

August 27, 1987

MEMORANDUM FOR: David B. Matthews, Chief  
Emergency Preparedness Branch  
Division of Radiation Protection  
and Emergency Preparedness

FROM: Theodore S. Michaels, Project Manager  
Standardization and Non-Power  
Reactor Project Directorate  
Division of Reactor Projects III, IV,  
V and Special Projects

SUBJECT: TECHNICAL ASSISTANCE REQUEST - UNIVERSITY OF MICHIGAN

Your assistance is requested in reviewing the proposed modifications to the Emergency Plan for the University of Michigan Ford Nuclear Reactor submitted by letter dated August 14, 1987.

In your evaluation please specify the regulations and the criteria against which this submittal was reviewed and determined to be acceptable.

The requested completion date for this review is September 28, 1987. If you will be unable to meet this date, please notify me at X28251, within 10 days of the date of this TAR. All time spent on this review should be charged to the docket number and PA number 1415.

Original signed by  
Theodore S. Michaels, Project Manager  
Standardization and Non-Power  
Reactor Project Directorate  
Division of Reactor Projects III, IV,  
V and Special Projects

Enclosure:  
As stated

DISTRIBUTION  
~~Docket File~~  
NRC & Local PDRs  
DPSNP Reading  
LRubenstein  
TMichaels  
EHylton

PDSNP *gym*  
TMichaels:bd  
08/✓V87

8709030364 870827  
PDR ADOCK 05000002  
F PDR



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

August 27, 1987

Docket No. 50-2

MEMORANDUM FOR: David B. Matthews, Chief  
Emergency Preparedness Branch  
Division of Radiation Protection  
and Emergency Preparedness

FROM: Theodore S. Michaels, Project Manager  
Standardization and Non-Power  
Reactor Project Directorate  
Division of Reactor Projects III, IV,  
V and Special Projects

SUBJECT: TECHNICAL ASSISTANCE REQUEST - UNIVERSITY OF MICHIGAN

Your assistance is requested in reviewing the proposed modifications to the Emergency Plan for the University of Michigan Ford Nuclear Reactor submitted by letter dated August 14, 1987.

In your evaluation please specify the regulations and the criteria against which this submittal was reviewed and determined to be acceptable.

The requested completion date for this review is September 28, 1987. If you will be unable to meet this date, please notify me at X28251, within 10 days of the date of this TAR. All time spent on this review should be charged to the docket number and PA number 1415.

A handwritten signature in cursive script, appearing to read "T. Michaels".

Theodore S. Michaels, Project Manager  
Standardization and Non-Power  
Reactor Project Directorate  
Division of Reactor Projects III, IV,  
V and Special Projects

Enclosure:  
As stated

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 8708200025 DOC. DATE: 87/08/14 NOTARIZED: YES DOCKET #  
 FACIL: 50-2 Ford Nuclear Reactor, Univ. of Michigan 05000002  
 AUTH. NAME AUTHOR AFFILIATION  
 KERR, W. Michigan, Univ. of, Ann Arbor, MI  
 RECIP. NAME RECIPIENT AFFILIATION  
 BERKOW, H. N. Standardization & Non-Power Reactor Project Directorate

SUBJECT: Forwards proposed revs to emergency plan, reflecting reorganization of facility mgt. Reactor operators are not required to be in line of succession for emergency director.

DISTRIBUTION CODE: A045D COPIES RECEIVED: LTR 1 ENCL 10 SIZE: 2+15  
 TITLE: OR Submittal: Emergency Preparedness Plans, Implement'g Procedures. C

NOTES:

	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL
	SNPD PD	1 1	MICHAELS, T	1 1
INTERNAL:	AEOD/DDA/IRB REG FILE 01	1 1 1 1	NRR/DREP/EPB	1 1
EXTERNAL:	LPDR NSIC	0 0 1 1	NRC PDR	1 1

8708200025

University of Michigan  
Michigan Memorial-Phoenix Project  
Office of the Director  
Ann Arbor, Michigan 48109-2100

August 14, 1987

Docket 50-2  
License R-28

United States Nuclear Regulatory Commission  
Attn: Herbert N. Berkow, Director  
Standardization and Special Projects Directorate  
Division of PWR Licensing-B  
Office of Nuclear Regulation  
Washington, D.C. 20555

Dear Mr. Berkow:

The University of Michigan requests that the Ford Nuclear Reactor Emergency Plan be modified as follows:

Page	Section	Description
13	Fig 7	In FNR-PML Management, change Assistant Reactor Manager to Assistant Reactor Managers
14	3.1.1	Eliminate lead reactor operator and reactor operator from the Emergency Director line of succession. Add a second Assistant Reactor Manager.
14	3.1.3	Eliminate the assumption of Emergency Director responsibilities by the lead reactor operator on shift.
15	3.1.4	Add a second Assistant Reactor Manager to the facility management.
App 3-5 to 3-12		Added K. Conway to and deleted C. Brannon from emergency staff.
App 3-13 to 3-14		Changes to building names, supervisors, and telephone numbers.
App 4-9		Changes to facility staff.
App 4-10		Changes to Ann Arbor emergency personnel.

Revised pages 13 to 15, App 3-5 to 3-14, and App 4-9 to 4-10 from the Emergency Plan are enclosed with the precise changes underlined or indicated in the margins. Where words were removed, a vertical line is placed in the border. Changes to the pages in the appendices are editorial, and have resulted from an annual review of the Emergency Plan.

A045  
1/1

The changes to pages 13 to 15 have been made because facility management has recently been slightly reorganized. A second Assistant Reactor Manager has been added. The Reactor Manager and both Assistant Reactor Managers are licensed Senior Reactor operators. One of the three is always on duty as facility on-call supervisor.

There is no longer a need for reactor operators to be in the line of succession for Emergency Director. In the event of an emergency, the reactor operators on duty follow their emergency operating procedure, safely shut down the reactor, isolate the reactor building, and perform a preliminary evaluation of the severity of the emergency. These actions constitute the immediate actions needed to mitigate the consequences of an emergency. Subsequent actions such as notifications, press releases, and longer term procedures required for clean-up and re-entry are initiated by the emergency Director.

Sincerely,

*Read R. Burn for*

William Kerr, Director  
Michigan Memorial-Phoenix Project

Enclosure

WK:sv

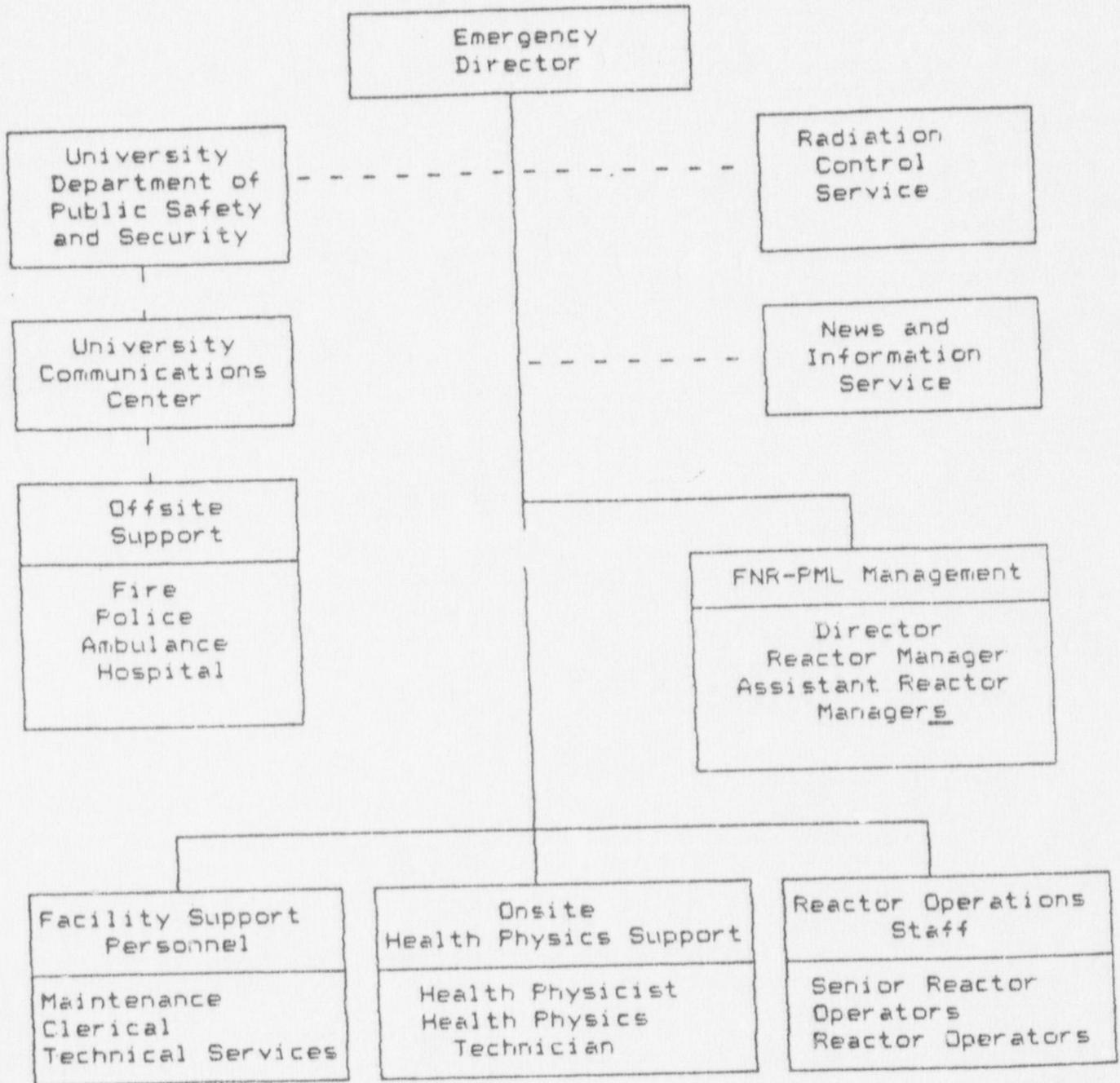
Signed before me this day: August 14, 1987

*Sandra J. Vogel*

Sandra J. Vogel

Notary Public, Washtenaw County, Michigan  
My Commission expires July 31, 1989

Figure 7 Ford Nuclear Reactor Emergency Organization



3.1.1 Emergency Director

The Emergency Director will be the uppermost person from the following list. The list is also a line of succession for the Emergency Director.

- (a) Reactor Manager
- (b) Assistant Reactor Manager-Operations
- (c) Assistant Reactor Manager-Research Support Activities

One of the three individuals is on 24-hour call as facility on-call supervisor.

The Emergency Director has ultimate authority over onsite activities and personnel. The Emergency Director is responsible for assuring the facility is in a safe shutdown condition, for terminating or minimizing releases of radioactive materials, for protecting facility personnel and visitors, and for assessing the severity of the emergency event. To fulfill these responsibilities the Emergency Director shall exercise judgement and summon medical, ambulance, fire, and police assistance as necessary.

3.1.2 Emergency Coordinator

The Reactor Manager shall serve as emergency coordinator and is responsible for reviewing and updating the emergency plan and emergency procedures. He is also responsible for emergency training, tests, and drills.

3.1.3 Reactor Operators on Duty

The lead reactor operator and reactor operator on duty are responsible for safe shutdown of and securing the reactor and evacuation of the FNR building. They shall perform initial duties as outlined in operating procedures for reactor emergencies.

3.1.4 FNR-PML Management

The FNR-PML Management consists of the Director, Reactor Manager, and two Assistant Reactor Managers.

Upon arrival at the facility, the Reactor Manager or one of the Assistant Reactor Managers, in the order of succession listed in section 3.1.1, will assume responsibility for directing emergency control measures. The Director, Michigan Memorial-Phoenix Project, will provide news releases when warranted to the University of Michigan News and Information Services.

3.1.5 FNR Health Physics

The health physics staff at the FNR is established by the University of Michigan Radiation Control Service. A Health Physicist is assigned to the FNR to direct the health physics program. The Health Physicist or his designated alternate shall assist the Emergency Director in assessing onsite emergency conditions and conducting protective, corrective and recovery measures.

The Health Physicist or a member of Radiation Control Service under the direction of the Director, Radiation Control Service, will determine offsite dose projections and recommend protective measures to the Emergency Director.

3.1.6 Facility Support

Other individuals on the facility staff may be assigned duties and responsibilities during the course of an emergency.

3.1.7 Radiation Control Service (RCS)

Health physics personnel from RCS are available to provide additional equipment and support.

FORD NUCLEAR REACTOR EMERGENCY PLAN  
Appendix 3, Emergency Procedures  
September 26, 1986

DURESS ALARM

RTU 39-2

1. Notify the Ann Arbor Police Department
2. Safety Officer report to the FNR-PML buildings and check:
  - a. FNR access doors 1101, 2101, 3101.
  - b. Unauthorized personnel in the FNR building.
3. During non-working hours, holidays, and weekends, notify at least three members of the FNR-PML Emergency Staff. Record their names in the log book.
4. Watchman meet the police department at the southwest PML door.

FNR-PML EMERGENCY STAFF

<u>Name</u>	<u>Address</u>	<u>Telephone</u>	<u>Root Answering Service</u>
R. Burn	1435 Cobblestone Ct	668-7361	668-5026
G. Cook	11061 Hamburg Road	231-2522	668-5067
P. Simpson	3347 Tacoma Circle	971-0846	668-5081
K. Conway	2623 Fenwick Court	971-4541	
J. Jones	4120 Woodland Drive	426-4524	

FORD NUCLEAR REACTOR EMERGENCY PLAN  
Appendix 3, Emergency Procedures  
September 26, 1986

RTU 39-3  
REACTOR DOOR INTRUSION ALARM

1. Immediately call the FNR control room (4-5299) and/or the PML lobby (4-6220) to determine if the alarm is valid.
2. If the FNR control room or the PML lobby cannot be reached, Safety Officer report to the FNR-PML buildings and check:
  - a. FNR access doors 1101, 2101, and 3101.
  - b. Unauthorized personnel in the FNR building.
3. If the alarm is valid:
  - a. Notify at least three members of the FNR-PML Emergency Staff. Record their names in the log book.
  - b. Notify the Ann Arbor Police Department.
4. Watchman meet the police department at the southwest PML door.

FNR-PML EMERGENCY STAFF

<u>Name</u>	<u>Address</u>	<u>Telephone</u>	<u>Root Answering Service</u>
R. Burn	1435 Cobblestone Ct	668-7361	668-5026
G. Cook	11061 Hamburg Road	231-2522	668-5067
P. Simpson	3347 Tacoma Circle	971-0846	668-5081
K. Conway	2623 Fenwick Court	971-4541	
J. Jones	4120 Woodland Drive	426-4524	

RTU 39-4

FUEL VAULT INTRUSION ALARM

1. Immediately call the FNR control room (4-5299) and/or the PML lobby (4-6220) to determine if the alarm is valid.
2. If the FNR control room or the PML lobby cannot be reached, Safety Officer report to the FNR-PML buildings and check:
  - a. Fuel storage vault, Room 3106J.
3. If the alarm is valid:
  - a. Notify at least three members of the FNR-PML Emergency Staff. Record their names in the log book.
  - b. Notify the Ann Arbor Police Department.
4. Watchman meet the police department at the southwest PML door.

FNR-PML EMERGENCY STAFF

<u>Name</u>	<u>Address</u>	<u>Telephone</u>	<u>Root Answering Service</u>
R. Burn	1435 Cobblestone Ct	668-7361	668-5026
G. Cook	11061 Hamburg Road	231-2522	668-5067
P. Simpson	3347 Tacoma Circle	971-0846	668-5081
K. Conway	2623 Fenwick Court	971-4541	
J. Jones	4120 Woodland Drive	426-4524	

FORD NUCLEAR REACTOR EMERGENCY PLAN  
Appendix 3, Emergency Procedures  
September 26, 1986

RTU 39-6

FIRE ALARM

1. Immediately notify the Ann Arbor Fire Department on the HQI LINE.
2. During non-working hours, holidays, and weekends, notify at least three members of the FNR-PML Emergency Staff. Record their names in the log book.
3. Notify the Ann Arbor Police Department.
4. Safety Officer report to the PML lobby.
5. Watchman meet the fire department at the southwest PML door.

FNR-PML EMERGENCY STAFF

<u>Name</u>	<u>Address</u>	<u>Telephone</u>	<u>Root Answering Service</u>
R. Burn	1435 Cobblestone Ct	668-7361	668-5026
G. Cook	11061 Hamburg Road	231-2522	668-5067
P. Simpson	3347 Tacoma Circle	971-0846	668-5081
K. Conway	2623 Fenwick Court	971-4541	
J. Jones	4120 Woodland Drive	426-4524	

FORD NUCLEAR REACTOR EMERGENCY PLAN  
Appendix 3, Emergency Procedures  
September 26, 1986

RTU 39-7

RADIATION EMERGENCY ALARM

1. During non-working hours, holidays, and weekends, immediately notify at least three members of the FNR-PML Emergency Staff. Record their names in the log book.
2. During working hours, contact the PML lobby (4-6220) to confirm that the alarm is valid.
3. Safety Officer report to the PML lobby.
4. If the alarm is valid, notify the:
  - a. Ann Arbor Police Department (911).
  - b. Ann Arbor Fire Department.

FNR-PML EMERGENCY STAFF

<u>Name</u>	<u>Address</u>	<u>Telephone</u>	<u>Root Answering Service</u>
R. Burn	1435 Cobblestone Ct	668-7361	668-5026
G. Cook	11061 Hamburg Road	231-2522	668-5067
P. Simpson	3347 Tacoma Circle	971-0846	668-5081
<u>K. Conway</u>	<u>2623 Fenwick Court</u>	<u>971-4541</u>	
J. Jones	4120 Woodland Drive	426-4524	

TORNADO EMERGENCY  
(No Alarm)

If Washtenaw County is placed under a TORNADO WATCH and/or a TORNADO WARNING:

1. Immediately notify the FNR control room (4-5299).
2. If the control room cannot be reached during normal working hours, notify the PML lobby (4-6220).
3. If neither the FNR control room nor the PML lobby can be reached, notify at least one member of the FNR-PML Emergency Staff. Record the names in the log book.
4. Safety Officer report to the PML lobby, if available.

FNR-PML EMERGENCY STAFF

<u>Name</u>	<u>Address</u>	<u>Telephone</u>	<u>Root Answering Service</u>
R. Burn	1435 Cobblestone Ct	668-7361	668-5026
G. Cook	11061 Hamburg Road	231-2522	668-5067
P. Simpson	3347 Tacoma Circle	971-0846	668-5081
K. Conway	2623 Fenwick Court	971-4541	
J. Jones	4120 Woodland Drive	426-4524	

FORD NUCLEAR REACTOR EMERGENCY PLAN  
Appendix 3, Emergency Procedures  
September 26, 1986

BOMB THREAT  
(No Alarm)

If a bomb threat occurs at the FNR-PML buildings:

1. Dispatch personnel to evacuate the FNR-PML buildings. Safety Officer report to the PML lobby.
2. Notify at least three members of the FNR-PML Emergency Staff.
3. Notify the Ann Arbor Police Department.
4. Watchman meet the police department at the southwest PML door.

FNR-PML EMERGENCY STAFF

<u>Name</u>	<u>Address</u>	<u>Telephone</u>	<u>Root Answering Service</u>
R. Burn	1435 Cobblestone Ct	668-7361	668-5026
G. Cook	11061 Hamburg Road	231-2522	668-5067
P. Simpson	3347 Tacoma Circle	971-0846	668-5081
K. Conway	2623 Fenwick Court	971-4541	
J. Jones	4120 Woodland Drive	426-4524	

FORD NUCLEAR REACTOR EMERGENCY PLAN  
Appendix 3, Emergency Procedures  
September 26, 1986

CIVIL DISTURBANCE

If a civil disturbance occurs at the FNR-PML building or in the North Campus area:

1. Immediately notify at least three members of the FNR-PML Emergency Staff. Record their name in the Log book.
2. Notify the Ann Arbor Police Department.
3. Safety Officer report to the PML lobby.
4. Watchman meet the police department at the southwest PML door.

FNR PML EMERGENCY STAFF

<u>Name</u>	<u>Address</u>	<u>Telephone</u>	<u>Root Answering Service</u>
R. Burn	1435 Cobblestone Ct	668-7361	668-5026
G. Cook	11061 Hamburg Road	231-2522	668-5067
P. Simpson	3347 Tacoma Circle	971-0846	668-5081
K. Conway	2623 Fenwick Court	971-4541	
J. Jones	4120 Woodland Drive	426-4524	

AREA EVACUATION PLAN

If, at any time, one of the FNR-PML Emergency Staff members requests that the AREA EVACUATION PLAN be put into effect, the following actions are required:

1. Immediately notify the Ann Arbor Police Department on HOT LINE to activate the FNR Area Evacuation Plan.
2. Notify the University Hospital Emergency Suite, 936-6666 to alert them and provide ambulance service to the scene if requested.
3. Dispatch personnel to evacuate the buildings within the reactor site boundary (area enclosed by Hayward, Beal, Glacier, and Murfin) and notify the individuals listed below who are responsible for those buildings.
  - a. Advanced Technology Laboratories  
1101 Beal Avenue  
Bldg No. 406  
  
Virginia Folsom..763-1557 (Home) 981-5233
  - b. Art and Architecture Building  
2000 Bonisteel Boulevard  
Bldg No. 432  
  
James Byrd....763-3132 (Home):1-517-569-2589
  - c. Automotive Engineering Laboratory  
1231 Beal Avenue  
Bldg No. 400  
  
William Mirsky.....936-0433 (Home) 769-5084  
Jack Brigham.....764-4271 (Home) 426-4892
  - d. Chrysler Center  
2121 Bonisteel Boulevard  
Bldg No. 443  
  
Edward R. Lady.....936-0349 (Home) 971-7507
  - e. Computer Center  
1075 Beal Avenue  
Bldg No. 420  
  
Steven Donnelly.....936-0819 (Home): 665-5420

FORD NUCLEAR REACTOR EMERGENCY PLAN  
Appendix 3, Emergency Procedures  
September 26, 1986

- f. Cooley Memorial Laboratory  
2355 Bonisteel Boulevard  
Bldg No. 403  
  
Karen Balson.....936-0122 (Home): 572-9210
  - g. Engineering Student Services  
2360 Bonisteel Boulevard  
Bldg No. 402  
  
Anne Monterio:.....763-3174 (Home): 663-1722
  - h. Electrical Engineering and Computer  
Science Building  
1301 Beal Avenue  
Bldg No. 448  
  
John Wonzck.....936-2973 (Home):
  - i. G.G. Brown Laboratory  
2350 Hayward Street  
Bldg No. 407  
  
Ben Bourland.....764-5250 (Home): 449-2231
  - j. H. H. Dow Laboratory  
2300 Hayward Street  
Bldg No. 447  
  
Robert Snow.....764-3303 (Home): 665-4032
  - k. Industrial and Operations Engineering  
1205 Beal Avenue  
Bldg No. 429  
  
Mary Winter.....764-2478 (Home): 475-8590
  - l. Institute of Science and Technology  
2200 Bonisteel Boulevard  
Bldg No. 435  
  
William C. Kelly....764-6200 (Home): 665-3152
  - m. North Campus Commons  
2101 Bonisteel Boulevard  
Bldg No. 442  
  
Molly Friedrichs....936-0902 (Home): 662-0069
4. Arrange to have the North Campus Recreation Facility  
(Bldg No. 442) opened for use as a collecting point  
for those persons evacuated from the effected area.

FORD NUCLEAR REACTOR-PHOENIX MEMORIAL LABORATORY  
FACILITY STAFF LIST

<u>Name</u>	<u>Position</u>
Jeffery Beattie	Reactor Operator
Michael Bersuder	Reactor Operator
Edward Birdsall	Technician III
Robert Blackburn	Research Associate I
Christopher C. Brannon	Technician III
Reed R. Burn	Reactor Laboratory Manager
Gary M. Cook	Assistant Reactor Laboratory Manager
Kenneth Conway	Health Physicist
Andrea Cross	Reactor Operator
Jeffery Hadley	Health Physics Technician
John D. Jones	Director, Radiation Control Service
William Kerr	Director, Michigan Memorial-Phoenix Project
Steve Nowak	Technician III
John Pulford	Reactor Operator
Philip A. Simpson	Assistant Reactor Laboratory Manager
Clifford Slay	Reactor Operator
Robert Thebert	Reactor Operator
R. Eric Touchberry	Reactor Operator

ANN ARBOR EMERGENCY PERSONNEL

<u>Name</u>	<u>Position</u>
<u>Ann Arbor Police Department</u>	
Deputy Chief William Hoover	Disaster Preparedness Coordinator
S/Sgt Jan Suomala	Assistant Disaster Preparedness Coordinator
Donna Seamon	Disaster Preparedness Planning Specialist
<u>Ann Arbor Fire Department</u>	
Chief John Thompson	Fire Chief
<u>City of Ann Arbor</u>	
Donna Seamon	Radiological Defense Officer