April 11, 1989

Docket Nos. 50-334
and 50-412

Mr. J. D. Sieber, Vice President
Nuclear Group
Duquesne Light Company
Post Office Box 4
Shippingport, Pennsylvania 15077

Dear Mr. Sieber:

SUBJECT: BEAVER VALLEY UNITS 1 AND 2 - ISSUANCE OF AMENDMENTS (TAC NOS. 71829 AND 71830)

The Commission has issued the enclosed Amendment No. 139 to Facility Operating License No. DPR-66 for the Beaver Valley Power Station, Units 1, and Amendment No. 14 to Facility Operating License No. NPF-73 for Unit 2, in response to your application dated January 5, 1989.

The amendments revise the Technical Specifications in the following way: (1) update the index, (2) correct Section 4.4.5.2, steam generator inspection requirements to be consistent with Section 4.0.5, (3) correct reporting requirement of Section 6.9.1 to be consistent with 10 CFR 50.4(b)(1), and (4) modify Basis Section 3/4.2.2 and 3/4.2.3 to reflect updated approved requirements.

A copy of the 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, Senior Project Manager
Project Directorate I-4
Division of Reactor Projects I/II
Office of Nuclear Reactor Regulation

Enclosures:
1. Amendment No. 139 to DPR-66
2. Amendment No. 14 to NPF-73
3. Safety Evaluation

cc w/enclosures:
See next page

[5520 Document Name: TAC 71829/71830]

OK w/ modifications. Safety evaluation has been modified as requested by OGC. PSTam 4/11/89

OFC	:LA:PDI-4	:PM:PDI-4	:PD:PDI-4	:OGC J. Moore	:	:	:
NAME	:SNorris	:PTam:lm PST	:JStolz PSTam for	:	:	:	:
DATE	:03/28/89	:03/30/89	:4/7/89	:04/11/89	:	:	:

OFFICIAL RECORD COPY

DF01

DATED: April 11, 1989
AMENDMENT NOS. 139 & 14 TO FACILITY OPERATING LICENSE NOS. DPR-66 AND NPF-73

Docket File
NRC PDR
Local PDR
Plant File
S. Lainas (14E4)
B. Boger (14A2)
J. Stolz
S. Norris
P. Tam
OGC
D. Hagan (MNBB 3302)
E. Jordan (MNBB 3302)
B. Grimes (9A2)
T. Meek(8) (P1-137)
W. Jones (P-130A)
E. Butcher (11F23)
ACRS (10)
GPA/PA
ARM/LFMB

DF01
1/1

Mr. J. Sieber
Duquesne Light Company

Beaver Valley Power Station
Units 1 & 2

cc:

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Resident Inspector
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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. 139
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 January 5, 1989 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 Appendix A, as revised through Amendment No. 139, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective on issuance, to be implemented within 60 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Peter S. Tam for

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

Attachment:
Changes to the Technical
Specifications

Date of Issuance: April 11, 1989

ATTACHMENT TO LICENSE AMENDMENT NO. 139

FACILITY OPERATING LICENSE NO. DPR-66

DOCKET NO. 50-334

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

Remove	Insert
VII	VII
VIII	VIII
IX	IX
X	X
XIII	XIII
XIV	XIV
XV	XV
XVI	XVI
XIX	XIX
XX	XX
XXI	XXI
XXII	XXII
XXIII	XXIII
XXIV	XXIV
XXV	XXV
XXVI	XXVI
3/4 4-8	3/4 4-8
3/4 11-22	3/4 11-22
6-13a	6-13a
6-15	6-15
6-22	6-22
B 3/4 2-5	B 3/4 2-5

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

BASES

BASES

BASES

BASES

INDEX

ADMINISTRATIVE CONTROLS

ADMINISTRATIVE CONTROLS

TABLE INDEX

Table Index (cont.)

Table Index (cont.)

Figure Index

Figure Index (cont.)

LIMITING CONDITION FOR OPERATION

3.4.5 **Each steam generator shall be OPERABLE.**

APPLICABILITY: **MODES 1, 2, 3 and 4.**

ACTION:

With one or more steam generators inoperable, restore the inoperable generator(s) to OPERABLE status prior to increasing T_{avg} above 200°F.

SURVEILLANCE REQUIREMENTS

4.4.5.1 Steam Generator Sample Selection and Inspection - **Each steam generator shall be determined OPERABLE during shutdown by selecting and inspecting at least the minimum number of steam generators specified in Table 4.4-1.**

4.4.5.2 Steam Generator Tube Sample Selection and Inspection - The steam generator tube minimum **sample size, inspection result classification, and the corresponding action required shall be as specified in Table 4.4-2. The inservice inspection of steam generator tubes shall be performed at the frequencies specified in Specification 4.4.5.3 and the inspected tubes shall be verified acceptable per the acceptance criteria of Specification 4.4.5.4. Steam generator tubes shall be examined in accordance with Article 8 of Section V ("Eddy Current Examination of Tubular Products") and Appendix IV to Section XI ("Eddy Current Examination of Nonferromagnetic Steam Generator Heat Exchanger Tubing") of the applicable year and addenda of the ASME Boiler and Pressure Vessel Code required by 10CFR50, Section 50.55a(g). The tubes selected for each inservice inspection shall include at least 3% of the total number of tubes in all steam generators; the tubes selected for these inspections shall be selected on a random basis except:**

a. **Where experience in similar plants with similar water chemistry indicates critical areas to be inspected, then at least 50% of the tubes inspected shall be from these critical areas.**

b. **The first inservice inspection (subsequent to the preservice inspection) of each steam generator shall include:**

   1. **All nonplugged tubes that previously had detectable wall penetrations (>20%), and**

   2. **Tubes in those areas where experience has indicated potential problems.**

RADIOACTIVE EFFLUENTS

3/4.11.3 SOLID RADIOACTIVE WASTE

LIMITING CONDITION FOR OPERATION

3.11.3.1 The solid radwaste system shall be used, as applicable, to solidify and package radioactive wastes, and to ensure meeting the requirements of 10 CFR Part 20, 10 CFR Part 61 and of 10 CFR Part 71. Methods utilized to meet these requirements shall be described in facility procedures and in the Process Control Program (PCP).

APPLICABILITY At all times.

ACTION:

a. With the applicable requirements of 10 CFR Part 20, 10 CFR Part 61 and 10 CFR Part 71 not satisfied, suspend affected shipments of solid radioactive wastes from the site.

b. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.11.3.1.1 Prior to shipment, solidification shall be verified in accordance with Station Operating Procedures.

4.11.3.1.2 Reports. The semi-annual Radioactive Effluent Release Report in Specification 6.9.1.12 shall include the following information for each type of solid waste shipped offsite during the report period:

a. container volume;

b. total curie quantity (determined by measurement or estimate);

c. principal radionuclides (determined by measurement or estimate);

d. type of waste (e.g., spent resin, compacted dry waste evaporator bottoms);

e. type of container (e.g., LSA, Type A, Type B, Large Quantity);

f. solidification agent (e.g., cement, urea formaldehyde); and

g. classification and other requirements specified by 10 CFR Part 61.

6.9 REPORTING REQUIREMENTS

ROUTINE REPORTS

6.9.1 In addition to the applicable reporting requirements of Title 10, Code of Federal Regulations, the following reports shall be submitted to the U. S. Nuclear Regulatory Commission, Document Control Desk.

STARTUP REPORTS

6.9.1.1 A summary report of plant startup and power escalation testing will be submitted following (1) receipt of an operating license, (2) amendment to the license involving a planned increase in power level, (3) installation of fuel that has a different design or has been manufactured by a different fuel supplier, and (4) modifications that may have significantly altered the nuclear, thermal, or hydraulic performance of the plant.

6.9.1.2 The startup report shall address each of the tests identified in the FSAR and shall include a description of the measured values of the operating conditions or characteristics obtained during the test program and a comparison of these values with design predictions and specifications. Any corrective actions that were required to obtain satisfactory operation shall also be described. Any additional specific details requested in license conditions based on other commitments shall be included in this report.

6.9.1.3 Startup reports shall be submitted within (1) 90 days following completion of the startup test program, (2) 90 days following resumption or commencement of commercial power operation, or (3) 9 months following initial criticality, whichever is earliest. If the Startup Report does not cover all three events (i.e., initial criticality, completion of startup test program, and resumption or commencement of commercial power operation), supplementary reports shall be submitted at least every three months until all three events have been completed.

MONTHLY OPERATING REPORT

6.9.1.6 Routine reports of operating statistics and shutdown experience shall be submitted on a monthly basis no later than the 15th of each month following the calendar month covered by the report.

6.9.1.7 DELETED by Amendment No. 84

6.9.1.8 DELETED by Amendment No. 84

6.9.1.9 DELETED by Amendment No. 84

ANNUAL RADIOLOGICAL ENVIRONMENTAL REPORT[3]

6.9.1.10 Routine radiological environmental operating reports covering the operation of the unit during the previous calendar year shall be submitted prior to May 1 of each year and will include reporting any deviations not reported under 6.9.2 with respect to the Radiological Effluent Technical Specifications.

6.9.1.11 The annual radiological environmental reports shall include summaries, interpretations, and statistical evaluation of the results of the radiological environmental surveillance activities for the report period, including a comparison with preoperational studies, operational controls (as appropriate), and previous environmental surveillance reports, and an assessment of the observed impacts of the plant operation on the environment. The reports shall also include the results of the land use censuses required by Specification 3.12.2. If harmful effects or evidence of irreversible damage are detected by the monitoring, the report shall provide an analysis of the problem and a planned course of action to alleviate the problem.

The annual radiological environmental operating reports shall include summarized and tabulated results in the format of Table 6.9-1 of all radiological environmental samples taken during the report period. In the event that some results are not available for inclusion with the report, the report shall be submitted noting and explaining the reasons for the missing results. The missing data shall be submitted as soon as possible in a supplementary report.

[3] A single submittal may be made for a multiple unit site. The submittal should combine these sections that are common to both units.

The radioactive effluent release report to be submitted 60 days after January 1 of each year shall also include an assessment of radiation doses to the likely most exposed real individual from reactor releases for the previous calendar year to show conformance with 40 CFR 190, Environmental Radiation Protection Standards for Nuclear Power Operation. Acceptable methods for calculating the dose contribution from liquid and gaseous effluents are given in Regulatory Guide 1.109, Revision 1. The SKYSHINE code (available from Radiation Shielding Information Center, ORNL) is acceptable for calculating the dose contribution from direct radiation due to N-16.

The radioactive effluent release reports shall include an assessment of radiation doses from the radioactive liquid and gaseous effluents released from the unit during each calendar quarter as outlined in Regulatory Guide 1.21. In addition, the unrestricted area boundary maximum noble gas gamma air and beta air doses shall be evaluated. The assessment of radiation doses shall be performed in accordance with the ODCM.

The radioactive effluent release reports shall also include any licensee initiated changes to the ODCM made during the 6 month period.

RADIAL PEAKING FACTOR LIMIT REPORT

6.9.1.14 The F_{xy} limit for Rated Thermal Power (F^{RTP}) shall be provided for all core planes containing bank "D" control rods and all unrodded core planes at least 60 days prior to cycle initial criticality. In the event that the limit would be submitted at some other time during core life, it will be submitted 60 days prior to the date the limit would become effective unless otherwise exempted by the Commission.

Any information needed to support F^{RTP} will be by request from the NRC and need not be included in this report.

SPECIAL REPORTS

6.9.2 Special reports shall be submitted to the U. S. Nuclear Regulatory Commission, Document Control Desk, within the time period specified for each report. These reports shall be submitted covering the activities identified below pursuant to the requirements of the applicable reference specification:

BASES

Fuel rod bowing reduces the value of the DNB ratio. Credit is available to offset this reduction in the generic margin. The generic design margins, totaling 9.1% DNBR, and completely offsets any rod bow penalties (< 1.3% for the worst case which occurs at a burnup of 24,000 MWD/MTU).

This margin includes the following:

1. Design Limit DNBR of 1.30 vs. 1.28
2. Grid Spacing (K_s) of 0.046 vs. 0.059
3. Thermal Diffusion Coefficient of 0.038 vs. 0.059
4. DNBR Multiplier of 0.865 vs. 0.88
5. Pitch reduction

The radial peaking factor F_{xy} (Z) is measured periodically to provide assurance that the hot channel factor, F_Q (Z), remains within its limit. The F_{xy} limit for Rated Thermal Power (F_{xy}^{RTP}) as provided in the Radial Peaking Factor Limit Report per specification 6.9.1.14 was determined from expected power control maneuvers over the full range of burnup conditions in the core.

3/4.2.4 QUADRANT POWER TILT RATIO

The quadrant power tilt ratio limit assures that the radial power distribution satisfies the design values used in the power capability analysis. Radial power distribution measurements are made during startup testing and periodically during power operation.

The limit of 1.02 at which corrective action is required provides DNB and linear heat generation rate protection with x-y plane power tilts.

The two-hour time allowance for operation with a tilt condition greater than 1.02 but less than 1.09 is provided to allow identification and correction of a dropped or misaligned rod. In the event such action does not correct the tilt, the margin for uncertainty on F_Q is reinstated by reducing the maximum allowed power by 3 percent for each percent of tilt in excess of 1.0.

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

DUQUESNE LIGHT COMPANY

OHIO EDISON COMPANY

THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

THE TOLEDO EDISON COMPANY

DOCKET NO. 50-412

BEAVER VALLEY POWER STATION, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 14
License No. NPF-73

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

   A. The application for amendment by Duquesne Light Company, et al. (the licensee) dated January 5, 1989 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. NPF-73 is hereby amended to read as follows:

   (2) Technical Specifications

   The Technical Specifications contained in Appendix A, as revised through Amendment No. 14 , and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, are hereby incorporated in the license. DLCo shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective on issuance, to be implemented within 60 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Peter S. Tam for

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

Attachment:
Changes to the Technical
Specifications

Date of Issuance: April 11, 1989

ATTACHMENT TO LICENSE AMENDMENT NO. 14

FACILITY OPERATING LICENSE NO. NPF-73

DOCKET NO. 50-412

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

Remove	Insert
3/4 4-11	3/4 4-11
6-13	6-13
6-15	6-15
6-18	6-18
B 3/4 2-4	B 3/4 2-4

REACTOR COOLANT SYSTEM

3/4.4.5 STEAM GENERATORS

LIMITING CONDITION FOR OPERATION

3.4.5 Each steam generator shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3, and 4

ACTION:

With one or more steam generators inoperable, restore the inoperable generator(s) to OPERABLE status prior to increasing T_{avg} above 200°F.

SURVEILLANCE REQUIREMENTS

4.4.5.1 Steam Generator Sample Selection and Inspection - Each steam generator shall be determined OPERABLE during shutdown by selecting and inspecting at least the minimum number of steam generators specified in Table 4.4-1.

4.4.5.2 Steam Generator Tube Sample Selection and Inspection - The steam generator tube minimum sample size, inspection result classification, and the corresponding action required shall be as specified in Table 4.4-2. The in-service inspection of steam generator tubes shall be performed at the frequencies specified in Specification 4.4.5.3 and the inspected tubes shall be verified acceptable per the acceptance criteria of Specification 4.4.5.4. Steam generator tubes shall be examined in accordance with Article 8 of Section V ("Eddy Current Examination of Tubular Products") and Appendix IV to Section XI ("Eddy Current Examination of Nonferromagnetic Steam Generator Heat Exchanger Tubing") of the applicable year and addenda of the ASME Boiler and Pressure Vessel Code required by 10 CFR 50, Section 50.55a(g). The tubes selected for each inservice inspection shall include at least 3% of the total number of tubes in all steam generators; the tubes selected for these inspections shall be selected on a random basis except:

a. Where experience in similar plants with similar water chemistry indicates critical areas to be inspected, then at least 50% of the tubes inspected shall be from these critical areas;

b. The first inservice inspection (subsequent to the preservice inspection) of each steam generator shall include:

   1) All nonplugged tubes that previously had detectable wall penetrations (> than 20%),

   2) Tubes in those areas where experience has indicated potential problems.

PROCEDURE (Continued)

6.8.3 Temporary changes to procedures of 6.8.1 above may be made provided:

a. The intent of the original procedure is not altered.

b. The change is approved by two (2) members of the plant management staff, at least one (1) of whom holds a Senior Reactor Operator's License on the unit affected.

c. The change is documented, reviewed by the OSC and approved by the Plant Manager, predesignated alternate or a predesignated Manager to whom the Plant Manager has assigned in writing the responsibility for review and approval of specific subjects, within 14 days of implementation.

6.8.4 A Post-Accident monitoring program shall be established, implemented, and maintained. The program will provide the capability to obtain and analyze reactor coolant, radioactive iodines and particulates in plant gaseous effluents, and containment atmosphere samples following an accident. The program shall include the following:

(i) Training of personnel,
(ii) Procedures for sampling and analysis, and
(iii) Provisions for maintenance of sampling and analysis equipment.

6.8.5 A program for monitoring of secondary water chemistry to inhibit steam generator tube degradation shall be implemented. This program shall be described in the station chemistry manual and shall include:

a. Identification of a sampling schedule for the critical parameters and control points for these parameters;

b. Identification of the procedures used to measure the values of the critical parameters;

c. Identification for process sampling points;

d. Procedures for the recording and management of data;

e. Procedures defining corrective actions for off control point chemistry conditions; and

f. A procedure identifying:

1) the authority responsible for the interpretation of the data, and

2) the sequence and timing of administrative events required to initiate corrective action.

6.9 REPORTING REQUIREMENTS

ROUTINE REPORTS

6.9.1 In addition to the applicable reporting requirements of Title 10, Code of Federal Regulations, the following reports shall be submitted to the U.S. Nuclear Regulatory Commission, Document Control Desk.

ANNUAL REPORTS (Continued)

b. Documentation of all challenges to the pressurizer power operated relief valves (PORVS) or pressurizer safety valves.

c. The results of specific activity analysis in which the primary coolant exceeded the limits of Specification 3.4.8. The following information shall be included: (1) Reactor power history starting 48 hours prior to the first sample in which the limit was exceeded; (2) Results of the last isotopic analysis for radioiodine performed prior to exceeding the limit, results of analysis while limit was exceeded and results of one analysis after the radioiodine activity was reduced to less than the limit. Each result should include date and time of sampling and the radioiodine concentrations; (3) Clean-up system flow history starting 48 hours prior to the first sample in which the limit was exceeded; (4) Graph of the I-131 concentration and one other radioiodine isotope concentration in microcuries per gram as a function of time for the duration of the specific activity above the steady-state level; and (5) The time duration when the specific activity of the primary coolant exceeded the radioiodine limit.

MONTHLY OPERATING REPORT

6.9.1.6 Routine reports of operating statistics and shutdown experience shall be submitted on a monthly basis no later than the 15th of each month following the calendar month covered by the report.

6.9.1.7 This item intentionally blank

6.9.1.8 This item intentionally blank

6.9.1.9 This item intentionally blank

ANNUAL RADIOLOGICAL ENVIRONMENTAL REPORT[3]

6.9.1.10 Routine radiological environmental operating reports covering the operation of the unit during the previous calendar year shall be submitted prior to May 1 of each year and will include reporting any deviations not reported under 6.9.2 with respect to the Radiological Effluent Technical Specifications.

6.9.1.11 The annual radiological environmental reports shall include summaries, interpretations, and statistical evaluation of the results of the radiological environmental surveillance activities for the report period, including a comparison with preoperational studies, operational controls (as appropriate), and previous environmental surveillance reports, and an assessment of the observed impacts of the plant operation on the environment. The reports shall also include the results of the land use censuses required by Specification 3.12.2. If harmful effects or evidence of irreversible damage are detected by the

[3]A single submittal may be made for a multiple unit site. The submittal should combine those sections that are common to both units.

SEMI-ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT (Continued)

The radioactive effluent release report to be submitted 60 days after January 1 of each year shall also include an assessment of radiation doses to the likely most exposed real individual from reactor releases for the previous calendar year to show conformance with 40 CFR 190, Environmental Radiation Protection Standards for Nuclear Power Operation. Acceptable methods for calculating the dose contribution from liquid and gaseous effluents are given in Regulatory Guide 1.109, Revision 1. The SKYSHINE Code (available from Radiation Shielding Information Center, (ORNL) is acceptable for calculating the dose contribution from direct radiation due to N-16.

The radioactive effluent release reports shall include an assessment of radiation doses from the radioactive liquid and gaseous effluents released from the unit during each calendar quarter as outlined in Regulatory Guide 1.21. In addition, the unrestricted area boundary maximum noble gas gamma air and beta air doses shall be evaluated. The assessment of radiation doses shall be performed in accordance with ODCM.

The radioactive effluent release reports shall also include any licensee initiated changes to the ODCM made during the 6 month period.

RADIAL PEAKING FACTOR LIMIT REPORT

6.9.1.14 The F_{xy} limit for Rated Thermal Power (F_{xy}^{RTP}) shall be provided for all core planes containing bank "D" control rods and all unrodded core planes at least 60 days prior to cycle initial criticality. In the event that the limit would be submitted at some other time during core life, it will be submitted 60 days prior to the date the limit would become effective unless otherwise exempted by the Commission.

Any information needed to support F_{xy}^{RTP} will be by request from the NRC and need not be included in this report.

SPECIAL REPORTS

6.9.2 Special reports shall be submitted to the U.S. Nuclear Regulatory Commission, Document Control Desk within the time period specified for each report. These reports shall be submitted covering the activities identified below pursuant to the requirements of the applicable reference specification:

a. ECCS Actuation, Specifications 3.5.2 and 3.5.3.

b. Inoperable Seismic Monitoring Instrumentation, Specification 3.3.3.3.

c. Inoperable Meteorological Monitoring Instrumentation, Specification 3.3.3.4.

3/4.2.2 and 3/4 2.3 HEAT FLUX AND NUCLEAR ENTHALPY HOT CHANNEL FACTORS $F_Q(Z)$ AND $F^N_{\Delta H}$ (Continued)

c. The control rod insertion limits of Specifications 3.1.3.5 and 3.1.3.6 are maintained.

d. The axial power distribution, expressed in terms of AXIAL FLUX DIFFERENCE is maintained within the limits.

The relaxation in $F^N_{\Delta H}$ as a function of THERMAL POWER allows changes in the radial power shape for all permissible rod insertion limits. $F^N_{\Delta H}$ will be maintained within its limits provided conditions a thru d above, are maintained.

When an F_Q measurement is taken, both experimental error and manufacturing tolerance must be allowed for. 5% is the appropriate experimental error allowance for a full core map taken with the incore detector flux mapping system and 3% is the appropriate allowance for manufacturing tolerance.

The specified limit of $F^N_{\Delta H}$ contains an 8% allowance for uncertainties which means that normal, full power, three loop operation will result in $F^N_{\Delta H} \leq 1.55/1.08$.

Fuel rod bowing reduces the value of the DNB ratio. Credit is available to offset this reduction in the generic margin. The generic design margins, totaling 9.1% DNBR, and completely offsets any rod bow penalties (< 1.3% for the worst case which occurs at a burnup of 24,000 MWD/MTU).

This margin includes the following:

1. Design Limit DNBR of 1.30 vs. 1.28
2. Grid Spacing (K_s) of 0.046 vs. 0.059
3. Thermal Diffusion Coefficient of 0.038 vs. 0.059
4. DNBR Multiplier of 0.865 vs. 0.88
5. Pitch reduction

The radial peaking factor $F_{xy}(Z)$ is measured periodically to provide assurance that the hot channel factor, $F_Q(Z)$, remains within its limit. The F_{xy} limit for Rated Thermal Power (F^{RTP}_{xy}) as provided in the Radial Peaking Factor Limit Report per Specification 6.9.1.14 was determined from expected power control maneuvers over the full range of burnup conditions in the core.

3/4.2.4 QUADRANT POWER TILT RATIO

The Quadrant Power Tilt Ratio limit assures that the radial power distribution satisfies the design values used in the power capability analysis.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NOS. 139 AND 14 TO

FACILITY OPERATING LICENSE NOS. DPR-66 AND NPF-73

DUQUESNE LIGHT COMPANY
OHIO EDISON COMPANY
PENNSYLVANIA POWER COMPANY
THE CLEVELAND ELECTRIC ILLUMINATING COMPANY
THE TOLEDO EDISON COMPANY

BEAVER VALLEY POWER STATION, UNITS NO. 1 AND NO. 2

DOCKET NOS. 50-334 AND 50-412

INTRODUCTION

By letter dated January 5, 1989, Duquesne Light Company (the licensee, acting as agent for the above utilities), submitted a request to amend the Technical Specifications for Beaver Valley Power Station, Units 1 and 2. These changes are all administrative in nature.

DISCUSSION AND EVALUATION

(1) Index to the Unit Technical Specifications

The index is updated to reflect sections deleted or added by previous amendments. The index contains no requirements and its modification has no effects on requirements in the Technical Specifications. These change are acceptable.

(2) Section 4.4.5.2, Steam Generator Tube Sample Selection and Inspection

This section has been revised to delete specific references to the dates of ASME documents. The versions of the ASME documents to be used are clearly stated in 10 CFR 50.55a(g). Thus this change would eliminate future need of Technical Specification changes whenever the applicable ASME documents are revised. The revised section is consistent with Section 4.0.5, where inservice inspection is addressed. This change is acceptable.

(3) Section 4.11.3, Surveillance Requirement for Solid Radioactive Waste (Unit 1)

The contents of the semi-annual Radioactive Effluent Release Report has been expanded by an additional item 4.11.3.1.2.g. Now the "classification and other requirements specified by 10 CFR Part 61" of solid wastes shipped offsite will also be reported. This new requirement is in accordance with 10 CFR 61, is identical to a corresponding requirement in the Unit 2 Technical Specification, and is acceptable.

(4) Sections 6.9.1 and 6.9.2, Reporting Requirements

This section is revised to state that the NRC recipient for all routine and special reports is the "Document Control Desk." This change complies with 10 CFR 50.4(b)(1) and is acceptable.

(5) Basis Section 3/4.2.2, Heat Flux and Nuclear Enthalpy Hot Channel Factors

This basis section has been revised by reducing the value of the burnup at which the maximum rod bow penalty on core operating limits must be evaluated. The previous limit of 33,000 MWD/MTU has been reduced to 24,000 MWD/MTU based on NRC apprcval (letter from C. Berlinger to E.P. Rahe, Jr., dated June 18, 1986) of the previous conservative evaluation made at the time the rod bow report (December, 1983) was approved. This results in a reduction in the maximum rod bow penalty from less than 3% to less than 1.3%.

The licensee will revise appropriate sections of the Updated Final Safety Analysis Report to reflect this changed basis.

This change reflects an NRC approval issued to Westinghouse, and is acceptable.

ENVIRONMENTAL CONSIDERATION

The amendments relate to changes in recordkeeping, reporting or administrative procedures or requirements, or make changes in technical specification bases to reflect previous staff approvals. Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(10). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

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 (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.

Dated: April 7, 1989

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