

SECTION 13

TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page</u>
13.0	CONDUCT OF OPERATIONS	13.1-1
13.1	ORGANIZATIONAL STRUCTURE	13.1-1
13.1.1	<u>Davis-Besse Nuclear Group</u>	13.1-1
13.1.1.1	Davis-Besse Station Staff	13.1-2
13.1.2	Qualification Requirements for Nuclear Facility Personnel	13.1-4
13.1.2.1	Minimum Qualification Requirements for Station Personnel	13.1-4
13.1.2.2	Station Managerial and Supervisory Technical Personnel Resumes	13.1-8
13.2	TRAINING PROGRAM	13.2-1
13.2.1	<u>General</u>	13.2-1
13.2.2	Program Description	13.2-1
13.2.2.1	Personnel Requiring NRC Licenses	13.2-1
13.2.2.1.1	Documentation	13.2-1
13.2.2.2	Chemistry and Health Physics Personnel Training	13.2-2
13.2.2.3	Training for Maintenance Personnel	13.2-2
13.2.2.4	General Employee Training	13.2-2
13.2.2.5	Non-Licensed Personnel	13.2-2
13.2.3	<u>Training Administration</u>	13.2-2
13.2.4	<u>Records</u>	13.2-2
13.3	DAVIS-BESSE EMERGENCY PLAN	13.3-1
13.3.1	<u>Purposes and Objectives</u>	13.3-1
13.3.1.1	Purpose of Emergency Preparedness	13.3-1
13.3.1.2	Objectives of the Emergency Plan	13.3-1
13.3.2	<u>Emergency Plan Interrelationships</u>	13.3-1
13.3.3	<u>Emergency Plan Implementing Procedures and Supporting Station Procedures</u>	13.3-2
13.3.4	<u>Participating Governmental Agencies</u>	13.3-2
13.4	REVIEW AND AUDIT	13.4-1
13.4.1	<u>Plant Operations Review Committee</u>	13.4-1
13.4.2	<u>Company Nuclear Review Board</u>	13.4-1

Davis-Besse Unit 1 Updated Final Safety Analysis Report

TABLE OF CONTENTS (CONTINUED)

<u>Section</u>	<u>Title</u>	<u>Page</u>
13.5	STATION PROCEDURES	13.5-1
13.5.1	<u>Operating Procedures</u>	13.5-1
13.5.1.1	List of Procedures	13.5-1
13.5.1.2	Procedure Preparation and Approval	13.5-2
13.5.1.3	Procedure Modifications	13.5-3
13.5.2	<u>Initial Test Procedures</u>	13.5-3
13.6	STATION RECORDS	13.6-1
13.6.1	<u>Operating Records</u>	13.6-2
13.6.1.1	Daily Log	13.6-2
13.6.1.2	Davis-Besse Nuclear Power Station Unit Log	13.6-2
13.6.2	<u>Administration Records</u>	13.6-2
13.6.3	<u>Maintenance Records</u>	13.6-3
13.6.4	<u>Health Physics Records</u>	13.6-3
13.6.4.1	Chemical Records	13.6-3
13.6.4.2	Personnel Exposure	13.6-3
13.6.4.3	Survey, Monitoring and Waste Disposal	13.6-3
13.6.5	<u>Training Records</u>	13.6-3
13.6.6	<u>Nuclear and Engineering Records</u>	13.6-3
13.6.7	<u>Radiological Environmental Monitoring Program Records</u>	13.6-4
13.7	SECURITY	13.7-1
13.7.1	<u>Personnel and Station Design</u>	13.7-1
Appendix 13A	DELETED	

LIST OF FIGURES

<u>Figure</u>	<u>Title</u>
13.1-1	DELETED
13.1-2	Operations Organization Chart

SECTION 13

13.0 CONDUCT OF OPERATIONS

13.1 ORGANIZATIONAL STRUCTURE

The Davis-Besse Nuclear Power Station (DBNPS) is owned by FirstEnergy Nuclear Generation, LLC. The FirstEnergy Nuclear Operating Company (FENOC) has exclusive responsibility and control in all matters related to the facility. FirstEnergy Nuclear Generation, LLC and FENOC are wholly owned subsidiaries of the FirstEnergy Corporation (FE). Positions reporting to the FirstEnergy Nuclear Operating Company through the Vice-President-Nuclear Davis-Besse (directly or matrixed) are collectively known as the DBNPS Nuclear Group.

The ultimate responsibility for the physical construction, operation, and maintenance of the Davis-Besse Nuclear Power Station is maintained by FENOC. The FENOC Quality Assurance Program Manual (QAPM) provides a functional description of the organizations responsible for implementation of the quality assurance program. A more detailed description of the DBNPS Nuclear Group is contained in Section 13.1.1.

License Amendment No. 272 replaced plant-specific position descriptions in the Administrative Controls Section of the Technical Specifications with generic position descriptions, avoiding the need for a future license amendment should plant-specific position descriptions change. In accordance with this License Amendment, the plant-specific position descriptions that correlate to the generic position descriptions used in the Technical Specifications are as follows:

Generic Position Descriptions Used in the Technical Specification	Equivalent Plant-Specific Position Descriptions as Used in the USAR
specified corporate officer	Vice President, Nuclear
plant manager	Director, Site Operations
operations manager	Manager - Operations
assistant operations manager	Superintendent - Operations
radiation protection manager	Manager - Radiation Protection

13.1.1 Davis-Besse Nuclear Group

Vice President, Nuclear

The Vice President, Nuclear shall have corporate responsibility for overall plant nuclear safety and shall take any measures needed to ensure acceptable performance of the staff in operating, maintaining, and providing technical support to the plant to ensure nuclear safety.

Director, Site Engineering

The Director, Site Engineering reports directly to the FENOC executive responsible for engineering and indirectly to the Vice President, Nuclear and is responsible for all engineering activities in support of design control, plant modifications and system performance requirements. This position is also responsible for the implementation of plant modifications

Davis-Besse Unit 1 Updated Final Safety Analysis Report

and construction of facilities and assigned contracted major activities in support of the Davis-Besse Station. The Director, Site Engineering is also responsible for reactor engineering activities.

Director, Performance Improvement

The Director, Performance Improvement reports to the Vice President, Nuclear and is responsible for directing site specific interaction relating to regulating agencies to ensure compliance with laws, regulations, and commitments, responsibilities, including the Emergency Preparedness Program. The Director, Performance Improvement is also responsible for training and implementing the corrective action program.

Director, Site Operations

Reports directly to the Vice President - Nuclear and directs administrative, operational, technical, planning, chemistry, environmental compliance, radiological control, and maintenance activities to ensure conformance and compliance with Federal and State Regulations and License requirements and in the continuous, safe, and efficient operation of the Davis-Besse Station.

Director, Maintenance

Reports to the Vice-President, Nuclear, and is responsible for directing maintenance activities in conjunction with the continuous and efficient operation of the plant including station maintenance and modification activities for all instrument and control, mechanical, and electrical systems and equipment and for all plant structures and facilities.

13.1.1.1 Davis-Besse Station Staff

The organization of the Davis-Besse Station staff is such that the station staff is fully capable and equipped to handle all situations involving the safety of the station and the public.

13.1.1.1.a Operations

The Operations Organization is shown on Figure 13.1-2.

MANAGER - OPERATIONS. Reports to the Director, Site Operations and directs the operational activities of the Station including scheduling of maintenance activities. Provides safe and efficient operation of the plant in accordance with the provisions of the plant operating license, technical specifications, company and group policies. The Manager - Operations is also responsible for the formulation, implementation and periodic assessment of the effectiveness of the Fire Protection Program.

SUPERVISOR - OPERATIONS SERVICES. Assists the Manager - Operations and the Superintendent - Operations in the day-to-day operation of the plant, and implementation of the Fire Protection Program to ensure compliance with station procedures and regulatory requirements. Supervises the Operations Support Unit and coordinates activities with the operating shifts and other departments as required.

SUPERINTENDENT - OPERATIONS. Supervises activities of day-to-day operations of the plant to ensure compliance with Station procedures and regulatory requirements. Coordinates activities with other departments and between operating shifts. Directs and coordinates the

Davis-Besse Unit 1 Updated Final Safety Analysis Report

activities of the Shift Managers/STAs to ensure safe and efficient plant operation. Ensures adequate engineering expertise is available on shift to diagnose, mitigate, and terminate off-normal events.

SHIFT ENGINEER/SHIFT TECHNICAL ADVISOR (STA). Provides continuous management support for all station activities. Serves as an on-shift technical advisor to support the diagnosis, mitigation and termination of off-normal events. The Shift Technical Advisor (STA) provides the advisory technical support to the unit operations shift crew as described in the Technical Specifications.

SHIFT MANAGER. Responsible for the control room command function as described in the Technical Specifications. Directly supervises shift operations. Evaluates and approves maintenance, testing power and mode changes to ensure efficient, continuous operation of the generation facility in such a manner so as to assure the health, welfare and safety of the general public.

UNIT SUPERVISOR. Directs, coordinates, and participates in the operation of the nuclear reactor, turbines, plant auxiliaries, and accessories, while ensuring the health and safety of the public.

REACTOR OPERATOR. Qualified for and will maintain a Reactor Operator's License. He operates the Nuclear Steam Supply System, Turbine Generator, their auxiliaries, and all other equipment to maintain continuous production with maximum safety and efficiency.

NON-LICENSED OPERATOR. Tends the Nuclear Steam Supply System, Turbine Generator, station auxiliaries, and associated equipment.

The minimum shift crew composition is specified in the Technical Requirements Manual.

Administrative procedures limit overtime hours for facility staff who perform safety-related functions. These limits are specified in the Technical Specifications and Technical Requirements Manual, and are in general accordance with NUREG-0737 and Generic Letter 82-12 guidance.

13.1.1.1.b Radiation Protection and Chemistry

MANAGER - RADIATION PROTECTION. Develops, directs and supervises the implementation of the Radiation Protection Program including contamination and radiation control, by-product material control, internal and external dosimetry, ALARA planning, respiratory protection, response to radiological emergency, and ensures compliance with applicable regulatory requirements. Reports to the Director, Site Operations.

MANAGER - ENVIRONMENTAL AND CHEMISTRY. Develops, directs and supervises the implementation of the Chemistry/Radiochemistry Program including liquid and gaseous effluents, radiological and non-radiological environmental monitoring and ensures compliance with applicable regulatory requirements. Reports to the Director, Site Operations.

RADIATION PROTECTION TECHNICIAN. Responsible for providing radiological support of unit power operations and outage activities through implementation of the Radiation Protection Program.

13.1.1.1.c Outage Management and Work Management

MANAGER - WORK MANAGEMENT. Reports to the Director, Site Operations and is responsible for scheduling and coordination of plant activities associated with the operating cycle preventive maintenance, corrective maintenance, equipment overhaul, technical specification surveillances and design change installations. Responsibilities also include managing the maintenance of the Davis-Besse Surveillance and Periodic Test Program, which includes the review of Technical Specifications and monitoring of all aspects of the program to ensure compliance of program requirements.

MANAGER - OUTAGE MANAGEMENT. Reports to the Director, Site Operations and is responsible for the development of outage schedules (forced, planned, and refueling), coordination of scheduling activities with and between work groups and the execution of outage schedules to maximize nuclear safety and the return of the unit to service on schedule.

13.1.1.1.d Maintenance

MANAGER - MAINTENANCE. Reports to the Director - Maintenance, and is responsible for detailed task planning and implementation of the Station Maintenance Program.

13.1.2 Qualification Requirements for Nuclear Facility Personnel

13.1.2.1 Minimum Qualification Requirements for Station Personnel

The training and qualifications of the key personnel in the initial operating staff of the Davis-Besse Nuclear Power Station are summarized below. The educational and experience backgrounds of all candidates for positions on the station staff were carefully evaluated and training programs were initiated where required. The result is an exceptionally well-trained and well-qualified staff. Replacement personnel for positions in the station are fully trained and qualified to fill their appointed positions although they do not necessarily have the same training and educational backgrounds as the personnel they replace.

The following minimum qualifications for onsite station personnel meet or exceed the requirements of ANSI N18.1-1971 document "Selection and Training of Nuclear Power Plant Personnel."

Davis-Besse Unit 1 Updated Final Safety Analysis Report

Position

Minimum Requirements for Position

Superintendent

1. Graduate in Engineering, a related physical science or equivalent experience (4 years of college education creditable on a one-for-one basis towards total power plant experience).
2. Minimum of 10 years of responsible power plant experience, including a minimum of 3 years nuclear experience.
3. Meets training and experience requirements for senior reactor operator license. (Will not be required to have an active license.)

Operations Engineer

1. Graduate in Engineering, a related physical science or equivalent experience (2 years of college education creditable on a one-for-one basis towards total power plant experience).
2. Minimum of 6 years responsible power plant experience including at least 3 years nuclear experience.
3. Hold, or be qualified for and acquire, a senior reactor operator license.

Shift Foreman

1. High School diploma or equivalent.
2. Minimum of 4 years power plant experience, 1 of which will be nuclear experience (2 years of technical or academic training creditable on a one-for-one basis towards power plant experience).
3. Hold, or be qualified for and acquire, a senior reactor operator license.

Davis-Besse Unit 1 Updated Final Safety Analysis Report

Supervising Operator

1. High School diploma or equivalent.
2. Minimum of 2 years power plant experience, 1 of which will be nuclear experience.
3. Hold, or be qualified for and acquire, a reactor operator license.

Reactor Operator

1. High School diploma or equivalent.
2. Minimum of 2 years power plant experience, 1 of which will be nuclear experience.
3. Hold, or be qualified for and acquire, a reactor operator license.

Equipment Operator

1. High School diploma or equivalent.

Technical Engineer

1. Graduate in Engineering, a related physical science or equivalent in experience. (4 years of college education creditable on a one-for-one basis towards responsible positions.)
2. Minimum of 4 years in responsible positions including a minimum of one year nuclear experience.
3. Hold, or be qualified for and acquire, a senior reactor operator license.

Instrument and Control Engineer

1. Graduate in Engineering, a related physical science or equivalent in experience.
2. Minimum of 1 year experience with power plant instrumentation and controls.
3. Hold, or be qualified for and acquire, a senior reactor operator license.

Technical Assistant

1. High School diploma or equivalent.
2. Hold associates degree in a discipline related to power generating station operation, or have minimum of 2 years experience in equivalent areas.

Davis-Besse Unit 1 Updated Final Safety Analysis Report

<u>Instrument and Control Foremen</u>	<ol style="list-style-type: none">1. High School diploma or equivalent.2. Minimum 4 years of experience in the craft or discipline he supervises.
<u>Nuclear Plant Instrument Mechanic</u>	<ol style="list-style-type: none">1. Two years of working experience in their specialty.2. Minimum of one year related technical training in addition to experience.
<u>Assistant Engineer</u> (Computer and Control)	<ol style="list-style-type: none">1. Graduate in Engineering, a related physical science or equivalent in experience.2. Hold, or be qualified for and acquire, a senior reactor operator license.
<u>Assistant Engineer</u> (Nuclear and Performance)	<ol style="list-style-type: none">1. Graduate in Nuclear Engineering, a related science or equivalent experience and training.2. Hold, or be qualified for and acquire, a senior reactor operator license.
<u>Assistant Engineer</u> (Nuclear)	<ol style="list-style-type: none">1. Graduate in Nuclear Engineering, a related science or equivalent experience and training.
<u>Chemist and Health Physicist</u>	<ol style="list-style-type: none">1. Graduate in Engineering or a related physical science or equivalent experience (4 years of technical or academic training creditable on a one-for-one basis towards experience).2. Minimum of one year experience in radio-chemistry.
<u>Chemistry and Health Physics Foreman</u>	<ol style="list-style-type: none">1. High School diploma or equivalent.2. Minimum 4 years of experience in craft or discipline he supervises.
<u>Chemical and Radiation Testers</u>	<ol style="list-style-type: none">1. Two years of working experience in their specialty.2. Minimum of one year related technical training in addition to experience.

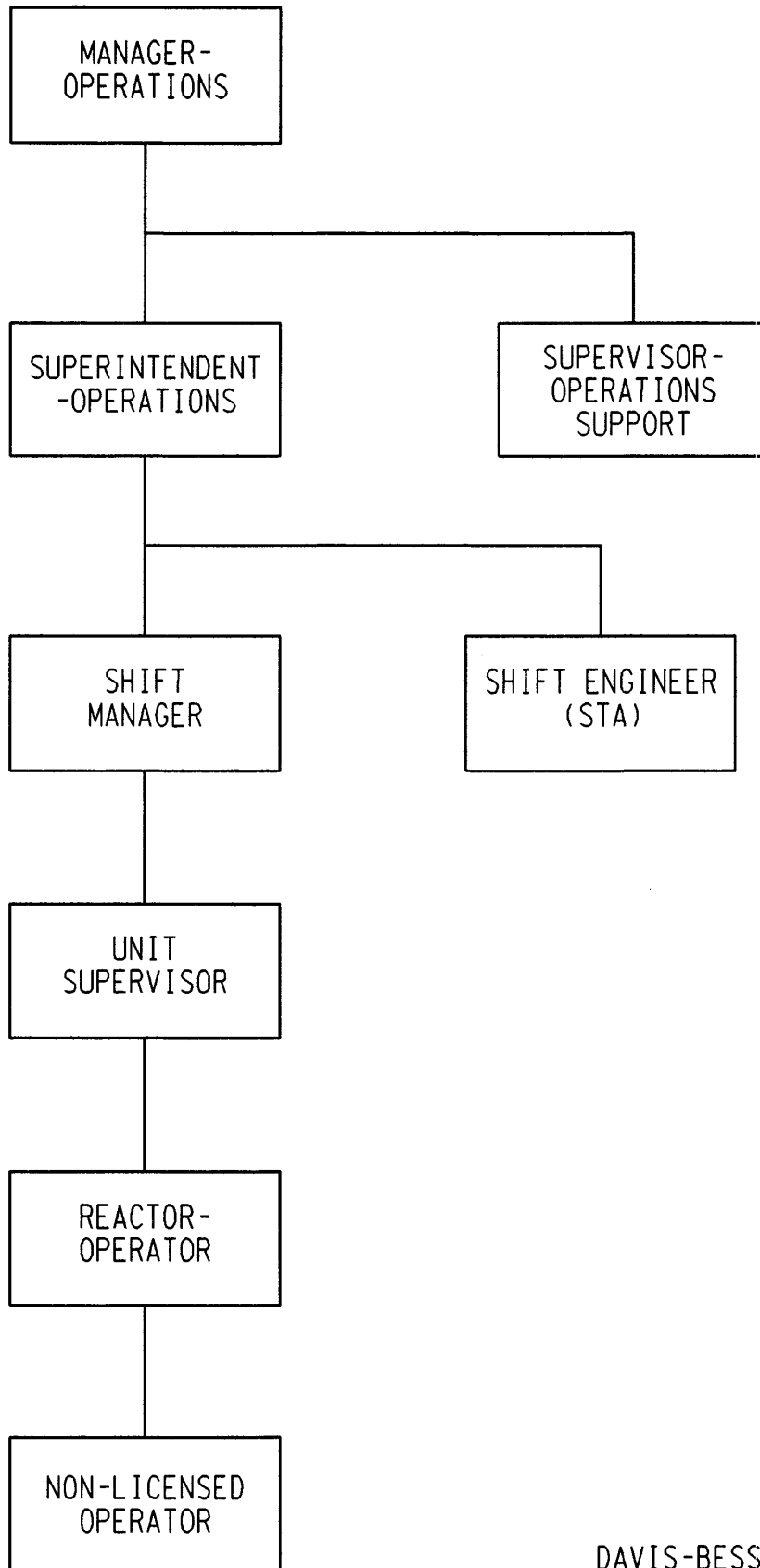
Davis-Besse Unit 1 Updated Final Safety Analysis Report

<u>Maintenance Engineer</u>	<ol style="list-style-type: none">1. High School graduate with 2 years technical school or equivalent training or experience. (Two years technical or academic training creditable on a one-for-one basis towards power plant experience.)2. Minimum 5 years power plant experience including a minimum of one year nuclear experience.
<u>Maintenance Foreman</u>	<ol style="list-style-type: none">1. High School diploma or equivalent.2. Minimum 4 years of experience in craft or discipline he supervises.
<u>Station Service Foreman</u>	<ol style="list-style-type: none">1. High School diploma or equivalent.2. Minimum 4 years of experience in craft or discipline he supervises.
<u>Maintenance Repairman</u>	<ol style="list-style-type: none">1. Minimum of 3 years experience in one or more crafts.
<u>Maintenance Electricians</u>	<ol style="list-style-type: none">1. Minimum of 3 years experience in one or more crafts.
<u>Nuclear Reliability Manager</u>	<ol style="list-style-type: none">1. High School graduate with 2 years' technical school or equivalent training or experience. (Two years' technical or academic training creditable on a one-for-one basis toward power plant experience.)2. Minimum 5 years' power plant experience, including a minimum of one year nuclear experience.
<u>Reliability Technician</u>	<ol style="list-style-type: none">1. High School diploma or equivalent.

13.1.2.2 Station Managerial and Supervisory Technical Personnel Resumes

The station on-site personnel have been carefully selected from within the company or recruited from outside the company. A conscientious effort has been made to man the station with a balanced group of people with Navy nuclear experience, and nuclear industry experience.

Resumes for employees are kept in their respective personnel folder.



DAVIS-BESSE NUCLEAR POWER STATION
 OPERATIONS ORGANIZATION
 FIGURE 13.1-2
 REVISION 23
 NOVEMBER 2002

13.2 TRAINING PROGRAM

13.2.1 General

The purpose of the training programs for the station staff is to meet the training needs of station individuals, taking into account their previous experience, training, and job assignment.

The FirstEnergy Nuclear Operating Company (FENOC) generally follows a policy of the promotion of qualified individuals from within the company. This allows continual on-the-job training for engineering, operating, and maintenance personnel. In addition, their training includes the necessary formal training and actual work experience needed for their job assignment at the station. This training is presented by the Davis-Besse Nuclear Power Station (DBNPS) Nuclear Group with outside assistance as required.

The training programs described in this section are for training replacement personnel, requalification, and continuing training and are described in the FENOC nuclear training procedures. These procedures meet or exceed the requirements and recommendations of ANSI N18.1-1971, Section 5.5, 10CFR50.120 and 10CFR55. The training program for initial staffing of the plant, prior to issuance of the operating license in 1977, is described in the FSAR Section 13.2.

The following training programs at Davis-Besse are accredited by the Institute of Nuclear Power Operations (INPO):

- a. Non-licensed Operator
- b. Reactor Operator
- c. Senior Reactor Operator
- d. Shift Manager
- e. Shift Engineer/Shift Technical Advisor
- f. Instrument & Control Technician and Supervisor
- g. Electrical Maintenance Personnel and Supervisor
- h. Mechanical Maintenance Personnel and Supervisor
- i. Chemistry Technician
- j. Radiation Protection Technician
- k. Engineering Personnel
- l. Continuing Training for Licensed Personnel

Davis-Besse maintains these training programs according to INPO Accreditation Guidelines.

13.2.2 Program Description

13.2.2.1 Personnel Requiring NRC Licenses

The Training programs for personnel requiring NRC licenses were accredited by the National Nuclear Accrediting Board on December 11, 1986.

13.2.2.1.1 Documentation

Records are maintained on all licensed individuals according to FENOC nuclear training and records management procedures. The records shall contain copies of written examinations administered, the answers given by the licensee, results of evaluations, documentation of the review of emergency procedures and abnormal conditions and of changes to procedures, facility

design and facility licensee and documentation of any additional training administered in areas in which a licensed individual has exhibited deficiencies.

13.2.2.2 Chemistry and Radiation Protection Personnel Training

The training programs for Chemistry and Radiation Protection personnel were accredited by the National Nuclear Accrediting Board on December 9, 1987.

13.2.2.3 Training for Maintenance Personnel

The training programs for Maintenance personnel were accredited by the National Nuclear Accrediting Board on December 11, 1986.

13.2.2.4 General Employee Training

General Employee Training is used to indoctrinate personnel who work at Davis-Besse on requirements applicable to their work assignments. General Employee Training supplements job-specific training to provide assurances that each worker can effectively perform required tasks without jeopardizing personal safety or the safety of others.

General Employee Training consists of Plant Access Training, Radiation Worker Training, and Radiological Respirator Training. Plant Access Training requirements must be satisfied prior to receiving unescorted access to the Protected Area. Radiation Worker Training requirements must be satisfied prior to receiving unescorted access to Radiologically Controlled Areas.

13.2.2.5 Non-Licensed Personnel

Non-licensed personnel attend various lectures/seminars as scheduled by Nuclear Training. These lectures are designed to keep the non-licensed station personnel abreast of station operating policies, health physics, practices and general and nuclear safety practices.

13.2.3 Training Administration

The Manager - Nuclear Training is responsible for both the administration and the evaluation of the Nuclear Training programs. This evaluation is performed at various stages in the programs and consists of a combination of oral and/or written examinations, interviews by licensed personnel and/or supervisors' evaluations.

13.2.4 Records

Training records for Licensed and Non-Licensed personnel are maintained according to FENOC nuclear training and records management procedures for Davis-Besse employees. Information contained in personnel training records will vary according to personal history, job description and appropriate program training requirements.

13.3 DAVIS-BESSE EMERGENCY PLAN

The Davis-Besse Emergency Plan is a separate and complete document, submitted to and approved by the NRC in accordance with the operating license for the facility. The following description of the Emergency Plan is just a brief overview. For a more comprehensive description refer to the Emergency Plan itself.

13.3.1 Purposes and Objectives

13.3.1.1 Purpose of Emergency Preparedness

The purpose of emergency preparedness is to provide a mechanism that would be utilized in making decisions in the event of an emergency, and to assure that the necessary equipment, supplies, and essential services are available.

13.3.1.2 Objectives of the Emergency Plan

The objectives of the Emergency Plan are as follows:

1. Outline the most effective course of action required to safeguard the public and station personnel in the event of an emergency.
2. To establish an emergency organization and assign responsibilities in order to direct the response to an emergency condition or radiological incident and to limit the consequences of the incident.
3. Terminate or mitigate the radiological consequences of an emergency, both onsite and offsite.
4. Notification and coordination of offsite supporting organizations as required.
5. To establish procedures to identify and classify the emergency condition.
6. Evaluate the necessity for public protection actions and implement any protective actions deemed appropriate to protect members of the general public and station personnel.
7. Provide for the training of all emergency response personnel.
8. To describe emergency facilities and communication systems and their use.

13.3.2 Emergency Plan Interrelationships

The Emergency Plan should not, by itself, be considered the primary working document to be used during an emergency. The purpose of the Emergency Plan, is to classify emergencies according to their nature and severity, assign responsibilities for actions, and to clearly outline the most effective course of action required to safeguard the public and station personnel in the event of an emergency.

Interrelationships of this plan with procedures, other plans, and emergency arrangements are summarized as follows:

Davis-Besse Unit 1 Updated Final Safety Analysis Report

1. Detailed actions to be taken by individuals in response to onsite emergency conditions are described in the Emergency Plan Procedures. These procedures provide the mechanisms for response as outlined in this plan.
2. Station procedures have been developed and issued to provide the implementing instructions in other areas. The DBNPS Physical Security Plan and Procedures and this plan have been coordinated to ensure that appropriate emergency actions can be taken. For example, the Physical Security Plan and Procedures contain provisions for Emergency response personnel and vehicle access when required by the procedures.
3. The DBNPS Radiation Protection Section Administrative Procedures define the administrative controls such as radiological control limits and precautions, use of personnel monitoring devices, use of protective clothing and equipment, personnel decontamination, etc. In addition, Chemistry and Radiation Protection procedures provide instructions on performing surveys, analyzing samples, operating health physics/radiation protection equipment, etc. The pertinent information and details provided in these documents have either been incorporated into the plan and/or implementing procedures, or have been appropriately referenced.
4. The Davis-Besse Nuclear Power Station (DBNPS) has also formulated emergency and administrative procedures which are directed toward generic emergencies, such as floods, severe weather conditions and toxic material releases. The methods and equipment developed for such emergencies are available for use, when appropriate, in responding to emergencies covered by the Emergency Plan.
5. The coordination and liaison with offsite organizations and agencies having radiological emergency planning responsibilities in the immediate offsite area, include formal agreements that individual organizations will perform their respective emergency functions in response to information or requests for DBNPS. Continuing liaison with the offsite organizations insures compatibility and proper interfacing with this plan.

13.3.3 Emergency Plan Implementing Procedures and Supporting Station Procedures

Detailed procedures direct the implementation of the Emergency Plan. Detailed Station Procedures prescribe appropriate courses of action necessary to place the plant in a safe condition and limit the consequences for each classification of incident and/or emergency.

Procedures provided for normal activities already covered by DBNPS procedures (e.g., calibration of portable survey instruments, etc.) have not been listed. Implementation will only incorporate certain aspects of the station's operating procedures, radiological control procedures, and physical security procedures, where they are required for clarification.

13.3.4 Participating Governmental Agencies

Participating governmental agencies whose emergency plans are interrelated with this plan for action include the following:

1. State of Ohio, Plan for Response to Radiation Emergencies at Licensed Nuclear Facilities.

Davis-Besse Unit 1 Updated Final Safety Analysis Report

2. Ottawa County, Plan for Response to Radiation Emergencies at Licensed Nuclear Facilities.
3. Lucas County, Radiological Emergency Response Plan.
4. Erie County, Radiological Emergency Response Procedures Document.
5. Sandusky County, Radiological Emergency Response Procedures Document.
6. U.S. Department of Energy, Chicago Operations Office, Argonne, IL, Emergency Planning and Preparedness and Response Program.
7. U.S. Nuclear Regulatory Commission, Regional Administrator, Operation, Region III.
8. Federal Emergency Management Agency (FEMA) Plan, Region V.
9. State of Michigan, Emergency Plan.

The development of the State and County Plans and the DBNPS Emergency Plan has been closely coordinated. In addition, specific requirements for reporting of emergencies, providing information and data, recommending protective actions, etc., have been integrated directly into the Emergency Plan Procedures. The Plume Exposure Pathway Emergency Planning zone includes parts of Ottawa County and Jerusalem Township in Lucas County.

13.4 REVIEW AND AUDIT

Administrative controls are established to assure that all operations, tests, and foreseeable emergencies will be handled in accordance with written procedures which have been properly reviewed and approved by established authorities. The Director, Site Operations has the responsibility and authority to operate the station within the limits of the administrative controls.

Periodic reviews of daily operating logs, charts and other operating data will be made by the station staff to assure that the unit is being operated in a safe and efficient manner. In addition, reactor trips, transients and non-routine operations of interest will be reviewed, as well as industry operating experience evaluations. In addition to these reviews, periodic station staff meetings will be held to keep station personnel advised of current conditions in the station.

Changes to the original design concepts or to the facility will be made in accordance with 10CFR50.59 and the FENOC Quality Assurance Program Manual (QAPM).

Review of station operation will be performed by the Plant Operations Review Committee (PORC) and the Company Nuclear Review Board (CNRB). Audit of facility operations will be done under the cognizance of the CNRB. This review and audit program is to verify that operation of the facility is performed in a safe manner and is consistent with company policy, approved procedures and license provisions; to review important proposed changes to the facility, tests and procedures; and to verify that unusual events are promptly investigated and their causes are corrected in a manner that reduces the probability of recurrence.

13.4.1 Plant Operations Review Committee (PORC)

The review functions of the on-site operating organization, which is known as the Plant Operations Review Committee (PORC), are described in ANSI N18.7-1976, which is committed to as delineated in the FENOC Quality Assurance Program manual (QAPM). The specific details related to the activities of PORC are set forth in administrative procedures.

13.4.2 Company Nuclear Review Board

The description, responsibilities, and functions of the independent review organization, which is known as the Company Nuclear Review Board (CNRB), are described in ANSI N18.7-1976, which is committed to as delineated in the FENOC Quality Assurance Program manual (QAPM). The specific details related to the activities of CNRB are set forth in administrative procedures.

13.5 STATION PROCEDURES

13.5.1 Operating Procedures

Detailed written procedures and checkoff lists have been prepared by the station operating staff in accordance with Technical Specifications. The operating procedures cover startup, normal operation, shutdown of the system and preparation of the system for maintenance. Supplementary procedures cover abnormalities in operation, especially as induced by failure of interrelated systems. Both groups of procedures contain, where applicable, normal setpoints, limiting safety system settings, and safety limits. Station procedures are prepared in accordance with guidance contained in Regulatory Guide 1.33.

13.5.1.1 List of Procedures

The following are the types of procedures used:

System Procedures - Procedures pertaining to the operation of a specific system. They cover the different modes of operation of the system, e.g., startup, shutdown, and off-normal conditions.

Plant Procedures - Procedures pertaining to an integrated operation of the station, e.g., plant startup, plant shutdown, power operation, load changing, process monitoring, and fuel handling.

Emergency Procedures - Procedures to be followed in unusual circumstances to protect station personnel and equipment. These may lead to the implementation of the Emergency Plan.

Instrumentation and Control Procedures - Procedures for the calibration of station instrumentation and control systems.

Maintenance Procedures - Procedures which provide instruction for performing specified maintenance actions.

Radiation Protection Procedures - Procedures pertaining to radiological controls.

Radiochemistry Procedures - Procedures pertaining to chemical control or analysis of radioactive substances.

Chemistry Procedures - Procedures pertaining to the chemical control or analysis of non-radioactive substances.

Alarm Procedures - Procedures to be followed upon actuation of specific alarms and/or annunciators.

Surveillance Test - Procedures pertaining to those tests that are to be performed to comply with the station Technical Specifications.

Radwaste Procedures - Procedures pertaining to storage and shipment of radioactive material.

Cleaning Procedures - Procedures written to provide guidance for the development of detailed cleaning procedures for field use.

Fire Protection Strategy Procedures - Procedures that give the information required to allow for safe, expeditious extinguishment of a fire and to minimize the effect of the fire on the plant and safe shutdown capabilities.

Periodic Test - Procedures pertaining to those tests that are to be performed at some periodicity but which do not fall into the Surveillance Test category.

Administrative Procedures - Procedures that specify how administrative matters are to be handled. Examples are test program, work permit, materials control, and equipment control procedures.

Miscellaneous Procedures - Those procedures which do not fit in any other category.

Emergency Plan Implementation - Procedures that direct the implementation of the Emergency Plan.

Test Procedures - Procedures that are non-routine and non-repetitive that are used to perform a specific test.

Abnormal Procedures - Abnormal procedures will be one of two basic types. The first type will be used to cover some unusual circumstances not of an immediate nature. The second type will direct operator actions for restoring an operating variable to its normal controlled value when it departs from its range or to restore normal operating conditions following a perturbation. Such actions are invoked following an operator observation or an annunciator alarm indicating a condition which, if not corrected, could degenerate into a condition requiring action under an emergency procedure.

Inspection Procedures - Procedures pertaining to inspections conducted by station personnel.

Laboratory Instrumentation Procedures - Procedures pertaining to the use of instrumentation used in Radiation Protection, Radiochemistry, and Chemistry Procedures.

Metrology Laboratory Procedures - Procedures for calibrating measuring and test equipment used in the plant.

Vendor Manuals - Vendor manuals for quality related equipment approved by the procedurally authorized individual for use as procedures.

A listing of the station procedures is contained in the electronic document management system.

13.5.1.2 Procedure Preparation and Approval

Managers or other responsible supervisors shall be assigned specific procedures for preparation.

Each procedure which affects nuclear safety shall be reviewed by an individual/group other than the individual/group which prepared the procedure to ensure an independent technical review is attained. The 10CFR50.59 evaluations for procedure changes completed under the provisions

Davis-Besse Unit 1 Updated Final Safety Analysis Report

of 10CFR50.59 shall be submitted to the Plant Operations Review Committee (PORC) for verification that the action did not require a License Amendment and recommend Director, Site Operations approval of the 10CFR50.59 Evaluation.

A procedure shall not be used until it has been approved by a procedurally authorized individual.

13.5.1.3 Procedure Modifications

After a procedure has been approved, proposed modifications shall be submitted to the appropriate individual responsible for that procedure.

Appropriate modifications to procedures which affect nuclear safety shall be incorporated into the procedure and the procedure shall be reviewed by an individual/group other than the individual/group who prepared the procedure change to ensure an independent technical review is attained. The PORC shall review the 10CFR50.59 evaluations of procedure changes completed under the provisions of 10CFR50.59 to verify that the change did not require a License Amendment and recommend Director, Site Operations approval of the 10CFR50.59 Evaluation. Temporary approval of changes to procedures may be made as described in the Quality Assurance Program Manual and shall be reviewed and approved by the a procedurally authorized individual within 14 days after temporary approval.

A procedure change shall not be issued until it has been approved by a procedurally authorized individual.

13.5.2 Initial Test Procedures

The initial test program and the procedures that executed the program are outlined in Chapter 14.

13.6 STATION RECORDS

Station Records pertaining to nuclear safety are provided and maintained in accordance with the following:

1. The following records shall be retained for at least five years:
 - a. Records and logs of facility operation covering time interval at each power level.
 - b. Records and logs of principal maintenance activities, inspections, repair and replacement of principal items of equipment related to nuclear safety.
 - c. All reportable events.
 - d. Records of surveillance activities, inspections and calibrations required by these Technical Specifications.
 - e. Records of changes made to Operating Procedures.
 - f. Records of radioactive shipments.
 - g. Records of sealed source and fission detector leak tests and results.
 - h. Records of annual physical inventory of all sealed source material of record.
2. The following records shall be retained for the duration of the Facility Operating License:
 - a. Records and drawing changes reflecting facility design modifications made to systems and equipment described in the Final Safety Analysis Report.
 - b. Records of new and irradiated fuel inventory, fuel transfers and assembly burnup histories.
 - c. Records of radiation exposure for all individuals entering radiation control areas.
 - d. Records of gaseous and liquid radioactive material released to the environs.
 - e. Records of transient operational cycles for those facility components identified in USAR Table 5.1-8.
 - f. Records of reactor tests and experiments.
 - g. Records of training and qualification for current members of the plant staff.
 - h. Records of in-service inspections performed pursuant to the Technical Specifications.
 - i. Records of Quality Assurance activities required by the QA Manual.
 - j. Records of reviews performed for changes made to procedures or equipment or reviews of tests and experiments pursuant to 10CFR50.59.

Davis-Besse Unit 1 Updated Final Safety Analysis Report

- k. Records of meetings of the PORC and the CNRB.
- l. Records for Environmental Qualification which are covered under the provisions of paragraph 6.13 of the Technical Specifications.
- m. Records of analyses required by the radiological environmental monitoring program that would permit evaluation of the accuracy of the analyses at a later date. This should include procedures effective at specified times and QA records showing that these procedures were followed.
- n. Records of the service lives of all safety related hydraulic and mechanical snubbers including the date at which the service life commences and associated installation and maintenance records.
- o. Records of reviews performed for changes made to the Offsite Dose Calculation Manual and the Process Control Program.

13.6.1 Operating Records

The following operating records are prepared and maintained. These are preserved as required.

13.6.1.1 Daily Log

The daily log reflects station parameters on an hourly basis. It is normally prepared by the computer and can be manually prepared by the operator. It also includes data on station and unit electrical power loading and generation, bus voltages, and transmission line loadings.

13.6.1.2 Davis-Besse Nuclear Power Station Unit Log

The Unit Log contains a summary of station operation for each shift. The log also contains information concerning changes in core reactivity. Alarms received are normally logged by the station computer. Those alarms pertaining to reactor core conditions are also listed in this log with an explanation. Any abnormal conditions of reactor operation due to auxiliary equipment are also noted and explained in detail. Notation of all releases of radioactive waste, both gaseous and liquid, are entered in this log.

13.6.2 Administrative Records

The Director, Site Operations is responsible for the investigation and reporting of reportable occurrences, including, but not limited to, those defined in the station Technical Specifications and as required by Title 10 Code of Federal Regulations. These reports will be made to the Vice President, Nuclear, with copies to the chairman of the Company Nuclear Review Board, and selected station personnel to comply with appropriate portions of Technical Specifications. Corrective action will be taken as necessary.

The Plant Operations Review Committee (PORC) Chairman, appointed by the Director, Site Operations, is responsible for maintaining PORC minutes.

The necessary records of current operating and contingency procedures, as required by Section 13.6, are maintained by the Documentation Management Unit. Records of changes to operating procedures are also maintained.

13.6.3 Maintenance Records

Maintenance records are maintained to show, in detail, both preventive maintenance and repairs to all major equipment in the station, including inspection, repairs, substitution or replacement of principal items of equipment pertaining to nuclear safety.

13.6.4 Health Physics Records

The Chemistry and Radiation Protection Sections are responsible for maintaining the following records.

13.6.4.1 Chemical Records

Water quality records for both primary and secondary systems.

13.6.4.2 Personnel Exposure

1. Personnel dosimetry records
2. Radio-bioassay records
3. Records of radiation exposure history and current exposure status as required by 10CFR20

13.6.4.3 Survey, Monitoring and Waste Disposal

1. Liquid waste discharged
2. Gaseous activity released
3. Solid radioactive wastes shipped
4. Routine station surveys and monitoring reports
5. Radioactive materials location log
6. Instrument calibration of all survey meters and effluent radiation monitors

13.6.5 Training Records

Records showing the training and requalification of each licensed member of the station staff are maintained by the Supervisor, Nuclear Operations Training.

Similar records are being maintained for non-licensed personnel including managers and engineering staff, technicians, repairmen, and health physics personnel and general employees.

13.6.6 Nuclear and Engineering Records

Records requiring retention are specified in the FENOC Quality Assurance Program Manual (QAPM).

13.6.7 Radiological Environmental Monitoring Program Records

The Manager - Environmental and Chemistry is responsible for designating in approved, written procedures those records necessary to ensure the program quality and ongoing regulatory compliance of the Radiological Environmental Monitoring Program.

13.7 SECURITY

13.7.1 Personnel and Station Design

Detailed security measures for the physical protection of the station are addressed in the station Physical Security Plan and the Safeguards Contingency Plan, and are exempt from public disclosure in accordance with 10CFR73.21. The physical security program for the station complies with 10CFR50.34(c) and applicable portions of 10CFR73 as described in the above Plans. Exceptions to these referenced requirements are specified in the Physical Security Plan. Changes to the security program are reviewed pursuant to the requirements of 10CFR50.54(p).

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