



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

May 10, 1979

MEMORANDUM FOR: L. V. Gossick, EDO ✓
L. Bickwit, OGC
A. Kenneke, OPE

FROM: E. Kevin Cornell, DEDO *EKC*
J. Cummings, OIA
J. Fitzgerald, OGC

SUBJECT: INVENTORY OF COMPLETED AND ONGOING ACTIVITIES
RELEVANT TO THE TMI ACCIDENT

Recently, all of the Offices completed an inventory of "Actions Relating to Three Mile Island," and this was distributed by Mr. Gossick on April 27, 1979. This inventory has been very useful, but it consists only of a list of activities, without description.

The three of us have recently been designated interim co-directors of the NRC's investigation of the TMI accident. (This designation is temporary, until a director for the investigation is named.) In order to assist us in the initial phases of this investigation, we are requesting a more expanded compilation than is found in the recent inventory. The purpose of requesting the expanded compilation is not primarily to obtain a record, for its own sake, of what the agency is now doing vis-a-vis TMI; rather, it is our intent that the investigation undertake its activities by building on present NRC staff actions where appropriate, rather than unnecessarily duplicating them.

Therefore, we are requesting that you undertake the following, with a deadline of c.o.b. Thursday, May 17, 1979, to be submitted to E. K. Cornell:

1. Update the list contained in the Gossick memorandum of April 27, 1979.
2. For each item on the list using the attached form, please draft a description, one or two double-spaced pages in length, that describes the activity.

The list should include each activity, either completed or ongoing under serious consideration, that has as its goal any of the following: (a) a description or understanding of events which occurred during the TMI accident and subsequent responses; (b) an analysis of either the

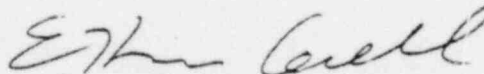
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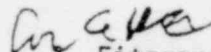
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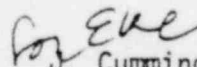
TMI facility and site, or other facilities and sites, aimed at more generic understanding; and (c) a compilation or analysis of activities prior to the TMI accident, if aimed at illuminating the accident. Efforts by NRC contractors as well as NRC staff should be included.

The most important thing to bear in mind in making this compilation is the level of detail desired; we need to know how much depth and breadth is included in each activity, the specific topic(s) being examined, the specific goals of each activity, the rough timescale for accomplishing them, and roughly how much manpower (man-weeks or man-months of effort) has been and will be devoted to the job. Thus, 'investigation of the hydrogen bubble issue' could mean one staff person spending one week, or ten spending ten weeks; and could mean experiments, analysis or interviews; we cannot judge which, without your specific information.

For ease in our use of the information, please use the attached form. We note that a Commission Briefing is scheduled for Thursday, May 10, 1979, which may cover much of the material requested. To the extent that your office has already generated material you feel would be responsive, please contact E. Kevin Cornell to negotiate a response that would minimize duplicative paperwork.


E. Kevin Cornell, DEDO


J. Fitzgerald, OGC


J. Cummings, OIA

Enclosure:
TMI Activities Inventory
Form

TMI ACTIVITIES INVENTORY FORM

A. Activity Title: _____

B. Completed, Ongoing, or Not Yet Begun: _____

C. Lead NRC Office: _____

D. NRC Staff Contact: _____
(with telephone)

E. Other NRC Offices Participating: _____

F. Manpower Already Devoted: _____
(up to May 1, 1979)
(approximations are acceptable)

NRC staff:	total man-weeks _____
	spread over _____ staff
Contractors:	total man-weeks _____
	spread over _____ staff

G. Manpower Planned: _____
(after May 1, 1979)

NRC staff:	total man-weeks _____
	spread over _____ staff
Contractors:	total man-weeks _____
	spread over _____ staff

H. Contractor Information (if applicable):

1. Contractor Organization: _____

2. Contact (with telephone): _____

3. Planned Date When Contractor Effort Terminates: _____

4. Approximate Funds Already Expended: _____
(up to May 1, 1979)

5. Approximate Funds Planned: _____
(after May 1, 1979)

6. Are contractor funds diverted from other, previously planned NRC activities? _____ If yes, please describe in 'description' section below.

I. Description (use one or two separate double spaced pages; one paragraph may be adequate):

1. Specific Goals

2. Specific Description of Activity

3. Schedule for Completion Including Intermediate Milestones as Appropriate

4. Reports or Memoranda, Completed or Expected (please list, including contact where copies can be obtained)

ENCLOSURE 2

SUMMARY OF TMI ACTIONS

CONTENTS

IE
NMSS
NRR
RES
SD

ADM
CON
ELD
IP
MPA
SP
OGC
OPE
NRC (COMMISSION INVESTIGATION)

Legend c = complete as of mid-May
 P = emergency plans
 L = operator licensing

ENCLOSURE 2
 Part 1

SUMMARY OF TMI ACTIONS
 RANKED BY MAN WEEKS OF EFFORT

Continuing Support of TMI Effort		TMI Investigation Activities		Improving Future Response Capability		Improving Technical Base		Other Legal, Financial and Interagency Activities	
Item	Mwk(\$K)	Item	Mwk(\$K)	Item	Mwk(\$K)	Item	Mwk(\$)	Item	Mwk(\$K)
NRR-1	600	COMM-1	1,400	P, NMSS-4	810	L, NRR-2	≤1,500	CON-1	100
ADM-1 to 5	90	IE-1	500 (15)	P, SP-1	416	MPA-1	270 (250)	ADM-38	70
NMSS-2	52	P,L, NRR-3	450 (50)	IE-4	110 (45)	NMSS-7	150 (500)	MPA-2	46
RES-14	28 (87) c	SD-1	44 c	P, NMSS-5	73 (250)	SD-4	68	ELD-8	45
RES-19	19	SD-3	15	P, SP-8	35 (500)	RES-18	4 (2,000)	IP-1	42
NMSS-6	18	SD-2	3	IE-5	28	IE-2	40	ELD-9	40
RES-29	11 (448)	P, SP-12	2	P, SP-6	18	RES-15	30 (500)	IP-2	12
RES-27	11	ELD-3	1	IE-7	12	RES-10	20 (260)	OGC-4	7
ELD-7	11	ADM	824 (950)	P, SP-5	11	RES-13	8 (93) c	OGC-5	6
NMSS-3	8	TOTAL	3,239 (1,015)	P, SP-4	8	OGC-2	4	OGC-3	6
RES-12	8 c			IE-8	6	RES-17	2 (12)	ELD-4	6 c
RES-3	6 c			P, SP-3	5	RES-21	1 (4)	ELD-10	4
ELD-5	5			SP-11	3 (230)	RES-16	TBD (470)	OGC-6	4
RES-4	4 (26)			P,L, OPE-1	3	TOTAL	2,097 (4,089)	RES-20	3
RES-32	4			ELD-2	2			ADM-40,41	2
RES-26	3 (110)			IE-6	2			OGC-1	2 c
RES-8	3 c			SP-9	2 (260)			ELD-1	1 c
ADM-39	3			P, SP-10	1 (12)			ELD-6	1
NMSS-1	3 c			ADM	47 (890)			NRR-4	1
RES-28	2 (49)			(13 items)					398
RES-25	2 (4) c			IE-9	TBD				
RES-7	2 c			P, SP-2	TBD				
RES-31	2 c			P, SP-7	TBD				
RES-1	1 (14) c			TOTAL	1,592 (2,187)				
RES-2	1 (110)								
RES-4	1 c								
RES-5	1 (15) c								
RES-6	1 (180) c								
RES-22	1 c								
RES-23	1								
RES-9	1 c								
RES-11	1 c								
TOTAL	504 (1,043)								

Office Summary																
	IE	NMSS	NRR	RES	SD	ADM	CON	ELD	IP	MPA	SP	OGC	OPE	COMM	TOTAL	
Mwk	698	1,114	2,551	182	130	1,036	100	116	54	316	501	29	3	1,400	8,230	
\$K	60	750	50	4,382	-	1,840	-	-	-	250	1,002	-	-	-	\$8,334	

POOR ORIGINAL

<u>Office/Item #</u>	<u>Activity Title</u>	<u>Objective</u>	<u>Estimated Completion</u>	<u>Man Weeks (mwk) Prog. Suppt. \$</u>	<u>Remarks/Contact</u>
IE - 1	IE Investigation	(a) To establish, in a comprehensive manner, the facts concerning the TMI accident; (b) To evaluate the performance of the licensee in association with the TMI accident as a basis for corrective action or enforcement action as appropriate.	<u>Ongoing</u> August 1, 1979	500 mwk \$15K	Interim report 5/17/79 and 6/13/79 Norman Moseley, x28160
IE - 2	Evaluation of Responses to IE Bulletins	Examine adequacy of licensee planned changes to design and operating procedures including training of plant staff in procedure changes; prepare new inspection procedures where appropriate.	<u>Ongoing</u> Schedule maintained by NRR	40 mwk (IE HQ's only)	Interoffice task groups will review licensee responses to Bulletins. D. F. Ross, x28180
IE - 3	General Assistance at TMI	Support effort at TMI	<u>Ongoing</u>	To be determined	Lloyd Donnelly, x27042
IE - 4	Operations Center Modification:	Develop background for determining requirements for Regional and HQ's Operations Centers, redesign HQ Center and redo procedures.	<u>Ongoing</u> To be developed	110 mwk \$45K	IE Regional and HQ Task Force first meeting 5/23/79 B. H. Weiss, x27246

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IE - 5	Emergency Communications	Install direct, dedicated phone lines at all operating power plants and fuel cycle facilities; study need for IE Regional inspector emergency communications.	<u>Ongoing</u> Lines installed 5/30/79	28 mwk \$400K for installation and service for rest of FY 79; \$650K/year thereafter.	Commission paper on policy issues by 8/79 B. W. Weiss, x27246
IE - 6	Reorganization of IE Headquarters	Free some managers from operations to concentrate on new approaches fulfilling IE mission; improve management of licensee events and accidents; create unit dedicated to enforcement.	<u>Ongoing</u> July 1, 1979	2 mwk	L. I. Cobb, x27361
IE - 7	Agreements with Other Agencies for Access to Resources	(a) Discuss with other Federal agencies modifications to Interagency Radiological Assistance Plan (IRAP); (b) Determine full range of available emergency support resources and if arrangements need to be formalized.	<u>Ongoing</u> To be developed	12 mwk	IRAP meeting anticipated July 1979 B. H. Weiss, x27246
IE - 8	Accelerated/Expanded Resident Program	Evaluate possibility for expanding/accelerating the Resident Inspector Program	<u>Ongoing</u> To be developed	6 mwk	B. H. Weiss, x27246

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IE - 9	Examine Extent of Vendor Responsibility During Crisis	To be determined	<u>Planned</u>	To be developed	John Davis, x28177

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NMSS - 1	Recriticality Potential for TMI-2 Core	Analyze potential for recriticality of TMI-2 core	<u>Completed</u>	3 mwk	Memorandum issued. Charles Marotta, x74122
NMSS - 2	Disposal of Radioactive Waste from TMI	a, Assure that radioactive waste treatment systems minimize radionuclides releases, and b) Assure that both TMI and disposal site plans minimize adverse impacts to environment.	<u>Ongoing</u> Dependent on TMI schedules to be developed	52 mwk	Dale Smith, x74240
NMSS - 3	TMI Waste Transportation	Assess adequacy of existing package designs to transport solidified waste from TMI to disposal sites.	<u>Ongoing</u> 6 weeks following determination of nature of waste and schedule for disposal	8 mwk	Charles MacDonald, x74122
NMSS - 4	Develop Radiological Safety Contingency Plans for Fuel Cycle and Material Licensee Facilities	Develop and implement licensee, NRC and other agency radiological incident response plans.	<u>Ongoing</u> FY 1982	810 mwk	Preliminary NRC Headquarters Radiological Safety Plan done by December 1979. 810 man weeks covers period through mid-1982. F. D. Fisher, x74138

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NMSS - 5	Re-examine Current Emergency Planning and Response Capability for Fuel Cycle Facilities	Assess adequacy of current emergency planning and response capabilities of fuel cycle and material licensees.	Ongoing FY 1981	73 mwk \$250K	Presumes reprogramming or supplemental of \$150K FY 80 funds F. D. Fisher, x74138
NMSS - 6	Assess and Develop Needed Physical Security Requirements for Transportation of TMI Radioactive Wastes	Assess application of physical security measures to transport TMI waste to protect against sabotage.	Planned Within 49 days following characterization of wastes	18 mwk	George McCorkle, x74018
NMSS - 7	Modeling of Vital Safety Systems in Fuel Cycle Facilities	Improve capability to analyze vital safety system failures and their consequences.	Planned FY 1982	150 mwk \$500K	F. D. Fisher, x74138

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NRR-1	TMI-2 Site Support: Core Cooling, Cleanup and Recovery Operations	<ul style="list-style-type: none"> (a) Prepare Tec Specr appropriate to plant conditions; (b) Analyze plant activities in relation to ALARA objectives; (c) Perform independent analysis of dose to public via all pathways for proposed releases and waste storage; (d) Analyze proposed plans for major operations such as long-term cooling, cleanup and core removal. 	<u>Ongoing</u>	600 mwk	R. Vollmer, x28976
NRR-2	Actions Necessary for Assurance of Safety of Plant Operation	<ul style="list-style-type: none"> (a) <u>Orders</u> - Perform the necessary reviews of licensee and vendor-supplied information to support a decision regarding plant operations; (b) <u>I&E Bulletins</u> - Assure that (a) licensees are informed of accident sequence and contributors, (b) minimum procedural and administrative actions are taken for continued safe operation, (c) plant designs are examined (d) results are promptly reported to NRC, and (e) necessary short-term measures are implemented. 	<u>Ongoing</u> June 1979 for both Orders and Bulletins	1500 mwk	Further result will be recommendations for improvements in design, operations and administrative procedures. D. Ross, x27373

Office/Item #	Activity Title	Objective	Estimated Completion	Man Weeks (mwk) Prog.Supt. \$	Remarks/Contact
NRR - 3	Lessons Learned from TMI Accident	<p>Review and evaluate investigative information, staff evaluations of responses to I&E Bulletins and orders, staff recommendations and recommended actions from outside the NRC. Identify, analyze and recommend changes to licensing requirements and the licensing process for nuclear power plants based on the lessons learned. Provide recommendations for interim requirements for new operating licenses prior to completion of long-term activities. 12 areas for regulatory improvement have been identified. Completion dates range from 3-6 months. The areas are:</p> <ol style="list-style-type: none"> (1) Reactor operator training and licensing. (2) Reactor transient and accident analysis. (3) Licensing requirements for safety and process equipment, instrumentation, and controls. (4) Offsite and onsite emergency preparations and procedures. (5) Reactor siting. (6) Licensee technical qualification 	Planned Schedule to be developed.	450 mwk \$50K	<p>End products may take the form of proposals for changes in legislation, policy, regulations, staff technical positions, review procedures, or NRR organizational structure and responsibilities. All information developed by the Task Force will be made public and submitted to others investigating the TMI-2 accident. The Task Force will serve as the focal point and coordinator of NRR interaction with these groups. For effects of activity on NRR schedule, see SECY-79-344. R. Mattson, x27517</p>
		<p>Objective (continued)</p> <ol style="list-style-type: none"> (7) NRR accident response role, capability and management. (8) Reactor Operating experience. (9) Environmental Effects (10) Licensing requirements for post-accident monitoring. (11) Post-accident cleanup and recovery. (12) NRR engineering evaluation of TMI-2 event sequence. 			

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NRR - 4	Availability of Primary Financial Protection at TMI	Address alternatives available to the Com- mission for dealing with a \$20 million "gap" in primary financial pro- tection at TMI Unit 2.	<u>Ongoing</u> June 1, 1979	1 mwk	Draft Commission paper available from I. Dinitz, x28336

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RES - 1	Continuing Planning for Long-term Cooling	Assess effect of HPI operation on Natural Circulation	<u>Complete</u>	1 mwk \$14K	NRR request. Summary report due 5/31/79 Norm Lauben, x27588
RES - 2	Noise Analysis Diagnostic Coordination. Determine the status of TMI core using neutron noise measurements	Make the maximum use of the loose parts monitoring system; determine the status of the TMI-2 plant (e.g., was the plant shutdown?, was bulk boiling occurring?, what was the condition of the vessel internals?)	<u>Complete</u> ; follow-on work <u>Ongoing</u>	1 mwk \$110K	ORNL Summary due 7/1/79 W. S. Farmer, x74272
RES - 3	Natural Circulation System Analysis	To calculate natural circulation in B&W plant with damaged reactor core.	<u>Complete</u>	6 mwk	Final report issued 5/24/79 S. Fabric, x74275
RES - 4	Containment Venting Conceptual Design	Develop a controlled venting scheme for the containment as a contingency to loss of containment integrity.	<u>Complete</u>	1 mwk	NRR request. Informal report available from R. DiSalvo, 28377
RES - 5	Inputting TMI-2 Fuel Parameters into COBRA to Calculate Fuel Damage	To determine the extent of TMI-2 core damage by running COBRA code calculations, with variety of assumed core blockage configurations and comparing results with measured fluid temperatures.	<u>Complete</u>	1 mwk \$15K	M. Cunningham, x28377

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RES - 6	Hydrogen Uptake and Dissolution in Reactor Systems	Predict hydrogen content of TMI cooling water and develop methods for purging from reactor and depressurization.	<u>Complete</u>	1 mwk \$180	T. E. Murley, x74281
RES - 7	Provide Interpretation and Understanding of Pressure Level Readout in TMI-2 Control Room During Accident	To determine if the pressurizer level readout could have misled the operator concerning the presence of coolant in the reactor core.	<u>Complete</u>	2 mwk	Letter report issued S. Fabric, x74275
RES - 8	List of Relief Valve Testing Facilities	This task is to establish the availability of existing facilities with the capabilities for relief valve testing and to describe existing foreign testing programs which may be applicable.	<u>Complete</u>	3 mwk	Report issued. M. D. Stolzenberg, x747272
RES - 9	Study of Probable Condition of TMI Core by Independent Experts	To advise NRR whether the condition of the TMI-2 core would permit safe shutting off of the cooling pumps and achievement of natural circulation.	<u>Complete</u>	1 mwk	NRR Request. Report issued. W. V. Johnston, x74266

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RES - 10	Compute TMI-2 Response to Initial Transient & Natural Circulation	To develop a version of SSC to enable simulation of system-wide transients generic to a TMI (B&W) type reactor plant.	<u>Ongoing</u> about Feb. 1980	20 mwk \$260K	P. M. Wood, x74326
RES - 11	Coolability of Rubblized RMI Core Debris	The goal of this activity was to provide to the NRC TMI team the results of calculations on the coolability of rubblized TMI core debris.	<u>Complete</u>	1 mwk	Results transmitted in 2 memoranda R. W. Wright, x74329
RES - 12	Evaluate H ₂ in Reactor Vessel and Containment Building	Evaluate: (a) the quantities of H ₂ that could be dissolved in the primary coolant water following a Zr-H ₂ reaction in the core. (b) the means by which H ₂ in the primary coolant system might be reduced, and (c) the available methods for reducing H ₂ in the containment atmosphere.	<u>Complete</u>	8 mwk	Letter Report issued Louis Rib, x74320
RES - 13	Monitoring of Radioiodine from Loss of Containment Accidents		<u>Ongoing</u> Sept. 30, 1988	8 mwk \$93K	P. R. Reed, x74358

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RES - 14	Probabilistic Analysis Stat. Studies	Analyze wide range of alternative outcomes of various TMI events.	<u>Complete</u>	28 mwk \$87K	13 separate studies listed P. E. McGrath, x28393
RES - 15	Research Contract: Post- Licensing Studies	Assess socio-economic impacts	<u>Ongoing</u> Sept. 1979	30 mwk \$500K	Clark Prichard, x74358
RES - 16	Obtain Radionuclide Source Term Data at 6 Operating PWR's	(1) Obtain radionuclide source term data for input to effluent models. (2) Obtain operating data on rad-waste treatment systems for input to design and performance evaluation. (3) Provide a data base for evaluating system design improvements for new plants.	<u>Ongoing</u> Feb. 1980	To be developed \$470K through FY 1979	Spending levels are \$30K-\$50K per month. D. Solberg, x74356
RES - 17	Pollutant Effects on Activated Charcoal	Determine the effects of atmospheric pollutants on ability of activated char- coals to trap methyl iodine.	<u>Ongoing</u> Mid FY 80	2 mwk \$8K-\$12K	D. Solberg, x74356

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RES - 18	Studying Possibility of Accelerating LOFT Small Break Tests	Assess the rearrangement of the LOFT test schedule to permit the early testing of smaller breaks, operational transients and natural circulation modes. Several of these tests may thus be performed in the next two fiscal years rather than beginning two years hence.	<u>Ongoing</u> Revised test program available early July 1979.	4 mwk \$2000K (proposed supplemental request)	Some LOFT work to be deleted. G. D. McPherson, x74437
RES - 19	Assessment of Core Damage	The specific goals were to determine when and if the core became uncovered, the length of time it remained uncovered, and to assess the resulting damage to the core.	<u>Ongoing</u> June 1, 1979	19 mwk	Two of four memoranda issued. W. V. Johnston, x74266
RES - 20	FY 80 Budget Amendment for Safety Research	Determine the need for additional research in light of the TMI accident, to determine how much of any research needed can be accommodated within the FY 80 Presidential budget, and to determine the need, if any, for additional funds.	<u>Ongoing</u> Staff paper on May 30, 1979	3 mwk	Reformulates research program for budget purposes, in coordination with NRR. T. E. Murley, x74281

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RES - 21	Inputing TMI-2 Characteristics in TRAC at LASL and Calculate 3/28/79 Transient	Prepare TRAC input deck for TMI and perform first transient calculation.	<u>Ongoing</u>	1 mwk \$4K	L. Shotkin, x74275
RES - 22	Preliminary Requalification Requirements for TMI-2	The NRC must evaluate the need to develop new procedures for decontamination, assessment of overall damage, handling and disposal of damaged fuels, removal and replacement of components, and requalification requirements to account for the adverse environmental conditions which have occurred at TMI site.	Complete	1 mwk	Informal "first thoughts" document available R. M. Kenneally, x74442
RES - 23	Relief Valve Operation and Closure	Develop alternative method for relief valve operation.	To be developed	1 mwk	J. E. Richardson, x7428*
RES - 24	Study Potential Methods of Venting Gas Bubble from PWR Coolant System	Identify and prepare test plan to evaluate potential methods of venting a gas bubble from the primary coolant system of various PWR designs.	Planned July 31, 1979	4 mwk \$26K	Wayne Lanning, x74260
RES - 25	Study Instrumentation to Indicate Reactor Vessel Water Level in PWR's	Identify and recommend instrumentation which provide an accurate indication of the water level in the reactor vessel of operating PWR.	Complete May 25, 1979	2 mwk \$4K	Report available August 1, 1979 Y. Y. Hsu, x74260

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RES - 26	Determination of Coolant Water Availability by Location During Accident	Accurately calculate thermal-hydraulic phenomena during approximate first 2 hours of accident.	<u>Ongoing</u> Aug. 30, 1979	3 mwk \$110K	Report available August 30, 1979 N. Lauben, x27588
RES - 27	Calculate Compressibility of Steam/Noncondensable Gas Mixtures	Evaluate the effect of vapor condensation on the compressibility of the steam/noncondensable gas mixture.	<u>Ongoing</u> May 31, 1979	11 mwk	Report available June 15, 1979 N. Zuber, x74275
RES - 28	Provide Backup Review of NRR & M&W Natural Circulation Cooling Calculation	Determine natural circulation rates for various plant configurations.	<u>Ongoing</u> May 30, 1979	2 mwk \$49K	NRR request. Norm Lauben, x27588
RES - 29	TMI Mockup and Small Break Tests - Semiscale	(a) Simulate the first three hours of the TMI-2 transient in a scaled system experiment. Investigate instrument behavior, thermal hydraulic response, understand unknown system and component behavior and confirm scaling rationale. (b) Complete series of small break tests to investigate system response as a function of break size operating equipment and operator intervention.	(a) <u>Ongoing</u> May 31, 1979 (b) <u>Planned</u> December 1979	11 mwk \$448K	Wayne Lanning, x74260

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RES - 30	General Assistance at the TMI Site	Provide NRC representation, coordination at site. General activities associated with NRC review and interface with recovery operations.	<u>Ongoing</u>		S. Levine, x74341
RES - 31	Review and Assess Hydrogen Evolution from Impile Level Damage Obtained in Experiments in PBF	Determine how much H ₂ was generated from prior PBF tests in which fuel rods ruptured and clad oxidized.	<u>Complete</u>	2 mwk	Letter report issued. Robt. VanHouten, x74266
RES - 32	TMI Hydrogen Problems	(a) Prepare draft scope for a hydrogen investigation program. (b) Review TMI scenario as applied to hydrogen generation and release.	<u>Complete</u> <u>Ongoing</u> July 15, 1979	(a),(b): 4 mwk	(a) Draft scope available. D. A. Hoatson, x74266

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SD-1	Population and Maximum Individual Dose Assessment	Determine dose and potential health effects to the population around TMI-2.	<u>Complete</u> May 10, 1979	44 mwk	Report was released by HEW on 5/10/79 with approval of NRC and EPA. Lewis Battist, x35966
SD-2	Assist National Institute of Occupational Safety and Health in occupational health study	Establish procedures for flow of information to NIOSH on worker exposures at TMI	<u>Ongoing</u> June 8, 1979	3 mwk	Data to be used by NIOSH in long-range health study of TMI workers. R. Purple, x35855
SD-3	Assistance to State and Federal Agencies for Public Health Studies	Assist Pa. Dept. of Health in planning and implementing health studies among general population near TMI.	<u>Ongoing</u> To be determined	15 mwk	Planning meetings underway; feasibility/planning report due 8/31/80. R. Goldsmith, x35860
SD-4	Reordering of Standard Priorities	(a) Determine needed changes to regulations and guides; (b) Revise SD priorities.	<u>Ongoing</u> To be determined	68 mwk	Specific regs and reg guides already identified. Reordering of priorities tied to completion of TMI investigations. R. Minogue, x5936

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ADM - 1 to 5	Division of Organization & Personnel	Clerical support of TMI duty station; staffing of planned Commission investigation; discuss personnel policies with NTEU; resolve premium pay and overtime questions.	<u>Ongoing,</u> <u>Planned</u> see individual	90 mwk	Plan for staffing TMI site for 2 years. Paul Bird, x27400
ADM - 6 to 15	Division of Facilities & Operations Support	Engineer and provide extensive communications services; provide space for TMI investigation groups.	<u>Ongoing</u> see individual items	41 mwk \$880K FY 79 Costs	Space acquired at H St.; negotiations continuing for space in Bethesda. Telecon service for investigations installed by 6/8/79. Service between reactor and NRC by 11/79 Jay Wallace.
ADM - 16 to 18	Division of Security	(a) Provide security services at TMI site; and (b) provide for nationwide security support when NRC meetings are held in non-Federal buildings	<u>Complete</u> <u>Ongoing</u> see individual items	(a) 1 mwk; (b) 5 mwk \$10K/yr., begin FY 80	(a) Calvin Burch, x74406 (b) Calvin Burch, x74406
ADM - 19 to 37	Division of Technical Information & Document	Duplication and transcription of audio tapes; establishment of TMI Investigation Document Centers; provide broad range of graphics support.	<u>Complete</u> <u>Ongoing</u> see individual items	824 mwk \$950K	Transcriptions complete by 6/13/79. Investigation Center established 6/1/79. Contracted copying services end 9/20/79. William Besaw, x27883

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ADM - 38	Division of Rules and Records	Respond to FOIA requests for TMI documents.	<u>Ongoing</u>	70 mwk	Don Grimsley, x28133
ADM - 39	Division of Contracts	Collect information on procurements made without delegated authority during TMI accident; determine full NRC liability and ratify contracts which are responsibility of NRC.	<u>Ongoing</u> June 30, 1979	3 mwk	Mary Jo Mattia, x74420
ADM - 40 to 41	License Fee Management Branch	Assessment and collection of fees for TMI reviews and inspections.	<u>Ongoing</u> June/July 1979	2 mwk	William Miller, x27158

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CON - 1	Assessment of Overall NRC Resource Impacts	Identify resource effect (manpower and program support funding) of TMI actions so that FY 79 reprogramming actions can be completed and FY 80 supplemental request process initiated.	Ongoing Revised FY 79 Plans issued July 1979	100 mwk	BRG will be involved in reprogramming and supple- mental. See schedule attached to CON-1 Bruce Cooper, x27988

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ELD - 1	Determination of Extra-ordinary Nuclear Occurrence at TMI Unit 2	Inform Commissioners of probable need to determine whether nuclear accident at TMI constituted an FNO.	<u>Complete</u> April 2, 1979	1 mwk	SECY-79-235 E. Jake1, x28691
ELD - 2	Rule to Require Telephone Link Between Power Reactor Licensees and NRC	Provide legal basis for NRC to require telephone links	<u>Ongoing</u> June 1979	2 mwk	E. Grammer, x28096
ELD - 3	Legal Assistance to IE Investigation	Provide legal assistance as requested, particularly concerning disclosure of information resulting from investigation.	<u>Ongoing</u> Concurrent with IE Investigation	1 mwk	James Murray, x27496
ELU - 4	Legal Assistance - FOIA and Privacy Act	Provide legal assistance to ADM regarding FOIA/ Privacy Act	<u>Complete</u>	6 mwk	Guidance documentation issued. Jay Maynard, x28652
ELD - 5	Legal Advice on Procurement Actions	Assist Div. of Contracts on: (a) ratification of unauthorized procurement actions taken during accident; (b) transcription of audio tapes; (c) establishment of program with Pa. to gather radiological information (SD); (d) staffing of Commission investigation.	<u>Ongoing</u> June 1979	5 mwk	Ralph Avery, x28655

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ELD - 6	Employee Claim for Loss or Damage to Personal Property	Prepare legal recommendation on claim	<u>Ongoing</u> June 1979	3 mwk	Bruce Berson, x27036
ELD - 7	Assist NRR in preparation of legal documents relating to changes in TMI license	Provide legal assistance to NRR in drafting revised technical specifications	<u>Ongoing</u> Not yet established	11 mwk	Tech specs must be modified to reflect conditions Ed Christenbury, 27201
ELD - 8	Appeal Board Hearing on Airplane Crashes	Represent NRR staff witnesses at ASLAB hearing	<u>Ongoing</u> Not yet established	45 mwk	Appeal Board will assess situation about October 1, 1979 Ed Christenbury, 27201
ELD - 9	TMI Issues in Other Adjudicatory Hearings	Respond to motions in ongoing and new licensing proceedings that seek to raise new issues based on TMI-2 accident	<u>Ongoing</u> Depends on schedule of proceedings	40 mwk	Ed Christenbury, 27201
ELD - 10	Show Cause and Shutdown Petitions	Provide legal assistance as required	<u>Complete</u>	4 mwk	Prepared memo to Commission on enforcement authority. James Murray, x27496

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IP - 1	Coordinating Response to Foreign Requests for TMI Information Related to Health and Safety Issues	Provide information related to the review, analysis, and conclusions reached regarding the events at TMI.	<u>Ongoing</u>	42 mwk	Joseph Lafleur, x27131
IP - 2	Interface with Department of State and DOE; Re International Policy	Adjust U.S. international policies and revise international organizations (IAEA, NEA) Programs, budgets and objectives to reflect TMI-related changes in priorities.	<u>Ongoing</u>	12 mwk	Joseph Lafleur, x27131

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MPA - 1	Expanded Operational Safety Data Gathering and Analysis	Upgrade the activities of operational data gathering, categorization, logging, preliminary screening and early dissemination to other users.	Ongoing Continuing activity once fully staffed	270 mwk \$250K	Task force report to Commission by end May 1979 20 mwk in FY 79; 250 in FY 80 Jack Crooks, x27735
MPA-2	TMI-2 Support Efforts (Abnormal Occurrence Reports, green ticket correspondence, preparation of TMI Action Plan, etc.)	Provide support for agency TMI efforts	Ongoing Schedule dependent on agency needs	46 mwk	First listing of TMI actions supplied to Commission 4/27/79. Second listing, end May 1979. 16 mwk FY 79; 30 in FY 80. Norman Haller, x28054

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SP - 1	Review and Concur in Emergency Plans of 18 States with Operating Reactors	NRC concurrence on plans for States with operating reactors but no current concurred-in plan and for States adjacent to but not having operating reactors.	Ongoing May 15, 1980	416 mwk	Professional staff have been made available as follows: - 4 SP manpower reallocated - 4 detailed from NRR - 6 temporary positions allocated to SP Harold Gaut, x27210
SP-2	Encourage Eight States with Reactors Under Construction to Develop Emergency Plans	An acceptable, tested, and NRC concurred in, radiological emergency response plan in each of the eight States with nuclear power reactors under construction.	Ongoing October 1981 Timing consistent with scheduled plant completion.	To be developed	Progress depends on States and assistance of other Federal agencies. Harold Gaut, x27210
SP-3	Complete Action on NUREG-0553, Funding Study for State and Local Plans	Determine status of State and local funding of radiological emergency response planning, and recommend program for funding State/local deficiencies for preparing plans.	Ongoing July 1979	5 mwk	Comment period on report of Dr. Stephen N. Salomon, "Beyond Defense-in-Depth" (NUREG-0553) ended 5/11/79. Stephen Salomon, x27794
SP-4	Complete Action on NRC/EPA Task Force Report (NUREG-0396) and Make Recommendations to Commission	Provide guidance to States and localities on the most severe accident basis for which radiological emergency response plans should be developed.	Ongoing July 1979	8 mwk	Staff recommendations to be sent to Commission and to EPA. Harold Collins, x27210
SP-5	Update NRC Emergency Planning Guidance for State and Local Governments (NUREG-75/111)	Revise Guide and Checklist (NUREG-75/111) based on past five years experience.	Ongoing December 1979	11 mwk	Harold Gaut, x27210

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SP-6	Evaluate Exercises of 12 States with NRC Concurred in Plans	Conduct an exercise critique of each State radiological emergency response plan that has NRC concurrence.	<u>Planned</u> Last of 12 States completed May 1980	18 mwk	Harold Gaut, x27210
SP-7	SP Emergency Preparedness Action Plan - Assistance to State and Local Governments	Provide planning guidance and field assistance to States and localities in development of plans. Train officials in emergency planning and operations.	<u>Planned</u> Schedule under development	To be developed	SP staff being reassigned; 4 NRR personnel detailed. Harold Collins, x27210
SP-8	Initial Grants for State and Local Government Emergency Planning	Provide grants in special situations for developing plans.	<u>Planned</u> October 1979	35 mwk \$500K	Commission paper to be developed based on results of Salomon report (NUREG-0553) See item SP-3 above. Harold Collins, x27210
SP-9	Radioiodine Monitors for State and Local Governments	Complete the evaluation of a radioiodine monitoring and measuring device and have about 1000 items produced for distribution to State and local governments for use in radiological emergencies.	<u>Ongoing</u> June 1981	2 mwk \$260K	Device will be evaluated by INEL. Harold Collins, x27210
SP-10	Mobile Field Station for Testing Emergency Plans	Conduct feasibility study and produce a conceptual design of a mobile emergency preparedness simulation facility.	<u>Ongoing</u> June 1979	1 mwk \$12K	Being done by Batelle PNL. Robert Jaske, x28170

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SP-11	Provide Offsite Emergency Instrumentation Guidance for State and Local Governments	Produce guidance for State and local governments on emergency instrumentation needed to cope with offsite radiological effects of accidents at fixed nuclear facilities.	<u>Ongoing</u> June 1981	3 mwk \$230K	Harold Collins, x27210
SP-12	Evaluation of State of Pa. Response During TMI accident	Evaluate adequacy of Pa. response to TMI accident.	<u>Planned</u> September 1979	2 mwk	Evaluation to be conducted jointly with Pa. and Federal agencies. Harold Collins, x27210

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OGC - 1	Sunshine Review: Transcripts of Commission Meetings	Review transcripts of Commission meetings on TMI for public release.	<u>Complete</u>	2 mwk	All transcripts released except for small deletions. Steve Ostrach, x43224
GGC - 2	B&W Orders	Review staff-prepared orders confirming agreement of licensees with B&W plants to suspend operations.	<u>Ongoing</u> <u>Indefinite</u> <u>schedule</u>	4 mwk	Last of five orders issued on 5/17/79 but hearings on orders may be held. Leo Slaggie, x43224
OGC - 3	Freedom of Information Act	Provide guidance for proper and expeditious handling of FOIA requests on TMI	<u>Ongoing</u> <u>Indefinite</u> <u>schedule</u>	6 mwk	William Shields, x43215
OGC - 4	Paper on Price-Anderson Act	To inform the Commission of the application of the Price-Anderson Act to the accident at TMI, and suggest alternatives for further action.	<u>Ongoing</u> <u>May 1979</u>	7 mwk	William Shields, x43215
OGC - 5	Proposed Moratorium Legislation	Provide legal support for Commission's efforts to be responsive to Congressional initiatives to adopt legislation constraining reactor licensing activities until certain conditions are met.	<u>Ongoing</u> <u>Schedule dependent</u> <u>on actions of Congressional committees</u>	6 mwk	Peter Crane, x43288

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OGC - 6	Drafting New Legislation	Draft new legislation needed in aftermath of TMI, perhaps including (a) greater NRC authority to take control over and operate plants in emergencies, and (b) revisions to Section 189 to give NRC authority to shut down and start plants before concluding hearings.	Ongoing July 1979	4 mwk	Steve Ostrach, x43224

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OPE - 1	Policy Options for Emergency Response Planning and Operator Licensing and Training	Supplement staff activities with brief reports on (a) emergency response planning, and (b) operator licensing and training.	Ongoing June 1979	3 mwk	First memo report prepared 5/18/79 Jim Beckerley, x43297

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COMM-1	Commission's Special Inquiry Into Three Mile Island Nuclear Plant Accident	A factual determination concerning the actual events which occurred and their causes, and the actions of utility and NRC personnel before and during the accident.	<u>Ongoing</u> December 1979	1,400 mwk (28 man/years)	47 professional staff involved as indicated: <table border="1"> <thead> <tr> <th><u>Office</u></th> <th><u>No. of Prof. Persons</u></th> </tr> </thead> <tbody> <tr><td>EDO</td><td>2</td></tr> <tr><td>NRR</td><td>11</td></tr> <tr><td>SD</td><td>5</td></tr> <tr><td>RES</td><td>7</td></tr> <tr><td>ADM</td><td>5</td></tr> <tr><td>ELD</td><td>3</td></tr> <tr><td>OGC</td><td>1</td></tr> <tr><td>OIA</td><td>7</td></tr> <tr><td>MPA</td><td>2</td></tr> <tr><td>IE</td><td>3</td></tr> <tr><td>NMSS</td><td>1</td></tr> <tr><td></td><td><u>47</u></td></tr> </tbody> </table>	<u>Office</u>	<u>No. of Prof. Persons</u>	EDO	2	NRR	11	SD	5	RES	7	ADM	5	ELD	3	OGC	1	OIA	7	MPA	2	IE	3	NMSS	1		<u>47</u>
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