

SUPPLEMENTAL TESTIMONY

TO FINAL ENVIRONMENTAL STATEMENT  
related to construction of  
DAVIS-BESSE NUCLEAR POWER STATION  
TOLEDO EDISON COMPANY and  
CLEVELAND ELECTRIC ILLUMINATING COMPANY



Docket No. 50-346

Issue 6

Our evaluation of the radioactive waste systems in a nuclear power plant is based on a model that is consistent for a generic type plant. The model utilizes data developed from a review of available information from operating nuclear power plants.

Our analysis of the radioactive waste systems assumed the following leaks and sources:

Primary to Secondary leak in steam generator	20 gpd
Primary leak to Auxiliary Building	20 gpd
Primary leak to Containment Building	40 gpd
Sample drains	<u>35 gpd</u>
TOTAL	115 gpd

The liquid source term actually calculated using these flow rates was 0.15 Ci/yr. To compensate for equipment downtime, expected operational occurrences, and equipment degradation over the 40 year life of the plant, this source term was normalized to 5 Ci/yr. This value is approximately 33 times greater than the calculated value and is equivalent to a value calculated using a total leakage flow of 3633 gpd rather than 115 gpd.

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The following total primary system leakage rates have been measured in operating pressurized water reactor plants:

<u>Facility</u>	<u>Leakage gpd</u>
Point Beach	461
Haddam Neck	288
Yankee Rowe	145
San Onofre	433

The leakage flow of 3833 gpd that corresponds to our normalized liquid source term of 5 Ci/yr as reported in Table 3.4 of the Final Environmental Statement is from 8 to 26 times greater than the leak rates reported for the plants listed in the above Table. Thus, a substantial margin over measured leakage rates is available to compensate for equipment degradation, operational upsets, etc.

While operational occurrences and equipment degradation may be expected to occur during the life of a plant, the effects of these are expected to be minimized through normal maintenance procedures. Such procedures adjust, repair, or replace equipment as necessary to maintain the efficient operation of the systems in the plant.

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