

TOLEDO EDISON COMPANY
DAVIS-BESSE NUCLEAR POWER STATION

Appendix B, Report Per Section 5.4.2.B, Report NP-11-80-01

On October 22, 1979, the beach well sample collected at Location T-7 (0.9 miles NNW of the station), indicated the tritium concentration was 1040 pCi/l. This is approximately three times normal background levels. The quarterly sample, collected on January 14, 1980, showed 960 pCi/l. A series of additional samples were collected on February 28, 1980. The results were received from the company who has been contracted to perform radiological environmental analyses on March 28, 1980. A summary of the analyses is given below:

<u>Location</u>	<u>Tritium Concentration</u>
T-7	177 pCi/l
*Lake between T-1 and T-2, ~ 100 yards offshore	333 pCi/l
*Marsh between T-7 and Station	283 pCi/l
Station drainage sample at manway	794 pCi/l
*Lake between T-7 and station discharge	2737 pCi/l
*Samples through ice	

Since the tritium from one of the above analyses was higher by a factor of approximately ten as compared to control samples, the analysis is reportable in accordance with Environmental Technical Specification 5.4.2.B.

Based on the tritium concentration in the station's discharge and models used in NUREG-1.33 for dilution, the tritium concentration at T-7 could be 30,000 pCi/l. Even if the tritium concentration at T-7 were to reach a constant value of 30,000 pCi/l, the resulting concentration would only be one percent of the limit for unrestricted tritium concentrations given in 10 CFR 20. The procedure for specifying sampling frequency has been revised from quarterly to monthly. Since the tritium concentration at T-7 is expected to be background most of the time (or very infrequently, as much as one percent of 10 CFR 20 limits) the dose to the nearest resident would be less than the design objective.

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