ENCLOSURE 1 TO NLS-87-033

PROPOSED TECHNICAL SPECIFICATION PAGES

BRUNSWICK-1

Radioactive Waste Oil Incineration

(85TSB19)

(5132MAT/ccj)

SUMMARY LIST OF REVISIONS

PAGE NO.	DESCRIPTION OF CHANGE
3/4 11-12	Included Gaseous Release Type C, "Incinerated Oil"
3/4 11-14a	New Page. Included Notes (i) and (j).
3/4 11-15	Included LCO 3.11.2.3.c, which limits amount of radioactivity allowed to be released by burning of contaminated oil.
B 3/4 11-3	Included a reference to incineration of waste oil.
B 3/4 11-5	Included a reference to incineration of waste oil.
6-24	Included reporting requirements 6.9.1.9.e, associated with incineration of waste oil.

TABLE 4.11.2-1

RADIOACTIVE GASEOUS WASTE SAMPLING AND ANALYSIS PROGRAM

Gaseous Release Type	Sampling Frequency	Minimum Analysis Frequency	Type of Activity Analysis	Lower Limit of Detection (LLD)[a] () Ci/ml)
A. Drywell Purge	P Each Purge Grab Samples	P Each Purge	Principal Gamma Emmitters[b]	1×10^{-4}
B. Environmental Release Points - Main Stack, Reactor Building Vents, Turbine Building Vents, Hot Shop[h]	M[c][d] Grab Sample	M[c]	Principal Gamma Emmitters[b]	1×10^{-4}
			H-3	1×10^{-6}
	Continuous[e]	W[f][g] Charcoal Sample	I-131	1×10^{-12}
	Continuous[e]	W[f][g] Particulate Sample	Principle Gamma Emmitters[b] (I-131, others)	1×10^{-11}
	Continuous[e]	M Composite Particulate Sample	Gross Alpha	1×10^{-11}
	Continuous[e]	Q Composite Particulate Sample	Sr-89, Sr-90	1×10^{-11}
	Continuous[e]	Noble Gas Monitor	Noble Gases, Gross Beta or Gamma	1×10^{-6}
C. Incinerated Oil[i]	P Each Batch[j] Grab Sample	P Each Batch[j]	Principle Gamma[b] Emitter	5×10^{-7}

TABLE 4.11.2-1 (Continued)

RADIOACTIVE GASEOUS WASTE SAMPLING AND ANALYSIS PROGRAM

TABLE NOTATION

(i) Incinerated oil may be discharged via points other than the main vent (e.g., incinerator). Release shall be accounted for based on pre-release grab sample data.

(j) Samples for incinerated oil releases shall be collected from and representative of oil in liquid form.

RADIOACTIVE EFFLUENTS

DOSE - IODINE-131, IODINE-133, TRITIUM, AND RADIONUCLIDES IN PARTICULATE FORM

LIMITING CONDITION FOR OPERATION

3.11.2.3 The dose to a MEMBER OF THE PUBLIC from iodine-131, iodine-133, tritium, and all radionuclides in particulate form with half-lives greater than 8 days in gaseous effluents released from the site to areas at and beyond the SITE BOUNDARY (see Figure 5.1.3-1) shall be limited to the following:

a. During any calendar quarter: Less than or equal to 15 mrems to any organ; and

b. During any calendar year: Less than or equal to 30 mrems to any organ.

c. Less than 0.1% of the limits of 3.11.2.3(a) and (b) as a result of burning contaminated oil.

APPLICABILITY: At all times.

ACTION:

a. With the calculated dose from the release of iodine-131, iodine-133, tritium, and radionuclides in particulate form with half-lives greater than 8 days, in gaseous effluents exceeding any of the above limits, in lieu of a Licensee Event Report, prepare and submit to the Commission within 30 days, pursuant to Specification 6.9.2, a Special Report that identifies the cause(s) for exceeding the limit and defines the corrective actions that have been taken to reduce the releases and the proposed corrective actions to be taken to assure that subsequent releases will be in compliance with the above limits.

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

SURVEILLANCE REQUIREMENTS

4.11.2.3 Dose Calculations - Cumulative dose contributions for the current calendar quarter and current calendar year for iodine-131, iodine-133, tritium, and radionuclides in particulate form with half-lives greater than 8 days shall be determined in accordance with the ODCM at least once per 31 days.

NOTE: See Bases 3/4.11.2.3

3/4.11.1.4 LIQUID HOLDUP TANKS

The tanks listed in this specification include all those outdoor tanks that are not surrounded by liners, dikes, or walls capable of holding the tank contents and do not have tank overflows and surrounding area drains connected to the liquid radwaste treatment system with the exception of the auxiliary surge tank. The auxiliary surge tank is excluded from this specification because the tank and its associated piping are all Seismic Class I.

Since the condensate storage tanks have continuous influent and effluent, stratification should not occur. Samples taken from the operating condensate transfer pump(s) vent or drain shall be deemed representative of this system.

"Without delay" implies that the operator, upon determining the limiting condition for operation is being exceeded, takes the next appropriate action to comply with the specification.

3/4.11.2 GASEOUS EFFLUENTS

3/4.11.2.1 DOSE RATE

This specification is provided to ensure that the dose rate at and beyond the SITE BOUNDARY from gaseous effluents from all units on the site will be within the annual dose rate limits of 10 CFR Part 20 for UNRESTRICTED AREAS. The annual dose limits are the doses associated with the concentration of 10 CFR Part 20, Appendix B, Table II, Column 1. These limits provide reasonable assurance that radioactive material discharged in gaseous effluents will not result in the exposure of a MEMBER OF THE PUBLIC in an UNRESTRICTED AREA, either within or outside the SITE BOUNDARY, to annual average concentrations exceeding the limits specified in Appendix B, Table II, of 10 CFR Part 20 [10 CFR Part 20.106 (b)]. For MEMBERS OF THE PUBLIC who may at times be within the SITE BOUNDARY, the occupancy of that MEMBER OF THE PUBLIC will be sufficiently low to compensate for any increase in the atmospheric diffusion factor above that for the SITE BOUNDARY. The specified release rate limits restrict, at all times, the corresponding gamma and beta dose rates above background to a MEMBER OF THE PUBLIC at or beyond the SITE BOUNDARY to less than or equal to 500 mrems/year to the total body or to less than or equal to 3000 mrems/year to the skin. These release rate limits also restrict, at all times, the corresponding thyroid dose rate above background to a child via the inhalation pathway to less than or equal to 1500 mrems/year.

This specification applies to the release of gaseous effluents from all reactors at the site and from the incineration of waste oil.

With regard to footnotes (c) and (g) of Table 4.11.2-1, (1) to determine whether the DOSE EQUIVALENT I-131 concentration in the primary coolant has increased by more than a factor of 3, the iodine-131 analysis performed after the transient will be compared to the most recent routine analysis for DOSE EQUIVALENT I-131 concentration performed before the transient; and (2) to determine whether the main condenser air ejector noble gas monitor has increased by more than a factor of 3, the activity indicated on the monitors'

3/4.11.2.3 DOSE - IODINE-131, IODINE-133, TRITIUM, AND RADIONUCLIDES IN PARTICULATE FORM

This specification is provided to implement the requirements of Section II.C, III.A, and IV.A of Appendix I, 10 CFR Part 50. The Limiting Conditions for Operation are the guides set forth in Section II.C of Appendix I. The ACTION statements provide the required operating flexibility and, at the same time, implements the guides set forth in Section IV.A of Appendix I to assure that the releases of radioactive materials in gaseous effluents to UNRESTRICTED AREAS will be kept "as low as is reasonably achievable." The ODCM calculational methods specified in the surveillance requirements implement the requirements in Section III.A of Appendix I that conformance with the guides of Appendix I be shown by calculational procedures based on models and data such that the actual exposure of a MEMBER OF THE PUBLIC through appropriate pathways is unlikely to be substantially underestimated. The ODCM calculational methods for calculating the doses due to the actual release rates of the subject materials are required to be consistent with the methodology provided in Regulatory Guide 1.109, "Calculating of Annual Doses to Man from Routine Releases of Reactor Effluents for the Purpose of Evaluating Compliance with 10 CFR Part 50, Appendix I," Revision 1, October 1977 and Regulatory Guide 1.111, "Methods for Estimating Atmospheric Transport and Dispersion of Gaseous Effluents in Routine Releases from Light-Water-Cooled Reactors," Revision 1, July 1977. These equations also provide for determining the actual doses based upon the historical average atmospheric conditions. The release rate specification for iodine-131, iodine-133, tritium, and radioactive material in particulate form with half-lives gerater than 8 days are dependent on the existing radionuclide pathways to man in the areas at and beyond the SITE BOUNDARY. The pathways which are examined in the development of these calculations are: (1) individual inhalation of airborne radionuclides, (2) deposition of radionuclides onto green leafy vegetation with subsequent consumption by man, (3) deposition onto grassy areas where milk animals and meat producing animals graze, with consumption of the milk and meat by man, and (4) deposition on the ground with subsequent exposure of man. The limits of this specification are twice the 10 CFR 50 Appendix I per reactor guidelines because they are written for a two unit site.

Doses due to the incineration of waste oil will be determined in accordance with the ODCM.

3/4.11.2.4 GASEOUS RADWASTE TREATMENT SYSTEM

This requirement provides reasonable assurance that the releases of radioactive materials in gaseous effluents will be kept "as low as reasonably achievable." This specification implements the requirements of 10 CFR Part 50.36a, General Design Criterion 60 of Appendix A to 10 CFR Part 50, and the design objectives given in Section II.D of Appendix I to 10 CFR Part 50. The GASEOUS RADWASTE TREATMENT SYSTEM refers to the 30-minute offgas holdup line, stack filter house filtration, and the Augmented Off-Gas-Treatment System.

SEMIANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT (Continued)

6. Solidification agent or absorbent (e.g., cement, urea formaldehyde).

c. A list of description of unplanned releases from the site to UNRESTRICTED AREAS of radioactive materials in gaseous and liquid effluents made during the reporting period.

d. Any changes made during the reporting period to the PROCESS CONTROL PROGRAM (PCP) or the OFFSITE DOSE CALCULATION MANUAL (ODCM), as well as a listing of new locations for dose calculations and/or environmental monitoring identified by the land use census pursuant to Specification 3.12.2.

e. A summary of radioactivity released from the site by incineration of radioactive waste oil.

6.9.1.10 The portion of the Semiannual Radioactive Effluent Release Report to be submitted within 90 days after January 1 of each year shall include the following:

a. An annual summary of hourly metorological data collected over the previous calendar year. This annual summary may be either in the form of an hour-by-hour listing on magnetic tape of wind speed, wind direction, atmospheric stability, and precipitation (if measured), or in the form of joint frequency distributions of wind speed, wind direction, and atmospheric stability.[6]/

b. An assessment of the radiation doses due to the radioactive liquid and gaseous effluents released from the station during the previous calendar year.

MONTHLY OPERATING REPORTS

6.9.1.11 Routine reports of operating statistics and shutdown experience, including documentation of all challenges to main steam system safety/relief valves, shall be submitted on a monthly basis to the Director, Office of Resource Management, U. S. Nuclear Regulatory Commission, Washington, D.C. 20555, with a copy to the Regional Administrator of the Regional Office no later than the 15th of each month following the calendar month covered by the report.

6/ In lieu of submission with the Semiannual Radioactive Effluent Release Report, the licensee has the option of retaining this summary of required meteorological data in a file that shall be provided to the NRC upon request.

ENCLOSURE 2 TO NLS-87-033

PROPOSED TECHNICAL SPECIFICATION PAGES

BRUNSWICK-2

Radioactive Waste Oil Incineration

(85TSB19)

(5132MAT/ccj)

SUMMARY LIST OF REVISIONS

PAGE NO.	DESCRIPTION OF CHANGE
3/4 11-12	Included Gaseous Release Type C, "Incinerated Oil"
3/4 11-14a	New Page. Included Notes (i) and (j).
3/4 11-16	Included LCO 3.11.2.3.c, which limits amount of radioactivity allowed to be released by burning of contaminated oil.
B 3/4 11-3	Included a reference to incineration of waste oil.
B 3/4 11-5	Included a reference to incineration of waste oil.
6-24	Included reporting requirements 6.9.1.9.e, associated with incineration of waste oil.

(5132MAT/ccj)

TABLE 4.11.2-1

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Gaseous Release Type	Sampling Frequency	Minimum Analysis Frequency	Type of Activity Analysis	Lower Limit of Detection (LLD)[a] () Ci/ml)
A. Drywell Purge	P Each Purge Grab Samples	P Each Purge	Principal Gamma Emmitters[b]	1×10^{-4}
B. Environmental Release Points - Main Stack, Reactor Building Vents, Turbine Building Vents, Hot Shop[h]	M[c][d] Grab Sample	M[c]	Principal Gamma Emmitters[b]	1×10^{-4}
			H-3	1×10^{-6}
	Continuous[e]	W[f][g] Charcoal Sample	I-131	1×10^{-12}
	Continuous[e]	W[f][g] Particulate Sample	Principle Gamma Emmitters[b] (I-131, others)	1×10^{-11}
	Continuous[e]	M Composite Particulate Sample	Gross Alpha	1×10^{-11}
	Continuous[e]	Q Composite Particulate Sample	Sr-89, Sr-90	1×10^{-11}
	Continuous[e]	Noble Gas Monitor	Noble Gases, Gross Beta or Gamma	1×10^{-6}
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TABLE 4.11.2-1 (Continued)

RADIOACTIVE GASEOUS WASTE SAMPLING AND ANALYSIS PROGRAM

TABLE NOTATION

(i) Incinerated oil may be discharged via points other than the main vent (e.g., incinerator). Release shall be accounted for based on pre-release grab sample data.

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RADIOACTIVE EFFLUENTS

DOSE - IODINE-131, IODINE-133, TRITIUM, AND RADIONUCLIDES IN PARTICULATE FORM

LIMITING CONDITION FOR OPERATION

3.11.2.3 The dose to a MEMBER OF THE PUBLIC from iodine-131, iodine-133, tritium, and all radionuclides in particulate form with half-lives greater than 8 days in gaseous effluents released from the site to areas at and beyond the SITE BOUNDARY (see Figure 5.1.3-1) shall be limited to the following:

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c. Less than 0.1% of the limits of 3.11.2.3(a) and (b) as a result of burning contaminated oil.

APPLICABILITY: At all times.

ACTION:

a. With the calculated dose from the release of iodine-131, iodine-133, tritium, and radionuclides in particulate form with half-lives greater than 8 days, in gaseous effluents exceeding any of the above limits, in lieu of a Licensee Event Report, prepare and submit to the Commission within 30 days, pursuant to Specification 6.9.2, a Special Report that identifies the cause(s) for exceeding the limit and defines the corrective actions that have been taken to reduce the releases and the proposed corrective actions to be taken to assure that subsequent releases will be in compliance with the above limits.

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

SURVEILLANCE REQUIREMENTS

4.11.2.3 Dose Calculations - Cumulative dose contributions for the current calendar quarter and current calendar year for iodine-131, iodine-133, tritium, and radionuclides in particulate form with half-lives greater than 8 days shall be determined in accordance with the ODCM at least once per 31 days.

NOTE: See Bases 3/4.11.2.3

3/4.11.1.4 LIQUID HOLDUP TANKS

The tanks listed in this specification include all those outdoor tanks that are not surrounded by liners, dikes, or walls capable of holding the tank contents and do not have tank overflows and surrounding area drains connected to the liquid radwaste treatment system with the exception of the auxiliary surge tank. The auxiliary surge tank is excluded from this specification because the tank and its associated piping are all Seismic Class I.

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Until such time as the Augmented Off-Gas Treatment System becomes operational at the Brunswick Steam Electric Plant, the GASEOUS RADWASTE TREATMENT SYSTEM shall refer to the 30-minute offgas holdup line and stack filter house

SEMIANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT (Continued)

6. Solidification agent or absorbent (e.g., cement, urea formaldehyde).

c. A list of description of unplanned releases from the site to UNRESTRICTED AREAS of radioactive materials in gaseous and liquid effluents made during the reporting period.

d. Any changes made during the reporting period to the PROCESS CONTROL PROGRAM (PCP) or the OFFSITE DOSE CALCULATION MANUAL (ODCM), as well as a listing of new locations for dose calculations and/or environmental monitoring identified by the land use census pursuant to Specification 3.12.2.

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b. An assessment of the radiation doses due to the radioactive liquid and gaseous effluents released from the station during the previous calendar year.

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6/ In lieu of submission with the Semiannual Radioactive Effluent Release Report, the licensee has the option of retaining this summary of required meteorological data in a file that shall be provided to the NRC upon request.