July 5, 1989

Docket Nos. 50-315
and 50-316

DISTRIBUTION:

Docket Files	DHagan
NRC PDR	EJordan
Local PDR	BGrimes
TMeek(8)	OGC
Wanda Jones	ARM/LFMB
GHolahan	EButcher
JStang	GPA/PA
PShuttleworth	ACRS(10)
MJVirgilio	Plant Gray File
AGody	

Mr. Milton P. Alexich, Vice President
Indiana Michigan Power Company
c/o American Electric Power Service Corporation
1 Riverside Plaza
Columbus, Ohio 43216

Dear Mr. Alexich:

SUBJECT: AMENDMENTS NOS. 127 AND 113 TO FACILITY OPERATING LICENSES NOS. DPR-58 AND DPR-74: (TACS NOS. 67786 AND 67787)

The Commission has issued the enclosed Amendment No. 127 to Facility Operating License No. DPR-58 and Amendment No. 113 to Facility Operating License No. DPR-74 for the Donald C. Cook Nuclear Plant, Units Nos. 1 and 2. The amendments consist of changes to the Technical Specifications in response to your application dated March 4, 1988.

These amendments provide enhancement to the "Instrumentation and Design Features" sections of the Technical Specifications for the meteorological monitoring system.

A copy of our related Safety Evaluation is also enclosed. Notice of Issuance will be included in the Commission's biweekly Federal Register notice.

Sincerely,

/S/

John F. Stang, Project Manager
Project Directorate III-1
Division of Reactor Projects - III, IV, V
& Special Projects
Office of Nuclear Reactor Regulation

Enclosures:
1. Amendment No. 127 to DPR-58
2. Amendment No. 113 to DPR-74
3. Safety Evaluation

cc w/enclosures:
See next page

5520 TITLE: COOK AMEND TAC 67786/87

LA/PD31:DRSP	PM/PD31:DRSP	PM/PD31:DRSP	(A)D/PD31:DRSP	OGC
PShuttlworth	AGody	JStang	LYandell	BMBordenick
6/15/89	6/12/89	6/16/89	6/16/89	6/21/89

NRR:DRPB
LCunningham
6/29/89 (with changes discussed per LEE - 5 pages)

DF01
1/1

8907110433 890705
PDR ADOCK 05000315
P PDC

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

July 5, 1989

Dockets Nos. 50-315
and 50-316

Mr. Milton P. Alexich, Vice President
Indiana Michigan Power Company
c/o American Electric Power Service Corporation
1 Riverside Plaza
Columbus, Ohio 43216

Dear Mr. Alexich:

SUBJECT: AMENDMENTS NOS. 127 AND 113TO FACILITY OPERATING LICENSES NOS. DPR-58 AND DPR-74: (TACS NOS. 67786 AND 67787)

The Commission has issued the enclosed Amendment No. 127 to Facility Operating License No. DPR-58 and Amendment No. 113to Facility Operating License No. DPR-74 for the Donald C. Cook Nuclear Plant, Units Nos. 1 and 2. The amendments consist of changes to the Technical Specifications in response to your application dated March 4, 1988.

These amendments provide enhancement to the "Instrumentation and Design Features" sections of the Technical Specifications for the meteorological monitoring system.

A copy of our related Safety Evaluation is also enclosed. Notice of Issuance will be included in the Commission's biweekly Federal Register notice.

Sincerely,

John F. Stang, Project Manager
Project Directorate III-1
Division of Reactor Projects - III, IV, V
& Special Projects
Office of Nuclear Reactor Regulation

Enclosures:
1. Amendment No. 127 to DPR-58
2. Amendment No. 113 to DPR-74
3. Safety Evaluation

cc w/enclosures:
See next page

cc:
Regional Administrator, Region III
U.S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, Illinois 60137

Attorney General
Department of Attorney General
525 West Ottawa Street
Lansing, Michigan 48913

Township Supervisor
Lake Township Hall
Post Office Box 818
Bridgeman, Michigan 49106

W. G. Smith, Jr., Plant Manager
Donald C. Cook Nuclear Plant
Post Office Box 458
Bridgman, Michigan 49106

U.S. Nuclear Regulatory Commission
Resident Inspectors Office
7700 Red Arrow Highway
Stevensville, Michigan 49127

Gerald Charnoff, Esquire
Shaw, Pittman, Potts and Trowbridge
2300 N Street, N.W.
Washington, DC 20037

Mayor, City of Bridgeman
Post Office Box 366
Bridgeman, Michigan 49106

Special Assistant to the Governor
Room 1 - State Capitol
Lansing, Michigan 48909

Nuclear Facilities and Environmental
Monitoring Section Office
Division of Radiological Health
Department of Public Health
3500 N. Logan Street
Post Office Box 30035
Lansing, Michigan 48909

Mr. S. Brewer
American Electric Power
Service Corporation
1 Riverside Plaza
Columbus, Ohio 43216

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

INDIANA MICHIGAN POWER COMPANY

DOCKET NO. 50-315

DONALD C. COOK NUCLEAR PLANT, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 127
License No. DPR-58

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Indiana Michigan Power Company (the licensee) dated March 4, 1988, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;

   B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;

   C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;

   D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and

   E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-58 is hereby amended to read as follows:

Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 127 , are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Lawrence A. Yandell, Acting Director
Project Directorate III-1
Division of Reactor Projects - III, IV, V
& Special Projects
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: July 5, 1989

ATTACHMENT TO LICENSE AMENDMENT NO. 127

TO FACILITY OPERATING LICENSE NO. DPR-58

DOCKET NO. 50-315

Revise Appendix A Technical Specifications by removing the pages identified below and inserting the attached pages. The revised pages are identified by amendment number and contain marginal lines indicating the area of change.

REMOVE	INSERT
UNIT 1	
3/4 3-43	3/4 3-43*
3/4 3-44	3/4 3-44
3/4 3-45	3/4 3-45
3/4 3-46	3/4 3-46*
B 3/4 3-2	B 3/4 3-2
5-9	5-9

* Overleaf page provided to maintain document completeness. No change contained on this page.

INSTRUMENTATION

METEOROLOGICAL INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.4 The meteorological monitoring instrumentation channels shown in Table 3.3-8 shall be OPERABLE.

APPLICABILITY: At all times.

ACTION:

a. With the number of OPERABLE meteorological monitoring channels less than required by Table 3.3-8, suspend all release of gaseous radioactive material from the radwaste gas decay tanks until the inoperable channel(s) is restored to OPERABLE status.

b. With one or more required meteorological monitoring channels inoperable for more than 7 days, prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within the next 10 days outlining the cause of the malfunction and the plans for restoring the channel(s) to OPERABLE status.

c. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.4 Each of the above meteorological monitoring instrumentation channels shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK and CHANNEL CALIBRATION operations at the frequencies shown in Table 4.3-5.

TABLE 3.3-8

METEOROLOGICAL MONITORING INSTRUMENTATION

INSTRUMENT	LOCATION	INSTRUMENT MINIMUM ACCURACY	MINIMUM OPERABLE
1. WIND SPEED			Any 1/3 channels
	a. Primary or Backup Meteorological Tower, Nominal Elev. 10 m	(1),(2)	
	b. Primary Meteorological Tower, Nominal Elev. 60 m	(1),(2)	
2. WIND DIRECTION			Any 1/3 channels
	a. Primary or Backup Meteorological Tower, Nominal Elev. 10 m	$\pm 5^{o}$	
	b. Primary Meteorological Tower, Nominal Elev. 60 m	$\pm 5^{o}$	
3. AIR TEMPERATURE (for 60 m to 10 m delta T)			NA(3)
	a. Primary Meteorological Tower, Nominal Elev. 10 m	$\pm 0.15^{o}F$	
	b. Primary Meteorological Tower, Nominal Elev. 60 m	$\pm 0.15^{o}F$	

(1) Starting speed of anemometer shall be $\leq$ 1 mph.
(2) $\pm$ 1% or 0.5 mph, whichever is greater.
(3) With delta T information unavailable, sigma theta (standard deviation of the horizontal wind direction as determined from emergency procedures) is to be used for the determination of stability class.

TABLE 4.3-5

METEOROLOGICAL MONITORING INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

INSTRUMENT	CHANNEL CHECK	CHANNEL CALIBRATION
1. WIND SPEED		
a. Nominal Elev. 10 m	D	SA
b. Nominal Elev. 60 m	D	SA
2. WIND DIRECTION		
a. Nominal Elev. 10 m	D	SA
b. Nominal Elev. 60 m	D	SA
3. AIR TEMPERATURE - DELTA T		
a. Nominal Elev. 10 m	D	SA
b. Nominal Elev. 60 m	D	SA

REMOTE SHUTDOWN INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.5 The remote shutdown monitoring instrumentation channels shown in Table 3.3-9 shall be OPERABLE with readouts displayed external to the control room.

APPLICABILITY: MODES 1, 2 and 3.

ACTION:

With the number of OPERABLE remote shutdown monitoring channels less than required by Table 3.3-9, either:

a. Restore the inoperable channel to OPERABLE status within 30 days, or

b. Be in HOT SHUTDOWN within the next 12 hours.

SURVEILLANCE REQUIREMENTS

4.3.3.5 Each remote shutdown monitoring instrumentation channel shall be demonstrated OPERABLE by performance of the CHANNEL CHECK, and CHANNEL CALIBRATION operations at the frequencies shown in Table 4.3-6.

3/4.3.3.2 MOVABLE INCORE DETECTORS

The OPERABILITY of the movable incore detectors with the specified minimum complement of equipment ensures that the measurements obtained from use of this system accurately represent the spatial neutron flux distribution of the reactor core.

3/4.3.3.3 SEISMIC INSTRUMENTATION

The OPERABILITY of the seismic instrumentation ensures that sufficient capability is available to promptly determine the magnitude of a seismic event and evaluate the response of those features important to safety. This capability is required to permit comparison of the measured response to that used in the design basis for the facility.

3/4.3.3.4 METEOROLOGICAL INSTRUMENTATION

The OPERABILITY of the meteorological instrumentation ensures that sufficient meteorological data is available for estimating potential radiation doses to the public as a result of routine or accidental release of radioactive materials to the atmosphere. This capability is required to evaluate the need for initiating protective measures to protect the health and safety of the public. For the meteorological instrumentation, the required channel check consists of a qualitative assessment of channel behavior during operation by observation. For the 10 m wind speed and wind direction instruments the channel check also includes, when possible, a comparison of channel indications.

3/4.3.3.5 REMOTE SHUTDOWN INSTRUMENTATION

The OPERABILITY of the remote shutdown instrumentation ensures that sufficient capability is available to permit shutdown and maintenance of HOT STANDBY of the facility from locations outside of the control room. This capability is required in the event control room habitability is lost and is consistent with General Design Criteria 19 of 10 CFR 50.

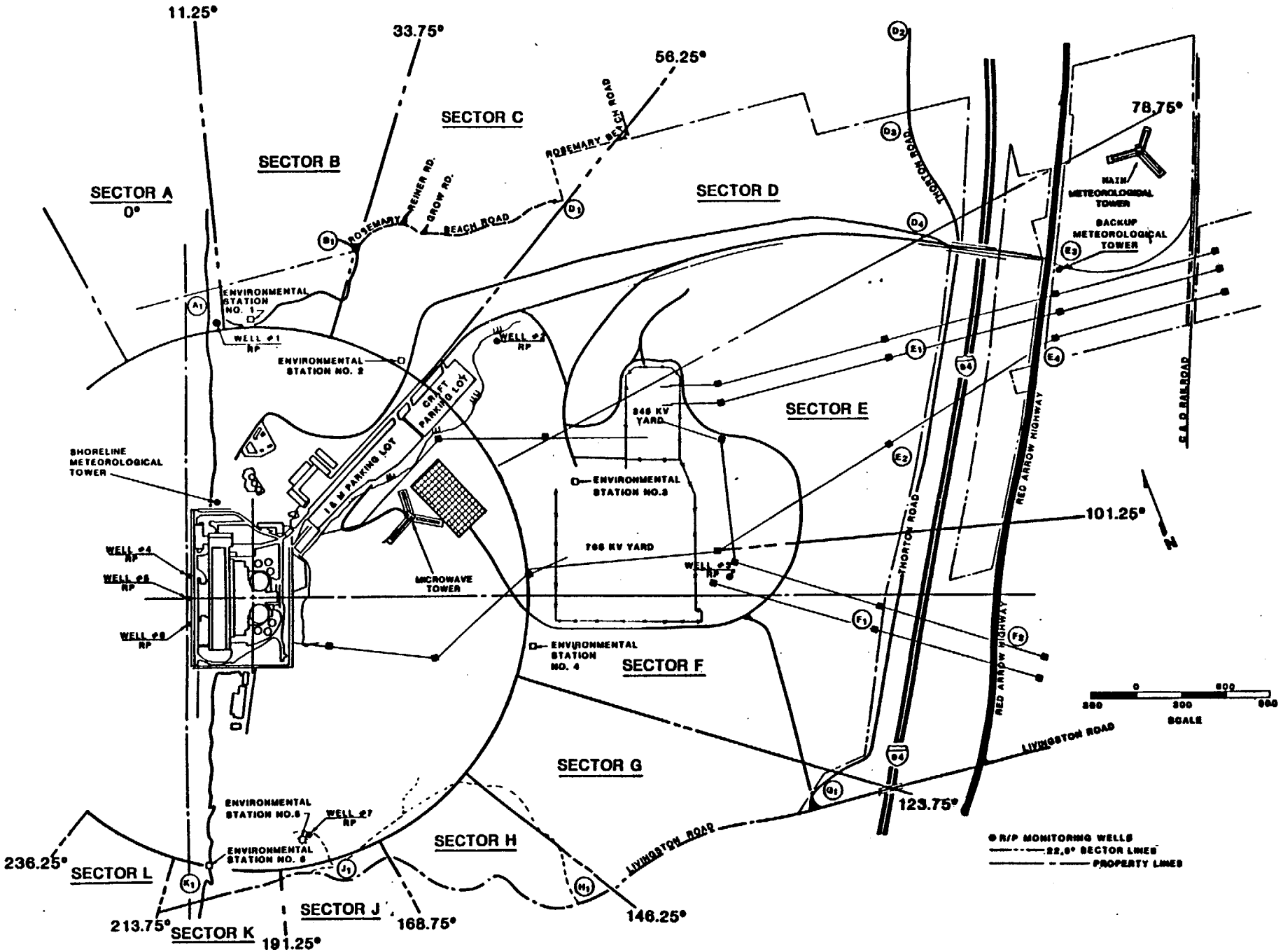

FIGURE 5.1-3: SITE BOUNDARY FOR LIQUID AND GASEOUS EFFLUENTS

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

INDIANA MICHIGAN POWER COMPANY

DOCKET NO. 50-316

DONALD C. COOK NUCLEAR PLANT, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 113
License No. DPR-74

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Indiana Michigan Power Company (the licensee) dated March 4, 1988, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;

   B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;

   C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;

   D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and

   E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-74 is hereby amended to read as follows:

   Technical Specifications

   The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 113 , are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Dominic C. DiIanni /for

Lawrence A. Yandell, Acting Director
Project Directorate III-1
Division of Reactor Projects - III, IV, V
& Special Projects
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: July 5, 1989

ATTACHMENT TO LICENSE AMENDMENT NO. 113

TO FACILITY OPERATING LICENSE NO. DPR-74

DOCKET NO. 50-316

Revise Appendix A Technical Specifications by removing the pages identified below and inserting the attached pages. The revised pages are identified by amendment number and contain marginal lines indicating the area of change.

REMOVE	INSERT
UNIT 2	
3/4 3-40	3/4 3-40
3/4 3-41	3/4 3-41
B 3/4 3-2	B 3/4 3-2
-	B 3/4 3-2a
5-9	5-9

TABLE 3.3-8

METEOROLOGICAL MONITORING INSTRUMENTATION

INSTRUMENT	LOCATION	INSTRUMENT MINIMUM ACCURACY	MINIMUM OPERABLE
1. WIND SPEED			Any 1/3 channels
	a. Primary or Backup Meteorological Tower, Nominal Elev. 10 m	(1),(2)	
	b. Primary Meteorological Tower, Nominal Elev. 60 m	(1),(2)	
2. WIND DIRECTION			Any 1/3 channels
	a. Primary or Backup Meteorological Tower, Nominal Elev. 10 m	$\pm 5^{\circ}$	
	b. Primary Meteorological Tower, Nominal Elev. 60 m	$\pm 5^{\circ}$	
3. AIR TEMPERATURE (for 60 m to 10 m delta T)			NA(3)
	a. Primary Meteorological Tower, Nominal Elev. 10 m	$\pm 0.15^{\circ}$F	
	b. Primary Meteorological Tower, Nominal Elev. 60 m	$\pm 0.15^{\circ}$F	

(1) Starting speed of anemometer shall be $\leq$ 1 mph.
(2) $\pm$ 1% or 0.5 mph, whichever is greater.
(3) With delta T information unavailable, sigma theta (standard deviation of the horizontal wind direction as determined from emergency procedures) is to be used for the determination of stability class.

TABLE 4.3-5

METEOROLOGICAL MONITORING INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

INSTRUMENT	CHANNEL CHECK	CHANNEL CALIBRATION
1. WIND SPEED		
a. Nominal Elev. 10 m	D	SA
b. Nominal Elev. 60 m	D	SA
2. WIND DIRECTION .		
a. Nominal Elev. 10 m	D	SA
b. Nominal Elev. 60 m	D	SA
3. AIR TEMPERATURE - DELTA T		
a. Nominal Elev. 10 m	D	SA
b. Nominal Elev. 60 m	D	SA

3/4.3.3 MONITORING INSTRUMENTATION

3/4.3.3.1 RADIATION MONITORING INSTRUMENTATION

The OPERABILITY of the radiation monitoring channels ensures that 1) the radiation levels are continually measured in the areas served by the individual channels and 2) the alarm or automatic action is initiated when the radiation level trip setpoint is exceeded.

3/4.3.3.2 MOVABLE INCORE DETECTORS

The OPERABILITY of the movable incore detectors with the specified minimum complement of equipment ensures that the measurements obtained from use of this system accurately represent the spatial neutron flux distribution of the reactor core. The OPERABILITY of this system is demonstrated by irradiating each detector used and normalizing its respective output.

3/4.3.3.3 SEISMIC INSTRUMENTATION

The OPERABILITY of the seismic instrumentation ensures that sufficient capability is available to promptly determine the magnitude of a seismic event and evaluate the response of those features important to safety. This capability is required to permit comparison of the measured response to that used in the design basis for the facility.

3/4.3.3.4 METEOROLOGICAL INSTRUMENTATION

The OPERABILITY of the meteorological instrumentation ensures that sufficient meteorological data is available for estimating potential radiation doses to the public as a result of routine or accidental release of radioactive material to the atmosphere. This capability is required to evaluate the need for initiating protective measures to protect the health and safety of the public. For the meteorological instrumentation, the required channel check consists of a qualitative assessment of channel behavior during operation by observation. For the 10 m wind speed and wind direction instruments the channel check also includes, when possible, a comparison of channel indications.

3/4.3.3.5 REMOTE SHUTDOWN INSTRUMENTATION

The OPERABILITY of the remote shutdown instrumentation ensures that sufficient capability is available to permit shutdown and maintenance of HOT STANDBY of the facility from locations outside of the control room. This capability if required in the event control room habitability is lost and is consistent with General Design Criteria 19 of 10 CFR 50.

3/4.3.3.6 POST-ACCIDENT INSTRUMENTATION

The OPERABILITY of the post-accident instrumentation ensures that sufficient information is available on selected plant parameters to monitor and assess these variables during and following an accident.

The containment water level and containment sump level transmitters will be modified or replaced and OPERABLE by the end of the outage currently scheduled to begin in May 1988. 95

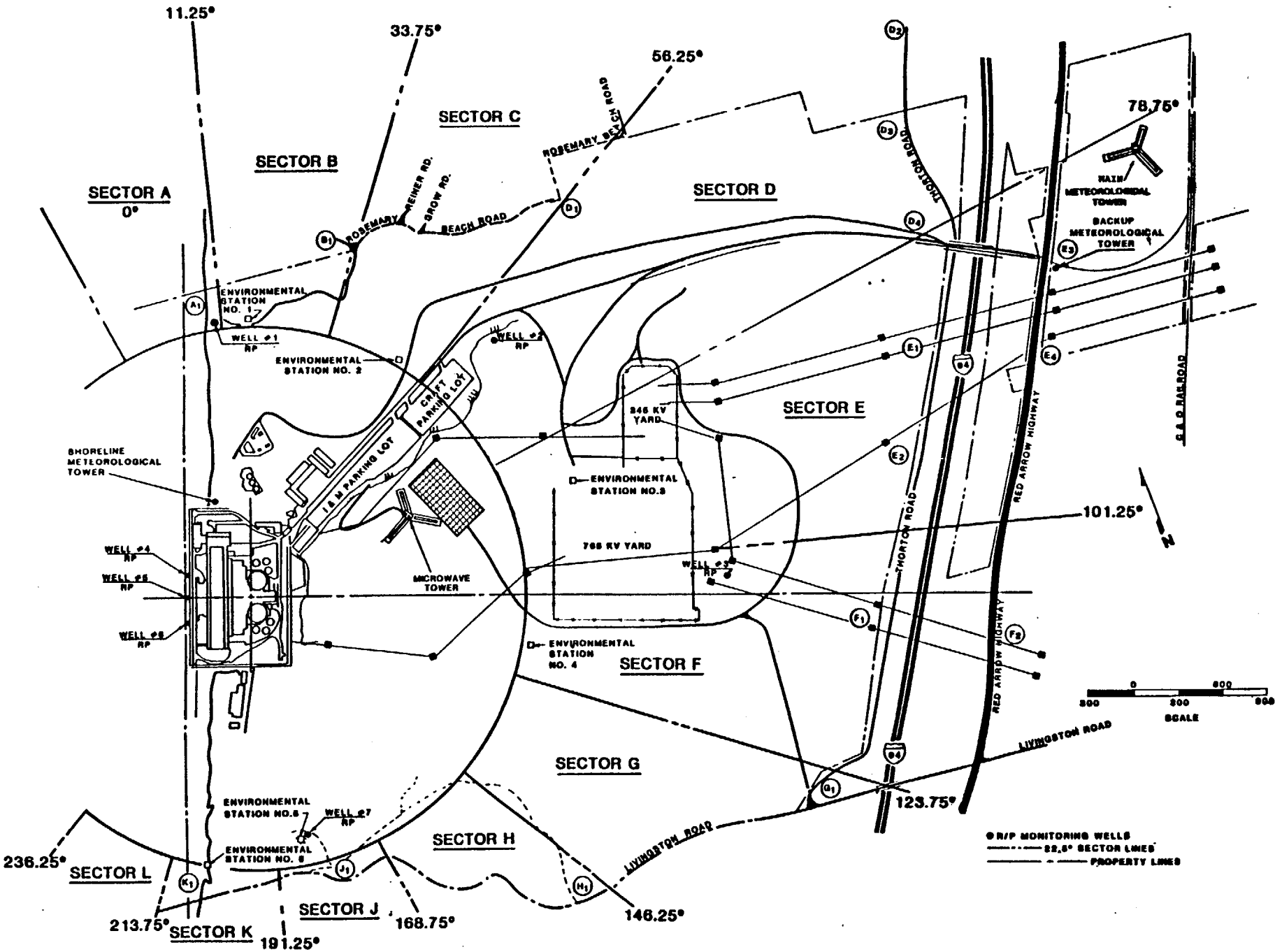

FIGURE 5.1-3: SITE BOUNDARY FOR LIQUID AND GASEOUS EFFLUENTS

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO.127 TO FACILITY OPERATING LICENSE NO. DPR-58

AND AMENDMENT NO.113 TO FACILITY OPERATING LICENSE NO. DPR-74

INDIANA MICHIGAN POWER COMPANY

DONALD C. COOK NUCLEAR PLANT, UNITS NOS. 1 AND 2

DOCKETS NOS. 50-315 AND 50-316

1.0 INTRODUCTION

By letter dated March 4, 1988, the Indiana Michigan Power Company (the licensee) requested amendments to the Technical Specifications (TSs) appended to Facility Operating Licenses Nos. DPR-58 and DPR-74 for the Donald C. Cook Nuclear Plant, Units Nos. 1 and 2. The proposed amendments would reflect the installation of a new meteorological monitoring system and provide proper reference to meteorological tower locations and the locations of instrumentation used for determining temperature, wind speed and wind direction. The proposed changes would also modify the Bases for TS 3/4.3.3.4 to clarify channel check performance methodology as it applies to the new meteorological monitoring system.

2.0 EVALUATION

The new primary and backup meteorological towers are both located east of the plant facilities where the terrain is relatively flat, and a shoreline tower is located adjacent to the plant facilities and Lake Michigan. Wind speed and direction will be measured on all three towers. In addition, temperature and dew point will be measured on the primary and shoreline towers. Precipitation measurements will be made at the primary tower. The staff finds the location of the primary and backup towers suitable to provide data that is representative of the meteorological conditions in the Emergency Planning Zone. The shoreline tower will provide data representing conditions of the unmodified marine air near the plant facilities. The location of the new meteorological towers are included in the proposed TS changes in TS Figure 5.1-3.

The proposed TS changes would modify the minimum channel operability requirements for wind speed and wind direction to be "Any 1/3 channels" for each parameter, and would eliminate the minimum channel operability requirements for air temperature measurement. The purpose of the wind speed, wind direction, and air temperature measurements is to provide the necessary meteorological data to establish atmospheric stability categories to be used in estimating potential doses to the public as a result of routine or accidental releases of radioactivity to the atmosphere. Stability categories can be established using either the difference in air temperature between two elevations (delta T) or the

standard deviation of the horizontal wind direction over some period of time (sigma theta). The proposed elimination of channel operability requirements for air temperature is predicated on using sigma theta information to establish stability categories for off-site dose assessments if delta T information is not available (i.e., if one or both air temperature channels are inoperable). The staff finds this approach to be acceptable, since the sigma theta values can be related directly to Pasquill stability categories and if the proposed TS channel operability requirements for wind direction are fulfilled, sigma theta information will be available at all times. The relationship between Pasquill stability categories and sigma theta values is as follows:

Pasquill Stability Category	Sigma Theta (Degrees)
A (extremely unstable)	25.0
B (moderately unstable)	20.0
C (slightly unstable)	15.0
D (neutral)	10.0
E (slightly stable)	5.0
F (moderately stable)	2.5
G (extremely stable)	1.7

The proposed TS changes would also modify the Bases for TS 3/4.3.3.4, "Meteorological Instrumentation." The proposed changes would add a clarification of the channel check requirements for the meteorological instrumentation. The proposed clarification is extracted directly from the current TS definition 1.10, "Channel Check" and is, therefore, acceptable to the staff.

The remaining proposed TS changes provide the elevation of the wind speed, wind direction and air temperature instrumentation installed on the primary and backup meteorological towers and the locations of the new towers. These proposed changes are intended solely to reflect the configuration of the as-installed meteorological monitoring system and are acceptable to the staff.

Based on the above evaluation, we find that the proposed changes to the TSs are acceptable.

3.0 ENVIRONMENTAL CONSIDERATION

The amendments involve a change in the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite and that there is no significant increase in individual or cumulative occupational radiation exposure.

The Commission has previously issued a proposed finding that this amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of this amendment.

4.0 CONCLUSION

We have concluded, based on the considerations discussed above, that (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

Date: March 28, 1989

Principal Contributor: Anthony T. Gody, Jr. NRR/DRSP