

APPENDIX E

SITE GASEOUS RELEASE RATE LIMIT CALCULATION

Site Gaseous Release Rate Limits

The stack and building release rate limits correspond to the 500 and 3,000 mRem per year noble gas dose rate limits which are contained in the Browns Ferry Nuclear Plant Technical Specifications Section 5.5.4. The calculational methods used to determine these limits utilize actual site characteristics and meteorological conditions and are consistent with Regulatory Guide 1.109, "Calculation of Annual Doses to Man from Routine Releases of Reactor Effluents for the Purpose of Evaluating Compliance with 10 CFR Part 50 Appendix I," and Regulatory Guide 1.111, "Methods for Estimating Transport and Dispersion of Gaseous Effluents in Routine Releases from Light-Water-Cooled Reactors." The techniques used for these calculations provide realistic, conservative estimates of the radiation doses resulting from potential releases of radioactive materials and, when considered in conjunction with the other parts of the operational program, provide assurance that plant operations will be well within applicable limits and guidelines.

The calculated release rate limits are adjusted as necessary utilizing additional available data.

The plant is designed to limit releases of radioactive material as low as is reasonable achievable.

The plant is equipped to measure and/or accurately monitor actual releases from the plant thereby providing a basis for control to ensure operation within the operating limits.

TVA operates an onsite system of meteorological instruments including an instrumented 300-foot meteorological tower. Temperature, wind speed, and wind direction are obtained at three levels. Data from the meteorological instruments are obtained and analyzed and provide a basis for confirming and adjusting, if necessary, the calculated release rate limits.