ATTACHMENT 1 to ØCANØ283Ø7

REVISED
ANO-1
APPENDIX B
TECHNICAL SPECIFICATIONS

Effective January 19, 1975, activities under the U. S. Atomic Energy Commission regulatory program were assumed by the U. S. Nuclear Regulatory Commission in accordance with the Energy Reorganization Act of 1974. Any reference to the Atomic Energy Commission (AEC) contained herein should be interpreted as Nuclear Regulatory Commission (NRC).

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ENVIRONMENTAL TECHNICAL SPECIFICATIONS

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ENVIRONMENTAL TECHNICAL SPECIFICATIONS

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1.0 DEFINITIONS

Listed below are terms used in these environmental technical specifications that could be considered as having a unique definition as applied to Arkansas Nuclear One-Unit 1.

1.1 Deleted

1.2 Gamma Isotopic Analysis

Identification of gamma emitters plus quantitative results for radionuclides attributable to the station that contribute a significant amount to the total activity of the sample.

1.3 Environmental Samples

Samples of soil, air, water, biota, or biological material collected outside of the plant buildings for the purpose of analysis.

1.4 Deleted

1.5 Deleted

1.6 Deleted

1.7 Deleted

1.8 Deleted

2.0 LIMITING CONDITIONS FOR OPERATION

2.1 Deleted

2.2 Deleted

2.3 Deleted

3.0 Deleted

4.0 ENVIRONMENTAL SURVEILLANCE

The environmental surveillance program for Lake Dardanelle provides information on air, precipitation, ground water, soil, vegetation and milk by radiological analysis of samples in the area of the plant.

Since the aquatic ecosystem could be affected radiologically by plant operation, emphasis has been placed on its surveillance. The waters of Lake Dardanelle are subjected to frequent radiological testing.

Results of the program, including the reports submitted in accordance with Specification 5.6, will be reviewed as specified in 5.3.

4.1 Deleted

4.2 Radiological Environmental Monitoring

Objective:

To provide informatin on the radiological effects of station operation on the environment.

Specification:

An environmental radiological monitoring program shall be carried out as defined in Tables 4-1 and 4-2 at locations defined in Figure 4-1 and Table 4-2.

4.2.1 Air Sampling

Continuous air sampling shall be performed at four locations onsite, two off-site within a ten-mile radius of the Plant, and on reference location. Locations have been selected near site boundaries and in existing populated areas for evaluation of possible exposure to airborne particulate and halide radioactivity resulting from station operation. The collection devices for iodine shall contain potassium iodide impregnated charcoal or equivalent, and shall be constructed and operated so as to retain quantitatively the iodine in the air passing through the device. Appropriate analyses of particulate filters and halide collection devices shall be performed on all samples in accordance with accepted techniques and nuclides of interest.

4.2.2 Direct Radiation

Ambient levels of direct external radiation shall be measured at the same locations as air particulate. Measurements shall be made by exposing thermoluminescent dosimeters for periods of three months and six months.

4.2.3 Precipitation Sampling

Precipitation sampling shall be carried out at four locations; two onsite, one within a ten-mile radius, and one reference location approximately miles southwest of the plant. Analysis shall be performed as given in Table 4-1.

Figure 4-3

Deleted

Table 4-3 Deleted

Table 4-4 Deleted

Table 4-5 Deleted

Table 4-6 Previously Deleted

5.0 ADMINISTRATIVE CONTROLS

5.1 Responsibility

Corporate responsibility for implementation of the Environmental Technical Specifications, and for assuring that station operations are controlled to provide protection for the environmment has been assigned to the Senior Vice President, Energy Supply.

The ANO General Manager, through the Engineering and Technical Support Manager, and Technical Analysis Superintendent shall be responsible for compliance with the Environmental Technical Specifications at the plant level.

The Manager of Technical Analysis shall be responsible for radiological analysis of environmental samples.

5.2 Organization

Figure 5.1 shows the organization chart at both plant and corporate levels relative to radiological environmental matters.

5.3 Review

5.3.1 Plant Safety Committee

The Plant Safety Committee (PSC) shall be responsible for review of the following:

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

b. Proposed written procedures, as described in Specification 5.5, and proposed changes thereto which affect the plant's radiclogical environmental impact.

c. Proposed changes or modifications to plant systems or equipment which would affect the plant's radiological environmental impact.

d. Results of the Radiological Environmental Monitoring Programs.

e. Investigation of all reported instances of violations of Environmental Technical Specifications. Where investigation warrants, instances shall be evaluated and recommendations formulated to prevent recurrence.

5.3.2 Safety Review Committee

The Safety Review Committee (SRC) shall be rsponsible for review of the following:

a. The radiological environmental evaluations for 1) changes to procedures, equipment or systems and 2) tests or experiments completed under Section 5.7.3, to verify that such actions did not constitute an unreviewed radiological environmental question.

b. Proposed changes to procedures, equipment or systems which involve an unreviewed radiological environmental question as defined in Section 5.7.3.B.

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

d. Results of the Radiological Environmental Monitoring Programs.

e. Investigation of all reported instances of violations of Environmental Technical Specifications.

5.4 Deleted

5.5 Procedures

Detailed written procedures shall be prepared and followed for all activities performed by Arkansas Power and Light involved in carrying out the sampling, instrument calibration, analysis, and actions to be taken when limits are approached or exceeded. Testing frequency of any alarms shall be included. These frequencies shall be determined from experience with similar instruments in similar environments and from manufacturers' technical manuals.

Plant standard operating procedures shall include provisions to ensure the plant and all its systems and components are operated in compliance with the limiting conditions for operations as part of the environmental technical specifications.

5.6 Station Reporting Requirements

5.6.1 Routine Reports

Annual Radiological Environmental Operating Report

A single report on the radiological environmental monitoring programs conducted in association with ANO-1 (Docket No. 50-313) and ANO-2 (Docket No. 50-368) operations for the previous calendar year shall be submitted to the NRC by May 1 of each year. The report shall include summaries, analyses, interpretations, and, where apropriate, statistical evaluation of the results of the radiological environmental monitoring and an assessment of the observed radiological impacts of the station operation on the environment. If harmful effects or evidence of irreversible damage are suggested by the monitoring, the licensee shall provide a more detailed analysis of the data and a proposed course of action to alleviate the problem.

The Annual Report shall also include a summary of:

1) All ETS noncompliances and the corrective actions taken to remedy them.

2) Changes made to the procedures or design described in accordance with Subsection 5.7.3.

3) Changes in ETS.

5.6.2 Nonroutine Reports

A report shall be submitted in the event that a "Limiting Condition for Operation" (Section 2), is exceeded, a report level as specified in Section 4 is reached, or if an unusual event involving a significant radiological environmental impact occurs. Reports shall be submitted under one of the report schedules described below.

5.6.2.a Prompt Report

Those events specified as prompt report occurrences shall be reported within 24 hours by telephone, telegraph, or facsimile transmission to the NRC followed by a written report to the NRC within 30 days.

5.6.2.b Thirty Day Report

Non-routine events not requiring a prompt report as described in Subsection 5.6.2.a, shall be reported to NRC within 30 days of their occurrence.

5.6.2.c Content of Non-routine Reports

Written 30-day reports and, to the extent possible, the preliminary telephone, telegraph, or facsimile reports shall (a) describe, analyze, and evaluate the occurrence, including extent and magnitude of the impact, (b) describe the cause of occurrence, and (c) indicate the corrective action (including any significant changes made in procedures) taken to preclude repetition of the occurrence and to prevent similar occurrences involving similar components or systems.

5.7 Changes

5.7.1 Changes in Environmental Technical Specifications

Request for changes in environmental technical specifications shall be submitted to the NRC for review and authorization per 10 CFR 50.90. The request shall include an evaluation of the radiological environmental impact of the proposed changes and a supporting justification.

5.7.2 Deleted

5.7.3 Changes in Procedures, Station Design or Operation

A. The licensee may 1) make changes in the station design and operation, 2) make changes in the procedures described in Subsection 5.5, and 3) conduct tests and experiments not described in accordance with Subsection 5.5, without prior Commission approval, unless the proposed change, test or experiment involves a change in the objectives of the ETS, or an unreviewed radiological environmental question of substantive impact. |

B. A proposed change, test or experiment shall be deemed to involve an unreviewed radiological environmental question if it concerns 1) a matter which may result in a significant increase in any adverse radiological environmental impact previously evaluated in the final environmental impact statement as modified by staff's testimony to the Atomic Safety and Licensing Board, supplements thereto, radiological environmental impact appraisals, or in initial or final adjudicatory decisions; or 2) a significant change in effluents or power level as specified in 10 CFR 51.5(b)(2); or 3) a matter not previously reviewed and evaluated in the documents specified in 1) of this section which may have a significant adverse radiological environmental impact. | | | | |

C. The licensee shall maintain records of changes in procedures and in the facility design or operation made pursuant to this Subsection, to the extent that such changes constitute changes

in procedures as described in accordance with Subsection 5.5. The licensee shall also maintain records of tests and experiments carried out pursuant to paragraph "A" of this Subsection. These records shall include a written evaluation which provides the bases for the determination that the change, test, or experiment does not involve an unreviewed radiological environmental question of substantive impact or constitute a change in the objectives of these ETS. The licensee shall furnish to the Commission, annually or at such shorter intervals as may be specified in the license, a report containing descriptions, analyses, interpretations, and evaluations of such changes, tests and experiments.

5.8 Records Retention

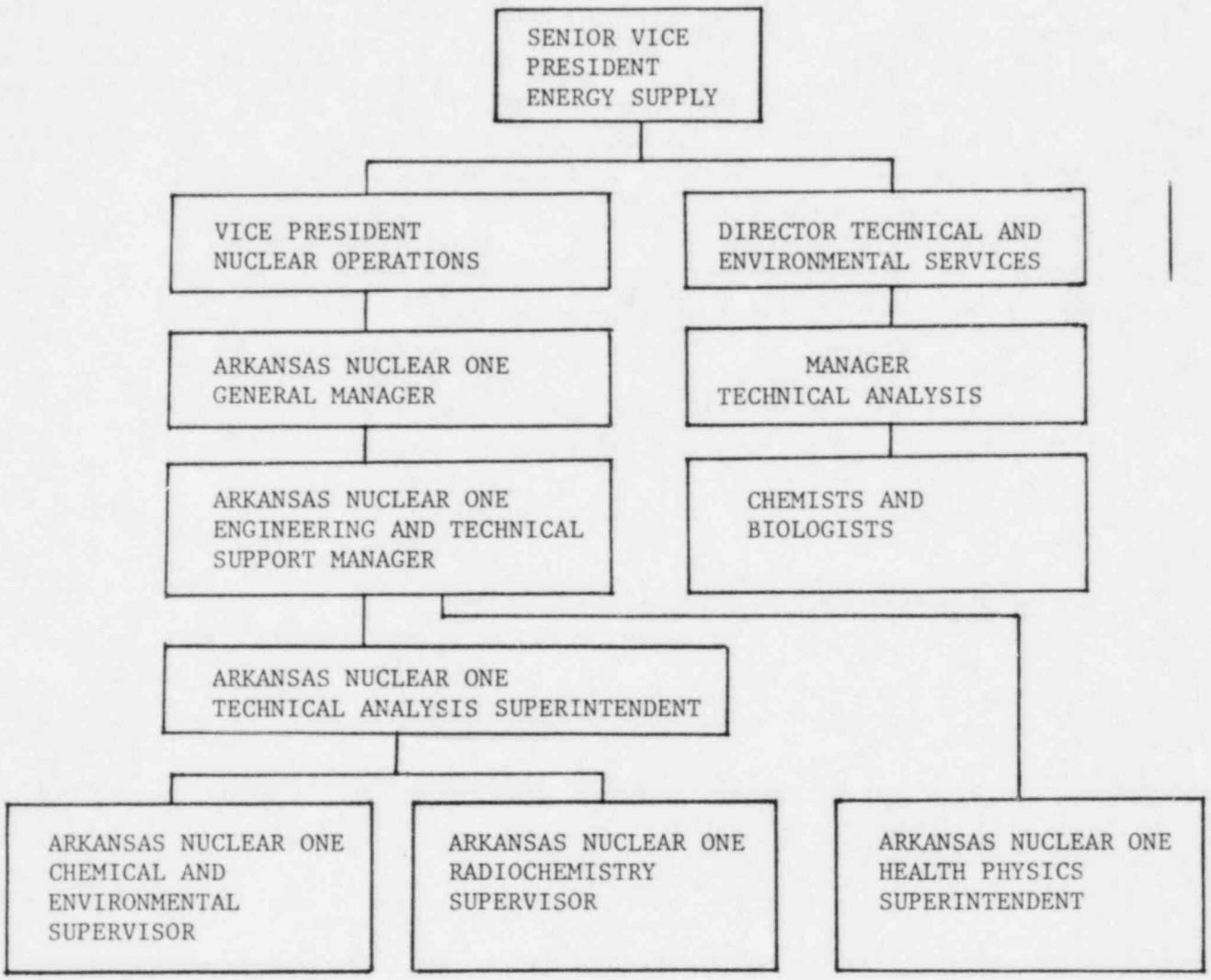
5.8.1 Records and logs relative to the following areas shall be retained for the life of the plant:

a. Records and drawing changes reflecting plant design modifications made to systems and equipment as described in Specification 5.7.3.

b. Records of radiological environmental surveillance data.

c. Records to demonstrate compliance with the limiting conditions for operation in Section 2.

5.8.2 All other records and logs relating to the environmental technical specifications shall be retained for five years.



ARKANSAS POWER & LIGHT COMPANY ARKANSAS NUCLEAR ONE	ENVIRONMENTAL SURVEILLANCE ORGANIZATION CHART	FIGURE NO. 5-1

6.0 Deleted

ATTACHMENT 2 to ØCANØ283Ø7

REVISED
ANO-2
APPENDIX B
TECHNICAL SPECIFICATIONS

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1.0 DEFINITIONS

Environmental Samples Samples of soil, air, water, biota, or biological material collected outside of the plant building for the purpose of analysis.

Gamma Isotopic Analysis Identification of gamma emitters plus quantitative results for radionuclides attributable to the station that contribute a significant amount to the total activity of the sample.

Radiation Monitor Checks, Tests, and Calibration

a. Check - Visual inspection of monitor readout.

b. Test - Use of check source to determine operability.

c. Calibrate - Use of known source to determine accuracy.

Station and Unit: Station refers to ANO Units 1 and 2. Unit refers only to ANO-1 or ANO-2 as defined by its usage.

3.0 Deleted

4.0 Deleted

5.0 ADMINISTRATIVE CONTROLS

5.1 Responsibility

Corporate responsibility for implementation of the Environmental Technical Specifications, and for assuring that station operations are controlled to provide protection for the environment has been assigned to the Senior Vice President, Energy Supply

The ANO General Manager, through the Engineering and Technical Support Manager, and Technical Analysis Superintendent shall be responsible for compliance with the Environmental Technical Specifcations at the plant level.

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5.3.1 Plant Safety Committee

The Plant Safety Committee (PSC) shall be responsible for review of the following:

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

b. Proposed written procedures, as described in Specification 5.5, and proposed changes thereto which affect the plant's radiological environmental impact.

c. Proposed changes or modifications to plant systems or equipment which would affect the plant's radiological environmental impact.

d. Results of the Radiological Environmental Monitoring Programs.

e. Investigation of all reported instances of violations of Environmental Technical Specifications. Where investigation Warrants, instances shall be evaluated and recommendations formulated to prevent recurrence.

5.3.2 Safety Review Committee

The Safety Review Committee (SRC) shall be responsible for review of the following:

a. The radiological environmental evaluations for 1) changes to procedures, equipment or systems and 2) tests or experiments completed under Section 5.7.3, to verify that such actions did not constitiute an unreviewed radiological environmental question.

b. Proposed changes to procedures, equipment or system which involve an unreviewed radiological environmental quesiton as defined in Section 5.7.3.B.

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

d. Results of the Radiological Environmental Monitoring Programs.

e. Investigation of all reported instances of violations of Environmental Technical Specifications.

5.4 Deleted

5.5 Procedures

Detailed written procedures shall be prepared and followed for all activities performed by Arkansas Power and Light involved in carrying out the sampling, instrument calibration, analysis, and actions to be taken when limits are approached or exceeded. Testing frequency of any alarms shall be included. These frequencies shall be determined from experience with similar instruments in similar environments and from manufacturers' technical manuals.

Plant standard operating procedures shall include provisions to ensure the plant and all its systems and components are operated in compliance with the limiting conditions for operations established as part of the environmental technical specifications.

5.6 Station Reporting Requirements

5.6.1 Routine Reports

Annual Radiological Environmental Operating Report

A single report on the radiological environmental monitoring programs conducted in association with ANO-1 (Docket No. 50-313) and ANO-2 (Docket No. 50-368) operations for the previous calendar year shall be submitted to the NRC by May 1 of each year. The report shall include summaries, analyses, interpretations, and, where appropriate, statistical evaluation of the results of the radiological environmental monitoring and an assessment of the observed radiological impacts of the station operation on the environment. If harmful effects or evidence of irreversible damage are suggested by the monitoring, the licensee shall provide a more detailed analysis of the data and a proposed course of action to alleviate the problem.

The Annual Report shall also include a summary of:

1) All ETS noncompliance and the corrective actions taken to remedy them.
2) Changes made to the procedures or design described in accordance with Subsection 5.7.3.
3) Changes in ETS.

5.6.2 Nonroutine Reports

A report shall be submitted in the event that a "Limiting Condition for Operation" (Section 2), is exceeded. Reports shall be submitted under one of the report schedules described below.

5.6.2.a Prompt Report

Those events specified as prompt report occurrences shall be reported within 24 hours by telephone, telegraph, or facsimile transmission to the NRC followed by a written report to the NRC within 30 days.

5.6.2.b Thirty Day Report

Non-routine events not requiring a prompt report as described in Subsection 5.6.2.a, shall be reported to NRC within 30 days of their occurrence.

5.6.2.c Content of Non-routine Reports

Written 30-day reports and, to the extent possible, the preliminary telephone, telegraph, or facsimile reports shall (a) describe, analyze, and evaluate the occurrence, including extent and magnitude of the impact, (b) describe the cause of occurrence, and (c) indicate the corrective action (including any significant changes made in procedures) taken to preclude repetition of the occurrence and to prevent similar occurrences involving similar components or systems.

5.7 Changes

5.7.1 Changes in Environmental Technical Specifications

Request for changes in environmental technical specifications shall be submitted to the NRC for review and authorization per 10 CFR 50.90. The request shall include an evaluation of the radiological environmental impact of the proposed changes and a supporting justification.

5.7.2 Deleted

5.7.3 Changes in Procedures, Station Design or Operation

A. The licensee may 1) make changes in the station design and operation, 2) make changes in the procedures described in Subsection 5.5, and 3) conduct tests and experiments not described in accordance with Subsection 5.5, without prior Commission approval, unless the proposed change, test or experiment involves a change in the objectives of the ETS, or an unreviewed radiological environmental question of substantive impact.

B. A proposed change, test or experiment shall be deemed to involve an unreviewed radiological environmental question if it concerns 1) a matter which may result in a significant increase in any adverse radiological enviromental impact previously evaluated in the final environmental impact statement as modified by staff's testimony to the Atomic Safety and Licensing Board, supplements thereto, radiological environmental impact appraisals, or in initial or final adjudicatory decisions; or 2) a significant change in effluents or power level as specified in 10 CFR 51.5(b)(2); or 3) a matter not previously reviewed and evaluated in the documents specified in 1) of this section which may have a significant adverse radiological environmental impact.

C. The licensee shall maintain records of changes in procedures and in facility design or operation made pursuant to this Subsection, to the extent that such changes constitute changes

(continued on page 5-8)

in procedures as described in accordance with Subsection 5.5. The licensee shall also maintain records of tests and experiments carried out pursuant to paragraph "A" of this Subsection. These records shall include a written evaluation which provided the bases for the determination that the change, test, or experiment does not involve an unreviewed radiological environmental question of substantive impact or constitute a change in the objectives of these ETS. The licensee shall furnish to the Commission, annually or at such shorter intervals as may be specified in the license, a report containing descriptions, analyses, interpretations, and evaluations of such changes, tests and experiments.

5.7.4 NRC Authority to Require Revisions

The NRC may require modification or revisions of changes made by the licensee as a result of NRC reviews of the results of these programs, if such modifications or revisions are judged necessary to maintain consistency with the initially approved programs or with the intent of these ETS. The NRC may also require modifications or revisions of procedures and programs as a result of changes in station operation or changes in environmental conditions or concerns associated with station operation.

5.8 Records Retention

5.8.1 Records and logs relative to the following areas shall be retained for the life of the plant:

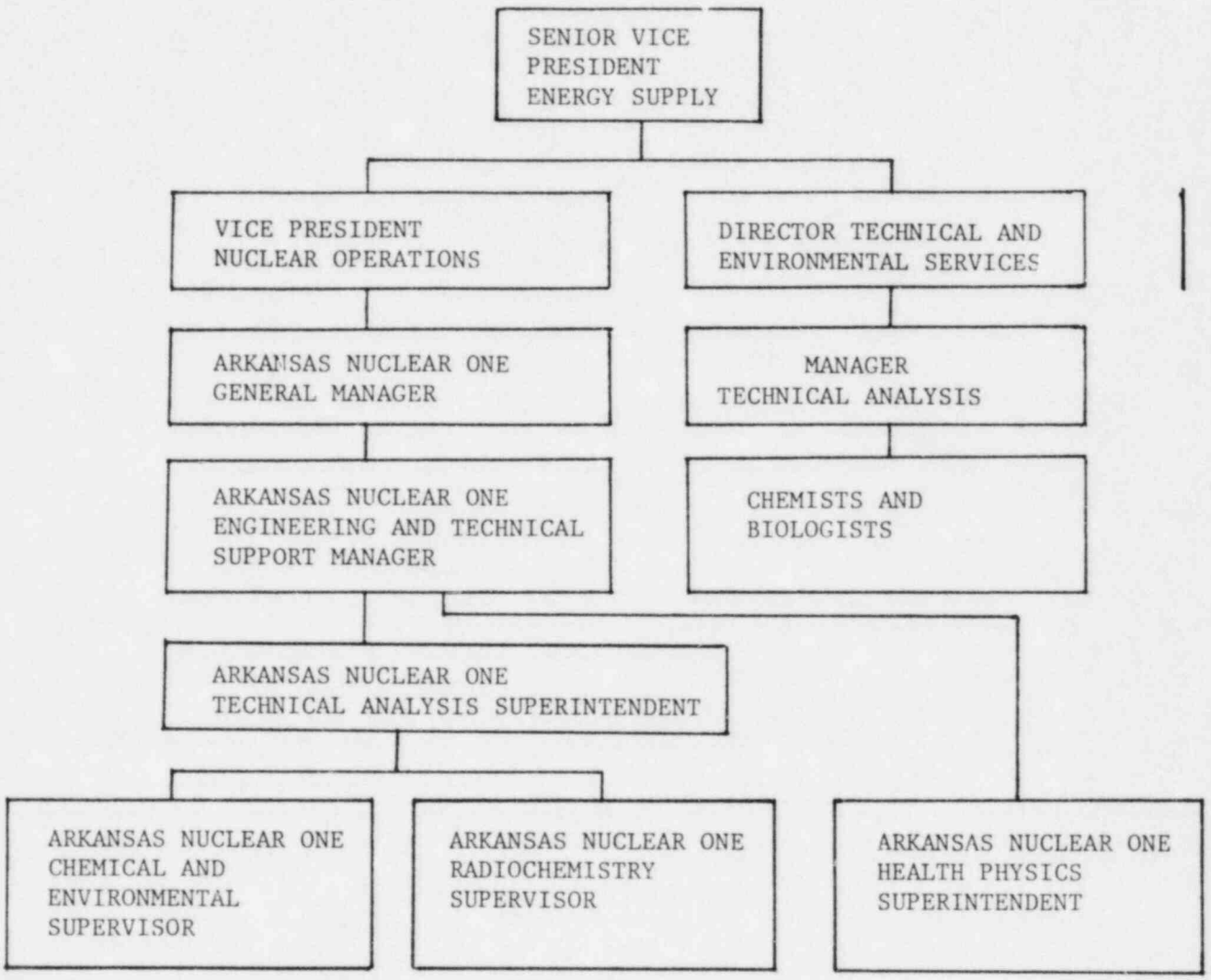
a. Records and drawing changes reflecting plant design modifications made to systems and equipment as described in Specification 5.6.3.

b. Records of radiological environmental surveillance data.

c. Records to demonstrate compliance with the limiting conditions for operation in Section 2.

5.8.2 All other records and logs relating to the environmental technical specifications shall be retained for five years.

5.9 Deleted



ARKANSAS POWER & LIGHT COMPANY ARKANSAS NUCLEAR ONE	ENVIRONMENTAL SURVEILLANCE ORGANIZATION CHART	FIGURE NO. 5-1

APPENDIX 4.1.A

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