

3.1.2.1.9 Entrainment Studies

Objective

The objective of the entrainment studies is to quantify the zooplankton (including fish eggs and larvae) that pass through the plants in order to assess the proportion of the zooplankton population subject to the entrainment stresses.

Specification

Samples for zooplankton including fish eggs and larvae shall be collected at the plant discharges. Sampling shall be done weekly and alternately at Units 1 and 2 so that each unit is sampled every other week. From January through September, three samples shall be taken both day and night, three days per week. From October through December three samples shall be taken both day and night on one day each week.

Deviations from this sampling schedule are permitted when all circulating water pumps are not operating at both units. The required number of weekly samples shall be obtained as long as the unit has at least one circulating pump operating.

Fish eggs and larvae shall be sorted and identified to the lowest practical taxonomic level in all samples. One day and one night sample per week shall be processed for the identification of all zooplankton.

Samples shall be collected using one meter diameter plankton nets with a 0.333 mm mesh size. Alternate types of gear were evaluated for sampling the condenser cooling system in an attempt to determine the sampling method and location in the cooling system that would provide the most representative quantitative estimates of organisms entrained. The method and location judged most suitable was then selected for the routine samplings.

Reporting Requirement

The number of fish eggs and larvae and other zooplankton entrained is directly related to the abundance in waters adjacent to the intake. A prompt report shall be submitted in accordance with Section 5.6.2 a(2) when a species or zooplankton group is entrained in numbers disproportionately large in relation to the local abundance. Reporting requirements shall be more easily defined when verification of the mathematical models is finalized. Otherwise data shall be reported on a routine basis as described in Section 5.6.1.

Bases

Entrainment studies utilizing stationary plankton nets and other techniques at Millstone Unit 1 intake, discharge and