ATTACHMENT A

NIAGARA MOHAWK POWER CORPORATION
LICENSE NO. DPR-63
DOCKET NO. 50-220

Proposed Changes to the Current Technical Specifications (TS)

Replace the existing pages 99 and 100 with the attached corresponding revised pages. These pages include the proposed changes to the TS, as well as the associated changes to the Bases. The pages have been typed in their entirety, incorporating the changes, and include marginal markings (revision bars) to indicate the changes.

LIMITING CONDITION FOR OPERATION	SURVEILLANCE REQUIREMENT
3.2.4 REACTOR COOLANT ACTIVITY	4.2.4 REACTOR COOLANT ACTIVITY
Applicability:	Applicability:
Applies to the limits on reactor coolant activity at all operating conditions.	Applies to the periodic testing requirements of the reactor coolant activity.
Objective:	Objective:
To assure that in the event of a reactor coolant system line break outside the drywell permissible doses are not exceeded.	To assure that limits on coolant activity are not exceeded.
Specification:	Specification:
a. The reactor coolant system radioactivity concentration in water shall not exceed 9.47 microcuries of total iodine per gram of water.	a. Samples shall be taken at least every 96 hours and analyzed for gross gamma activity.
b. If Specification 3.2.4 a, above, cannot be met after a routine surveillance check, the reactor shall be placed in the cold shutdown condition within ten hours.	b. Isotopic analyses of samples shall be made at least once per month.

BASES FOR 3.2.4 AND 4.2.4 REACTOR COOLANT ACTIVITY

The primary coolant radioactivity concentration limit of 25 μCi total iodine per gram of water was calculated based on a steamline break accident which is isolated in 10.5 seconds. For this accident analysis, all the iodine in the mass of coolant released in this time period is assumed to be released to the atmosphere at the top of the turbine building (30 meters). By limiting the thyroid dose at the site boundary to a maximum of 30 Rem, the iodine concentration in the primary coolant is back-calculated assuming fumigation meteorology, Pasquill Type F at 1m/sec. The iodine concentration in the primary coolant resulting from this analysis is 25 μCi/gm.

A radioactivity concentration limit of 25 μCi/g total iodine could only be reached if the gaseous effluents were near the limit based on the assumed effluent isotopic content (Table A-12 of the FSAR) and the fact that the primary coolant cleanup systems were inoperative. When the cleanup system is operating, it is expected that the primary coolant radioactivity would be about 12 μCi/g total iodine. The concentrations expected during operations with a gaseous effluent of about 0.1 μCi/sec would be about 1.5 μCi/g total iodine.

The reactor water sample will be used to assure that the limit of Specification 3.2.4 is not exceeded. The total radioactive iodine activity would not be expected to change rapidly over a period of 96 hours. In addition, the trend of the stack offgas release rate, which is continuously monitored, is a good indicator of the trend of the iodine activity in the reactor coolant.

Since the concentration of radioactivity in the reactor coolant is not continuously measured, coolant sampling would be ineffective as a means to rapidly detect gross fuel element failures. However, as discussed in the bases for Specification 3.6.2, some capability to detect gross fuel element failures is inherent in the radiation monitors in the offgas system and on the main steam lines.

A more restrictive reactor coolant total iodine limit has been imposed for Control Room habitability purposes only. A limit of 9.47 μCi/g is imposed based on the most limiting small break LOCA outside containment. Provided reactor coolant iodine is maintained at or below this value, the Control Room Air Treatment System would not be required to maintain the radiological effects of the line break below GDC19 dose limits.

ATTACHMENT B

NIAGARA MOHAWK POWER CORPORATION
LICENSE NO. DPR-63
DOCKET NO. 50-220

Mark-Up Copy of the Proposed Changes to the Current Technical Specifications

Pages 99 and 100 have been marked up by hand to reflect the proposed changes. The hand mark-up pages include the proposed changes to the TSs, as well as the associated changes to the Bases.

LIMITING CONDITION FOR OPERATION	SURVEILLANCE REQUIREMENT
3.2.4 REACTOR COOLANT ACTIVITY	4.2.4 REACTOR COOLANT ACTIVITY
Applicability:	Applicability:
Applies to the limits on reactor coolant activity at all operating conditions.	Applies to the periodic testing requirements of the reactor coolant activity.
Objective:	Objective:
To assure that in the event of a reactor coolant system line break outside the drywell permissible doses are not exceeded.	To assure that limits on coolant activity are not exceeded.
Specification:	Specification:
a. The reactor coolant system radioactivity concentration in water shall not exceed ~~25~~ 9.47 microcuries of total iodine per gram of water.	a. Samples shall be taken at least every 96 hours and analyzed for gross gamma activity.
b. If Specification 3.2.4 a, above, cannot be met after a routine surveillance check, the reactor shall be placed in the cold shutdown condition within ten hours.	b. Isotopic analyses of samples shall be made at least once per month.

BASES FOR 3.2.4 AND 4.2.4 REACTOR COOLANT ACTIVITY

The primary coolant radioactivity concentration limit of 25 μCi total iodine per gram of water was calculated based on a steamline break accident which is isolated in 10.5 seconds. For this accident analysis, all the iodine in the mass of coolant released in this time period is assumed to be released to the atmosphere at the top of the turbine building (30 meters). By limiting the thyroid dose at the site boundary to a maximum of 30 Rem, the iodine concentration in the primary coolant is back-calculated assuming fumigation meteorology, Pasquill Type F at 1m/sec. The iodine concentration in the primary coolant resulting from this analysis is 25 μCi/gm.

A radioactivity concentration limit of 25 μCi/g total iodine could only be reached if the gaseous effluents were near the limit based on the assumed effluent isotopic content (Table A-12 of the FSAR) and the fact that the primary coolant cleanup systems were inoperative. When the cleanup system is operating, it is expected that the primary coolant radioactivity would be about 12 μCi/g total iodine. The concentrations expected during operations with a gaseous effluent of about 0.1 μCi/sec would be about 1.5 μCi/g total iodine.

The reactor water sample will be used to assure that the limit of Specification 3.2.4 is not exceeded. The total radioactive iodine activity would not be expected to change rapidly over a period of 96 hours. In addition, the trend of the stack offgas release rate, which is continuously monitored, is a good indicator of the trend of the iodine activity in the reactor coolant.

Since the concentration of radioactivity in the reactor coolant is not continuously measured, coolant sampling would be ineffective as a means to rapidly detect gross fuel element failures. However, as discussed in the bases for Specification 3.6.2, some capability to detect gross fuel element failures is inherent in the radiation monitors in the offgas system and on the main steam lines.

A more restrictive reactor coolant total iodine limit has been imposed for Control Room habitability purposes only. A limit of 9.47 μCi/g is imposed based on the most limiting small break LOCA outside containment. Provided reactor coolant iodine is maintained at or below this value, the Control Room Air Treatment System would not be required to maintain the radiological effects of the line break below GDC19 dose limits.