APPENDIX A

TO

FACILITY OPERATING LICENSE DPR-64

TECHNICAL SPECIFICATIONS AND BASES

FOR THE

INDIAN POINT 3 NUCLEAR GENERATING STATION UNIT NO. 3

WESTCHESTER COUNTY, NEW YORK

ENTERGY NUCLEAR INDIAN POINT 3, LLC (ENIP3)

AND ENTERGY NUCLEAR OPERATIONS, INC. (ENO)

DOCKET NO. 50-286

Date of Issuance:

1.16 REPORTABLE EVENT

A REPORTABLE EVENT shall be any of those conditions specified in Section 50.73 to 10 CFR 50.

1.17 CORE OPERATING LIMITS REPORT

The CORE OPERATING LIMITS REPORT (COLR) is the unit-specific document that provides core operating limits for the current operating reload cycle. These cycle-specific core operating limits shall be determined for each reload cycle in accordance with Specification 6.9.1.6. Plant operation within these operating limits is addressed in individual specifications.

1.18 SHUTDOWN MARGIN

SHUTDOWN MARGIN (SDM) is the instantaneous amount of negative reactivity by which the reactor is subcritical or would be subcritical from its present condition assuming all full-length rod cluster assemblies (shutdown and control) are fully inserted except for the single rod cluster assembly of highest reactivity worth which is assumed to be fully withdrawn.

1.19 EFFLUENT CONCENTRATION

The EFFLUENT CONCENTRATION is that concentration of a radionuclide specified in 10 CFR 20, Table 2 of Appendix B.

1.20 MEMBER(S) OF THE THE PUBLIC

MEMBER OF THE PUBLIC means any individual except when that individual is receiving an OCCUPATIONAL DOSE.

1.21 OCCUPATIONAL DOSE

OCCUPATIONAL DOSE means the dose received by an individual in the course of employment in which the individual's assigned duties involve exposure to radiation or to radioactive material from licensed and unlicensed sources of radiation, whether in the possession of ENIP3, ENO or other person. OCCUPATIONAL DOSE does not include dose received from background radiation, from any medical administration the individual has received, from exposure administered to individuals administered radioactive material and released in accordance with 35.75, from voluntary participation in medical research programs, or as a MEMBER OF THE PUBLIC.

1.22 OFFSITE DOSE CALCULATION MANUAL (OCDM)

The OFFSITE DOSE CALCULATION MANUAL SHALL contain the current methodology and parameters used in the calculation of offsite doses resulting from radioactive gaseous and liquid effluents, in the calculation of gaseous and liquid effluent monitoring Alarm/Trip Setpoints, and in the conduct of the Radiological Environmental Monitoring Program. The ODCM shall also contain (1) the Radioactive Effluent Controls and Radiological Environmental Monitoring Programs required by Appendix A Technical Specification 6.8.4 and (2) descriptions of the information that should be included in the Annual Radiological Environmental Operating Radioactive Effluent Release Reports required by Appendix B Technical specifications 4.3.2.1 and 4.3.2.2.

1.23 PROCESS CONTROL PROGRAM (PCP)

The PROCESS CONTROL PROGRAM shall contain the current formulas, sampling, analyses, tests, and determinations to be made to ensure that the processing and packaging of solid radioactive wastes based on demonstrated processing of actual or simulated wet solid wastes will be accomplished in such a way to assure compliance with 10 CFR Parts 20, 61 and 71, and Federal and State regulations and other requirements governing the disposal of solid radioactive waste.

1.24 SITE BOUNDARY

The SITE BOUNDARY (see Figure 1-1) means that line beyond which the land or property is not owned, leased, or otherwise controlled by either ENIP3, ENO or other site licensee.

1.25 UNRESTRICTED AREA

An UNRESTRICTED AREA (see Figure 1-1) means an area, access to which is neither limited, nor controlled by either ENIP3, ENO or other site licensee, but the UNRESTRICTED AREA does not include areas over water bodies. The concept of UNRESTRICTED AREAS, established at or beyond the SITE BOUNDARY, is utilized in the radioactive effluent controls to keep levels of radioactive materials in liquid and gaseous effluents as low as is reasonably achievable, pursuant to 10 CFR 50.36a.

Basis

When the boron concentration of the Reactor Coolant System is to be reduced the process must be uniform to prevent sudden reactivity changes in the reactor. Mixing of the reactor coolant will be sufficient to maintain a uniform boron concentration if at least one reactor coolant pump or one residual heat removal pump is running while the change is taking place. The residual heat removal pump will circulate the primary system volume in approximately one half hour. The pressurizer is of no concern because of the low pressurizer volume and because the pressurizer boron concentration will be higher than that of the rest of the reactor coolant.

Heat transfer analyses show that reactor heat equivalent to 10% of rated power (P-7) can be removed with natural circulation only (1); hence, the requirement for one operating RCP above 350°F and two operating RCP's above 2% rated power provides a substantial safety factor. In addition, a single RCP or RHR pump (connected to the RCS) provides sufficient heat removal capability for removing decay heat.

The restriction on control bank withdrawal with less than four reactor coolant pumps operating when the reactor is subcritical and RCS T_{avg} is greater than 350°F is necessary to conform with the assumptions used in the transient analyses for the uncontrolled control rod withdrawal event from subcritical condition. The FSAR safety analysis for uncontrolled control rod assembly withdrawal from a subcritical condition assumes all four reactor coolant pumps to be operating within the temperature range of concern. Using this assumption the DNB design basis is satisfied for the combination of the two banks of the maximum combined worth withdrawn at maximum speed. Since there is no mechanism by which the control rods can be automatically withdrawn due to a control system error when T_{avg} is between 350°F and the no-load temperature, such an event can only be initiated as a result of human error during rod manipulation. Prohibiting control bank withdrawal with less than four RCPs operating provides assurance that the plant is operated within the accident analysis assumptions.

The reactor shall not be operated at power levels above 10% rated power with less than four (4) reactor coolant loops in operation until safety analyses for less than four loop operation have been submitted by ENO and approval for less than four loop operation at power levels above 10% rated power has been granted by the Commission. (See license condition 2.C. (3))

Each of the pressurizer code safety valves is designed to relieve 420,000 lbs. per hr. of saturated steam at the valve set point.

If no residual heat were removed by the Residual Heat Removal System the amount of steam which could be generated at safety valve relief pressure would be less than half the capacity of a single valve. One valve therefore provides adequate protection for overpressurization.

The combined capacity of the three pressurizer safety valves is greater than the maximum surge rate resulting from complete loss of load (2) without a direct reactor trip or any other control.

F. LEAKAGE OF REACTOR COOLANT

Specification

1. If leakage of reactor coolant is indicated by the means available such as water inventory balance, monitoring equipment or direct observation a follow-up evaluation of the safety implications shall be initiated as practicable but no later than within 4 hours. Any indicated leak shall be considered to be a real leak until it is determined that the indicated leak cannot be substantiated by direct observation or other indication.

2. If the leakage rate, excluding controlled leakage sources such as the Reactor Coolant Pump Controlled Leakage Seals and Leakage into Closed Systems, exceeds 1 gpm and the source of leakage is not identified, reduce the leakage rate to within limits within four hours or be in hot shutdown within the next six hours and in cold shutdown within the following 30 hours.

3. If the sources of leakage are identified and the results of the evaluation are that continued operation is safe, operation of the reactor with a total leakage, other than from controlled sources or into closed systems, not exceeding 10 gpm shall be permitted except as specified in 3.1.F.4 below.

4. If it is determined that leakage exists through a non-isolable fault which has developed in a Reactor Coolant System Component Body, pipe wall (excluding steam generator tubes), vessel wall or pipe weld, the reactor shall be brought to the cold shutdown condition within twenty-four hours.

5. If the total leakage, other than from controlled sources or into closed systems, exceeds 10 gpm, the reactor shall be placed in the hot shutdown condition within four hours and the cold shutdown condition within an additional twenty-four hours.

6. The reactor shall not be restarted following shutdown as per items 3.1.F.2, 3, 4, or 5, above, until the leak is repaired or until the problem is otherwise corrected.

7. Whenever the reactor is shutdown, or a steam generator removed from service, in order to investigate steam generator tube leakage and/or to plug or otherwise repair a leaking tube, ENO shall inform the NRC before the reactor is brought critical.

8. Primary to secondary leakage through the steam generator tubes shall be limited to 0.3 gpm (432 gpd) per steam generator and the total leakage through all four steam generators shall be limited to 1.0 gpm (1440 gpd). With any steam generator tube leakage greater than this limit the reactor shall be placed in the hot shutdown condition within four hours and the cold shutdown condition within an additional twenty-four hours.

APPENDIX B

TO

FACILITY OPERATING LICENSE

FOR

ENTERGY NUCLEAR INDIAN POINT 3, LLC (ENIP3)

AND

ENTERGY NUCLEAR OPERATIONS, INC. (ENO)

INDIAN POINT 3 NUCLEAR

POWER PLANT

ENVIRONMENTAL TECHNICAL SPECIFICATION

REQUIREMENTS

PART I: NON-RADIOLOGICAL ENVIRONMENTAL PROTECTION PLAN

FACILITY LICENSE NO. DPR-64

DOCKET NUMBER 50-286

3.0 Consistency Requirements

3.1 Plant Design and Operation

ENO may make changes in station design or operation or perform tests or experiments affecting the environment provided such changes, tests or experiments do not involve an unreviewed environmental question, and do not involve a change in the Environmental Protection Plan.* Changes in plant design or operation or performance of tests or experiments which do not affect the environment are not subject to the requirements of this EPP. Activities governed by Section 3.3 are not subject to the requirements of this section.

Before engaging in additional construction or operational activities which may affect the environment, ENO shall prepare and record an environmental evaluation of such activity. When the evaluation indicates that such activity involves an unreviewed environmental question, ENO shall provide a written evaluation of such activities and obtain prior approval from the Director, Office of Nuclear Reactor Regulation. When such activity involves a change in the Environmental Protection Plan, such activity and change to the Environmental Protection Plan may be

*This provision does not relieve the ENO of the requirements of 10 CFR 50.59.

implemented only in accordance with an appropriate license amendment as set forth in Section 5.3.

A proposed change, test or experiment shall be deemed to involve an unreviewed environmental question if it concerns (1) a matter which may result in a significant increase in any adverse environmental impact previously evaluated in the final environmental statement (FES) as modified by staff's testimony to the Atomic Safety and Licensing Boards, supplements to the FES, environmental impact appraisals, or in any decisions of the Atomic Safety and Licensing Board; or (2) a significant change in effluents or power level in accordance with 10 CFR Part 51.5(b)(2); or (3) a matter not previously reviewed and evaluated in the documents specified in (1) of this Subsection, which may have a significant adverse environmental impact.

ENO shall maintain records of changes in facility design or operation and of tests and experiments carried out pursuant to this Subsection. These records shall include a written evaluation which provides a basis for the determination that the change, test, or experiment does not involve an unreviewed environmental question nor constitute a decrease in the effectiveness of this EPP to meet the objectives specified in Section 1.0. ENO shall include as part of his Annual Environmental Protection

Plan Report (per Subsection 5.4.1) brief descriptions, analyses, interpretations, and evaluations of such changes, tests and experiments.

3.2 Reporting Related to the NPDES Permits and State Certifications

Violations of the NPDES Permit or the State certification (pursuant to Section 401 of the Clean Water Act) shall be reported to the NRC by submittal of copies of the reports required by the NPDES Permit or certification.

Changes and additions to the NPDES Permit or the State certification shall be reported to the NRC within 30 days following the date the change is approved. If a permit or certification, in part or in its entirety, is appealed and stayed, the NRC shall be notified within 30 days following the date the stay is granted.

The NRC shall be notified of changes to the effective NPDES Permit proposed by ENIP3 and ENO by providing NRC with a copy of the proposed change at the same time it is submitted to the permitting agency. The notification of a ENIP3 and ENO

initiated change shall include a copy of the requested revision submitted to the permitting agency. ENO shall provide the NRC a copy of the application for renewal of the NPDES permit at the same time the application is submitted to the permitting agency.

3.3 Changes Required for Compliance with Other Environmental Regulations

Changes in plant design or operation and performance of tests or experiments which are required to achieve compliance with other Federal, State, or local environmental regulations are not subject to the requirements of Section 3.1.

5.0 Administrative Procedures

5.1 Review and Audit

ENO shall provide for review and audit of compliance with the Environmental Protection Plan. The audits shall be conducted independently of the individual or groups responsible for performing the specific activity. A description of the organization structure utilized to achieve the independent review and audit function and results of the audit activities shall be maintained and made available for inspection.

5.2 Records Retention

Records and logs relative to the environmental aspects of plant operation shall be made and retained in a manner convenient for review and inspection. These records and logs shall be made available to NRC on request.

Records of modifications to plant structures, systems and components determined to potentially affect the continued protection of the environment shall be retained for the life of the plant. All other records, data and logs relating to

report period, including a comparison with preoperational studies, operational controls (as appropriate), and previous non-radiological environmental monitoring reports, and an assessment of the observed impacts of the plant operation on the environment. If harmful effects or evidence of trends towards irreversible damage to the environment are observed, ENO shall provide a detailed analysis of the data and a proposed course of action to alleviate the problem.

The Annual Environmental Protection Plan Report shall also include:

(a) A list of EPP noncompliances and the corrective actions taken to remedy them.

(b) A list of all changes in station design or operation, tests, and experiments made in accordance with Subsection 3.1 which involved a potentially significant unreviewed environmental issue.

(c) A list of nonroutine reports submitted in accordance with Subsection 5.4.2.

(d) A list of all reports submitted in accordance with the NPDES permit or the State certification.

In the event that some results are not available by the report due date, the report shall be submitted noting and explaining the missing results. The missing data shall be submitted as soon as possible in a supplementary report.

APPENDIX B

TO

FACILITY OPERATING LICENSE

TO

ENTERGY NUCLEAR INDIAN POINT 3, LLC (ENIP3)

AND

ENTERGY NUCLEAR OPERATIONS, INC. (ENO)

INDIAN POINT 3

NUCLEAR POWER PLANT

ENVIRONMENTAL TECHNICAL SPECIFICATION

REQUIREMENTS

PART II RADIOLOGICAL ENVIRONMENTAL

FACILITY LICENSE NO. DPR-64

DOCKET NO. 50-286

AMENDMENT NO. 49

4.3.2.2 ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT*

An Annual Radiological Environmental Operating Report covering the operation of the unit during the previous calendar year shall be submitted prior to May 1 of each year.

The Annual Radiological Environmental Operating Reports shall include summaries, interpretations, and an analysis of trends of the results of the Radiological Environmental Monitoring Program for the report period. The material provided shall be consistent with the objectives outlined in (1) the ODCM and (2) Sections IV.B.2, IV.B.3, and IV.C of Appendix I to 10 CFR Part 50.

A full listing of the information to be contained in the Annual Radiological Environmental Operating Report is provided in the ODCM.

4.3.3 MAJOR CHANGES TO RADIOACTIVE LIQUID, GASEOUS AND SOLID WASTE TREATMENT SYSTEMS**

ENO initiated major changes to the radioactive waste systems (liquid, gaseous and solid) shall be reported to the Commission in the Annual Radioactive Effluent Release Report for the period in which the evaluation was reviewed by the PORC. The discussion of each shall contain:

a. A summary of the evaluation that led to the determination that the change could be made in accordance with 10 CFR 50.59.

b. Sufficient detailed information to totally support the reason for the change without benefit of additional or supplemental information;

c. A detailed description of the equipment, components and processes involved and the interfaces with other plant systems;

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* A single submittal may be made for a multiple unit station.

** The information called for in this Specification will be submitted as part of the annual FSAR update.

d. An evaluation of the change, which shows the predicted releases of radioactive materials in liquid and gaseous effluents and/or quantity of solid waste that differ from those previously predicted in the license application and amendments thereto;

e. An evaluation of the change, which shows the expected maximum exposures to an individual in the UNRESTRICTED AREA and to the general population that differ from those previously estimated in the license application and amendments thereto;

f. A comparison of the predicted releases of radioactive materials, in liquid and gaseous effluents and in solid waste, to the actual releases for the period prior to when the changes are to made;

g. An estimate of the exposure of the plant operating personnel as a result of the change; and

h. Documentation of the fact that the change was reviewed and found acceptable by the PORC.

4.3 RECORD RETENTION

Records associated with the Radiological Environmental Monitoring Program are to be retained as required by Appendix A Technical Specification 6.10.2.

4.4 PROCESS CONTROL PROGRAM (PCP)

4.5.1 The PCP shall be approved by the Commission prior to implementation.

4.5.2 ENO initiated changes to the PCP:

1. Shall be documented and records of reviews performed shall be retained as required by Appendix A Technical Specification 6.10.2.p. This documentation shall contain:

   a. Sufficient information to support the change together with the appropriate analyses or evaluations justifying the change(s); and

b. A determination that the change will maintain the overall conformance of the solidified waste product to existing requirements of Federal, State, or other applicable regulations.

2. Shall become effective upon review and acceptance by the PORC and the approval of the Site Executive Officer.

3. Shall be submitted to the Commission as a part of or concurrent with the Annual Radioactive Effluent Release Report for the period of the report in which any change to the PCP was made. Each change shall be identified by marking in the margin of the affected pages, clearly indicating the area of the page that was changed and shall indicate the date (e.g., month/year) the change was implemented.

4.6 OFFSITE DOSE CALCULATION MANUAL (ODCM)

4.6.1 The ODCM shall be approved by the Commission prior to implementation.

4.6.2 ENO initiated changes to the ODCM:

1. Shall be documented and records of reviews performed shall be retained as required by Appendix A Technical 6.10.2.p. This documentation shall contain:

   a. Sufficient information to support the change together with the appropriate analyses or evaluations justifying the change(s); and

   b. A determination that the change will maintain the level of radioactive effluent control required pursuant to 10 CFR 20.1302, 40 Part 190, 10 CFR 50.36a, and Appendix I to 10 CFR Part 50 and not adversely impact the accuracy or reliability of effluent dose or setpoint calculations;

2. Shall become effective upon review and acceptance by the PORC and the approval of the Site Executive Officer.

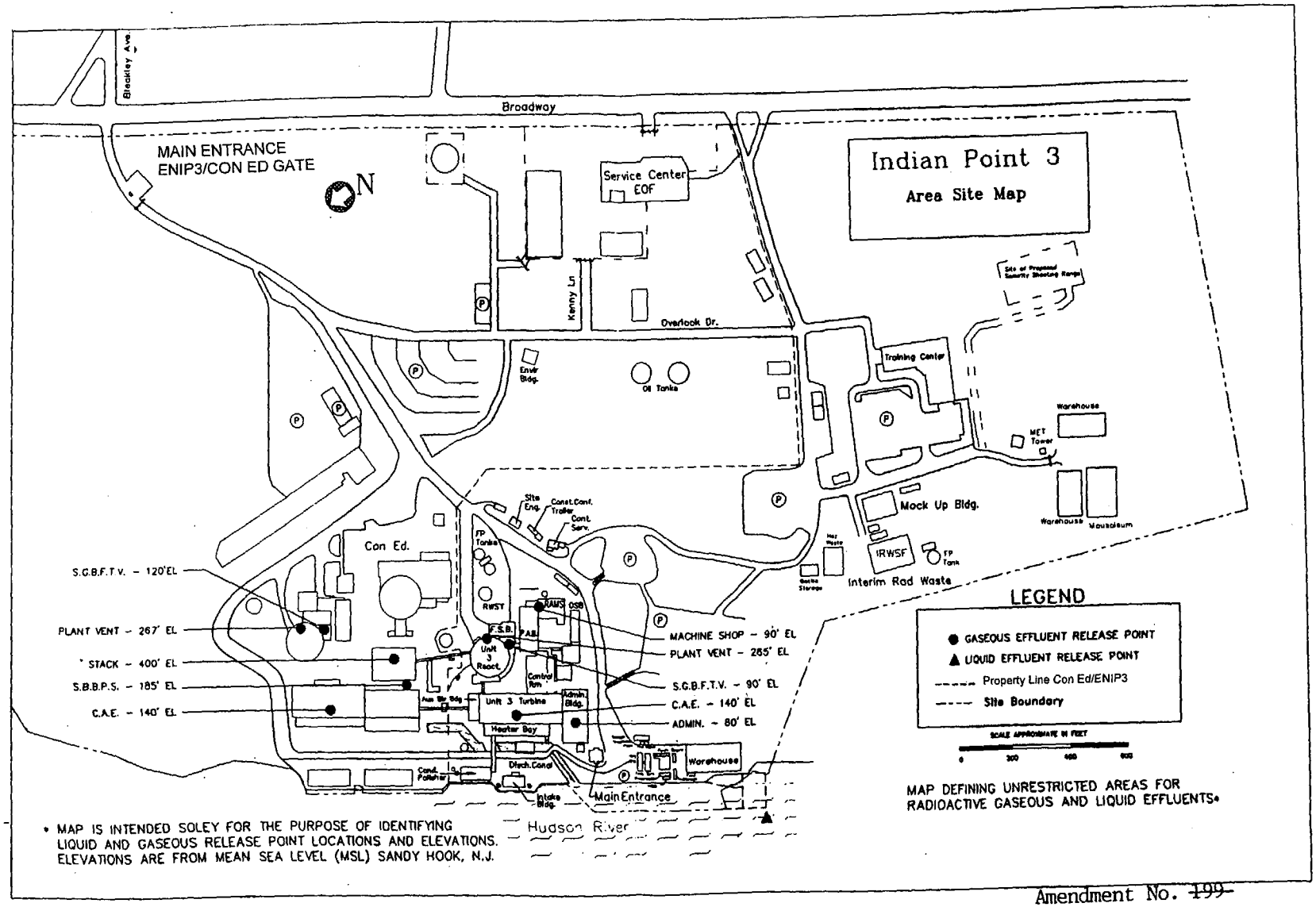

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Figure 4.7-1