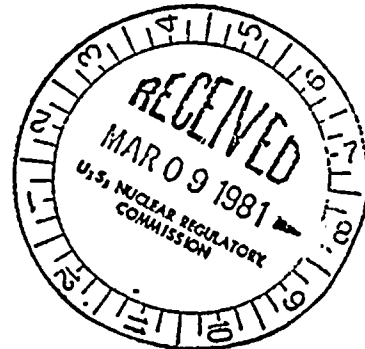


INDIANA & MICHIGAN ELECTRIC COMPANY.

P. O. BOX 18
BOWLING GREEN STATION
NEW YORK, N. Y. 10004

March 2, 1981
AEP:NRC:00308F

Donald C. Cook Nuclear Plant Unit Nos. 1 and 2
Docket Nos. 50-315 and 50-316
License Nos. DPR-58 and DPR-74
EMERGENCY PLAN INSERTS




Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dear Mr. Denton:

The attachments to this letter transmit the additional information committed to by the submittal of our Emergency Plan under AEP:NRC:00308B, dated January 26, 1981. Since this information is an insert to the original documents we have transmitted to you, we are not treating this as a formal revision or change to the documents you now have. One control copy and nine additional copies of the inserts are being sent to you. Three copies of the inserts are also being transmitted to the NRC Region III Office of Inspection and Enforcement under separate cover.

Very truly yours,


R. S. Hunter
Vice President

cc: John E. Dolan
R. W. Jurgensen
R. C. Callen
G. Charnoff
D. V. Shaller - Bridgman
NRC Region III Resident Inspector - Bridgman
NRC Region III Office of Inspection and Enforcement

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PERSONAL PRIVACY INFORMATION
DELETED IN ACCORDANCE WITH THE
FREEDOM OF INFORMATION ACT

ATTACHMENT 1
TO
AEP:NRC:0308F

PERSONAL PRIVACY INFORMATION
DELETED IN ACCORDANCE WITH THE
FREEDOM OF INFORMATION ACT

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12.3.5.5 Initiating Conditions

12.3.5.5.1 Unusual Event Initiating Criteria

1. ECCS initiated
2. Radiological effluent technical specification limits exceeded
3. Fuel damage indication. Examples:
 - a. High coolant activity sample (e.g., exceeding coolant technical specifications for iodine spike)
 - b. Failed fuel monitor (PWR) indicates increase greater than 0.1% equivalent fuel failures within 30 minutes.
4. Abnormal coolant temperature and/or pressure or abnormal fuel temperatures
5. Exceeding either primary/secondary leak rate technical specification or primary system leak rate technical specification.
6. Failure of a safety or relief valve to close
7. Loss of offsite power or loss of onsite AC power capability
8. Loss of containment integrity requiring shutdown by technical specifications
9. Loss of engineered safety feature or fire protection system function requiring shutdown by technical specifications (e.g., because of

malfunction, personnel error or procedural inadequacy)

10. Fire lasting more than 10 minutes
11. Indications or alarms on process or effluent parameters not functional in control room to an extent requiring plant shutdown or other significant loss of assessment or communication capability (e.g., plant computer, all meteorological instrumentation)
12. Security threat or attempted entry or attempted sabotage
13. Uncontrolled rod withdrawal from a subcritical condition
14. Uncontrolled rod withdrawal at power
15. Dropped RCCA assembly or bank
16. Uncontrolled dilution
17. Loss of one or more reactor coolant pumps above 50% power
18. Excessive Tavg-Tref Deviation
19. Natural phenomenon being experienced or projected beyond usual levels
 - a. Any earthquake
 - b. 50 year flood or low water, tsunami, hurricane surge, seiche
 - c. Any tornado near site
 - d. Any hurricane

20. Other hazards being experienced or projected
 - a. Aircraft crash on-site or unusual aircraft activity over facility
 - b. Train derailment on-site
 - c. Near or on-site explosion
 - d. Near or on-site toxic or flammable gas release
 - e. Turbine failure
21. Other plant conditions exist that warrant increased awareness on the part of State and/or local offsite authorities or require plant shutdown under technical specification requirements or involve other than normal controlled shutdown (e.g., cooldown rate exceeding technical specification limits, pipe cracking found during operation)
22. Transportation of contaminated injured individual from site to offsite hospital
23. Rapid depressurization of PWR secondary side.

12.3.5.5.2 Alert Initiating Criteria

1. Loss of one fission product barrier
 - a. $\geq 300 \mu\text{Ci/cc}$ I-131 coolant sample
 - b. ≥ 50 gpm Primary Coolant Leak Rate
 - c. Loss of containment integrity

2. Inoperability of a single complete safety system and which cannot be returned to operable within 15 minutes
 - a. ECCS subsystems
 - b. Containment Spray
 - c. Diesels
 - d. Control Room Evacuation
 - e. Batteries
3. ≥ 2 mR/hr at Site Boundary under actual conditions
4. Other hazards, occurrences, or natural phenomena experienced on-site warranting activation of off-site response forces

12.3.5.5.3 Site Emergency Initiating Criteria

1. Loss of or potential loss of two fission product barriers
 - a. ≥ 300 μ Ci/cc coolant sample (I-131)
 - b. ≥ 50 gpm primary coolant leak
 - c. Loss of containment integrity
2. Loss of one fission product barrier as above combined with inoperability of a single complete safety system when needed, or which cannot be restored operable within 15 minutes
 - a. ECCS subsystem
 - b. Containment Spray
 - c. Diesels

d. Control Room Evacuated

e. Batteries

OR inoperability of two complete safety systems
when needed

3. ≥ 50 mR/hr whole body at site boundary under
existing conditions

≥ 250 mR/hr thyroid at site boundary under
existing conditions

4. Natural phenomena experienced beyond design
basis levels. Other hazards:

Winds, tornado, Earthquake

5. Other conditions occurring on-site warranting
notification of the public to take precautionary
measures or prepare to take such measures.

12.3.5.5.4 General Emergency Initiating Criteria

1. Loss of or potential loss of 3 fission product
barriers

a. ≥ 300 μ Ci/cc I-131 coolant sample

b. ≥ 50 gpm primary leak rate

c. Loss of containment integrity

2. Loss of two fission product barriers combined
with inoperability of single complete safety
system, when needed or which cannot be restored
to operable within 15 minutes

a. ECCS subsystem

b. Containment Spray

- c. Diesels
- d. Control Room Evacuated
- e. Batteries
- 3. ≥ 1 R/hr whole body at site boundary under existing conditions
 ≥ 5 R/hr thyroid at site boundary under existing conditions
- 4. Other plant conditions exist that make release of large amounts of radioactivity in a short time possible.

12.3.5.6 Example Events

12.3.5.6.1 Example Alert Initiating Events

- 1. Severe loss of fuel cladding
 - a. Very high coolant activity sample (e.g., 300 μ Ci/cc equivalent of I-131)
 - b. Failed fuel monitor (PWR) indicates increase greater than 1% fuel failures within 30 minutes or 5% total fuel failures
- 2. Rapid gross failure of one or more steam generator tubes with or without loss of offsite power
- 3. Steam line break with significant (e.g., greater than 10 gpm) primary to secondary leak rate or with MSIV malfunction
- 4. Primary coolant leak rate greater than 50 gpm

5. High radiation levels or high airborne contamination which indicate a severe degradation in the control of radioactive materials (e.g., increase of factor of 1000 in direct radiation readings)
6. Loss of offsite power and loss of all onsite AC power
7. Loss of all onsite DC power
8. Coolant pump seizure leading to fuel failure
9. Loss of functions needed for plant cold shutdown
10. Fuel damage accident with release of radioactivity to containment or fuel handling building
11. Fire potentially affecting safety systems
12. All alarms (annunciators) lost
13. Radiological effluents greater than 10 times technical specification instantaneous limits (an instantaneous rate which, if continued over 2 hours, would result in about 1 mR at the site boundary under average meteorological conditions)
14. Ongoing security compromise
15. Severe natural phenomena being experienced or projected
 - a. Earthquake greater than OBE levels
 - b. Flood, low water, tsunami, hurricane surge, seiche near design levels

- c. Any tornado striking facility
- d. Hurricane winds near design basis level
- 16. Other hazards being experienced or projected
 - a. Aircraft crash on facility
 - b. Missile impacts from whatever source on facility
 - c. Known explosion damage to facility affecting plant operation
 - d. Entry into facility environs of toxic or flammable gases
 - e. Turbine failure causing casing penetration
- 17. Other plant conditions exist that warrant precautionary activation of technical support center and near-site emergency operations center
- 18. Evacuation of control room anticipated or required with control of shutdown systems established from local stations

12.3.5.6.2 Example Site Emergency Initiating Events

- 1. Degraded core with possible loss of coolable geometry (indicators should include instrumentation to detect inadequate core cooling, coolant activity and/or containment radioactivity levels)
- 2. Rapid failure of more than 10 steam generator tubes with loss of offsite power

3. PWR steam line break with greater than 50 gpm primary to secondary leakage and significant indication of fuel damage
4. Loss of offsite power and loss of onsite AC power for more than 15 minutes
5. Loss of all vital onsite DC power for more than 15 minutes
6. Loss of functions needed for plant hot shutdown
7. Fire affecting safety systems
8. All alarms (annunciators) lost for more than 15 minutes and plant is not in cold shutdown or plant transient initiated while all alarms lost
9.
 - a. Effluent monitors detect levels corresponding to greater than 50 mR/hr for $\frac{1}{2}$ hour or greater than 500 mR/hr W.B. for two minutes (or five times these levels to the thyroid) at the site boundary for existing meteorology
 - b. These dose rates are projected based on other plant parameters (e.g., radiation level in containment with leak rate appropriate for existing containment pressure) or are measured in the environs
10. Imminent loss of physical control of the plant

11. Severe natural phenomena being experienced or projected with plant not in cold shutdown
 - a. Earthquake greater than SSE levels
 - b. Flood, low water, tsunami, hurricane surge, seiche greater than design levels or failure of protection of vital equipment at lower levels
 - c. Winds in excess of design levels
12. Other hazards being experienced or projected with plant not in cold shutdown
 - a. Aircraft crash affecting vital structures by impact or fire
 - b. Severe damage to safe shutdown equipment from missiles or explosion
 - c. Entry of toxic or flammable gases vital areas
13. Other plant conditions exist that warrant activation of emergency centers and monitoring teams and a precautionary public notification
14. Evacuation of control room and control of shutdown systems not established from local stations in 15 minutes

12.3.5.6.3 Example General Emergency Initiating Events

1. Small and large LOCA's with failure of ECCS to perform leading to severe core degradation

or melt. Ultimate failure of containment likely for melt sequences. (Several hours available for response)

2. Transient initiated by loss of feedwater and condensate systems (principal heat removal system) followed by failure of emergency feedwater system for extended period. Core melting possible in several hours. Ultimate failure of containment likely if core melts.
3. Transient requiring operation of shutdown systems with failure to scram. Core damage for some designs. Additional failure of core cooling and makeup systems would lead to core melt.
4. Failure of offsite and onsite power along with total loss of emergency feedwater makeup capability for several hours would lead to eventual core melt and likely failure of containment.
5. Small LOCA and initially successful ECCS. Subsequent failure of containment heat removal systems over several hours could lead to core melt and likely failure of containment.

12.3.5.7 Emergency Classification of FSAR Postulated Transients

The FSAR postulated transients are classified into emergency event categories as indicated below. The transients are bounded by the conditions set forth in Chapter 14 of the FSAR. Reference to the applicable FSAR section is indicated by the number in ().

<u>FSAR Event Description</u>	<u>Emergency Classification</u>	<u>Example No.</u>
1. Uncontrolled Rod Withdrawal (subcritical) (14.1.1)	Unusual Event	13
2. Uncontrolled Rod Withdrawal (at power) (14.1.2)	Unusual Event	14
3. RCCA Misalignment (14.1.3) or (14.1.4)	Unusual Event	15
4. CVCS Malfunction (14.1.5)	Unusual Event	16
5. Loss of Reactor Coolant Flow (14.1.6)	Unusual Event	17
6. Inactive Loop Startup (14.1.7)	*	*
7. Loss of Load (14.1.8)	*	*
8. Loss of Normal Feedwater (14.1.9)	*	*

*Not classified as an Emergency Condition

<u>FSAR Event Description</u>	<u>Emergency Classification</u>	<u>Example No.</u>
9. Feedwater System Malfunction (14.1.10)	Unusual Event	18
10. Excessive Load Increase (14.1.11)	Unusual Event	21
11. Loss of All AC Power to Station (14.1.12)	Unusual Event	7
12. Turbine Generator Accident (14.1.12)	Unusual Event	21
13. Fuel Handling Accident (14.2.1)	Alert	10
14. Accidental Liquid Release (14.2.2)	Alert	13
15. Accidental Gaseous Release (14.2.3)	Alert	13
16. S.G. Tube Rupture (14.2.4)	Alert	2
17. Steam Line Break (14.2.5)	Unusual Event	18, 1, 21
18. Control Rod Ejection (14.2.6)	Alert	4
19. Secondary Side Release (14.2.7)	Unusual Event Alert	3 1
20. LOCA (14.3)	Alert	4

NOTE: Majority of these examples could be classified more or less severely depending on actual conditions present at the time.

Pages 12.3-76 through 12.3-91 have been left blank intentionally.

ATTACHMENT 3
TO
AEP:NRC:0308F

INSERT
TO
APPENDIX A

INDIANA & MICHIGAN POWER COMPANY
DONALD C. COOK NUCLEAR PLANT

PLANT MANAGER PROCEDURE

Index

Identification Number	Title	Revision No. And Date	Comments
PMP 2080 EPP.001	Emergency Plan Activation and Condition Classification	Revision 0 4-1-81	
EPP.002	Unusual Event	Revision 0 4-1-81	
EPP.003	Alert	Revision 0 4-1-81	
EPP.004	Site Emergency	Revision 0 4-1-81	
EPP.005	General Emergency	Revision 0 4-1-81	
EPP.006	Initial Dose Assessments and Verification (Gaseous)	Revision 0 4-1-81	
EPP.007	Initial Release Assessments and Verification (Liquid)	Revision 0 4-1-81	
EPP.008	Calling Off-Duty Plant Personnel	Revision 0 4-1-81	
EPP.009	Fire Emergency Guidelines	Revision 0 4-1-81	
EPP.010	Chlorine Gas Release Guidelines	Revision 0 4-1-81	
EPP.011	Natural Emergency Guidelines	Revision 0 4-1-81	
EPP.012	Initial Off-Site Notifications	Revision 0 4-1-81	
EPP.013	Duties of the Individual Who Discovers an Emergency Condition	Revision 0 4-1-81	

INDIANA & MICHIGAN POWER COMPANY
DONALD C. COOK NUCLEAR PLANT

PLANT MANAGER PROCEDURE

Index

Identification Number	Title	Revision No. And Date	Comments
PMP 2081 EPP.001	Emergency Communications	Revision 0 4-1-81	
EPP.002	Barring of the PBX	Revision 0 4-1-81	
EPP.003	Follow-Up Off-Site Communications	Revision 0 4-1-81	
EPP.004	Protective Action Guides (PAGs) and Protective Actions	Revision 0 4-1-81	
EPP.005	Personnel Accountability and Site Evacuation	Revision 0 4-1-81	
EPP.006	Activation of the Reentry and Rescue Team	Revision 0 4-1-81	
EPP.007	Security Actions During Emergency Conditions	Revision 0 4-1-81	
EPP.008	Emergency Medical Plan Guidelines	Revision 0 4-1-81	
EPP.009	Health Physics Procedures	Revision 0 4-1-81	
EPP.010	Activation of Radiation Monitoring Teams	Revision 0 4-1-81	
EPP.011	On-Site Radiological Monitoring	Revision 0 4-1-81	
EPP.012	Off-Site Radiological Monitoring	Revision 0 4-1-81	
EPP.013	Environmental Monitoring and Analysis	Revision 0 4-1-81	

INDIANA & MICHIGAN POWER COMPANY
DONALD C. COOK NUCLEAR PLANT

PLANT MANAGER PROCEDURE

Index

Identification Number	Title	Revision No. And Date	Comments
PMP 2081 EPP.014	Off-Site Dose Assessments	Revision 0 4-1-81	
EPP.015	Sampling and Analysis of Waterborne Releases	Revision 0 4-1-81	
EPP.016	Collection and Analysis of Liquid and Gaseous Samples	Revision 0 4-1-81	
EPP.017	Interpretation of Liquid and Gaseous Samples	Revision 0 4-1-81	
EPP.018	Transportation Accidents Involving Radioactive Material	Revision 0 4-1-81	
EPP.019	AEP Emergency Response Organization Activation and Management	Revision 0 4-1-81	
EPP.020	Activation and Operation of the Technical Support Center (TSC)	Revision 0 4-1-81	
EPP.021	Activation and Operation of the Operations Staging Area (OSA)	Revision 0 4-1-81	
EPP.022	Activation and Operation of the Recovery Center (RC) (An Emergency Operations Facility)	Revision 0 4-1-81	
EPP.023	Activation and Operation of the Emergency Control Center (ECC) (An Emergency Operations Facility)	Revision 0 4-1-81	
EPP.024	Activation and Operation of the Joint Public Information Center (JPIC) (An Emergency Operations Facility)	Revision 0 4-1-81	

PLANT MANAGER PROCEDURE

Index

Identification Number	Title	Revision No. And Date	Comments
PMP 2081 EPP.025	Activation and Operation of the Emergency News (ENS) (An Emergency Source Operations Facility)	Revision 0 4-1-81	
EPP.026	Personnel Assignment to Off-Site Centers	Revision 0 4-1-81	
EPP.027	Off-Site Support and Assistance	Revision 0 4-1-81	
EPP.028	Damage Control, Repair and Recovery	Revision 0 4-1-81	

INDIANA & MICHIGAN POWER COMPANY
DONALD C. COOK NUCLEAR PLANT

PLANT MANAGER PROCEDURE

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Identification Number	Title	Revision No. And Date	Comments
PMP 2082 EPP.001	Emergency Exposure Guidelines	Revision 0 4-1-81	
EPP.002	Public Information Dissemination	Revision 0 4-1-81	
EPP.003	Maintenance of Emergency Records	Revision 0 4-1-81	
EPP.004	Emergency Personnel Assignments	Revision 0 4-1-81	
EPP.005	Tests, Drills and Exercises	Revision 0 4-1-81	
EPP.006	Training	Revision 0 4-1-81	
EPP.007	Emergency Equipment and Supplies	Revision 0 4-1-81	
EPP.008	Maps and Forms	Revision 0 4-1-81	
EPP.009	Maintenance of the Emergency Plan Procedures	Revision 0 4-1-81	
EPP Appendix A	Telephone and Call Numbers	Revision 0 4-1-81	
EPP Appendix B	Memorial Hospital Plan	Revision 0 4-1-81	

APPENDIX B

The AEP Emergency Response Organization Procedures will be incorporated into a single document entitled the AEP Emergency Response Manual. This manual will contain subsections which provide the procedures outlining the job functions and responsibilities of each AEP-ERO manager designated on the organization chart Figure 12.3-4 as well as identification of the specific individuals who fill position in the AEP-ERO by title.