

August 27, 1987

PCR 014

Docket No. 50-334

DISTRIBUTION:

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Dear Mr. Sieber:

SUBJECT: ISSUANCE OF AMENDMENT (LICENSING ACTION TAC 64682)

The Commission has issued the enclosed Amendment No. 113 to Facility Operating License No. DPR-66 for the Beaver Valley Power Station, Unit No. 1 in partial response to your application dated February 10, 1987 and supplemented by letter dated April 10, 1987.

The amendment changes the Technical Specifications to (1) revise the meteorological monitoring instrumentation specification to include both the primary and redundant instruments, and (2) revise the specification to allow an alternative to grab sampling. The changes regarding radiation monitor setpoints are still under review and our information need is as described in the enclosed Safety Evaluation.

A copy of the related Safety Evaluation is also enclosed. The Notice of Issuance will be included in the Commission's bi-weekly Federal Register notice.

Sincerely,

/S/

Peter S. Tam, Project Manager  
Project Directorate I-4  
Division of Reactor Projects I/II

Enclosures:

1. Amendment No. 113 to DPR-66
2. Safety Evaluation

cc w/enclosures:  
See next page

\* See previous concurrence for OGC.  
Per J. Scinto, if we modified  
P. 3 of SE to clearly say that  
there is no denial of part of the  
request, then the whole package is  
OK. P. 3 has been modified and  
Scinto concurred by phone today.

LAPDI-4  
SNorris  
8/6/87  
8/26/87

PDI-4  
PTam;eh  
8/17/87  
8/26/87

PDI-4  
JStolz  
8/12/87

\* OGC-Beth  
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P. Tam  
8/26/87

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PDR ADDCK 05000334  
P PDR

Mr. J. D. Sieber  
Duquesne Light Company

Beaver Valley 1 Power Station

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

DUQUESNE LIGHT COMPANY

OHIO EDISON COMPANY

PENNSYLVANIA POWER COMPANY

DOCKET NO. 50-334

BEAVER VALLEY POWER STATION, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 113  
License No. DPR-66

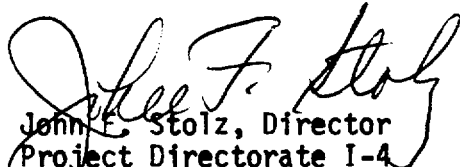
1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Duquesne Light Company, et al. (the licensee), dated February 10, 1987 and supplemented by letter dated April 10, 1987 complies with the standards and requirements of the Atomic Energy Act of 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-66 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A, 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 amendment is effective on issuance, to be implemented no later than 30 days after issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



John F. Stolz, Director  
Project Directorate I-4  
Division of Reactor Projects I/II

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: August 27, 1987

ATTACHMENT TO LICENSE AMENDMENT NO.113

FACILITY OPERATING LICENSE NO. DPR-66

DOCKET NO. 50-334

Replace the following pages of the Appendix A Technical Specifications with the enclosed pages. The revised pages are identified by amendment number and contain vertical lines indicating the area of change.

Remove

3/4 3-42

3/4 3-63

Insert

3/4 3-42

3/4 3-63

TABLE 3.3-8

METEOROLOGICAL MONITORING INSTRUMENTATION

| <u>INSTRUMENT</u>              | <u>INSTRUMENT<br/>MINIMUM<br/>ACCURACY</u> | <u>MINIMUM<br/>OPERABLE</u> |
|--------------------------------|--------------------------------------------|-----------------------------|
| 1. WIND SPEED                  |                                            |                             |
| a. Nominal Elev. 500'          | $\pm 0.5$ mph*                             | Any                         |
| b. Nominal Elev. 150'          | $\pm 0.5$ mph*                             | 3 of 6                      |
| c. Nominal Elev. 35'           | $\pm 0.5$ mph*                             |                             |
| 2. WIND DIRECTION              |                                            |                             |
| a. Nominal Elev. 500'          | $\pm 5^\circ$                              | Any                         |
| b. Nominal Elev. 150'          | $\pm 5^\circ$                              | 3 of 6                      |
| c. Nominal Elev. 35'           | $\pm 5^\circ$                              |                             |
| 3. AIR TEMPERATURE $\Delta T$  |                                            |                             |
| a. $\Delta T$ Elev. 500' - 35' | $\pm 0.1^\circ\text{C}$                    | Any                         |
| b. $\Delta T$ Elev. 150' - 35' | $\pm 0.1^\circ\text{C}$                    | 2 of 4                      |

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\* Starting speed of anemometer shall be  $< 1$  mph.

TABLE 3.3-13, (Cont'd)

TABLE NOTATION

ACTION 27 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, the contents of the tank may be released to the environment provided that prior to initiating the release:

1. At least two independent samples of the tank contents are analyzed, and at least two technically qualified members of the facility staff independently verify the release rate calculations and discharge valve lineup.

or

2. Initiate continuous monitoring with a comparable alternate monitoring channel. Surveillance Requirements applicable to the inoperable channel shall apply to the comparable alternate monitoring channel when used to satisfy this technical specification requirement.

Otherwise, suspend release of radioactive effluents via this pathway.

ACTION 28 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via this pathway may continue provided the flow rate is estimated at least once per 4 hours.

ACTION 29 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via this pathway may continue provided:

1. Grab samples are taken at least once per 8 hours and these samples are analyzed for gross activity within 24 hours.

or

2. Initiate continuous monitoring with a comparable alternate monitoring channel. Surveillance Requirements applicable to the inoperable channel shall apply to the comparable alternate monitoring channel when used to satisfy this technical specification requirement.

ACTION 30 - With the number of channels OPERABLE less than required by Minimum Channels OPERABLE requirement, immediately suspend PURGING of Reactor Containment via this pathway if both RM-VS-104A and B are not operable with the purge/exhaust system in service.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 113 TO FACILITY OPERATING LICENSE NO. DPR-66

DUQUESNE LIGHT COMPANY

OHIO EDISON COMPANY

PENNSYLVANIA POWER COMPANY

BEAVER VALLEY POWER STATION, UNIT NO. 1

DOCKET NO. 50-334

INTRODUCTION

By letter dated February 10, 1987, Duquesne Light Company (the licensee), submitted a proposed amendment to the Technical Specifications for the Beaver Valley Power Station, Unit 1. This amendment would revise several radiation monitor setpoints listed in Table 3.3-6, revise the meteorological monitoring instrumentation in Table 3.3-8, and revise action statements 27 and 29 in Table 3.3-13.

By letter dated April 10, 1987, the licensee provided additional information which supplemented the February 10, 1987 application. This supplemental information did not change the requested amendment, and therefore did not change the initial determination of no significant hazards consideration as published in the Federal Register.

DISCUSSION AND EVALUATION

(a) Radiation monitor setpoints (Table 3.3-6)

The licensee's proposed Technical Specification change includes revision of the alarm setpoints for the following monitors:

| <u>System</u>                       | <u>Monitor Designation</u> | <u>Current Value</u> | <u>Proposed Value</u> |
|-------------------------------------|----------------------------|----------------------|-----------------------|
| Containment High-Range Area Monitor | RM-RM-219 A & B            | 30 R/hr              | 1600 R/hr             |
| SLCRs                               | RM-VS-110 Ch. 7<br>& Ch. 9 | 350 cpm              | 66 cpm                |
| Aux Bldg Vent System                | RM-VS-109 Ch. 7<br>& Ch. 9 | 275 cpm              | 55 cpm                |

| <u>System</u>                     | <u>Monitor Designation</u> | <u>Current Value</u> | <u>Proposed Value</u> |
|-----------------------------------|----------------------------|----------------------|-----------------------|
| Process Vent System               | RM-GW-109 Ch. 7<br>& Ch. 9 | 18000 cpm            | 31000 cpm             |
| Auxiliary FW Pump Turbine Exhaust | RM-MS-101                  | 650 cpm              | 50 cpm                |

The following factors contribute to the need for these changes:

- (1) Gaseous effluent monitor response efficiencies changed due to work performed. The most significant change is attributable to incorporation of automatic pressure compensation on the SPING monitors. In addition, some minor modifications were made in the way that periodic calibrations are performed.
- (2) Emergency Action Levels (EALs) for a General Emergency were revised downward in 1985 by about a factor of 5. EPA Protective Action Guides (PAGs) permit exposures in the range of 1 to 5 rem whole body, and 5 to 25 rem thyroid. Previously, the licensee based its EALs on the upper limit of these PAGs, but decided in 1985 to take a more conservative approach.
- (3) The licensee wished to arrange the alarm setpoints for the various monitors on a consistent basis related to the general emergency, i.e., to set them such that the alarm would correspond to a site boundary dose of 1 rem whole body or 5 rem thyroid. Currently, some setpoints are based on the general emergency, while others were based on a site emergency.
- (4) Previously, the calculation of monitor response was based on the Updated FSAR chapter 11 expected source terms. Additional conservatism would be obtained by changing the source term to reflect the most restrictive emergency source term for the applicable release point. These source terms are found in Chapter 14 of the Updated FSAR.
- (5) The  $X/Q$  value was revised downward in 1983 from the original  $1.58E-3$   $\text{sec}/\text{m}^3$  to  $8.91E-4$   $\text{sec}/\text{m}^3$ . The latter value was developed during the reanalysis of the design-basis LOCA. It represents the highest sector value for the exclusion area boundary at the 0.5 percentile, i.e. the value which is exceeded no more than one-half of one percent of the time. This revision would result in a factor of 1.77 increase in the setpoints of the listed monitors.

It should be noted that the overall effect of the licensee's proposed revision would be to raise the setpoints of two monitors (RM-RM-219 and RM-GW-109), while it would lower the others listed above. Although all of the listed monitors are affected by the revised value of  $X/Q$ , the lower setpoint values for three of the monitors are the result of the other factors discussed in paragraphs 1 through 4 above.

With the exception of paragraph (5), we determined that the reasons given for the setpoint changes are acceptable. However, the change in the value of X/Q described in paragraph (5) needs to be justified because it does not conform to the analysis provided in the SER (NUREG-1057) for the licensee's Unit 2 facility, and is less conservative than the value provided there. Additional information is needed for us to complete review of the requested change.

(b) Meteorological monitoring instrumentation (Table 3.3-8)

The licensee proposes a revision to Table 3.3-8 to add the redundant meteorological monitoring instruments for air temperature delta T, wind speed, and wind direction. The minimum operability requirements would be increased at the same time, permitting the loss of either primary or redundant channels, but maintaining the same overall minimum availability of data.

The proposed change would not remove the requirement for operability or accuracy of the meteorological monitoring equipment, and would not decrease the availability of data in the event of failure of a particular instrument. Data obtained from the secondary instruments would be essentially equivalent to that obtained by the primary instruments, due to the placement of the secondary instruments on the same tower as the primary instruments. The increased operability requirements mean that the measurement of delta T will continue to be available from at least one elevation, and that wind speed and direction will continue to be available from at least two elevations.

Approval of this proposed change is consistent with the Beaver Valley Unit 1 Updated FSAR Section 2.2.3, Onsite Meteorological Monitoring Program. This section states that redundant cables, signal conditioning equipment, and readout devices are provided for the primary and secondary instrumentation for wind speed, wind direction, and delta T. There are separate environmentally-controlled equipment shelters for the primary and secondary signal conditioning equipment and readout devices. An alternate source of power (diesel generator) is located near the tower.

The secondary instruments are normally calibrated in the same manner and at the same frequency as the primary instruments. Technical Specifications mandate that a channel that has not been calibrated within the specified time interval must be declared inoperable; thus a non-calibrated channel could not be used to satisfy the "Minimum Operable" requirement of revised Table 3.3-8. A daily channel check of these instruments is also required to demonstrate operability. Therefore, the requested change is acceptable.

(c) Table 3.3-13, Action Statements 27 and 29

Included in the Technical Specifications for radioactive gaseous effluent monitoring instrumentation are requirements for noble gas activity monitors in the following systems: Gaseous Waste/Process Vent System, Auxiliary Building Ventilation System, and Reactor Building Supplemental Leak Collection and

Release System (SLCRS). Associated with each of these monitors is an action statement that presently requires grab sampling of any tank of waste gas to be released via one of these pathways, in the event that the continuous noble gas monitor becomes inoperable.

The licensee proposes a revision to action statements 27 and 29 in Table 3.3-13 to provide continuous monitoring by the use of alternate monitoring equipment having capabilities comparable to the primary instruments presently in service, in lieu of the grab sampling described above. The proposed wording in the revision also would require that the same surveillance requirements applicable to the inoperable channel be applied to the alternate channel when the latter is used to satisfy the Technical Specification requirement.

The alternate instruments are normally calibrated in the same manner and at the same frequency as the primary instruments. Technical Specifications mandate that a channel that has not been calibrated within the specified time interval must be declared inoperable; thus a non-calibrated channel could not be used to satisfy the "Minimum Operable" requirement of revised Table 3.3-13. A quarterly channel functional test of these instruments is also required to demonstrate operability. A channel check and source check are required prior to each release via a pathway monitored by that channel.

The licensee has previously provided information concerning the capabilities of the radiation monitors for the process vent, ventilation vent (Auxiliary Building), and SLCRS. Each effluent monitoring system has in series a Victoreen monitor, an Eberline SA 9710 monitor, and an Eberline SPING-4 monitor. These monitors provide coverage extending from E-07 to E+05 uCi/cc, relative to Xe-133. The range over which all three systems actually overlap in coverage extends from somewhat less than E-04 to about E-01 uCi/cc.

Table 3.3-13 of the Technical Specifications requires that each of these three effluent release pathways have at least one operable monitor; otherwise the licensee is required to take the appropriate action as listed in the action statement applicable to the pathway. Section 3.3.3.10 of the Technical Specifications requires the alarm/trip setpoints of these monitors be determined in accordance with the Offsite Dose Calculation Manual (ODCM), to ensure that the dose limits of Section 3.11.2.1 are not exceeded. The ODCM provides methodology for determining the setpoint for the primary monitor and an alternate monitor for each of these systems. Therefore, the licensee has the ability to effectively monitor the effluent via each of the pathways using either the primary or an alternate monitor, and if neither monitor is operable, the licensee will use grab samples or suspend releases via the pathway of concern.

The proposed change would not remove the requirement for operability or calibration frequency of the monitors, and would not decrease the availability of data in the event of failure of a particular instrument. Data obtained from the alternate instrument would be essentially equivalent to that obtained by the primary instrument. In addition, there is no change in the requirement to suspend releases via the affected pathway if monitoring instruments are inoperable and two independent grab samples cannot be obtained and analyzed, as stated in the current version (Amendment No. 66) of Section 3.3.3.10 of the Technical Specifications.

### ENVIRONMENTAL CONSIDERATION

This amendment involves 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 the 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, this 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 this amendment.

### 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, and (2) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health safety of the public.

Dated: August 27, 1987

### PRINCIPAL CONTRIBUTORS:

R. Struckmeyer, Reviewer  
W. Kane, Division Director