Enclosure A
Change 1

4.0 ENVIRONMENTAL SURVEILLANCE

The program elements described below are designed to detect and measure the impact of plant operation on the environment. If on the basis of this program it is established that no significant adverse environmental impact has resulted or is likely to result from operation of the Browns Ferry Nuclear Plant, elements of the environmental surveillance program may be modified or terminated, in accordance with Subsection 5.6.3(c).

4.1 Ecological Surveillance

4.1.1 Abiotic

(a) Water Quality Surveys

Delete Requirement

Meteorological data shall be summarized and reported consistent with the recommendations of Regulatory Guide 1.21 (June 1974) and Regulatory Guide 1.23 (February 1972), and meteorological observations shall be recorded in a form consistent with National Weather Service procedures.

If the outage of any meteorological instrument(s) required by Regulatory Guide 1.23 (February 1972) exceeds seven consecutive days, the total outage time, the dates of outage, the cause of the outage, and the instrument(s) involved shall be reported within 30 days of the initiation of the outage to the USNRC, Office of Inspection and Enforcement, with a copy to the Office of Nuclear Reactor Regulation, Division of Operating Reactors. Elements of this program may be modified or terminated in accordance with Subsection 5.6.3(c).

The collection of meteorological data at the plant site provides information for use in developing atmospheric diffusion parameters for estimating potential radiation doses to the public resulting from actual routine or abnormal releases of radioactive materials to the atmosphere, and for assessing the actual impact of the plant cooling system on the atmospheric environment of the site area. A meteorological data collection program as described above is necessary to meet the requirements of subparagraph 50.36a(a)(2) of 10 CFR Part 50, Appendix D to 10 CFR Part 50, and Appendix E to 10 CFR Part 50.

(b) Thermal Plume Mapping

Delete Requirement

4.1.2 Biotic

(a) Benthic Monitoring

Delete Requirement

(b) Phytoplankton Monitoring

Delete Requirement

(c) Zooplankton Monitoring

Delete Requirement

(d) Fish Population and Distribution Studies

Delete Requirement

(e) Entrainment of Fish Eggs and Larvae

Delete Requirement

(f) Fish Impingement on Intake Screens

Objective

To detect and quantify fish impingement upon the intake screens.

Specification

Monitoring requirement deleted.

Reporting Requirements

The licensee shall submit to NRC copies of impingement study reports as now required by the NPDES Permit No. AL0022080 or as may be required as a result of EPA's determination pursuant to Section 316(b) of the Clean Water Act. Submittals to the NRC shall be on the same schedule as required by the NPDES permitting authority.

Bases

To avoid conflict or unnecessary duplication between the NRC monitoring program and the program imposed by the NPDES permit, this ETS requirement relies on the permit program. Submittal of copies of study results obtained under the NPDES permit will allow the NRC to maintain awareness of the consequences of our licensing action.

4.1.3 Special Studies

Delete Requirement

4.2 Radiological Environmental Monitoring Program

Objective

An environmental radiological monitoring program is conducted to verify projected or anticipated radioactivity concentrations and related public exposures.

Specification

An environmental monitoring program shall be conducted as described below at locations indicated in Figures 4.2-1, 4.2-2, and 4.2-3 and Tables 4.2-1, 4.2-2, 4.2-3, and 4.2-4, with sampling and analysis frequencies given in Table 4.2-1. Analytical techniques used shall be such that the detection capabilities in Table 4.2-5 are achieved.

1. Atmospheric Monitoring

   a. The atmospheric monitoring network is divided into three subgroups consisting of 11 monitoring stations. Five local monitors are located on or adjacent to the plant site, as shown in Figure 4.2-1. The four perimeter and two remote monitoring stations are shown on Figure 4.2-2. Atmospheric and terrestrial monitoring station locations for Browns Ferry Nuclear Plant are listed in Table 4.2-2.

      Each monitor shall be capable of continuously sampling air at regulated flow of approximately three cubic feet per minute through a particulate filter. In series with, but downstream of, the particulate filter is a charcoal filter used to collect iodine.

5.0 ADMINISTRATIVE CONTROLS

Objective

This section describes the administrative and management controls established to provide continuing protection to the environment and to implement the environmental Technical Specifications. Measures to be specified in this section include the assignment of responsibilities, organizational structure, operating procedures, review and audit functions, and reporting requirements.

Specifications

5.1 Responsibility

5.1.1 The power plant superintendent has responsibility for operating the plant in compliance with these Technical Specifications.

5.1.2 The Manager, Office of Natural Resources, is responsible for the non-radiological environmental monitoring program outside the plant. The Chief, Radiological Hygiene Branch, is responsible for the radiological monitoring program outside the plant.

5.2 Organization

5.2.1 The organization of TVA management which directly relates to operation of the plant is shown on Figure 5.2-1.

5.2.2 The principal organizations within TVA which are concerned with environmental matters related to nuclear power plant operations are the Office of Power, Office of Natural Resources, and the Office of Health and Safety. The Office of Power is directly responsible for operating the plant in accordance with specified requirements and conducting onsite monitoring. The Office of Natural Resources and the Office of Health and Safety are responsible for providing technical guidance, assistance, monitoring, and other services as needed for environmental compliance. The organizations above report to the General Manager as shown in Figure 5.2.1.

5.3 Review and Audit

5.3.1 The Office of Power Quality Assurance and Audit Staff shall ensure that a periodic audit of the environmental monitoring program is conducted at least once per calendar year.

5.3.2 The Office of Power Regulatory Staff conducts an interdesciplinary review of the following items:

a. Preparation of the proposed environmental Technical Specifications.

b. Coordination of environmental Technical Specification development with the safety Technical Specifications to avoid conflicts and maintain consistency.

c. Proposed changes to the Environmental Technical Specifications and the evaluated impact of the change.

d. Proposed written procedures, as described in Section 5.5 and proposed changes thereto which could significantly affect the plant's environmental impact.

e. Proposed changes or modifications to plant systems or equipment which could significantly affect the plant's environmental impact and the evaluated impact of the changes.

f. Results of the environmental monitoring programs prior to their submittal in each Annual Operating Report. See Sections 5.6.1 and 5.6.2.

g. Reported instances of violations of environmental technical specifications. Where investigation indicates, evaluation and formulation of recommendations to prevent recurrence.

5.4 Action to be Taken if an Environmental LCO is Exceeded

5.5 Procedures

5.5.1 Detailed written procedures for the in-plant nonradiological monitoring program, including check-off lists, where applicable, shall be prepared by BNP and approved by the plant superintendent (or his designee) and adhered to.

5.5.2 Detailed written procedures for the environmental monitoring program outside the plant, including check-off lists, where applicable, shall be prepared, receive appropriate administrative approval and be adhered to.

A quality control program for the radiological environmental monitoring program has been established with the Alabama Department of Public Health Administration Laboratory and the Environmental Protection Agency, Montgomery, Alabama. Samples of air, water, milk, and vegetation collected around the BFNP are forwarded to these laboratories for analysis; and results are exchanged for comparison.

An internal quality control program for the radiological environmental monitoring program is being conducted whereby roughly one tenth of all samples are analyzed in duplicate. A quality control program is conducted with the Environmental Protection Agency in Las Vegas in which spiked samples are analyzed and the results compared.

5.5.3 All procedures described in Section 5.5.1 and all changes thereto shall be reviewed and approved prior to implementation and on an annual basis thereafter by the plant management. Temporary changes to procedures which do not change the intent of the original procedure may be made, provided such changes are documented and are approved by two of the following plant personnel:

Superintendent
Assistant Superintendent
Operations Supervisor
Assistant Operations Supervisor
Shift Engineer

5.6 Reporting Requirements

5.6.1 A report shall be prepared by TVA and submitted to NRC following the end of each 12-month period of operation, which shall summarize the results of the nonradiological environmental monitoring program.

5.6.2 Routine Reporting

a. A summary report shall be prepared for both the inplant monitoring program and the nonradiological monitoring programs and submitted to the Director of Division of Licensing, NRC, as part of the Annual Operating Report within 120 days after December 31 of each year.

b. Radiological Environmental Monitoring

Routine Reporting

Reporting Requirements:

1. TVA shall prepare a report entitled "Environmental Radioactivity Levels - Browns Ferry Nuclear Plant - Annual Report." The report shall cover the previous 12 months of operation and shall be submitted to the Director of the NRC Region II Office (with a copy to the Director, Office of Nuclear Reactor Regulation) within 120 days after January 1 of each year. The report format shown in Regulatory Guide 4.8 Title 1 shall be used. The report shall include summaries, interpretations, and evaluations of the results of the radiological environmental surveillance activities for the report period, including a comparison with preoperational studies and/or operational controls (as appropriate), and an assessment of the observed impacts of the plant operation on the environment. If harmful effects or evidence of irreversible damage are detected by the monitoring, the licensee shall provide an analysis of the problem and a proposed course of action to alleviate the problem.

2. Results of all radiological environmental samples taken shall be summarized and tabulated on an annual basis. In the event that some results are not available within the 120-day period, the report shall be submitted noting and explaining the reasons for the missing results. The missing data shall be submitted as soon as possible in a supplementary report.

3.6.3 Non-Routine Reports

a. Radiological

Anomalous Measurements

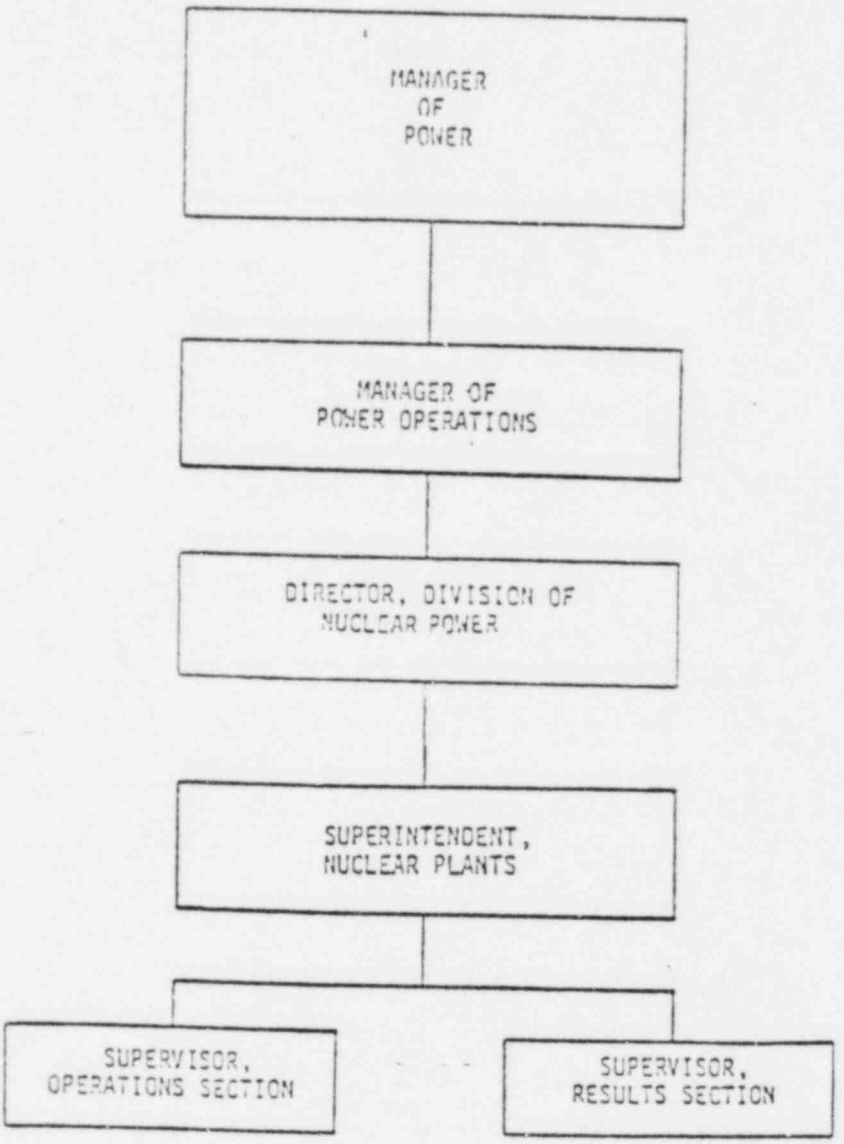
1. If, during any 12-month report period, a measured level of radioactivity in any environmental medium other than those associated with gaseous radioiodine releases exceeds ten times the control station value, a written notification will be submitted within one week advising the NRC of this condition.* This notification should include an evaluation of any release conditions, environmental factors, or other aspects necessary to explain the anomalous result.

2. If, during any 12-month report period, a measured level of radioactivity in any environmental medium other than those associated with gaseous radioiodine releases exceeds four times the control station value, a written notification will be submitted within 30 days advising the NRC of this condition. This notification should include an evaluation of any release conditions, environmental factors, or other aspects necessary to explain the anomalous result.

3. If individual milk samples show I-131 concentrations of 10 picocuries per liter or greater, a plan shall be submitted within 10 days advising the NRC of the proposed action to ensure the plant related annual doses will be within the design objective of 15 mrem/yr/reactor to the thyroid of any individual.

4. If milk samples collected over a calendar quarter show average concentrations of 6.0 picocuries per liter or greater, a plan shall be submitted within 30 days advising the NRC of the proposed action to ensure the plant-related annual doses will be within the design objective of 15 mrem/yr/reactor to the thyroid of any individual.

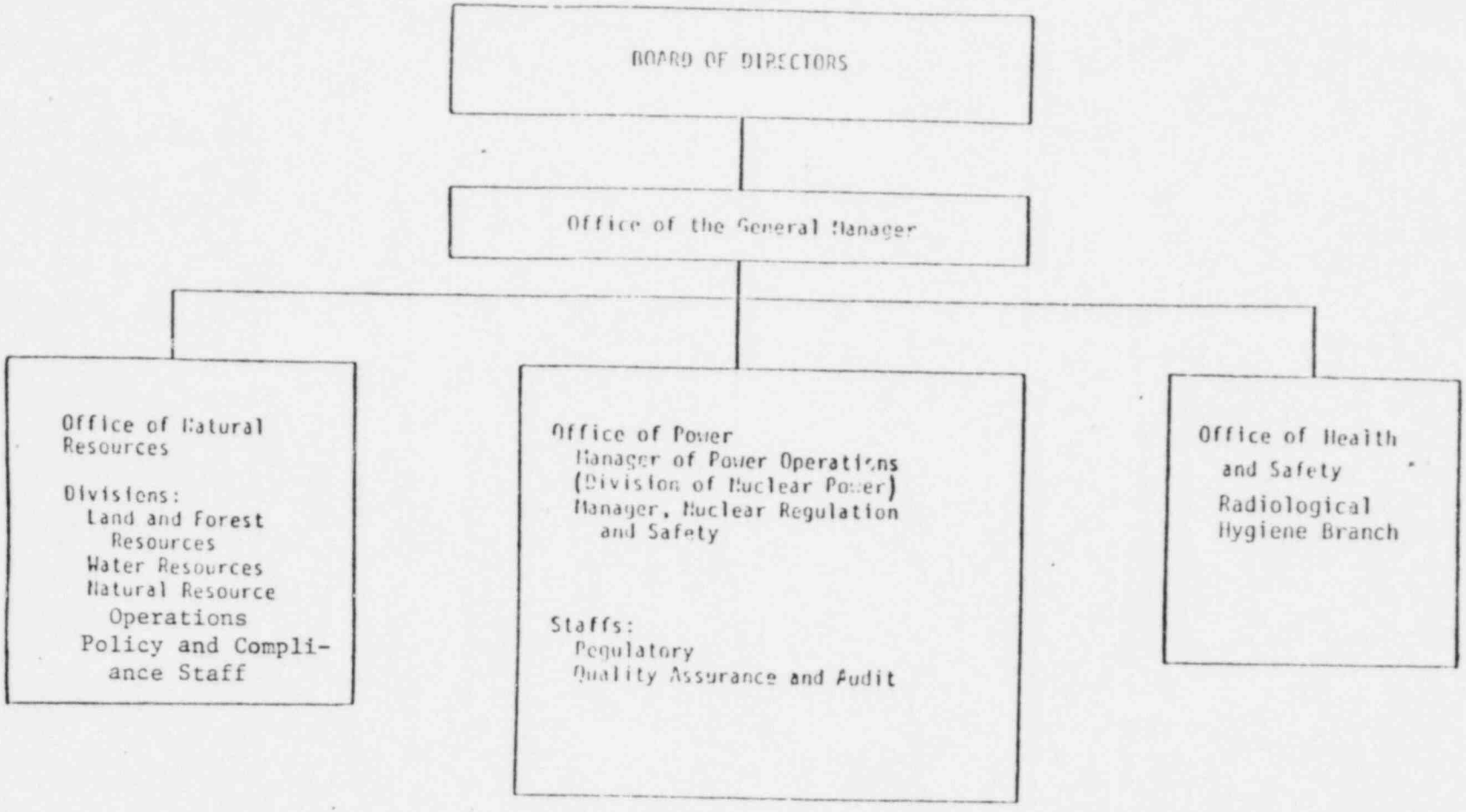
*In the case of a tentatively anomalous value for radioactivity, a confirmatory reanalysis of the original, a duplicate or a new sample may be desirable. In this instance the results of the confirmatory analysis shall be completed at the earliest time consistent with the analysis, and if the high value is real, the report to the NRC shall be submitted within one week following this analysis.



BROWNS FERRY NUCLEAR PLANT

TVA Office of Power
Organization for Operation
of Nuclear Plants

Figure 5.2-1



BROWNS FERRY NUCLEAR PLANT

Offices Directly or Indirectly Involved with Monitoring, Surveillance, or Reporting Aspects of Environmental Technical Specifications

Figure 5.2-2

Justification for Proposed ETS Change 1

Ecological surveillance requirements identified in Section 4.1 are duplicate to those conditions regulated by Browns Ferry Nuclear Plants NPDES Permit No. AL0022080 which was issued to TVA on June 30, 1977. This permit authorizes TVA to discharge controlled waste water from the BFNP Units 1, 2 and 3 into the Tennessee River and provides for the protection of the aquatic environment from non-radiological effluents.

Justification for Proposed ETS Change 2

Changes to section 5.0, Administrative Controls, were made to reflect recent reorganizations and changes in the organizational responsibilities within TVA.