

March 24, 1992

Docket No. 50-331

Mr. Lee Liu  
Chairman of the Board and  
Chief Executive Officer  
Iowa Electric Light and Power Company  
Post Office Box 351  
Cedar Rapids, Iowa 52406

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Dear Mr. Liu:

SUBJECT: AMENDMENT NO. 182 TO FACILITY OPERATING LICENSE NO. DPR-49  
(TAC NO. M81535)

The Commission has issued the enclosed Amendment No. 182 to Facility Operating License No. DPR-49 for the Duane Arnold Energy Center. This amendment consists of changes to the Technical Specifications in response to your application dated August 30, 1991 and supplemented with additional clarifying information in a letter dated January 27, 1992.

The amendment revises the Technical Specifications by eliminating the scram and main steam line isolation valve closure requirements associated with the main steam line radiation monitors.

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

Sincerely,

**original signed by**

Clyde Y. Shiraki, Sr. Project Manager  
Project Directorate III-3  
Division of Reactor Projects III/IV/V  
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 182 to License No. DPR-49
2. Safety Evaluation

MAILED 11 11 1992

cc w/enclosures:  
See next page

LA:PDIII-3:DRPW  
PKreutzer  
3/15/92

PM:PDIII-3:DRPW  
CShiraki:sw  
3/15/92  
3/24/92

D:PDIII-3:DRPW  
JHannon  
3/16/92

OGC-WF1  
S. Han  
3/16/92

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

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Chairman of the Board and  
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A copy of the Safety Evaluation is also enclosed. Notice of issuance will be included in the Commission's next biweekly Federal Register notice.

Sincerely,

A handwritten signature in cursive script, appearing to read "Clyde Y. Shiraki".

Clyde Y. Shiraki, Sr. Project Manager  
Project Directorate III-3  
Division of Reactor Projects III/IV/V  
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 182 to License No. DPR-49
2. Safety Evaluation

cc w/enclosures:  
See next page

Mr. Lee Liu  
Iowa Electric Light and Power Company

Duane Arnold Energy Center

cc:

Jack Newman, Esquire  
Kathleen H. Shea, Esquire  
Newman and Holtzinger  
1615 L Street, N.W.  
Washington, D.C. 20036

Chairman, Linn County  
Board of Supervisors  
Cedar Rapids, Iowa 52406

Iowa Electric Light and Power Company  
ATTN: David L. Wilson  
Post Office Box 351  
Cedar Rapids, Iowa 52406

U.S. Nuclear Regulatory Commission  
Resident Inspector's Office  
Rural Route #1  
Palo, Iowa 52324

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

Mr. Stephen N. Brown  
Utilities Division  
Iowa Department of Commerce  
Lucas Office Building, 5th Floor  
Des Moines, Iowa 50319



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

IOWA ELECTRIC LIGHT AND POWER COMPANY  
CENTRAL IOWA POWER COOPERATIVE  
CORN BELT POWER COOPERATIVE

DOCKET NO. 50-331

DUANE ARNOLD ENERGY CENTER

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No.182  
License No. DPR-49

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Iowa Electric Light and Power Company, et al., dated August 30, 1991, and supplemented with additional information in a letter dated January 27, 1992, 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-49 is hereby amended to read as follows:

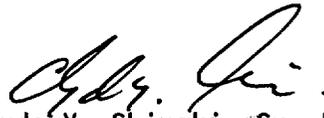
17

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 182, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. The license amendment is effective as of the date of issuance and shall be implemented within 30 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Clyde Y. Shiraki, Sr. Project Manager  
Project Directorate III-3  
Division of Reactor Projects III/IV/V  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Technical  
Specifications

Date of issuance: March 24, 1992

ATTACHMENT TO LICENSE AMENDMENT NO. 182

FACILITY OPERATING LICENSE NO. DPR-49

DOCKET NO. 50-331

Replace the following pages of the Appendix A Technical Specifications with the enclosed pages. The revised areas are indicated by marginal lines.

Page

3.1-4  
3.1-7a  
3.1-9  
3.1-12  
3.1-14  
3.1-18  
3.2-5  
3.2-19  
3.2-29  
3.2-33  
3.2-39  
3.2-44  
3.7-19b  
3.7-27

TABLE 3.1-1 (Continued)

REACTOR PROTECTION SYSTEM (SCRAM) INSTRUMENTATION REQUIREMENT

Minimum No. of Operable Instrument Channels for Trip System (1)	Trip Function	Trip Level Setting	Modes in Which Function Must be Operable			Number of Instrument Channels Provided By Design	Action (1)
			Refuel (6)	Startup	Run		
2	High Drywell Pressure	≤ 2.0 psig	x(7)	x(8)	x	4 Instrument Channels	A
2	Reactor Low Water Level	≥ +170" Indicated Level (15)	x	x	x	4 Instrument Channels	A
2	High Water Level in Scram Discharge Volume	≤ 60 Gallons	x(2)	x	x	4 Instrument Channels	A
4	Main Steam Line Isolation Valve Closure	≤ 10% Valve Closure	x (3)(13)	x (3)(13)	x(13)	8 Instrument Channels	A or C
2	Turbine Control Valve Fast Closure (Loss of Control Oil Pressure)	Within 30 milliseconds of the Start of Control Valve Fast Closure			x(4)	4 Instrument Channels	A or D
4	Turbine Stop Valve Closure	≤ 10% Valve Closure			x(4)	8 Instrument Channels	A or D
2	First Stage	Bypass below 165 psig	x	x	x	4 Instrument Channels	A or D

3.1-4

Amendment No. 115, 121, 182

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TABLE 4.1-1 (Continued)

REACTOR PROTECTION SYSTEM (SCRAM) INSTRUMENT FUNCTIONAL TESTS  
 MINIMUM FUNCTIONAL TEST FREQUENCIES FOR SAFETY INSTRUMENT AND CONTROL CIRCUITS

	Group (2)	Functional Test	Minimum Frequency (3)
High Drywell Pressure	A	Trip Channel and Alarm	Every 1 month (1)
Reactor Low Water Level (5)	A	Trip Channel and Alarm	Every 1 month (1)
High Water Level in Scram Discharge Volume	A	Trip Channel and Alarm	Every 3 months
Main Steam Line Isolation Valve Closure	A	Trip Channel and Alarm	Every 1 month (1)
Turbine Control Valve EHC Oil Pressure	A	Trip Channel and Alarm	Every 1 month
Turbine First Stage Pressure Permissive	A	Trip Channel and Alarm	Every 3 months (1)
Turbine Stop Valve Closure	A	Trip Channel and Alarm	Every 1 month (1)
Reactor Pressure Permissive	A	Trip Channel and Alarm	Every 3 months

TABLE 4.1-2

**REACTOR PROTECTION SYSTEM (SCRAM) INSTRUMENT CALIBRATION  
MINIMUM CALIBRATION FREQUENCIES FOR REACTOR PROTECTION INSTRUMENT CHANNELS**

<b>Instrument Channel</b>	<b>Group (1)</b>	<b>Calibration (4)</b>	<b>Minimum Frequency (2)</b>
IRM High Flux	C	Comparison to APRM on Controlled Shutdowns	On Controlled Shutdown
APRM High Flux Output Signal	B	Heat Balance With Standard Pressure Source	Daily Once/operating cycle
Flow Bias Signal	B		
LPRM Signal	B	TIP System Traverse	Every 1,000 EPPH
High Reactor Pressure	A	Standard Pressure Source	Every 3 months
High Drywell Pressure	A	Standard Pressure Source	Every 3 months
Reactor Low Water Level	A	Pressure Standard	Every 3 months
High Water Level in Scram Discharge Volume	A	Water Column	Once/operating cycle
Main Steam Line Isolation Valve Closure	A	Note (5)	Note (5)
Turbine First Stage Pressure Permissive	A	Standard Pressure Source	Every 6 months
Turbine Control Valve Oil Pressure Trip	A	Note (6)	Once per operating cycle

3.1-12

Amendment No. 29, 143, 182

## NOTES FOR TABLE 4.1-2

1. A description of three groups is included in the bases of this Specification.
2. Calibration test is not required on the part of the system that is not required to be operable or is tripped. Calibration test shall be performed prior to returning the system to an operable status with a frequency not less than those defined in the applicable table. However, if maintenance has been performed on those components, calibration shall be performed prior to returning to service.
3. Deleted
4. Response time is not a part of the routine instrument channel test but will be checked once per operating cycle.
5. Physical inspection and actuation of these position switches will be performed once per operating cycle.
6. Measure time interval base line data for each operating cycle as follows: From energization of fast acting solenoid, measure time interval to response of oil pressure switch, HFA relay (RPS) and position response of control valves.

The MSIV closure scram is set to scram when the isolation valves are 10% closed in 3 out of 4 lines. This scram anticipates the pressure and flux transient which would occur when the valves close. By scrambling at this setting, the resultant transient is less severe than either the pressure or flux transient which would otherwise result.

A reactor mode switch is provided which actuates or bypasses the various scram functions appropriate to the particular plant operating status.

The manual scram function is active in all modes, thus providing for a manual means of rapidly inserting control rods during all modes of reactor operation.

TABLE 3.2-A

## INSTRUMENTATION THAT INITIATES PRIMARY CONTAINMENT ISOLATION

Minimum No. of Operable Instrument Channels Per Trip System (1)	Instrument	Trip Level Setting	Number of Instrument Channels Provided by Design	Valve Groups Operated by Signal	Action (2)
2 (6)	Reactor Low Water Level	$\geq +170''$ Indicated Level (3)	4	2,3,4,5 (Sec. Cont., 3)	A E
1	Reactor Low Pressure (Shutdown Cooling Isolation)	$\leq 135$ psig	2	4	C
2	Reactor Low-Low-Low Water Level	$\geq +18.5''$ indicated level (3)	4	1	A
2 (6)	High Drywell Pressure	$\leq 2.0$ psig	4	2,3,4,8,9* (Sec. Cont., 3)	A E
2	High Radiation Main Steam Line Tunnel	$< 3$ X Normal Full Power Background (8)	4	1**	B
2	Low Pressure Main Steam Line	$\geq 850$ psig (7)	4	1	B
2 (5)	High Flow Main Steam Line	$\leq 140\%$ of Rated Steam Flow	4	1	B
2	Main Steam Line Tunnel/Turbine Bldg. High Temperature	$\leq 200^\circ$ F.	4	1	B
1	Reactor Cleanup System High Diff. Flow	$\leq 40$ gpm	2	5	D

\* Group 9 valves isolate on high drywell pressure combined with reactor steam supply low pressure

\*\* Operates Group 1 valves except Main Steam Line Isolation Valves.

TABLE 3.2-D

## RADIATION MONITORING SYSTEMS THAT INITIATE AND/OR ISOLATE SYSTEMS

Minimum No. of Operable Instrument Channels	Trip Function	Trip Level Setting	Number of Instrument Channels Provided by Design	Valve Groups Operated by Signal	Action (1)
1	Refuel Area Exhaust Monitor	Upscale, < 9 mr/hr	2 Inst. Channels	3	A or B
1	Reactor Building Area Exhaust Monitors	Upscale, < 11 mr/hr	2 Inst. Channels	3	B
1	Offgas Radiation Monitors	Note 2	2 Inst.	Note 2	C
2	Main Steam Line Radiation Monitor	<3x Normal Full Power Background	4 Inst. Channels	Note 3	D

NOTES FOR TABLE 3.2-D1. Action

- A. Cease operation of the refueling equipment.
- B. Isolate secondary containment and start the standby gas treatment system.
- C. Refer to Subsection 3.2.D.1.
- D. Refer to Specification 3.7.F.

## 2. For trip setting and valves isolated, see Specification 3.2.D.1.a

## 3. Trips Mechanical Vacuum Pump which results in a subsequent isolation of the Mechanical Vacuum Pump suction valves.

TABLE 4.2-D

MINIMUM TEST AND CALIBRATION FREQUENCY FOR RADIATION MONITORING SYSTEMS

Instrument Channels	Instrument Functional Test (9)	Calibration (9)	Source Check	Instrument Check
1) Refuel Area Exhaust Monitors	Once/3 months	Once/operating cycle	Once/month	Once/day
2) Reactor Building Area Exhaust Monitors	Once/3 months	Once/operating cycle	Once/month	Once/day
3) Offgas Post-treatment Radiation Monitors	Once/3 months (10)	Once/operating cycle	Once/month	Once/day
4) Offgas Pre-treatment Radiation Monitors	Once/3 months (10)	Once/operating cycle	Once/month	Once/day
5) Main Steam Line Radiation Monitors	(1) (3)	Once/operating cycle	Once/operating cycle	Once/shift
<b>Logic System Functional Test (6)</b>		<b>Simulated Automatic Isolation and Logic Test Frequency (9)</b>		
1) Reactor Building Isolation		Once/operating cycle		
2) Standby Gas Treatment System Actuation		Once/operating cycle		
3) Steam Jet Air Ejector Offgas Line Isolation		Once/operating cycle		
4) Steam Jet Air Ejector Charcoal Bed Bypass		Once/operating cycle		
5) Mechanical Vacuum Pump Trip and Isolation		Once/operating cycle		

3.2-29

Amendment No. 109, 124, 143, 150, 182

These instrument channels will be calibrated using simulated electrical signals.

4. Deleted
5. Reactor low water level and high drywell pressure are also included on Table 4.1-2.
6. The logic system functional tests shall include a calibration of time delay relays and timers necessary for proper functioning of the trip systems.
7. These signals are not PCIS trip signals but isolate the Reactor Water Cleanup system only.
8. This instrumentation is excepted from the functional test definition. The functional test will consist of comparing the analog signal of the active thermocouple element feeding the isolation logic to a redundant thermocouple element.
9. Functional tests and calibrations are not required on the part of the system that is not required to be operable or is tripped. Functional tests shall be performed prior to returning the system to an operable status with a frequency not less than once per month. Calibrations shall be performed prior to returning the system to an operable status with a frequency not less than those defined in the applicable table. However, if maintenance has been performed on those components, functional tests and calibration shall be performed prior to returning to service.
10. The Instrument Functional Test shall also demonstrate that control room alarm annunciation occurs if any of the following conditions exist:
  1. Instrument indicates measured levels above the alarm/trip setpoint.
  2. Instrument indicates a downscale failure.
  3. Instrument controls not set in operate mode.
11. A functional test shall be performed for the ADS manual inhibit switches as part of the ADS subsystem tests.

Temperature monitoring instrumentation is provided in the main steam line tunnel and turbine building to detect leaks in this area. Trips are provided on this instrumentation and when exceeded, cause closure of isolation valves. See Spec 3.7 for Valve Group. The setting is 200°F for the main steam line tunnel detector. For large breaks, the high steam flow instrumentation is a backup to the temperature instrumentation.

High radiation monitors in the main steam line tunnel have been provided to detect gross fuel failure as in the control rod drop accident. A trip setting of 3 times normal full-power background is established to close the main steam line drain valves, recirculation loop sample valves, and trip the Mechanical Vacuum Pump. For changes in the Hydrogen Water Chemistry hydrogen injection rate, the trip setpoint may be adjusted based on a calculated value of the radiation level expected. Hydrogen addition will result in an increase in the nitrogen (N-16) activity in the steam due to increased N-16 carryover in the main steam. Reference Subsection 15.4.7 of the Updated FSAR.

Pressure instrumentation is provided to close the main steam isolation valves in RUN Mode when the main steam line pressure drops below 850 psig. The Reactor Pressure Vessel thermal transient due to an inadvertent opening of the turbine bypass valves when not in the RUN Mode is less severe than the loss of feedwater analyzed in Subsection 15.6.3 of the Updated FSAR, therefore, closure of the Main Steam Isolation valves for thermal transient protection when not in RUN Mode is not required.

closure (valve CV-4134A open and CV-4134B closing to route offgas through the charcoal) and another (Hi Hi Hi) to initiate offgas system isolation valve (valve CV-4108) closure. The third trip point (Hi Hi) is for alarm initiation, and will initiate prior to the offgas isolation trip. Customarily, the trip setting for bypass valve closure is lower than the trip setting for offgas system isolation valve closure.

Two sets of two radiation monitors are provided which initiate the Reactor Building Isolation function and operation of the standby gas treatment system. Two instrument channels monitor the radiation from the refueling area ventilation exhaust ducts and two instrument channels monitor the building ventilation below the refueling floor.

Trip settings of  $< 9$  mr/hr for the monitors in the refueling area ventilation exhaust ducts are based upon initiating normal ventilation isolation and standby gas treatment system operation so that none of the activity released during the refueling accident leaves the Reactor Building via the normal ventilation path but rather all the activity is processed by the standby gas treatment system.

High radiation monitors in the main steam line tunnel have been provided to detect gross fuel failure. In the event of a gross fuel failure, the established setting of 3 times normal full power background radiation levels (accounting for the N-16 carryover due to Hydrogen Water Chemistry) will trip the Mechanical Vacuum Pump, which in turn isolates the suction of the Mechanical Vacuum Pump from the high and low pressure condensers. This prevents the release of untreated fission products to the environment via the Mechanical Vacuum Pump.

Flow integrators are used to record the integrated flow of liquid from the drywell sumps. The alarm unit in each

LIMITING CONDITION FOR OPERATIONSURVEILLANCE REQUIREMENTF. Mechanical Vacuum Pump

1. The mechanical vacuum pump shall be capable of being isolated and secured on a signal of high radioactivity in the steam lines whenever the main steam isolation valves are open.
2. During mechanical vacuum pump operation the release rate of gross activity except for halogens and particulates with half lives longer than eight days shall not exceed 1 curie/sec.
3. If the requirements of 3.7.F.1 or 3.7.F.2 are not met, the Mechanical Vacuum Pump suction valves shall be closed.

F. Mechanical Vacuum Pump

1. Surveillance requirements are given in Table 4.2-D.

## NOTES FOR TABLE 3.7-3

1. Isolation Signals are as follows:

## Group 1:

The valves in Group 1 are closed upon any one of the following conditions:

1. Reactor vessel low-low-low water level.
2. Main steam line high flow.
3. Main steam line tunnel/turbine building high temperature.
4. Low main steam line pressure at turbine inlet (run mode only).
5. Main condenser low vacuum.
6. Main steam line high radiation (main steam line drain valves and recirculation loop sample valves only)

## Group 2:

The valves in Group 2 are closed upon any of the following conditions:

1. Reactor vessel low water level.
2. High drywell pressure.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 182 TO FACILITY OPERATING LICENSE NO. DPR-49

IOWA ELECTRIC LIGHT AND POWER COMPANY  
CENTRAL IOWA POWER COOPERATIVE  
CORN BELT POWER COOPERATIVE

DUANE ARNOLD ENERGY CENTER

DOCKET NO. 50-331

1.0 INTRODUCTION

In a letter dated August 30, 1991, Iowa Electric Light and Power Company (the licensee) submitted a request to revise the Duane Arnold Energy Center (DAEC) Technical Specifications (TS). The licensee proposed to eliminate the scram and main steam line isolation valve (MSIV) closure requirements associated with the main steam line radiation monitors (MSLRM). This request was submitted as the plant-specific portion which, in conjunction with the General Electric Licensing Topical Report NEDO-31400 and the staff's May 15, 1991 Safety Evaluation (SE) on this topical report, formed the basis for the package to be evaluated. The August 30, 1991 submittal was supplemented by a January 27, 1992, submittal which responded to the staff's request for additional clarifying information in a January 9, 1992, conference call.

2.0 EVALUATION

In the staff's SE, which accepted the referencing of NEDO-31400 for the elimination of the MSIV closure function and scram function of the MSLRM, it was stated that the following three conditions had to be met:

1. The applicant needed to demonstrate that the assumptions with regard to input values, including power per assembly,  $\text{Chi}/\text{Q}$ , and decay times, that were made in the generic analysis, bound those for the plant.
2. The applicant needed to include sufficient evidence, which could be implemented or proposed operating procedures or equivalent commitments, that would provide reasonable assurance that increased significant levels of radioactivity in the main steam lines would be controlled expeditiously to limit both occupational doses and environmental releases.
3. The applicant needed to standardize the MSLRM and off gas radiation monitor alarm setpoint to 1.5 times the nominal  $\text{N}^{16}$  background dose rate at the monitor locations and commit to promptly sample the reactor coolant to determine possible contamination levels in the

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reactor coolant and the need for additional corrective action, if the MSLRM or offgas radiation monitors or both exceed their alarm setpoints.

The licensee, in response to Condition 1 above, stated that the assumptions made in the generic analysis bound the DAEC. The staff has reviewed the licensee's assumptions for values such as Chi/Q and power level per assembly and has concluded that the generic analysis assumptions bound those presented in the DAEC analysis.

In response to Condition 2, the licensee's August 30, 1991 submittal indicated that procedures are in place which address the actions required in the event of a high radiation signal in the main steam line. This submittal also indicated that the licensee would revise the procedures as appropriate upon NRC approval of their request. In the January 9, 1992, conference call, the staff asked why revisions would be required if procedures are already in place that address the actions required in the event of a high radiation signal in the main steam line.

The licensee stated in the January 27, 1992 submittal that procedures are in place to ensure that any significant increase in the level of radioactivity in the main steam lines is promptly controlled to limit environmental and occupational exposures. These procedures would only need to be revised to reflect the elimination of the scram and MSIV isolation functions of the MSLRMs. The procedures direct the operator to confirm high radiation using the MSL or offgas radiation monitors and to determine if the radiation levels are trending upward. If conditions warrant, the procedures direct a reactor coolant isotopic analysis. In the January 27, 1992, submittal the licensee committed to update the procedures to incorporate the proposed TS change and to revise them to ensure that aggressive actions are taken in the event of confirmed high radiation in the main steam lines.

The staff has reviewed the licensee's commitments and has determined that they are acceptable and responsive to Condition 2 which was required to be addressed by Topical Report NEDO-31400.

The licensee stated in the August 30, 1991, submittal that the MSLRM would be set to alarm at 1.5 times normal background to account for the increased  $N^{16}$  carryover due to hydrogen water chemistry. The licensee also stated that procedures are currently in place for controlling the offgas monitor setpoints as part of the Offsite Dose Assessment Manual (ODAM), which implements Appendix I of 10 CFR Part 50 requirements. The licensee proposed an addition to TS Table 3.2-D which would trip the mechanical vacuum pump when the MSLRM trip level setpoint is exceeded, thereby isolating the mechanical vacuum pump suction valves. However, in the staff's review of this submittal, the licensee did not commit to promptly sample the reactor coolant to determine possible contamination levels in the reactor coolant if either the MSLRM and/or the offgas radiation monitor exceeded its alarm setpoint. Neither did the licensee identify any additional corrective actions if the offgas

radiation monitor exceeded its alarm setpoint. The staff's review of the ODAM did not reveal any guidance within that document if an offgas release exceeded the setpoint for the offgas radiation monitor.

The licensee's January 27, 1992, submittal referenced the procedures which identify appropriate actions in the event that MSLRMs and/or offgas monitors detect high radiation. The licensee indicated that the appropriate procedure would be revised to specifically direct the operator to request a reactor coolant sample from the Chemistry Department in the event of a confirmed high MSL radiation condition. The licensee also stated that the ODAM contains procedures for controlling the setpoint of the offgas pre-treatment monitor. This monitor's alarm is set to satisfy the DAEC TS by alarming at a value equivalent to 1.0 Ci/sec of noble gases after 30 minutes delay in the offgas holdup line. If this setpoint is exceeded, a procedure directs the operator to confirm the high activity and monitor the MSLRMs and offgas system operation. The operator is also referred to another procedure which contains a step that directs the operator to request the Chemistry Department to perform an isotopic analysis of the reactor coolant. The staff's further review of the ODAM revealed no procedures for controlling the setpoint of the offgas pre-treatment monitor. Therefore, the staff has concluded that the licensee should, consistent with their January 27, 1992 submittal, ensure that such procedures are contained in the ODAM. With their incorporation into the ODAM, Condition 3 is addressed to the staff's satisfaction.

In NEDO-31400 it was stated that some early vintage BWRs have plant operating procedures which allow continued bypassing of the offgas treatment system until late in power ascension. This operating mode was considered acceptable provided the offgas radiation monitors, pre-treatment and post-treatment, are being utilized to automatically isolate the offgas treatment bypass line and/or the offgas process line before the acceptable release rates are exceeded. The topical report stated that the pretreatment monitor is typically in the TS and has requirements for periodic calibration and functional testing. The licensee did not address this in the August 30, 1991, submittal.

In response to the NRC's inquiry on this matter, the licensee stated in the January 27, 1992, submittal that existing procedures do not allow continued bypassing of the offgas treatment system and that the appropriate procedure reiterates the TS 3.15.E.1 requirements that at least one train of charcoal beds in the offgas system be placed in operation to treat radioactive gases within 4 hours after commencing operation of the main condenser air ejectors. The licensee also stated that the requirements for the offgas post-treatment and pre-treatment radiation monitors are addressed in existing TS 3.2.D.1 and are included in Table 3.2-D, "Radiation Monitoring Systems that Initiate and/or Isolate Systems." Based upon the above, the staff has concluded that the bypassing of the offgas treatment system until late in the power ascension is not an issue for DAEC.

### 3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Iowa State official was notified of the proposed issuance of the amendment. The State official had no comments.

### 4.0 ENVIRONMENTAL CONSIDERATIONS

This amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 or changes a surveillance requirement. 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 the amendment involves no significant hazards consideration and there has been no public comment on such finding (56 FR 49922). Accordingly, the amendment meets 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 the amendment.

### 5.0 CONCLUSION

The staff has 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 amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: J. Hayes

Date: March 24, 1992