with the staff's recommendations as stated in Section 3.5.1.3.1.5 of SSER No. 3.

#### Resolution

The turbine system maintenance program outlined in SSER #3 will be followed until a PNPP turbine system maintenance program has been approved by the NRC. The PNPP turbine system maintenance program will be submitted for approval within three (3) year of licensing.

## License Condition 20

### Nuclear Waste Disposal Services

SSER 4 - 1.13

The applicant is required to have a signed contract with the U.S. Department of Energy (DOE) for nuclear waste disposal services, or the Secretary of Energy must confirm in writing that the applicant is actively and in good faith negotiating with DOE for a contract per the provisions of Section 302(b) of the Nuclear Waste Policy Act of 1982 (P.L 97-425), before an operating license can be issued for Perry Units 1 and 2 (1.13).

#### Resolution

Contract No. DE-CR01-85RW00046 with DOE for nuclear waste disposal services is in the final signature stage and is expected to be signed by June, 1985.

## License Condition 22

### Physical Independence of Electrical Systems

SSER 4 - 8.4.4

The applicant must document and install before fuel load: (a) design features that enable a diesel generator unit in the "test mode" to automatically return to the "emergency standby mode" when a safety-injection signal occurs; and (b) provide an alarm in the dc battery circuit to alert the plant operator(s) of a fuse-open or breaker-open condition in the battery circuits (8.4.4) - information is awaited from applicant.

#### Resolution

The modification associated with (a) above has been completed. The modification associated with (b) will be completed prior to fuel load. The documentation of the test override feature and the battery circuit alarm design modifications is provided in drawings and proposed FSAR Section 8.3 pages attached to PY-CEI/NRR-0221L, dated May 14, 1985. These features will be preoperationally tested prior to fuel load.

License Condition 23

Reactor Internals Vibration Test Program

SSER 4 - 3.9.2.3

The applicant shall submit a final report, summarizing the results of the prototype reactor internals test program vibration analyses, measurements, and inspection programs, within 120 days of completion of vibration testing per Regulatory Guide (RG) 1.20 (3.9.2.3).

Resolution

Testing will be performed as part of the Power Ascension Testing Program and results will be submitted to NRC within 120 days of the completion of testing.

Containment Purge Criteria

SSER 4 - 6.24

The staff acknowledges that only with future Mark III plant operating experience can an accurate assessment be made for the need to purge because of uncertainties associated with coolant activity and maintenance requirements for the containment design. The applicant has committed to implement the following programs to assess the need for use of the purge system over the life of the plant.

(1) Containment Purge Operation Data-Gathering Program

The applicant has committed to implement a data collection effort to justify the need for containment purging. Before startup after the first regularly scheduled refueling outage, the applicant will use the results from the above program (based on the Perry containment purge operating experience information) to evaluate the need for intermittent purging. A program for data collection and evaluation will be defined and submitted to the NRC staff 6 months prior to the initial fuel load of Unit 1.

(2) Containment Access Management Program

The applicant has committed to developing a containment access management program so that access time requirements will be minimized, as appropriate. Consideration of the total spectrum of activities to be performed, as well as when and how those activities can be accomplished, will be included. A description of this program will be furnished to the NRC staff 6 months prior to the initial fuel load of Unit 1.

(3) Interim Guidelines for Perry Containment Purge Operation

The applicant has committed to develop appropriate interim guidelines that will establish provisions for a reduction in the use of the purge system. These guidelines will consider limitations on airborne activity levels, as low as reasonably achievable (ALARA) levels, overall containment air quality and the system operational limit of 3000 hours per year. The interim guidelines will be furnished to the NRC staff 6 months before the initial fuel load of Unit 1.

The staff requires that the applicant propose the purge criteria to be used for the remainder of the plant life based on the results of the above cited programs, before startup after the first refueling outage. The applicant has agreed to abide by this requirement, which is being added as License Condition (24) in Section 1.11 of this supplement.

Resolution

CEI letter PY-CEI/NRR-0157 L dated February 19, 1985, describes the programs PNPP intends to use to satisfy the requirements of this license condition. Purge criteria to be used for the remainder of the plant life, based upon the results of these three programs will be proposed to the NRC prior to startup from the first refueling outage.

## License Condition 25

### Inservice Inspection Program

SSER 4 - 6.6.3

The initial Inservice Inspection Program has not been submitted by the applicant. The program will be evaluated after the applicable ASME Code Edition and Addenda can be determined based on 10 CFR 50.55a(b) but before the first refueling outage when inservice inspection commences. This item is accordingly being added as the remaining License Condition (25) in Section 1.11 of the SER by this supplement.

#### Resolution

The Perry Nuclear Power Plant initial Inservice Inspection Program required by 10CFR50.55(a) and which complies with the requirements of the Edition and Addenda of Section XI of the applicable ASME Code for Perry Unit 1, is scheduled for completion by August, 1986 to allow adequate time, prior to the first refueling outage, for NRC review.



## License Condition 27

### Resolution of Electrical/Mechanical Equipment Seismic and Dynamic Qualification

SSER 5 - 3.10.1

The granting of an operating license is dependent on the resolution of the following issues, which are being added to Section 1.11 of the SER by this supplement as License Condition (27):

- (1) The applicant must supply confirmation that all safety-related equipment has been fully qualified. This requirement may be waived for a limited number of items, provided that Justifications for Interim Operation have been submitted and approved for all unqualified safety-related equipment before granting of the license.
- (2) New hydrodynamic loads (related to the loss-of-coolant accident (LOCA) have been calculated and approved by the NRC. The impact of the new loads on the qualification of the equipment must be assessed. A schedule for the assessment and confirmation that the affected equipment has been qualified under the new loads is needed. (This is related to Outstanding Issue (9), listed in Section 1.9 of the SER and this supplement).
- (3) The question of whether the functioning of the rod multiplexer cabinet is safety related or not must be resolved. If safety related, the qualification must be upgraded to the required level.

#### Resolution

1. Qualification for nearly all items of safety-related equipment will be completed by June 14, 1985. If any justifications for Interim Operation are required following this, they will be submitted under separate cover.
2. The assessment and confirmation that affected equipment has been qualified under the new hydrodynamic loads related to the LOCA has been completed. This assessment has confirmed that the original loads used in tests and analyses to qualify equipment envelope any new loads such as those imposed by LOCA or as-built conditions.
3. The rod multiplexer cabinet has been determined to be non safety-related. This confirmation is documented and filed with our equipment qualification records in PNPP EQ Book C27.

## License Condition 28

### Resolution of Pump and Valve Operability Assurance Program Issues

SSER 5 - 3.10.2

The staff requires that all safety-related equipment shall be qualified and approved by the applicant before fuel load. On the basis of its evaluation of the Perry pump and valve operability assurance program, the staff has identified the following confirmatory issues, which are being added to Section 1.11 of the SER by this supplement as License Condition (28):

- (1) The applicant shall confirm that all of the required preoperational tests are completed before fuel load. At the time of the audit many of the preoperational tests for those systems required to be operational before fuel load had not been completed.
- (2) The applicant shall confirm that all pumps and valves important to safety are qualified before fuel load. At the time of the audit all pumps and valves important to safety had not been qualified. For example, the applicant has indicated to the staff that qualification of the Dikkers safety/relief valves is scheduled to be completed in May 1985, shortly before the applicant's projected fuel load date of July 1985.
- (3) The applicant shall confirm that the original loads used in tests and/or analyses to qualify pumps and valves important to safety are not exceeded by any new loads such as those imposed by a LOCA (hydrodynamic loads) or as-built conditions. If a new load exceeds that originally used, the impact of the new load on the qualification of the equipment must be assessed and reported to the NRC before fuel load.

#### Resolution

1. Required preoperational tests will be completed prior to fuel load. Updates of the status of preoperational testing will be provided to NRC each month.
2. The response to this item is included in the response to L.C. 27, Item 1.
3. We have performed an assessment which enables us to confirm that the original loads used in tests and/or analyses to qualify pumps and valves important to safety envelope any new loads such as those imposed by a LOCA (hydrodynamic loads) or as-built conditions.

The staff must determine the acceptability of all deviations to Regulatory Guide 1.97, Rev. 2, before Perry Unit 2 fuel load. All plant instrumentation system modifications required to comply with Regulatory Guide 1.97, Rev. 2 (including accepted deviations) must be completed before startup following the first refueling outage of Perry Unit 1 (7.5.2.2).

Resolution

All plant instrumentation system modifications required to comply with the guidelines by RG 1.97 Rev. 2, (including accepted deviations) are now completed with the exception of the Process Radiation Monitoring (D17) instrumentation, the Post Accident Radiation Monitoring (D19) instrumentation and the Area Radiation Monitoring (D21) instrumentation modifications. These modifications are in various stages of completion, and will be completed prior to startup following the first refueling outage.

The Neutron Flux instrumentation presently installed at PNPP has been determined by NRC to be suitable for interim operation, until seismic Category I instrumentation is developed that meets all of the neutron flux instrumentation criteria of R.G. 1.97, Rev. 2. We will provide the staff with information related to the upgrading of the neutron flux monitoring instrumentation to seismic Category I before startup after the second refueling outage.