

1.8 SUMMARY OF RADIATION EFFECTS

1.8.1 Normal Operation

The gaseous and liquid radioactive waste systems are designed so that dose to any offsite person will not exceed that permitted within the limits specified in the Offsite Dose Calculation Manual (ODCM), applicable limits in the plant technical specifications, and technical requirements manual. The expectancy, based on operating experience, is that dose to any off-site person from gaseous waste discharge will not average more than a small fraction of the permissible dose, and that concentrations of liquid waste at the point of discharge will average less than 1% of the concentrations permitted by 10 CFR 20. Both effects are only a small fraction of the effect of natural background radiation.

1.8.2 Abnormal Operational Transients

A design objective is to avoid fuel damage as a result of abnormal operational transients. Analyses of these events, which are described in the "Plant Safety Analysis", show that abnormal operational transients do not result in any significant increase of radioactive material release to the environs over that experienced during normal operation.

1.8.3 Accidents

The ability of the plant to withstand the consequences of accidents without posing a hazard to the health and safety of the public is evaluated by analyzing a variety of postulated accidents. The calculated consequences of the design basis accidents, which result in the greatest potential off-site radiation exposures, are presented in Chapter 14. These doses are substantially below the guideline doses given in 10 CFR 50.67.