

UNITED STATES NUCLEAR REGULATORY COMMISSION WASHINGTON, D. C. 20555

June 25, 1980

The Honorable Tom Bevill, Chairman Subcommittee on Energy and Water Development Committee on Appropriations United States House of Representatives Washington, DC 20515

Dear Mr. Chairman:

During NRC's FY 1981 budget presentations to Congress, we had indicated that NRC was in the process of completing an agency-wide assessment of the TMI-2 accident and was preparing the TMI-2 Action Plan to address the issues identified during this assessment. Further, we indicated that implementation of the Action Plan would cause a redirection of the FY 1980 budget that was approved by Congress. In some cases, the resources for the redirected efforts will necessitate reprogrammings that require prior Congressional approval under the Appropriations Committees' reprogramming procedures for NRC. The purpose of this letter is to request your approval of these reprogramming actions.

The preparation of the TMI Action Plan evolved through intensive staff review and interaction with the Commission. The Plan also incorporates comments from the ACRS. While the TMI-2 Action Plan now reflects how the Commission currently plans to respond to the many recommendations and issues surfaced by investigations of the TMI-2 accident, we expect that specific details regarding implementation of some tasks will change as we learn more during the implementation phase. We will provide your Committee with copies of the complete Action Plan under separate cover.

Enclosure 1 provides a listing of all the TMI-2 Action Plan tasks, the responsible offices, and initiation schedules that have been approved by the Commission. Enclosure 2 summarizes, by NRC program office and decision unit, the resources required in FY 1980 during the period April 1 through September 30, 1980, for implementation of the Action Plan. It also shows the resources available that can be redirected within Congressional reprogramming limitations, and those resources which require prior Congressional approval for reprogramming. As indicated in Enclosure 2, NRC will be able to accomplish most of the necessary redirection of FY 1980 resources without exceeding Congressional reprogramming limitations. There are some exceptions for a limited number of decision units in the NRR and I&E programs. Since most of the implementation in the NRR program of those tasks referred to as Near Term Operating License conditions, brief explanations of these tasks are provided in Enclosure 3.

The Honorable Tom Bevill

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Therefore, in accordance with Congressional reprogramming procedures, we are providing your Committee with proposed revisions to our base table (Enclosure 4) with accompanying explanations. In order to implement the high priority efforts identified in the TMI Action Plan, we would appreciate your early consideration of these proposed reprogrammings.

ς incerely, John F. Ahearne Chairman

Enclosures:

- Priorities and Status of Items In TMI-2 Action Plan
- TMI Action Plan Reprogramming Analysis
- Near Term Operating License Tasks
- 4. FY 1980 Base Table

cc w/enclosures: Rep. John T. Myers -2-

PRIORITIES AND STATUS OF ITEMS IN TMI-2 ACTION PLAN

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PRIORITIES AND STATUS OF ITEMS IN THI-2 ACTION PLAN

| Key to Symbols | | |
|-----------------|-----|---|
| Decision Group: | A = | Items or crit |
| | 8 = | Items for whi not required described in any other IM implementation |
| | C = | Items which r |
| | | priorities, on the sched |
| | 0 = | Items that are |

Items or criteria already approved by the Commission in the course of business apart from the Action Plan.
Items for which the scope and criteria are sufficiently well-defined in the plan that additional study is not required. Commission approval of the plan means, for these items, implementation in the manner described in the plan, consistent with a policy to solicit and consider public comments on these and any other IMI-related requirements developed in accord with the plan. This policy may impact the estimated implementation deadlines presently shown for these Decision Group B items in the plan and in Table 1.

C = Items which require further definition of scope, need, and criteria. Commission approval of the plan means, for these items, approval to commit the necessary staff resources, consistent with other resource priorities, to develop the information needed to bring the item separately to the Commission for a decision on the schedules shown in the plan.

I = Items that are related to, but not directly derived from, the IMI-2 accident and are more properly characterized as part of the agency's normal operating plan. Some Decision Group D items are ongoing. Decision Group D items are included in the plan for completeness but are to be scheduled and assigned resources along with the other normal functions of the agency in its routine operating plan and budgetary process. Licensee implementation details for Decision Group D items are not included in this Action Plan.

Priority Group:

- 1 = Should be initiated in FY80 or FY81 and accomplished as scheduled in the Action Plan; in general, received more than 170 points in the Action Plan priority system (see Appendix B).
- 2 = Schedule, if possible, but initiation can be deferred for up to one year in view of relative priority or other work already initiated; in general, received between 110 and 190 points (see Appendix B).

3 = Initiation can be deferred for up to two years; in general received less than 110 points (see Appendix B).

(no priorities assigned to Decision Group D items)

| Action | Item | Decision Group | Priority Group | Lead Office | Initi FY80 | ate Action | Comments | |
|--------|---|----------------------------------|-------------------|----------------|---------------|------------|----------|--|
| 1. 00 | erational Safety | | | | | | | |
| | | | | | | | | |
| I.A Op | erating rersonnel | | | | | | | |
| I.A.1 | Operating Personnel and Staffing | | | | | | | |
| 1. | Shift Technical Advisor | ۸ | 1 | NRR | x | | | |
| 2. | Shift Supervisor Admin. Duties | A | 1 | NRR | x | | | |
| 3. | Shift Manning | A | 1 | HRR | x | | | |
| 4. | long-term Upgrading | D | - | SD | | x | | |
| I.A.2 | Training and Qualifications of Operating Personnel | | | | | | | |
| 1. | Immediate Upgrading of Operator and Senior Operator Training and Qualifications | * | 1 | NRR | x | | | |
| 2. | Training and Qualifications of Opera- tions Personnel | 8 | 2 | NRR | x | | | |
| 3. | Administration of Training Programs | Audits - B Instructors - A | 2 | NRR | x | x | | |
| 4. | NRR Participation in Inspector Training | 8 | 3 | IE | | × | | |
| 5. | Plant Drills | Short-term - B Long-term - D | 1 | NRR | | x x | | |
| 6. | Long-term Upgrading of Training and Qualifications | c | 1 | SD | x | | | |

PRIORITIES AND STATUS OF ITEMS IN THI-2 ACTION PLAN

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| Action | | Decision | Priority | Lead | Init | tiate A | ction | |
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| | | Group | Group | Office | FY80 | FYE1 | FY82 | Comments |
| 1. | Accreditation of Training Institutions | c | 2 | NRR | × | | | |
| 1.A.3 | Licensing and Requalification of Operating Personnel | | | | | | | |
| 1. | Revise Scope and Criteria for Licensing Exams | ۸ | 2 | NRR | x | | | |
| 2. | Operator Licensing Program Changes | c | 3 | NRR | | | x | |
| 3. | Requirements for Operator Fitness | D | | SD | | | × | |
| 4. | Licensing of Additional Operations Personnel | c | 2 | NRR | | | × | |
| 5. | Establish Statement of Understanding with INPO and DOE | D | • | NRR | | | x | |
| 1.A.4 S | imulator Use and Development | | | | | | | |
| Т. | Initial Simulator Improvement | 8 | 1 | NRR | x | | | |
| 2. | Long-Term Training Simulator Upgrade | 8 | 2 | SD | x | | | |
| 3. | Feasibility Study of Procurement of NRC Training Simulator | D | | RES | | | x | |
| 4. | Feasibility Study of NRC Engineering Computer | D | | RES | | | x | |

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| Action | ltem | Decision Group | Priority Group | Lead Office | Initiate Action FY80 FY81 FY82 | Comments |
|--------|---|-------------------|-------------------|----------------|-----------------------------------|--------------|
| 1.8.1 | Management for Operations | | | | | |
| ' | . Organization and Management Long-Term Improvements | c | 1 | NRR | x | |
| 2 | Evaluation of Organization and Management Improvements of NTOL Applicants | * | 1 | IE | x | |
| 3 | Loss of Safety Function | с | 2 | SD | x | Started FY79 |
| I.B.2 | Inspection of Operating Reactors | | | | | |
| 1 | . Revise IE Inspection Program | D | 1.00 | IE | x | Ongoing |
| 2 | . Resident Inspector at Operating Reactors | ۸ | 1 | IE | x | Ongoing |
| 3 | . Regional Evaluations | D | 19. s - 11 | IE | x | Ongoing |
| 4 | . Overview of Licensee Performance | D | 84 - N | IE | x | |
| 1.0 0 | perating Procedures | | | | | |
| 1 | . Short-Term Accident Analysis and Procedures Revision | ٨ | 1 | NRR | x | |
| 2 | Shift and Relief Turnover Procedures | A | 1 | NRR | x | |
| 3 | Shift Supervisor Responsibilities | A | 1 | NRR | x | |
| Ń | Control Room Access | A | 1 | NRR | x | |
| 5 | Procedures for Feedback of Operating Experience | ٨ | 1 | NRR | x | |

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| | | | Decision | Priority | Land | Int | | | |
|-----|-----------|---|---------------------------|----------|--------|------|------|------|--------------|
| Act | ion I | tem | Group | Group | Office | FY80 | FY81 | FY82 | Comments |
| | 6. | Procedures for Verification of Correct Performance of Operating Activities | 8 | 2 | NRR | x | | | |
| | 7. | NSSS Vender Review of Procedures | A | 1 | NRR | x | | | |
| | 8. | Pilot Monitoring of Selected Emergency Frocedures for NIOL Applicants | • | 2 | NRR | x | | | |
| | 9. | Long-Term Program Plan for Upgrading of Procedures | c | 1 | NRR | x | | | |
| 1.0 | Con | trol Room Design | | | | | | | |
| | 1. | Control Room Design Reviews | NTOL - A Remainder - B | 1 | NRR | x | | | |
| | 2. | Plant Safety Parameter Display Console | 8 | 1 | NRR | x | | | |
| | 3. | Safety System Status Monitoring | С | 2 | NRR | | | x | |
| | 4. | Control Room Design Standard | 8 | 1 | SD | x | | | |
| | 5. | Improved Control Room Instrumentation Research | ۸ | 2 | RES | × | | | |
| | 6. | Technology Transfer Conference | ٨ | 3 | RES | x | | | Complete |
| 1.E | Ana Oj | lysis and Dissemination of perating Experience | | | | | | | |
| | L | Office for Analysis and Evaluation of Operational Data | ٨ | 1 | AEOD | x | | | Started FY79 |
| | 2. | Program Office Operational Data Activities | A | ۱ | EDO | x | | | Ongo i ng |

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| Act | ion I | ten | Decision Group | Priority Group | Lead Office | Initiate Action FY80 FY81 FY82 | Comments |
|------|-------|--|-------------------|-------------------|----------------|-----------------------------------|----------|
| | 3. | Operational Safety Data Analysis | A | 1 | RES | x | Ongoing |
| | 4. | Coordination of Licensee, Industry, and Regulatory Programs | 8 | 1 | AEOD | x | |
| | 5. | Nuclear Plant Reliability Data System | D | - | SD | x | Ongoing |
| | 6. | Reporting Requirements | c | 1 | AEOD | x | Ongoing |
| | 7. | Foreign Sources | 8 | 2 | IP | x | |
| | 8. | Human Error Rate Analysis | | 2 | RES | x | Ongoing |
| 1.F | Qua | lity Assurance | | | | | |
| | 1. | Expand QA list | 8 | 2 | SD | x | |
| | 2. | Develop More Detailed Criteria | D | | SD | × | |
| 1.6 | Fre | operational and Low-Power Testing | | | | | |
| | 1. | Training Requirements | | 2 | NRR | x | |
| | 2. | Scope of Test Program | 8 | 2 | NRR | x | |
| н. | Sit | ing and Design | | | | | |
| 11.4 | Sit | ing | | | | | |
| | 1. | Siting Policy Reformulation | с | 2 | NRR | x | |
| | 2. | Site Evaluation of Existing Facilities | c | 2 | NRR | × | |

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| Action | Item | Decision Group | Priority Group | Lead Office | Initiate Action FY80 FY81 FY82 | Comments |
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| 11.8 Co in | nsideration of Degraded or Melted Cores Safrty Review | | | | | |
| 1. | Reactor Coolant System Vents | | 2 | NRR | x | Started FY79 |
| 2. | Plant Shielding to Provide Access to Vital Areas and Protect Safety Equipment for Post-accident Operation | • | 2 | NRR | × | Started FY79 |
| 3. | Post-accident Sampling | | 2 | NRR | x | Started FY79 |
| 4. | Training for Mitigating Core Damage | | 1 | NRR | x | |
| 5. | Research on Phenomena Associated with Core Degradation and Fuel Melting | * | 2 | RES | x | Ongoing |
| 6. | Risk Reduction for Operating Reactors at Sites with High Population Densities | • | 1 | NRR | x | |
| 7. | Analysis of Hydrogen Control | с | 1 | NRE | x | |
| 8. | Rulemaking Proceeding | | 2 | SD | x | |
| II.C Re | liability Engineering and Risk Assessment | | | | | |
| 1. | Interim Actobility Evaluation Program (IREP) | * | 1 | RES | × | Six-plant study delayed to 5/81 |
| 2. | Continuation of IREP | c | 2 | RES | x | |
| 3. | Systems Interaction | | 1 | NRR | x | |
| 4. | Reliability Engineering | 8 | 2 | NRR | x | |

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| ction | item | Decision Group | Priority Group | Lead Office | Initiate A FY80 FY81 | FY82 | Comments |
|--------|--|-------------------|-------------------|----------------|-------------------------|------|----------------------------|
| 1.0 Re | actor Coolant System Relief and Safety Valves | | | | | | |
| 1. | Testing Requirements | | 1 | NRR | x | | |
| 2. | Research on Relief and Safety Valve Test Requirements | • | 3 | RES | x | | |
| 3. | Relief and Safety Valve Position Indication | * | 1 | NRR | x | | Complete |
| I.E Sy | stem Design | | | | | | |
| I.E.1 | Auxiliary Feedwater System | | | | | | |
| 1. | Auxiliary Feedwater System Evaluation | • | 1 | NRR | × | | Stretch completion to FY82 |
| 2. | Auxiliary Feedwater System Automatic Initiation and Flow Indication | * | 1 | NRR | × | | |
| 3. | Update Standard Review Plan and Develop Regulatory Guide | D | • | NRR | | x | |
| I.E.2 | Emergency Core Cooling System | | | | | | |
| 1. | Reliance on ECCS | 8 | 2 | NRR | | x | |
| 2. | Research on Small Break LOCAs and Anomalous Transients | * | 1 | RES | × | | Started FY79 |
| 3. | Uncertainties in Performance Predictions | с | 2 | NRR | | x | |

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| Action | ltem | Decision Group | Priority Group | Lead Office | Initiate Act FY80 FY81 | ion FY82 | Comments |
|--------|--|-------------------|-------------------|----------------|---------------------------|-------------|--------------|
| 11.E.3 | Decay Heat Removal | | | | | | |
| 1. | Reliability of Power Supplies for Natural Circulation | | 1 | NRR | x | | Staried FY79 |
| 2. | Systems Reliability | B | 1 | NRR | x | | |
| 3. | Coordinated Study of Shutdown Heat Removal Requirements | c | 2 | NRR | x | | |
| 4. | Alternate Concepts Research | D | • | RES | x | | Started FY79 |
| 5. | Regulatory Guide | 0 | | SD | × | | Ongoing |
| 11.E.4 | Conf as were Design | | | | | | |
| 1. | Dedicated Secondarians | A | 1 | NRR | x | | Started FY79 |
| 2. | Isolal - Separability | A | 1 | NER | x | | Started FY79 |
| 3. | Integrity Check | в | 2 | NRR | | x | |
| 4. | Putering | A | 1 | NRR | x | | |
| 11.E.5 | Pesign Sensitivity of B&W Reactors | | | | | | |
| 1. | Design Evaluation | A | 2 | NRR | x | | |
| 2. | B&W Reactor Transient Response Task Force | ۸ | 2 | NRR | x | | Ongoing |
| 11.E.6 | In Situ Testing of Valves | | | | | | |
| 1. | Test Adequacy Study | D | 5 sec. 5 f | NRR | | x | |

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| Acti | ion I | tem | Decision Group | Priority Group | Lead Office | Initiate FY80 FY81 | Action FY82 | Comments |
|------|-------|---|-------------------|-------------------|----------------|-----------------------|----------------|--------------|
| 11.6 | Ins | trumentation and Controls | | | | | | |
| | 1. | Additional Accident Monitoring Instrumentation | A · | 1 | NRR | x | | Started FY79 |
| | 2. | Identification of and Recovery from Conditions Leading to Inadequate Core Cooling | • | 1 | NRR | x | | Started FY79 |
| | 3. | Instrumentation for Monitoring Accident Conditions (Reg. Guide 1.97) | B | 2 | SD | x | | Started FY79 |
| | 4. | Study of Control and Protection Action Design Requirements | D | 3 | NRR | | x | |
| | 5. | Safety Classification of Electrical Equipment | 8 | 2 | 50 | x | | |
| 1.6 | Ele | ctrical Power | | | | | | |
| | 1. | Power Supplies for Pressurizer Relief Valves, Block Valves, and Level Indications | ^ | 1 | NRR | x | | Started FY79 |
| I.H | TMI | 2 Cleanup and Examination | | | | | | |
| | 1. | Maintain Safety of IMI-2 and Minimize Environmental Impact | A | 1 | NRR | x | | |
| | 2. | Obtain Technical Data on the Condi- tions Inside the TMI-2 Containment Structure | A | 2 | RES | | | |
| | 3. | Evaluate and Feedback Information Obtained from IMI | ٨ | 2 | NPR | × | | |

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| tion Ite | | Decision Group | Priority Group | iead Office | FY80 FY81 FY82 | Comments |
|-----------------|--|-------------------|-------------------|----------------|----------------|------------|
| ÷ | Determine Impact of IMI on Socioeconomic and Real Property Values | * | - | RES | - | Started FY |
| .J Gener and | al Implications of IMI for Design Construction Activities | | | | | |
| J.I Ve | ndor Inspection Program | | | | | |
| ۲. | Establish a Priority System for Conducting Vendor Inspections | 0 | | IE | × | |
| 2. | Modify Existing Vendor Inspection Program | a | | H | × | |
| ÷ | Increase Regulatory Control Over Present Nonlicensees | a | • | Ŧ | × | |
| + | Assign Resident Inspectors to Reactor Venders and Architect-Engineers | 0 | • | H | × | |
| .J.2 | Construction Inspection Program | | | | | |
| - | Reorient Inspection Program More Toward Direct Observation, Proper Work Per- formance, and Verification of As- Built Configurations Versus Design | * | - | × | * | |
| 2. | Increase Emphasis on Independent Measurement in the Construction Inspection Program | < | ŗ | × | × | |
| 3. | Assign Resident Inspectors to all Construction Sites | 0 | | | - | |

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| Action Item | Decision Group | Priority Group | Lead Office | Initiate Action | Comments |
|--|-------------------|-------------------|----------------|-----------------|---|
| | | | | | |
| 1.J.3 Management for Design and Construction | | | | | |
| Organization and Staffing to Oversee Design and Construction | c | 1 | NRR | x | |
| 2. Issue Regulatory Guide | С | 3 | SD | x | |
| I.J.4 Revise Deficiency Reporting Requirements | C | 1 | IE | x | |
| I.K Measures to Mitigate Small-Break LOCAs ar Loss of Feedwater Accidents | ıd | | | | |
| 1. IE Bulletins | ٨ | 1 | NRR | x | |
| 2. Commission Orders on B&W Plants | A | 1 | NRR | x | Started FY79 |
| Final Recommendations of B&O Task Force | B | · · · | NRR | x | Stretch out imple- mentation to FY82 |
| 11. Emergency Preparations and Radiation Effe | ects | | | | |
| 11.A.1 Improve Licensee Emergency Preparedness - Short-Lerm | | | | | |
| 1. Upgrade Emergency Preparedness | ٨ | | NRR | x | |
| 2. Upgrade Licensee Emergency Support Facilities | ٨ | 1 | NRR | x | Complete |
| 3. Maintain Supplies of Thyroid Blockin | 9 | | | | |
| Agent (Potassium Iodide) | C | 3 | NRR | x | |

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| Action 1 | tea | Dectsion Group | Priority Group | Lead Office | Initiate Action FY80 FY81 FY82 | Comments |
|----------|---|--------------------------|-------------------|----------------|-----------------------------------|--------------|
| III.A.2 | Improving Licensee Emergency Preparedness - Long-term | | | | | |
| 1. | Amend 10 CFR 50 and 10 CFR 50, Appendix E | c | 3 | SD | x | Started FY79 |
| 2. | Development of Guidance and Criteria | c | 3 | NRR | x | |
| 111.A.3 | Improving NRC Emergency Preparedness | | | | | |
| L | NRC Role in Responding to Nuclear Emergencies | | | EDO | x | |
| 2. | Improve Operations Centers | 8 | 2 | IE | X | |
| 3. | Communications | Telephones-A Backup-C | 2 2 | IE IE | x | |
| 4. | Nuclear Data Link | с | 3 | IE | x | Ongo i ng |
| 5. | Training, Drills, and Tests | D | | IE | x | Ongoing |
| 6. | Interaction of NRC with Other Agencies | с | 2 | EDO | x | |
| 111.8 | Emergency Preparednes of State and Local Governments | | | | | |
| 1. | Transfer of Responsibilities to FEMA | A | 1 | EDO | x | |
| 2. | Implementation of NRC's and FEMA's Responsibilities | ۸ | 1 | EDO | x | |
| ш.с | Public Information | | | | | |
| 1. | Have Information Available for the News Media and the Public | с | 3 | OPA | x | |

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| Action I | tem | Decision Group | Priority Group | Lead Office | Initi FY80 | ate Act FY81 | ion FY82 | Comments |
|----------|---|---------------------------|-------------------|----------------|---------------|-----------------|-------------|--|
| 2. | The Office of Public Affairs will Develop Agency Policy and Provide Training for Interfacing with the News Media and Other Interested Parties | c | 3 | OPA | × | | | |
| 111.0.1 | Radiation Source Control | | | | | | | |
| 1. | Primary Coolant Sources Outside the Containment Structure | NTOL - A Criteria - C | 2 2 | NRR NRR | × | | | |
| 2. | Radioactive Gas Management | 8 | 3 | NRR | | | x | |
| 3. | Ventilation System and Radiolodine Adsorber Criteria | B | 2 | NRR | | | × | |
| 4. | Radwaste System Design Features to Aid in Accident Recovery and Decontamination | C | 3 | NRR | | | x | |
| 111.0.2 | Public Radiation Protection Improvement | | | | | | | |
| 1. | Radiological Monitoring of Effluents | 8 | 2 | NRR | | | x | |
| 2. | Radiolodine, Carbon–14, and Tritium Pathway Dose Analysis | 8 | 3 | NRR | | | x | |
| 3. | Liquid Pathway Radiological Control | C | 3 | NRR | | | x | |
| 4. | Offsite Dose Measurements | NTOL - A Remainder - C | 3 | IE RES | x | | | Research will initiate work in FY80 |
| 5. | Offsite Dose Calculation Manual | 8 | 3 | NRR | | | x | |
| 6. | Independent Radiological Measurements | D | - | IE | × | | | |

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| Action 1 | lem | Decision Group | Priority Group | Lead Office | Initiate Ac FY80 FY81 | tion FY82 | Comments |
|---------------|---|--|-------------------|----------------|--------------------------|--------------|----------|
| 111.0.3 | Worker Radiation Protection Improvements | | | | | | |
| 1. | Radiation Protection Plans | 8 | 2 | NRR | | x | |
| 2. | Health Physics Improvements | D | - | SD | × | | Ongoing |
| 3. | Inplant Radiation Monitoring | Short- term - A Long- term - B, D | 3 | NRR | ĸ | | |
| 4. | Control Room Habitability | NTOL - A Long term - C | 2 2 | NRR NRR | × | | |
| 5. | Radiation Worker Exposure Data Base | D | - | SD | x | | Ongoing |
| IV. Pra | ctices and Procedures | | | | | | |
| IV.A Str | engthen Enforcement Process | | | | | | |
| 1. | Seek Legislative Authority | | 2 | OGC | x | | |
| 2. | Revise Enforcement Policy | Ð | 2 | IE | x | | |
| IV.B Iss t | uance of Instructions and Information o Licensees | | | | | | |
| IV.B.1 R | evise Practices for Issuance of Instructions and Information to Licensees | D | 2 | NRR | | x | |
| IV.C Ext | end Lessons Learned to Licensed ctivities Other Than Power Reactors | | | | | | |

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| Action | . 11 | Les | Decision Group | Priority Group | Lead Office | Initiate FY80 FY8 | Action 1 FY82 | Comments |
|---------|------|---|-------------------|-------------------|----------------|----------------------|------------------|----------|
| IV.C.1 | E | ktended Lessons Learned from TMI to Other NRC Programs | c | 3 | NHSS | x | | |
| IV. 0 N | NRC | Staff Training | | | | | | |
| IV.D.1 | . , | NRC Staff Training | с | 2 | ADH | x | | |
| IV.E S | Safe | ety Decision-Making | | | | | | |
| 1 | ı. | Expand Research on Quantification of Safety Decision-Making | D | 3 | RES | x | | |
| 2 | 2. | Plan for Early Resolution of Safety Issues | c | 2 | NRR | x | | |
| 3 | 3. | Plan for Resolving Issues at Construction Permit Stage | c | 3 | SD | | × | |
| 4 | ۱. | Resolve Generic Issues by Rulemaking | С | 2 | SD | x | | |
| 5 | s. : | Assess Currently Operating Reactors | с | 2 | NRR | x | | |
| IV.F F | ina | incial Disincentives to Safety | | | | | | |
| 1 | I. | Increased IE Scrutiny of Power Ascension Test Program | ۸ | 3 | IE | x | | |
| 2 | 2. | Evaluate the Impacts of Financial Disincentives to the Safety of Nuclear Power Plants | C | 3 | NRR | x | | |
| IV.G 1 | mpr | rove Safety Rulemaking Procedures | | | | | | |
| 1 | | Develop a Public Ayenda for Rulemaking | D | 3 | ADM | | x | |

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| Actio | on 1 | Lem | Decision Group | Priority Group | Lead Office | Initiate Ad FY80 FY81 | tion FY82 | Comments |
|-------|------|--|-------------------|-------------------|----------------|--------------------------|--------------|------------------|
| | 2. | Periodic and Systematic Reevaluation of Existing Rules | D | 3 | ELD | | x | |
| | 3. | Improve Rulemaking Procedures | D | 3 | ELD | | × | |
| | 4. | Study Alternatives for Improved Rulemaking Process | D | 3 | ELD | | × | |
| IV. H | NRC | Participation in the Radiation Policy ouncil | ۸ | 3. | SD | x | | |
| ۷. | NRC | Policy, Organization, and Management | | | | | | |
| | I. | Develop NRC Policy Statement on Safety | NA | NA | Comm. | | | To be determined |
| | 2. | Study Elimination of Nonsafety Responsibilities | NA | NA | Comm. | | | to be determined |
| | 3. | Strengthen Role of ACRS | NA | NA | Coawa. | | | To be determined |
| | 4. | Study Need for Additional Advisory Committees | NA | NA | Comm. | | | lo be determined |
| | 5. | Improve Public and Intervenor Participation in Hearing Process | NA | NA | Comm. | | | To be determined |
| | 6. | Study Construction-During- Adjudication Rules | NA | NA | Comm. | | | To be determined |
| | 1. | Study Need for IMI-Related Legislation | NA | NA | Comm. | | | To be determined |
| | 8. | Study the Need to Establish an Independent Nuclear Safety Board | NA | NA | Coma. | | | lo be determined |
| | 9. | Study the Reform of the Licensing | NA | NA | Comm. | | | To be determined |

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| Action | tem | Decision Group | Priority Group | Lead Office | Initiate Action FY80 FY81 FY82 | Comments |
|--------|--|-------------------|-------------------|----------------|-----------------------------------|------------------|
| 10. | Study NRC Top Management Structure and Process | 84 | NA | Comm. | | To be determined |
| n. | Reexamine Organization and Functions of NRC Offices | н. | NA | Come. | | To be determined |
| 12. | Revise Delegations of Authority to Staff | NA | NA | Comm. | | To be determined |
| 13. | Clarify and Strengthen the Respective Roles of Chairman, Commission, and EDO | NA | NA | Come. | | To be determined |
| 14. | Authority to Delegate Emergency Response Functions to a Single Commissioner | NA | NA | Com. | | To be determined |
| 15. | Achieve Single Location - Long-term | NA | NA | Comm. | | To be determined |
| 16. | Achieve Single Location - Interim | NA | NA | Comm. | | To be determined |
| 17. | Reexamine Commission Role in Adjudication | NA | NA | Comm. | | To be determined |

TMI ACTION PLAN REPROGRAMMING ANALYSIS

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Office: Nuclear Reactor Regulation

| | | FY 1980 4/ | 1-9/30/80 | | Differ | ence | Congressional | |
|----------------------|---------------------------------|------------|----------------------|-------|-----------------|-------|---------------|--|
| | TMI Action Plan Requirements | | Candidate Give Up | | Less Candidates | | Thresholds* | |
| Decision Unit | SY \$ | | SY | 1 | <u></u> | | | |
| Operating Reactors | (48) | 822 | (-) | 50 | (48) | 772 . | No | |
| Casework | (14) | 350 | (24) | 261 | (-10) | 89 | Yes 1/ | |
| Technical Projects | (19) | 1,170 | (52) | 1,531 | (-33) | -361 | | |
| Advanced Reactors | (-) | - | (2) | 500 | (-2) | -500 | Yes 2/ | |
| Standards Assistance | (-) | | (3) | | <u>(-3)</u> | | No | |
| TOTAL | (81) | 2,342 | (81) | 2,342 | (0) | 6 | | |

"Yes" indicates prior Congressional approval is required to implement reprogramming in FY 1980.
 Congressional funding level established for Casework and for Technical Projects combined \$12,165K.
 Congressional funding level established for Advanced Reactors \$1,315K, includes a \$500K Congressional add-on for HTGR.

Office: Standards Development

| | | FY 1980 4/ | 1-9/30/80 | Differ | ence | Congressional | | |
|--|---------------------------------|------------|-------------|----------------------|---------|------------------|-------------------------------|--|
| | TMI Action Plan Requirements | | Cano Giv | Candidate Give Up | | ments didates | Reprogramming Ti.resholds* | |
| Decision Unit | SY | | SY | 1 | <u></u> | -1- | | |
| Power Facility Standards | (4.4) | | (4.4) | - | (-) | - | No | |
| Operation and Utilization Standards | _(1.3) | | (1.3) | <u> </u> | (-) | <u> </u> | No | |
| TOTAL | (5.7) | - | (5.7) | • - | (-) | • | | |

* "Yes" indicates prior Congressional approval is required to implement reprogramming in FY 1980.

Office: Inspection and Enforcement

| | | FY 1980 4 | /1-9/30/80 | Differ | ence | Congressional | | |
|---|---------------------------------|-----------|------------|--------|-----------------|---------------|------------------------------|--|
| | TMI Action Plan Requirements | | Give Up | | Less Candidates | | Reprogramming Thresholds* | |
| Decision Unit | SY | | SY | -1- | SY | | | |
| Reactor Construction | (2.9) | - | (2.9) | - | (-) | - | No | |
| Reactor Operations | (16.1) | - | (16.1) | 100 | (-) | -100 | No | |
| Vendor and Contractor | (0.1) | - | (0.1) | | (-) | - | No | |
| Fuel Facilities and Materials Safety | (1.1) | 1 | (1.1) | - | (-) | - | } Yes 1/ | |
| Management Direction and Support | (0.7) | 100 | (0.7) | - | (-) | 100 | } | |
| Safeguards | (-) | • | (-) | - | (-) | - | No | |
| Special Technical Training | (-) | <u> </u> | (-) | | <u>,(-)</u> | | No | |
| TOTAL | (20.9) | 100 | (20.9) | 100 | (-) | - | | |

"Yes" indicates prior Congressional approval is required to implement reprogramming in FY 1980.
 Congressional funding level established for Fuel Facilities and Materials Safety and for Management Direction and Support combined \$1,935K.

Office: Nuclear Regulatory Research

| | | FY 19 | 980 | Differe | ence | Congressional | | |
|---------------------------|---------------------------------|--------|-------------|---------------|---------------------------------|---------------|------------------------------|--|
| | IMI Action Plan Requirements | | Cand Giv | idate e Up | Requirements Less Candidates | | Reprogramming Thresholds* | |
| Decision Unit | SY | _\$ | SY | 1 | SY | -1 | | |
| Systems Engineering | (-) | 4,200 | (-) | 4,200 | (-) | - | No | |
| LOFT | (-) | 40,300 | (-) | 40,300 | (-) | - | No | |
| Code Development | (-) | 800 | (-) | 800 | (-) | - | No | |
| Fuel Behavior | (-) | 200 | (-) | 200 | (-) | - | No | |
| Fast Breeder Reactor | (-) | 2,780 | (-) | 2,780 | (-) | - | No | |
| Risk Assessment | (-) | 400 | (-) | 400 | (-) | - | No | |
| Improved Reactor Safety . | (-) | 550 | (-) | 550 | _(-) | <u> </u> | No | |
| TOTAL | (-) | 49,230 | (-) | 49,230 | (-) | | | |

* "Yes" indicates prior Congressional approval is required to implement reprogramming in FY 1980.

NEAR TERM OPERATING LICENSE TASKS

1. · . · ·

FUEL-LOADING AND LOW-POWER TESTING LICENSE REQUIREMENTS

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I.A.1.1 SHIFT TECHNICAL ADVISOR

A technical advisor to the shift supervisor shall be present on all shifts and available to the Control Room within 10 minutes. Although minimum training requirements have not been specified, shift technical advisors should enhance the accident assessment function at the plant.

This requirement shall be met before fuel loading.

I.A.1.2 SHIFT SUPERVISOR ADMINISTRATIVE DUTIES

Review the administrative duties of the shift supervisor and delegate functions that detract from or are subordinate to the management responsibility for assuring safe operation of the plant to other personnel not on duty in the control room.

This requirement shall be met before fuel loading.

I.A.1.3 SHIFT MANNING

The minimum shift crew for a unit shall include three operators, plus an additional three operators when the unit is operating. Shift staffing may be adjusted at multi-unit stations to allow credit for operators holding licenses on more than one unit.

In each control room, including common control rooms for multiple units, there shall be at all times a licensed reactor operator for each reactor loaded with fuel and a senior reactor operator licensed for each reactor that is operating. There shall also be onsite at all times, an additional relief operator licensed for each reactor, a licensed senior reactor operator who is designated as shift supervisor, and any other licensed senior reactor operators required so that their total number is at least one more than the number of control rooms from which a reactor is being operated.

- 1 -

Administrative procedures shall be established to limit maximum work hours of all personnel performing a safety-related function to no more than 12 hours of continuous duty with at least 12 hours between work periods, no more than 72 hours in any 7 day period, and no more than 14 consecutive days of work without at least 2 consecutive days off.

These requirements shall be met before fuel loading. (Detailed guidance to licensees is expected to be issued in May 1980).

I.A.3.1 REVISE SCOPE AND CRITERIA FOR LICENSING EXAMINATIONS

All reactor operator license applicants shall take a written examination with a new category dealing with the principles of heat transfer and fluid mechanics, a time limit of nine hours, and a passing grade of 80 percent overall and 70 percent in each category.

All senior reactor operator license applicants shall take the reactor operator examination, an operating test, and a senior reactor operator written examination with a new category dealing with the theory of fluids and thermodynamics, a time limit of seven hours, and a passing grade of 80 percent overall and 70 percent in each category.

These requirements shall be met before fuel loading.*

I.B.1.2 EVALUATION OF ORGANIZATION AND MANAGEMENT IMPROVEMENTS OF NEAR-TERM OPERATING LICENSE APPLICANTS

The licensee organization shall comply with the findings and requirements generated in an interoffice NRC review of licensee organization and management. The review will be based on an NRC document entitled Draft Criteria for Utility Management and Technical Competence. The first draft of this dor iment was

^{*}In the case of Sequoyah, North Anna 2, Salem and McGuire, the operators are not required to take the new written examination, but were required to take the new passing-grade requirement. However, any license applicants who must be reexamined are being required to take the new examination. The identical operators and senior operators for all other new operating licenses will a required to take the new examination.

dated February 25, 1980, but the document is changing with use and experience in angoing reviews. These draft criteria address the organization, resources, training, and qualifications of plant staff, and management (both onsite and offsite) for routine operations and the resources and activities (both onsite and offsite) for accident conditions.

Establish a group that is independent of the plant staff but is assigned on site to perform independent reviews of plant operational activities and a capability for evaluation of operating experiences at nuclear power plants.

Organizational changes are to be implemented on a schedule to be determined prior to fuel loading.

I.C.1 SHORT-TERM ACCIDENT ANALYSIS AND PROCEDURE REVISION

Analyze small-break LOCAs over a range of break sizes, locations and conditions (including some specified multiple equipment failures) and inadequate core cooling due to both low reactor coolant system inventory and the loss of natural circulation to determine the important phenomena involved and expected instrument indications. Based on these analyses, revise as necessary emergency procedures and training.

These requirement shall be met before fuel loading.

I.C.2 SHIFT RELIEF AND TURNOVER PROCEDURES

Revise plant procedures for shift relief and turnover to require signed checklists and logs to assure that the operating staff (including auxiliary operators and maintenance personnel) possess adequate knowledge of critical plant parameter status, system status, availablility and alignment.

This requirement shall be met before fuel loading.

I.C.3 SHIFT SUPERVISOR RESPONSIBILITIES

Issue a corporate management directive that clearly establishes the command duties of the shift supervisor and emphasizes the primary management responsibility for safe operation of the plant. Revise plant procedures to clearly define the duties, responsibilities and authority of the shift supervisor and the control room operators.

This requirement shall be met before fuel loading.

I.C.4 CONTROL ROOM ACCESS

Revise plant procedures to limit access to the control room to those individuals responsible for the direct operation of the plant, technical advisors, specified NRC personnel, and to establish a clear line of authority, responsibility, and succession in the control room.

This requirement shall be met before fuel loading.

I.C.5 PROCEDURES FOR FEEDBACK OF OPERATING EXPERIENCE TO PLANT STAFF

Review and revise, as necessary, procedures to assure that operating experiences are fed back to operators and other personnel.

This requirement shall be met before fuel loading.

I.C.7 NSSS VENDOR REVIEW OF PROCEDURES

11

Obtain nuclear steam supply system (NSSS) vendor review of low-power testing procedures to further verify their adequacy.

- 4 -

This requirement must be met before fuel loading.

I.D.1 CONTROL ROOM DESIGN

Perform a preliminary assessment of the control room to identify significant human factors deficiencies and instrumentation problems and establish a schedule approved by the NRC for correcting deficiencies.

This requirement must be met before fuel loading.

I.G.1 TRAINING DURING LOW-POWER TESTING

Define and commit to a special low-power testing program approved by NRC to be conducted at power levels no greater than 5 percent for the purposes of providing meaningful technical information beyond that obtained in the normal startup test program and to provide supplemental training.

This requirement shall be met before fuel loading.

II.B.4 TRAINING FOR MITIGATING CORE DAMAGE

Develop a training program to instruct all operating personnel in the use of installed systems, including systems that are not engineered safety features, and instrumentation to monitor and control accidents in which the core may be severely damaged.

This requirement shall be met before fuel loading.

II.D.1 RELIEF AND SAFETY VALVE TEST REQUIREMENTS

Describe a test program and schedule for testing to qualify reactor coolant system relief and safety valves under expected operating conditions for design basis transients and accidents.

- 5 -

This requirement shall be met before fuel loading.

II.D.3 RELIEF AND SAFETY VALVE POSTION INDICATION

Install positive indication in the control room of relief and safety valve position derived from a reliable valve position detection device or a reliable indication of flow in the valve discharge pipe.

This requirement shall be met before fuel loading.

II.E.1.2 AUXILIARY FEEDWATER INITIATION AND INDICATION

Install a control-grade system for automatic initiation of the auxiliary feedwater system that meets the single-failure criterion, is testable, and is powered from the emergency buses, and control-grade indication of auxiliary feedwater flow to each steam generator that is powered from emergency buses.

This requirement shall be met before fuel loading.

II.E.4.1 CONTAINMENT-DEDICATED PENETRATIONS

Provide a design of the containment isolation system for external recombiners or purge systems for postaccident combustible gas control, if used, that is dedicated to that service only and meets the single-failure criterion.

Review and revise, if necessary, the procedures for use of combustible gas control system following an accident resulting in a degraded core and release of radioactivity into the containment.

This requirement shall be met before fuel loading.

II.F.1 ADDITIONAL ACCIDENT MONITORING INSTRUMENTATION

Provide procedures for estimating noble gas, radioiodine, and particulate release rates if the existing effluent instrumentation goes off the scale.

This requirement shall be met before fuel loading.

II.F.2 INADEQUATE CORE COOLING INSTRUMENTS

Develop procedures to be used by operators to recognize inadequate core cooling with currently installed instrumentation in PWRS. Install a primary coolant saturation meter. Provide a description of any additional instruments or controls needed to supplement installed equipment to provide unambiguous, easy-to-interpret indication of inadequate core cooling, procedures for use of this equipment, analyses used to develop these procedures, and a schedule for installing this equipment.

This requirement shall be met before fuel loading.

II.G EMERGENCY POWER FOR PRESSURIZER EQUIPMENT

Motive and control components of the power-operated relief valves and associated block valves and the pressurizer level indication shall be capable of being supplied from the offsite power source or from the emergency power buses when offsite power is not available.

This requirement shall be met before fuel loading.

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- II.K.1 IE BULLETINS ON MEASURES TO MITIGATE SMALL-BREAK LOCAS AND LOSS OF FEEDWATER ACCIDENTS
- C.1.5* Review all valve positions, positioning requirements, positive controls and related test and maintenance procedures to assure proper ESF functioning.
- C.1.10 Review and modify, as required, procedures for removing safety-related systems from service (and restoring to service) to assure operability status is known.
- C.1.17 For Westinghouse-designed reactors, trip the pressurizer low-level coincident signal bistables, so that safety injection would be initiated when the pressurizer low-pressure setpoint is reached regardless of the pressurizer level.
- C.1.20 For B&W-designed reactors, provide procedures and training to operators for prompt manual reactor trip for loss of feedwater, turbine trip, main steamline isolation valve closure, loss of offsite power, loss of steam generator level, and low pressurizer level.
- C.1.21 For B&W-designed reactors, provide automatic safety-grade anticipatory reactor trip for loss of feedwater, turbine trip or significant decrease in steam generator level.
- C.1.22 For boiling water reactors, describe the automatic and manual actions necessary for proper functioning of the auxiliary heat removal

*Table C-1 of the Action Plan lists all the requirements given in IE Bulletins.

systems that are used when the main feedwater system is not operable.

C.1.23 For boiling water reactors, describe all uses and types of reactor vessel level indication for both automatic and manual initiation of safety systems. Describe other instrumentation that might give the operator the same information on plant status.

These requirements shall be met before fuel loading.

- II.K.3 FINAL RECOMMENDATIONS OF B&O TASK FORCE*
- C.3.9.** For Westinghouse-designed reactors, modify the pressure integral derivative controller, if installed on the PORV, to eliminate spurious openings of the PORV.
- C.3.10. For Westinghouse-designed reactors, if the anticipatory reactor trip upon turbine trip is to be modified to be bypassed at power levels less than 50 percent, rather than below 10 percent as in current designs, demonstrate that the probability of a small-break LOCA resulting from a stuck-open PORV is not significantly changed by this modification.

**Table C.3 of the Action Plan lists the requirements derived from final recommendations of the B&O Task Force.

^{*}The B&O recommendations were not specifically delineated as to fuel-loading or full-power requirements prior to the review of Sequoyah, North Anna 2, and Salem 2. The NRR staff is presently confirming compliance with these four items for these plants.

- C.3.11. Demonstrate that the PORV installed in the plant has a failure rate that is not significantly less than the valves for which there is an operating history.
- C.3.12. For Westinghouse-designed reactors, confirm that the e is an anticipatory reactor trip on turbine trip.

These requirements shall be met before fuel loading.

III.A.1.1 UPGRADE EMERGENCY PREPAREDNESS

Comply with Appendix E, "Emergency Facilities," to 10 CFR Part 50, Regulatory Guide 1.101, "Emergency Planning for Nuclear Power Plants," and for the offsite plans, meet essential elements of NUREG-75/111 or have a favorable finding from FEMA.

This requirement shall be met before fuel loading.

III.A.1.2 UPGRADE EMERGENCY SUPPORT FACILITIES

Establish an interim onsite technical support center separate from, but close to, the control room for engineering and management support of reactor operations during an accident. The center shall be large enough for the necessary utility personnel and five NRC personnel, have direct display or callup of plant parameters, and dedicated communications with the control room, the emergency operations center, and the NRC. Provide a description of the permanent technical support center.

Establish an onsite operational support center, separate from but with communications to the control room for use by operations support personnel during an accident.

Designate a near-site emergency operations facility with communications with the plant to provide evaluation of radiation releases and coordination of all onsite and offsite activities during an accident. These requirements shall be met before fuel loading.

III.D.3.3 INPLANT RADIATION MONITORING

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Provide the equipment, training and procedures necessary to accurately determine the presence of airborne radioiodine in areas within the plant where plant personnel may be present during an accident.

This requirement shall be met before fuel loading.

FULL-POWER LICENSE REQUIREMENTS

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I.C.7 NSSS VENDOR REVIEW OF PROCEDURES

Obtain NSSS vendor review of power-ascension test and emergency procedures to further verify their adequacy.

This requirement must be met before issuance of a full-power license.

I.C.8 PILOT MONITORING OF SELECTED EMERGENCY PROCEDURES FOR NEAR-TERM OPERATING LICENSE APPLICANTS

Correct emergency procedures, as necessary, based on the NRC audit of selected plant emergency operating procedures (e.g., small-break LOCA, loss of feedwater, restart of engineered safety features following a loss of ac power, steam-line break, or steam-generator tube rupture).

This action will be completed prior to issuance of a full-power license.

I.G.1 TRAINING DURING LOW-POWER TESTING

Supplement operator training by completing the special low-power test program. Tests may be observed by other shifts or repeated on other shifts to provide training to the operators.

This requirement shall be met before issuance of a full-power license.

II.B.1 REACTOR COOLANT SYSTEM VENTS

Provide (1) a description of the design of reactor coolant system and reactor vessel head high point vents that are remotely operable from the control room; (2) analyses of loss-of-coolant accidents initiated by a break in the vent pipe; and (3) analyses demonstrating that direct venting of noncondensable gases with perhaps high hydrogen concentration limits dose not result in violation of combustible gas concentration limits in containment.

- 1 -

II.B.2 PLANT SHIELDING

Provide (1) a radiation and shielding design review that identifies the location of vital areas and equipment in which personnel occupancy may be unduly limited or safety equipment may be unduly degraded by radiation during operations following an accident resulting in a degraded core, and (2) a description of the types of corrective actions needed to assure adequate access to vital areas and protection of safety equipment.

This requirement must be met before issuance of a full-power license.

II.B.3 POSTACCIDENT SAMPLING

Provide (1) a design and operational review of the capability to promptly obtain and perform radioisotopic and chemical analyses of reactor coolant and containment atmosphere samples under degraded core accident conditions without excessive exposure, (2) a description of the types of corrective actions needed to provide this capability, and (3) procedures for obtaining and analyzing these samples with the existing equipment.

This requirement must be met before issuance of a full-power license.

II. 8.4 TRAINING FOR MITIGATING CORE DAMAGE

Complete the training of all operating personnel in the use of installed systems to monitor and control accidents in which the core may be severely damaged.

- 2 -

II.E.1.1 AUXILIARY FEEDWATER SYSTEM RELIABILITY EVALUATION

- (1) Provide a simplified auxiliary feedwater system reliability analysis that uses event-tree and fault-tree logic techniques to determine the potential for AFWS failure following a main feedwater transient, with particular emphasis on potential failures resulting from human errors, common causes, single point vulnerability, and test and maintenance outage.
- (2) Provide an evaluation of the AFWS using the acceptance criteria of Standard Review Plan Section 10.4.9.
- (3) Describe the design basis accident and transients and corresponding acceptance criteria for the AFWS.
- (4) Based on the analyses performed modify the AFWS, as necessary.

These requirements shall be met before issuance of a full-power license.

II.E.3.1 EMERGENCY POWER FOR PRESSURIZER HEATERS

Install the capability to supply from emergency power buses a sufficient number of pressurizer heaters and associated controls to establish and maintain natural circulation in hot standby conditions.

The requirement shall be met before issuance of a full-power license.

II.E.4.2 CONTAINMENT ISOLATION DEPENDABILITY

Provide (1) containment isolation on diverse signals, such as containment pressure or ECCS actuation, (2) automatic isolation of nonessential systems (including the bases for specifying the nonessential systems), (3) no automatic reopening of containment isolation valves when the isolation signal is reset.

- 3 -

- II.K.2 Commission Orders on Babcock & Wilcox Plants.
- C.2.2 Procedures in training to initiate and control auxiliary feedwater water independent of Integrated Control System.
- C.2.9* For B&W-designed reactors, provide a failure mode and effects analysis of the Integrated Control System.
- C.2.10 For B&W-designed reactors, install safety-grade anticipatory reactor trip for loss of feedwater and turbine trip.
- C.2.13 For B&W-designed reactors, confirm by a detailed analysis of thermal-mechanical conditions in the reactor vessel during recovery from a small-break LOCA, with an extended loss of all feedwater requiring the use of the high-pressure injection system, that vessel integrity is not jeopardized.
- C.2.14 For B&W-dewigned reactors, demonstrate that the power-operated relief values on the pressurizer will open in less than five percent of all anticipated overpressure transients using revised setpoints and anticipatory trips for the range of plant conditions which might occur during a fuel cycle.
- C.2.15 For B&W-designed reactors, analyze the effects of slug flow on once-through steam generator tubes after primary system voiding.
- C.2.16 For B&W-designed reactors, evaluate the effect of reactor coolant pump damage and leakage following a small-break LOCA concurrent with a loss of offsite power that results in the loss of seal cooling.

^{*} Table C.2 of the Action Plan lists all of the requirements of the Commission Orders.

II.K.3 FINAL RECOMMENDATIONS OF B&O TASK FORCE

C.3.3 Any failure of a PORV or safety valve to close should be reported to the NRC promptly. All challenges to the PORVs or safety valves should be documented in the annual report.

This requirement shall be met before issuance of a full-power license.

III.A.1.1 UPGRADE EMERGENCY PREPARDNESS

Provide an emergency response plan in substantial compliance with NUREG-0654, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants" (which may be modified after May 13, 1980 based on public comments) except that only a description of and completion schedule for the means for providing prompt notification to the population (App. 3), the staffing for emergencies in addition to that already required (Table B.1), and an upgraded meteorological program (App. 2) need be provided. NRC will give substantial weight to FEMA findings on offsite plans in judging the adequacy against NUREG-0654. Perform an emergency response exercise to test the integrated capability and a major portion of the basic elements existing within emergency preparedness plans and organizations.

This requirement shall be met before issuance of a full-power license.

III.D.1.1 PRIMARY COOLANT SOURCES OUTSIDE CONTAINMENT

Reduce leakage from systems outside containment that would or could contain highly radioactive fluids during a serious transient or accident to as-lowas-practical levels, measure actual leak rates and establish a program to maintain leakage at as-low-as practical levels and monitor leak rates.

*Table C.3 of the Action Plan lists all of the recommendations of the B&D Task Force.

III. D. 3. 4 CONTROL ROOM HABITABILITY

Identify and evaluate potential hazards in the vicinity of the site as described in SRP Sections 2.2.1, 2.2.2, and 2.2.3, confirm that operators in the control room are adequately protected from these hazards and the release of radioactive gases as described in SRP Section 6.4, and, if necessary, provide the schedule for modifications to achieve compliance with SRP Section 6.4.

This requirement shall be met by issuance of a full-power license.

NRC ACTIONS

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I.B.2.2 REACTOR INSPECTOR AT OPERATING REACTORS

A NRC resident inspector will be assigned to each site.

This action will be completed before fuel loading.

I.D.1 CONTROL ROOM DESIGN REVIEW

NRC review of applicant's preliminary assessment of the control room design to determine whether the assessment is adequate and identify any necessary corrections and approve the schedule for correction of the deficiencies.

This action will be completed prior to fuel loading.

II.B.7 ANALYSIS OF HYDROGEN CONTROL

Reach a decision on the immediate requirements, if any, for hydrogen control in small containments and apply, as appropriate, to new OLs pending completion of the degraded core rulemaking in II.B.8 of the Action Plan.

This action is to be completed before issuance of a full-power license.

II.B.8 DEGRADED CORE - RULEMAKING

Issue an advance notice of rulemaking on requirements for design and other features for accidents involving severely damaged cores.

This action is to be completed before issuance of a full-power license.

III.A.3.1 ROLE OF NRC IN EMERGENCY PREPAREDNESS

More explicitly define the role of the NRC in emergency situations involving NRC licenses.

- 1 -

This action was completed in a meeting between the staff and the Commission on February 6, 1980.

IIJ.A.3.3 COMMUNICATIONS

1. 1 ja -

Install direct dedicated telephone lines between each plant and the NRC Operations Center.

This action is to be completed prior to fuel loading.

III.B.2 IMPLEMENTATION OF NRC AND FEMA RESPONSIBILITIES

The applicant emergency plans shall meet the requirements of Appendix E to 10 CFR 50 and, the positions in Regulatory Guide 1.101 (Mar. 1977). Offsite plans shall meet the essential planning elements in NUREG-75/111 and Supplement 1 thereto or receive a favorable finding by FEMA.

This requirement shall be met before fuel loading.

III.D.2.4 OFFSITE DOSE MEASUREMENTS

The NRC will place approximately 50 thermoluminescent dosimeters (TLDs) around the site in coordination with the applicant and State environmental monitoring program.

This action will be completed prior to issuance of a full-power license.

IV.F.1 POWER-ASCENSION TEST

IE will monitor the power-ascension test program to confirm that safety is not compromised because of the expanded startup test program and economic costs of the delay in commercial operation.

This action will be taken during the startup and power-ascension test program.

- 2 -

Enclosure 4

FY 1980 BASE TABLE

1. 4 ..

PROPOSED CHANGES TO U.S. NUCLEAR REGULATORY COMMISSION FY 1980 BASE TABLE (Dollars in Thousands)

| Program | | ious Base* | Prog | oposed rammatic hange | Rev | Revised Base | |
|------------------------------------|----|------------|------|---|-----|--------------|--|
| Nuclear Reactor Regulation | | 14 555 | | | | | |
| Casework and Technical Projects. | \$ | 14,505 | \$ | -2/2 2/ | \$ | 14,293 | |
| Advaged Bosstone | | 1 215 | | | | | |
| All Other 1/ | | 1,315 | | -500 3/ | | 815 | |
| Subtotal | | 39,290 | | +//2 4/ | | 40,062 | |
| Standards Development | | 55,170 | | | | 55,170 | |
| Safequard Standards | | 2 307 | | 집은 유민이 | | 2 307 | |
| All Other 1/ | | 11 095 | | | | 11 005 | |
| Subtotal | | 13 402 | | | | 13 402 | |
| Inspection and Enforcement | | 13,402 | | - 19 - 17 - 19 - 19 - 19 - 19 - 19 - 19 | | 13,402 | |
| Fuel Facilities and Materials | | | | | | | |
| Safety, Management Direction and | | | | | | | |
| Support | | 1.935 | | +100 5/ | | 2 035 | |
| Safeguards | | 1.000 | | | | 1,000 | |
| All Other 1/ | | 37.849 | | -100 6/ | | 37,749 | |
| Subtotal | | 40,734 | | | | 40,784 | |
| Nuclear Material Safety and | | | | | | | |
| Safeguards | | | | | | | |
| Waste Management | | 8.706 | | 1.1.1.2.1.1.1 | | 8,706 | |
| Safeguards | | 1,800 | | 1 | | 1.800 | |
| All Other 1/ | | 17,779 | | | | 17.779 | |
| Subtotal | | 28,285 | | - | | 28,285 | |
| Nuclear Regulatory Research | | | | | | | |
| Light Water Reactors | | 116,945 | | | | 116,945 | |
| Fast Breeder Reactor | | 13,700 | | | | 13,700 | |
| Advanced Converter | | 1,700 | | | | 1,700 | |
| Site, Waste, Environment Risk, | | | | | | | |
| and Fuel Cycle | | 25,876 | | 10 A.C. | | 25,876 | |
| Safeguards | | 4,000 | | | | 4,000 | |
| Improved Reactor Safety | | 1,000 | | - | | 1,000 | |
| Equipment | | 7,737 | | • • • • • | | 7,737 | |
| All Other 1/ | | 8,930 | | - | | 8,930 | |
| Subtotal | | 179,888 | | - | | 179,888 | |
| Program Technical Support 1/ | | 15,100 | | - | | 15,100 | |
| Program Directica and | | | - 1. | | | | |
| Administration 1/ | | 33,316 | - | - | - | 33,316 | |
| lotal New Obligational Authority . | | 365,945 | | - | | 365,945 | |
| unobligated Balance Carryover | | 3,022 | | - | _ | 3,022 | |
| OTAL OBLIGATIONAL AVAILABILITY | \$ | 368,967 | \$ | 1.1 | \$ | 368,967 | |
| | | | | | | | |

* Reference FY 1980 Base Table as of March 31, 1980, provided to Congress on April 9, 1980.

1/ Includes the following items which received a specific change by Congress, but not applied to specific programs:

Administrative Support Travel

. . . .

\$ 5 0 0

. ...

| 35,273 | 35.273 |
|--------|------------|
| 7.500 | 7.500 |
| 1,000 | 1,000 |

Footnotes - continued

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The following explanatory footnotes are augmented by the data contained in Enclosures 1 and 3 of this letter:

- 2/ Represents the net effect of implementing the TMI Action Plan tasks that come under the two Decision Units constituting this reprogramming control line through internal redirection of resources. The reduction of \$272,000 represents the deferral or reducing of lower priority non-TMI related efforts. Primarily these include: the deferral of work on generic issues that are not TMI related issues or "Unresolved Safety Issues", the reduction of some of the planned improvements to the Standard Review Plan; and the reduction of some generic studies to develop NkC licensing positions that are not specifically case-related.
- 3/ This reduction of \$500,000 represents resources for Congressional initiative to review an HTGR preapplication that was anticipated to be tendered in FY 1980. The current NRC caseload forecast does not anticipate this review to be tendered until 2/82. Therefore, these resources will not be required for the preapplication review, and are available to be applied to higher priority TMI Action Plan issues.
- 4/ Represents the net effect of implementing the TMI Action Plan tasks that come under the Operating Reactors Decision Unit that is within this reprogramming control line through internal redirection of resources. The increase of \$772,000 along with the internal redirection of \$822,000 provides for implementing those TMI Action Plan tasks identified in Enclosure 3 of this letter as fuel-loading, low-power testing and fullpower license requirements for all Operating Reactors.
- 5/ The increase of \$100,000 will be added to previously internally redirected resources of \$285,000 under the Management Direction and Support Decision Unit that is within this reprogramming control line. These funds together with \$400,000 to be made available from the NRC's FY 1980 Supplemental will provide for a feasibility study of the nuclear data link system (TMI Action Plan Task III.A.3.4.), as part of upgrading of NRC's Operations Center at Headquarters.
- 6/ The decrease of \$100,000 represents the deferral of a lower priority contractual effort to assist I&E in determining what the physical inspection priorities should be for operating pressurized water reactors. This work would have been done under the Reactor Operations Decision Unit within this reprogramming control line.