b. Measuring the activities of specific radionuclides in the discharge and adding to the equilibrium activity in Lake Robinson.

3.9.1.2 The concentration of radioactive liquid effluents when averaged over a period of 8 hours shall not exceed 10 times the value permitted by 3.9.1.1 above.

3.9.1.3 Prior to release of liquid waste, a sample shall be taken, and analyzed for beta-gamma activity and tritium activity to demonstrate compliance with 3.9.1.1 and 3.9.1.2 above.

3.9.1.4 During release of liquid radioactive wastes, the following conditions shall be met:

a. A least one condenser circulating water pump shall be in operation. The Unit #2 circulating pumps shall be used when available. When the Unit #2 circulating water system is out-of-service, the Unit #1 circulating pumps shall be employed.

b. The gross activity monitor in the discharge in the discharge shall be operable.

3.9.2 Gaseous Wastes

3.9.2 The annual average release rates of gaseous wastes shall be limited as follows:

$$\Sigma \frac{Qi}{(MPC)_i} \leq 5.0 \times 10^4 \ (m^3/sec)$$

where Q_i is the annual release rate (Ci/sec) of any radioisotope, i, and $(MPC)_i$ in units of uCi/cc are defined in Column 1, Table II of Appendix B to 10 CFR 20', except that for isotopes of iodine and particulates with half lives greater than 8 days, the values of $(MPC)_i$ shall be reduced by a factor of 1/700.

3.9.2.2 The maximum averaged release rate over 15 minutes shall not exceed ten times the yearly average limit of 3.9.2.1.

3.9.2.3 Prior to release of gaseous wastes, the contents of the gas holdup tank shall be sampled and analyzed for radioactivity to determine compliance with 3.9.2.1 and 3.9.2.2 above.

3.9.2.4 During release of gaseous wastes to the plant vent, the following conditions shall be met:

a. At least one auxiliary building exhaust fan shall be in operation.

b. The plant vent activity monitor shall be operable during discharges, or the containment and plant vent monitor shall be sampling from the stack.

3.9.2.5 During power operation, whenever the air ejector discharge monitor is inoperable, gas discharge from the air ejector will be routed to the plant vent for monitoring.

Basis

Liquid wastes from the Radioactive Waste Disposal System are diluted in the Circulating Water System discharge, and then released to the lake via the discharge canal.(1) With the three Unit #2 circulating pumps operating, the rated capacity of the Circulating Water System is 482,000 gpm. ~~(~~With both Unit #1 circulating pumps operating, their flow to the discharge canal ~~would~~ will be 87,000 gpm.~~)~~ The actual circulating water flow under various operating conditions will be calculated ~~water flow under various operating conditions will be calculated~~ from the head differential across the pumps and the manufacturer's head-capacity curves. Because of the low radio-activity levels in the circulating water discharge, the concentration of liquid radioactive effluents at this point cannot be measured directly. The concentrations in the circulating water discharge will be calculated from the measured concentration in the Waste Condensate Tank, the flow rate of the Waste Condensate Tank, the flow rate of the Waste Condensate Pumps, and the flow in the Circulating Water System. To this released concentration it is necessary to add the concentration of radionuclides in the Circulating Water. This concentration is significant because the circulating water flow is usually greater than the flow through Lake Robinson. The method of calculating the equilibrium concentration of radinuclides in Lake Robinson will be as detailed in the FSAR.(2)