

Duke Power Company
Oconee Nuclear Station

Attachment I

Supplemental Proposed Technical Specification Revision

8703100120 870303
PDR ADDCK 05000269
P PDR

where A_j = pond inventory limit for single radionuclide "j"
(curies)

C_j = 10 CFR 20, Appendix B, Table II, Column 2, concentration
for single radionuclide "j" (curies)

- b. After a primary to secondary leak is detected, the initial batch of used Powdex resin shall not be transferred to the CTP. No batch of used powdex resin shall be transferred to the CTP unless the sum of the ratios of the activity of the radionuclides identified in the preceeding batch from any powdex cell in the same unit is less than 0.1% of the limit identified in 3.9.4.a.

$$\sum_j \frac{Q_j}{A_j} < 1.0 \times 10^{-3}$$

where Q_j = radionuclide activity in the batch

A_j = pond inventory limit for radionuclide 'j'

- c. The total radionuclide inventory of all batches of used powdex resin transferred to the Chemical Treatment Ponds over the previous 13 weeks, shall not exceed 0.4% of the pond radionuclide inventory limit. If this limit is exceeded, a report shall be submitted within 30 days to the Regional NRC Office describing the reason or reasons for exceeding the limit and plans for future operation. Decay of radionuclides may be taken into account in determining inventory levels.

$$Q_{j_1} + Q_{j_2} + Q_{j_3} + \dots + Q_{j_n} \leq .004 \times A_j$$

Where,

Q_j = Total inventory of radionuclide j in a batch

n = Number of batches transferred to the Chemical Treatment Ponds during the previous 13 - week period.

3.9.5 Liquid Holdup Tanks

- a. The quantity of radioactive material contained in each outside temporary tank shall be limited to less than or equal to 10 curies, excluding tritium and dissolved or entrained noble gases. Tanks included in this specification are those outdoor tanks that are not surrounded by liners, dikes, or walls capable of holding the tank contents and that do not have tank overflows and surrounding area drains connected to the liquid radwaste treatment system.
- b. The quantity of radioactive material contained in each of the outside temporary tanks shall be determined to be within the above limit by analyzing a representative sample of the tanks contents at least once per 7 days when radioactive materials are being added to the tank.

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Attachment II

Supplemental Technical Justification

Supplemental Technical Justification

The proposed Technical Specification revision addressed in this submittal concerns the revision of Part C of Oconee Technical Specification 3.9.4, "Chemical Treatment Ponds (CTP 1 and 2)." The specification is based on the assumption that most or all of powdex resin transfers are to the CTP. In a situation where most or all resin transfers are to the Powdex Backwash Tank (PBT) (as has been the case at Oconee for the past five years), this specification can restrict transfers to the CTP far beyond the original intent of the specification.

Transfers of contaminated batches of powdex resin are allowed by Technical Specification 3.9.4 (c) if the average radionuclide inventory per batch averaged over the transfers of the previous 13 weeks is less than or equal to .01% of the pond radionuclide inventory limit. In cases where no transfers have occurred during the previous thirteen weeks, the allowable activity transferred to the pond is restricted well-beyond the intent of the Technical Specification.

To illustrate this point, consider the following examples of two separate thirteen weeks periods:

	<u>Period "A"</u>	<u>Period "B"</u>
Resin transfers to the CTP during previous 13 weeks	40	1
Resin transfers to the PBT during previous 13 weeks	0	39
	<hr/>	<hr/>
Total transfers per 13 week period	40	40

Part C would allow all 40 resin transfers in period "A" to be transferred to the CTP with each batch radionuclide inventory of up to .01% of the total inventory limit. In other words, in period "A" a total transfer of 0.4% ($40 \times .01\%$) of the inventory limit is permissible. The average over the thirteen week period would be .01% of the inventory limit, which is permissible per Part C of Technical Specification 3.9.4.

In the period "B", if the single transfer to the CTP had an inventory slightly in excess of .01% of the total limit (for example, .015%), the thirteen week average would be .015%. This is in violation of the Part C requirement.

In the period "A" a total transfer of 0.4% of the inventory limit is permissible, whereas in the period "B" a transfer of only .015% of the inventory limit is a violation of Part C of the Technical

Specification. To remove this inconsistency, an amendment to Part C of Technical Specification is being proposed. The revision removes the restriction on the thirteen week average and substitutes it with a limit on the total activity transferred to the ponds in a thirteen week period. The proposed limit of 0.4% of the pond inventory limit is equivalent to the intent of current Part C of the specification. This is based on the following rationale:

Over a thirteen week period, on the average, there are a total of 40-50 transfers of used powdex resin to the CTP and PBT. Currently Part C of the specification permits a batch average of .01% of the pond inventory limit over a thirteen week period. On the average, the total transfer permitted in a thirteen week period is $(40 \times .01\%) = 0.4\%$ of the inventory limit. The revision, therefore, proposes a limit on the total transfer in a thirteen week period at 0.4% of the pond radionuclide inventory limit. If this transfer rate is uniformly maintained, only 48% of the pond radionuclide inventory limit will be reached over the entire life of the plant (30 years). It should be noted that Part C currently does not have any limit on the number of batches transferred in a 13-week period, and thus no limit on the percentage of the total inventory limit transferred in a 13-week period.