13 CONDUCT OF OPERATIONS

13.1 ORGANIZATIONAL STRUCTURE OF GINNA NUCLEAR GENERATING STATION

13.1.1 ORIGINAL CONSTRUCTION ORGANIZATION

13.1.1.1 Design and Construction Activities (Project Phase)

The four principal organizations responsible for the initial design and construction of Ginna Station were the owner, Rochester Gas and Electric Corporation; the prime contractor, Westinghouse; the architect-engineer and subcontractor to Westinghouse, Gilbert Associates, Inc.; and the constructor and subcontractor to Westinghouse, Bechtel Corporation. Their organizational relationships and responsibilities, particularly as applied to quality control, are discussed in Section 17.1.1.

Rochester Gas and Electric engaged the firm of Pickard, Lowe and Associates, of Washington, D.C., as consultants on reactor and plant engineering, site meteorology, and general site studies. In addition, specialists in environmental sciences participated in developing information concerning the site. These included Dr. Ben Davidson, meteorologist and Director, Geophysical Science Laboratory, New York University College of Engineering; Drs. Donald Pritchard and James Carpenter, hydrologists, and respectively Professor and Assistant Professor, Department of Oceanography, Johns Hopkins University; Dr. G. Hoyt Whipple, health physicist, Professor of Radiological Health, School of Public Health, University of Michigan; and Dr. Robert Sutton, geologist, University of Rochester. The firm of Hansen, Holley and Biggs, Massachusetts Institute of Technology, was engaged for structural engineering analyses. For quality control and the establishment of an operating surveillance program, the Southwest Research Institute, San Antonio, Texas, was engaged as a consultant.

13.1.1.2 Preoperational Activities

Organization and staffing for the preoperational startup and test phase for Ginna Station is discussed in Section 14.2.

In accordance with agreements made with RG&E, Westinghouse furnished supervision for the precritical tests, core loading criticality, post-critical tests, and plant performance tests with RG&E furnishing technical assistance, licensed operators, and labor for startup and plant operation, for core loading, and for all testing operations.

13.1.2 CORPORATE NUCLEAR OPERATIONS ORGANIZATION

The R.E. Ginna Nuclear Power Plant's (Ginna) Operating License was transferred to Exelon Generation Company, LLC (Exelon) on April 1, 2014. Exelon owns and operates a fleet of nuclear power plants throughout the United States, of which Ginna is now a part of.

13.1.2.1 President and Chief Executive Officer, CENG (CEO)

This position is responsible for overall corporate policy and provides executive direction and guidance for the corporation as well as promulgates corporate policy through the Senior Vice President - Nuclear Operations.

13.1.2.2 Senior Vice President - Nuclear Operations Chief Nuclear Officer, CENG (COO/CNO)

This position has overall responsibility for the safe and reliable operation of the Company's nuclear stations including management, oversight and strategic support of the operations of the stations. This is the senior executive responsible for setting and implementing policies, objectives, expectations, and priorities to ensure activities are performed in accordance with the quality assurance program and other requirements. The CNO oversees activities of the Nuclear Safety Review Board (NSRB).

13.1.2.3 DELETED

13.1.3 GINNA OPERATING ORGANIZATION

Figures 13.1-2 through 13.1-9 show the organization charts for personnel reporting to the Site Vice President and Plant Manager. Depending on the scope of the activities, one or more individuals may be assigned the described management responsibilities. The on-site operating organization includes one or more individuals knowledgeable in the following fields: nuclear power plant operation; nuclear power plant mechanical, electronic systems; nuclear engineering; chemistry and radiochemistry; radiation protection; and quality assurance. Fleet or site procedures provide detailed organizational descriptions. The responsibilities and lines of authority of principal station personnel are as follows.

13.1.3.1 Site Vice President (SVP)

This position reports to the Senior Vice President Site Operations and is responsible for overall plant nuclear safety and implementation of the Company's quality assurance program. This position is responsible for the station's compliance with its NRC Operating License, governmental regulations, and ASME Code requirements. This position provides day-to-day direction and management oversight of activities associated with the safe and reliable operations of a nuclear station. During an absence, the SVP shall delegate in writing the succession to this responsibility. The direct reports to the SVP are shown on Figure 13.1-1.

13.1.3.2 Plant Manager

This position reports to the SVP and is responsible for plant operations and maintenance. This position assures the safe, reliable, and efficient operation of the plant within the constraints of applicable regulatory requirements, Operating License, and the quality assurance program. The Plant Manager, in carrying out the responsibility for overall safety of plant operations, is responsible for timely referral of appropriate plant matters to management and independent reviewers. The Plant Operating Review Committee (PORC) reports to the Plant Manager. The direct reports to the Plant Manager are shown on Figure 13.1-2.

13.1.3.3 Director, Site Engineering

The management position for engineering and design has the responsibility and authority for day-to-day engineering support activities, develops and maintains engineering programs, policies, procedures, and provides engineering services in accordance with the Quality Assurance Program. A staff of supervisory, technical, and administrative

personnel supports maintenance activities. The direct reports to the Director, Site Engineering are shown on Figure 13.1-3.

13.1.3.3.1 Engineering Supervision

Engineering managers lead and coordinate projects including discipline interfaces and assign projects to department engineers. Functional areas of responsibility include:

a. Design engineering.
b. Engineering administration.
c. Modifications and their implementation.
d. Plant configuration control.
e. System engineering.
f. System Testing.
g. Technical support.

13.1.3.3.1.1 Department Engineer(s)

The Department Engineers report to the Engineering Manager associated with their respective discipline. The assigned engineers are responsible for the following:

a. Prepare design documents.
b. Review design documents.
c. Evaluate qualification test results associated with design.
d. Review repair procedures.
e. Prepare and review 10 CFR 50.59 Screens and 10 CFR 50.59 Evaluations.
f. Assist in resolution of maintenance and operational concerns.
g. Ensure plant systems are appropriately maintained and operated during daily activities and modifications.

13.1.3.4 Director, Site Work Management

The management position(s) responsible for control of work coordinate, administer, execute, and monitor daily and outage work schedules. This position is also responsible for material management and site supply, which coordinates parts requirements, specifies and evaluates parts procures all materials for the site, ships and receives material, and controls the on-site inventory. The site supply chain provides and coordinates scope and priority for station procurement engineering efforts. The direct reports to the Director, Site Work Managment are shown on Figure 13.1-4.

13.1.3.5 Director, Site Training

The management position responsible for training provides direction, control, and overall supervision of personnel as required by regulations and training for all site personnel as required. Functional areas of responsibility include:

a. Learning services
b. Maintenance technical training.
c. Operations training.

The direct reports to the Director, Site Training are shown on Figure 13.1-5.

13.1.3.6 Manager, Site Security

The Manager, Site Security, reports to the Site Vice President and is responsible for security.

13.1.3.7 Director, Site Operations

Responsible for safe, reliable and efficient plant operation consistent with Fleet and station goals. As the senior manager responsible for plant operations, the Operations Director establishes and reinforces standards and expectations for Operations Department personnel and other site personnel who interface with Operations in order to establish an error-free and professional work environment. The direct reports to the Director, Site Operations are shown on Figure 13.1-6.

13.1.3.7.1 Shift Operations Superintendent

The Shift Operations Superintendent (SOS) is responsible for the conduct and performance of the on-shift Operations crews. The SOS directly supervises the Shift managers and is responsible for their personal development and the development of their crews.
The SOS is also responsible for the content and quality of training received by both licensed and non-licensed operators.

13.1.3.7.1.1 Shift Managers

The Shift Managers report to the Shift Operations Superintendent and are responsible for the performance of all personnel assigned to their shifts who could affect plant safety, regardless of specialty affiliation. The primary function of the Shift Manager is to supervise the operation and related activities of Ginna Station, to supply the electrical demand of the system in the most efficient manner possible, and to protect the health, safety, and welfare of the general public from the potential hazards associated with the plant. The Shift Technical Advisor, Unit Supervisor, Reactor Operators, and Equipment Operators report to the Shift Managers.

During all plant modes, a Shift Technical Advisor (STA) is assigned to be in the control room within 10 minutes of being notified by the Shift Manager. The STA provides advisory technical support to the Shift Manager in the areas of thermal hydraulics, reactor engineering, and plant analysis with regard to the safe operation of the unit and emergency response.

13.1.3.7.1.2 Operating Shift Crews

The Operating Shift Crews report to the Shift Operations Superintendent through the Shift Manager. The Ginna Station Operations Department consists of crews which conform to the requirements for shift complement as specified in 10 CFR 50.54 (k), (l), and (m). Additional

information pertaining to shift crews is provided in the Technical Specifications. Minimum fire brigade composition is discussed in the Fire Protection Program Report (*Reference 1*).

13.1.3.7.2 Senior Manager Operations Support and Services

Supervises the Operations Support and Operations Services Groups. The Operations support staff works to achieve consistently high levels of performance in the area of plant operations. Is responsible for managing department procedures, performance indicators, budgetary oversight, implementation of the fire protection program, and other functions that are necessary to support effective operation. Routinely interfaces with site counterparts and industry peers to ensure continuous improvement. The Operations Services Group is directly involved with strategic placement of planned maintenance for all site departments. As such, the position interfaces with numerous site departments to determine optimum scheduling of work (both on-line and outage) to achieve improved plant performance and reliability.

13.1.3.7.2.1 Fire Marshal

The Fire Marshal is a supervisory level position in the Operations Department that manages all aspects of the Fire Protection Program at the site.

13.1.3.7.3 Reactor Engineer(s)

The Reactor Engineers report to the Director, Site Operations and are responsible for ensuring the safe and efficient operation of the reactor. They are responsible for the plant nuclear performance, nuclear material accountability, and reactor technology.

13.1.3.8 Manager, Site Radiation Protection

The Manager, Site Radiation Protection, reports to the Plant Manager. The Manager, Site Radiation Protection manages personnel who supervise the Radiation Protection Program administration, radioactive waste control, As-Low-As-Reasonably-Achievable (ALARA) program administration, respiratory protection program, plant radiation monitoring systems, on-the-job radiation monitoring, and in-plant radiation surveillance program. The Manager, Site Radiation Protection also supports the corporate and plant emergency organizations. The direct reports to the Director, Site Radiation Protection are shown on Figure 13.1-7.

The Manager, Site Radiation Protection is responsible for maintaining a program to control doses to in-plant personnel within all regulatory guidelines and maintaining the principles of ALARA. The General Supervisor, Radiation Protection, is also responsible for ensuring that the Radiation Protection Training Programs provide the knowledge and skills necessary for technicians to fulfill their assigned duties.

All radioactive sources are under the control of the Manager, Site Radiation Protection and/or a member of the radiation protection staff.

13.1.3.8.1 Radiation Protection Staff

Members of the radiation protection staff report to the Manager, Site Radiation Protection, and direct the monitoring and control of the radiological aspects of work in and around the

radiologically controlled areas of the plant. The Manager, Site Radiation Protection may assign the individuals responsibility for coordination of one or more of the following duty areas:

- Radioactive waste.
- ALARA.
- External dosimetry.
- Internal dosimetry.
- Plant radiation/contamination monitoring equipment.
- Respiratory protection.
- Radiation protection.
- Contamination control

13.1.3.9 Manager, Site Chemistry, Environment and Radwaste

The management position is responsible for chemistry activities, laboratory and system processes, radioactive waste, Radiological Environmental Monitoring Program, and related procedures and programs.

The direct reports to the Manager, Site Chemistry, Environment and Radwaste are shown on Figure 13.1-8.

13.1.3.9.1 Radiochemistry Staff

The Radiochemistry staff reports to the Manager, Site Chemistry, Environment and Radwaste and directs the monitoring and control of chemical and radiochemical parameters of plant process streams containing radioactive material and is responsible for establishing a comprehensive primary sampling and analysis program to assess for system degradation; for establishing a radiological effluent monitoring program to assess the quantity of radioactive material released into the environment; and for establishing an environmental monitoring program to assess the radiological effects of plant radiological releases to the environment surrounding the plant.

13.1.3.9.2 Secondary Chemistry

The Secondary Chemistry group reports to the Manager, Site Chemistry, Environment and Radwaste and directs the chemical control of all nonradioactive systems at the plant site to ensure compliance with federal and industry regulations and standards, and is responsible for authorizing the methodology used in the Secondary Chemistry Monitoring Program; for interpreting the results of chemical analyses; for advising the plant on operational modifications necessary for improved secondary water control; for advising the Plant Management promptly of off-control chemistry conditions affecting operating status and recommending

corrective actions for those conditions; and for reviewing all secondary system analytical results.

13.1.3.10 Director, Site Maintenance

The Management position(s) for maintenance are responsible for the performance of corrective, predictive and preventive maintenance, cleanliness controls and modification installation of mechanical and electrical equipment and instrumentation in accordance with the QAP and other requirements. A staff of supervisory, technical, administrative, and contract personnel supports day-to-day maintenance of equipment within their functional area. The direct reports to the Director, Site Maintenance are shown on Figure 13.1-9.

13.1.4 QUALIFICATIONS OF PLANT PERSONNEL

13.1.4.1 Qualifications of Plant Staff

The qualifications of individual members of the plant staff meet or exceed the minimum qualification requirements for comparable positions referenced in ANSI N18.1-1971, as supplemented by Regulatory Guide 1.8, September 1975, with the exception of members of operating shift crews who require a 10 CFR 55 license, non-licensed operators, technicians, and repairmen.

The Director, Radiation Protection or members of the supervisory staff meet or exceed the qualification requirements of Regulatory Guide 1.8, September 1975, for a radiation protection manager.

Licensed Senior Reactor Operators and licensed Reactor Operators are qualified in accordance with 10 CFR 55. As a minimum, the Manager, Operations, or the Assistant Operations Manager of Shifts, and the Shift Managers, and Control Room Foremen have Senior Reactor Operator Licenses.

The following personnel who provide onsite or offsite support to Ginna are qualified in accordance with 10 CFR 50.120:

1. Non-licensed operators.
2. Shift Managers (supervisory duties).
3. Shift Technical Advisors.
4. Instrument and Control Technicians.
5. Electrical Maintenance personnel.
6. Mechanical Maintenance personnel.
7. Radiation Protection Technicians.
8. Chemistry Technicians.
9. Engineering support personnel.

13.1.4.2 Qualifications of Incumbent Plant Personnel

The qualifications in the form of resumes of individual key plant managerial and supervisory personnel at the time of initial plant startup were included in the original FSAR.

REFERENCES FOR SECTION 13.1

1. EPM-FPPR, Ginna Station Fire Protection Program Report, Volumes 1, 2, and 3.

13.2 TRAINING PROGRAM

13.2.1 PLANT STAFF TRAINING PROGRAM

13.2.1.1 Objectives

The objectives of the staff training programs for the R. E. Ginna Nuclear Power Plant are as follows:

A. Train a staff to operate and maintain the nuclear plant safely, dependably, and economically.
B. Prepare the maintenance personnel for their functions necessary to the support and safety of plant operation.
C. Prepare shift supervisors and control room personnel for the NRC qualification examination for reactor operator and senior reactor operator.

13.2.1.2 Initial Training Programs (Historical)

13.2.1.2.1 Personnel Selection

The personnel chosen for the initial operating staff of Ginna Station were selected following evaluation of their aptitude in company-sponsored courses in nuclear engineering and their previous power plant experience. Following this selection, they were carefully screened by Westinghouse preplacement aptitude tests. These tests were professionally administered psychological and technical aptitude examinations used to evaluate the adaptability of the applicant to nuclear power plant operation. The technical preparation of personnel for the plant was a continuing project starting in 1963.

13.2.1.2.2 Nuclear Theory

Table 13.2-1 summarizes the training program for the initial Ginna Station staff. The training program began in November 1963. A nuclear engineering course was taught by Dr. John W. Bartlett of the University of Rochester. This was an introduction to nuclear power course and consisted of 18 evening lectures, one per week, with the last lecture on March 30, 1964. A nuclear theory course under the direction of Dr. Leonard Geller of Stoller Associates began on September 14, 1965. This graduate level course of 153 hr was conducted for approximately 45 employees from the Production, Chemical Laboratory, Employee Relations, Public Relations, Engineering, and Load Dispatcher Departments. The 51 sessions covered the following material:

Four sessions	math refresher.
One session	introduction to nuclear program.
Ten sessions	atomic and nuclear physics.
Eleven sessions	nuclear reactor theory.
Five sessions	thermal design of nuclear plants.
Six sessions	radiation effects and shielding.

Five sessions	control and instrumentation.
Three sessions	auxiliary reactor systems.
Six sessions	reactor containment and hazards analysis.

In conjunction with the above-mentioned course, a nuclear theory laboratory course was conducted at the University of Rochester under the direction of Dr. John W. Bartlett. This consisted of thirteen 3-hour laboratory classes where nuclear experiments were carried out.

The next phase of the training program began on January 3, 1967. It was conducted by Westinghouse in conformance with the reactor operator training program then in use, to prepare applicants for the AEC reactor operator licensing examinations.

13.2.1.2.3 Plant Systems and Operations

Ten weeks of the Westinghouse program were held at the Westinghouse Reactor Evaluation Center, Waltz Mill Site, Madison, Pennsylvania. Lectures were given on:

- Atomic, nuclear, and reactor physics.
- Reactor operations and instrumentation.
- Reactor engineering and PWR technology.
- Radiation protection and reactor safety.

One week was devoted to group reactor core loading exercises including criticality experiments on the Critical Experiment Station reactor. Two weeks were spent at the Critical Experiment Station reactor facility by each trainee for individual console operations and data handling. During this time, each trainee performed at least 30 reactor startups on the Critical Experiment Station reactor.

Twenty-three weeks of the Westinghouse program were conducted at the Saxton Nuclear Experimental Corporation (SNEC) PWR facility in Saxton, Pennsylvania. Here, the basic knowledge gained at Westinghouse Reactor Evaluation Center was applied to a PWR plant. Classroom lectures were given so that each trainee became familiar with the SNEC radiation protection program, evacuation procedures, and all systems in the plant. All trainees worked shift work for several weeks to get practical experience on a PWR unit. Each trainee had at least two full startups of the reactor. Also, while at SNEC, each trainee witnessed reactor head removal and fuel handling.

The remaining 6 weeks of the Westinghouse program were devoted to a lecture series on systems and components of the R. E. Ginna Nuclear Power Plant. The offsite part of the Westinghouse training program ended on October 13, 1967.

13.2.1.2.4 Final Phase

The final phase of the Westinghouse training program began at the plant site in October 1967. During this phase, fundamentals of reactor theory and chemistry were reviewed. Plant systems and operations were studied, observed during construction, and operated during check out.

Key supervisory plant personnel, including shift foremen, were prepared for the AEC senior operator license examination prior to initial criticality. To this end, training consisted of operating experience at existing PWR plants, or the equivalent, where they were administered an AEC operator examination.

Plant operating personnel, as a team, conducted tests of plant systems, wrote emergency and operating procedures, and prepared the proposed Technical Specifications.

13.2.1.3 Onsite Training Prior to Startup

The onsite training school program began in the spring of 1968. It was expected that initial criticality would occur approximately 11 months after the start of the training school, leaving ample time for the proper training of personnel. The instructors for the school were members of the supervisory staff of the RG&E operating department and technical personnel from the engineering group. The latter group discussed the systems and their components from the designer's viewpoint. Engineering and scientific personnel from Westinghouse and Gilbert Associates, Inc., assisted in presentations covering design aspects of equipment supplied by their respective organizations. Technical consultants and other vendor representatives were invited to discuss topics of special interest.

The instructional responsibilities were divided among the plant supervisory staff as follows:

Plant Engineer	Atomic structure, nuclear theory, reactor physics, and the containment
Maintenance Engineer	Reactor kinetics, primary coolant system and components, fuel handling, and emergency procedures.
Reactor Engineer	Basics of electricity, plant electrical systems, reactor control, core layout, safety injection system, and administrative procedures.
Results and Test Engineer	Radiation detection, nuclear instrumentation, and auxiliary coolant system.
Operations Engineer	Chemical and volume control system and operating instructions.
Assistant Plant Superintendent	Radioactive waste treatment, Technical Specifications, and site contingency procedures.
Plant Superintendent	Secondary plant systems.
Health Physics Department	Radiation protection, health physics, plant ventilation, water treatment, and sampling.
Westinghouse Training Coordinator	Instrumentation and control.

The supervisory staff was heavily assisted in class preparation and presentation by the six shift foreman candidates.

All reactor operator trainees were experienced power plant operators. During the training program, time was allowed so that plant systems and operations were studied, observed during construction, and operated during checkout.

13.2.2 REPLACEMENT AND RETRAINING OF PERSONNEL

13.2.2.1 Licensed Operator Replacement and Requalification Training

The program for replacement and requalification of licensed operators is in accordance with 10 CFR 55 and is based on a systems approach to training. The program was accredited by the National Nuclear Accrediting Board in February 1987 (*Reference 1*).

13.2.2.2 Replacement and Retraining of Unlicensed Personnel

The program for replacement and retraining of the following personnel who provide onsite or offsite support to Ginna Station is based on a systems approach to training and is in accordance with 10 CFR 50.120:

- Non-licensed operators.
- Shift Supervisors (supervisory duties).
- Shift Technical Advisors.
- Instrument and Control Technicians.
- Electrical Maintenance personnel.
- Mechanical Maintenance personnel.
- Radiation Protection Technicians.
- Chemistry Technicians.
- Engineering support personnel.

The replacement and retraining of other unlicensed plant personnel within the Ginna Station operating organization is in accordance with Section 5.5 of ANSI N18.1-1971.

The training of Ginna Station and offsite agency personnel for execution of the station Emergency Plan is described in the Emergency Plan and implementing procedures referenced in Section 13.3.

Training for the fire brigade is discussed in the Fire Protection Program Report (*Reference 2*).

13.2.2.3 General Employee Training

Personnel requiring unescorted access to Ginna Station are required to attend classroom training in the following areas:

- General description of plant facilities and administrative controls.
- Security program.
- Industrial safety program.
- Fire protection program.
- Station emergency program.
- Quality assurance program.
- Radiological Health and Safety Program (required of all personnel entering radiologically restricted areas).
- Other training appropriate to an individual job or functional assignment as identified by their immediate supervisor.

Radiation Protection training includes "hands-on" training with radiation protection monitoring devices and the donning of protective clothing. Plant personnel are also required to attend a retraining program based on a systematic approach to training in accordance with INPO guidelines.

REFERENCES FOR SECTION 13.2

1. Letter from R. C. Mecredy, RG&E, to Document Control Desk, NRC, Subject: Certification of Licensed Operator Requalification Training Program, dated May 25, 1989.

2. EPM-FPPR, Ginna Station Fire Protection Program Report, Volumes 1, 2, and 3.

Table 13.2-1
INITIAL GINNA STATION PERSONNEL TRAINING

-	-	-	-	Westinghouse		-	-	-	-
Trainees	**Dr. Bartlett[a]**	**Dr. Geller[a]**	**Dr. Bartlett Laboratory[a]**	**Waltz Mlls, Pa[a]**	**Saxton, Pa[a]**	**Onsite[b]**	**Masters Degree in Health Physics**	**Experience in Health Physics**	**Onsite Training in Health Physics[b]**
Superintendent	X	X	X	X	X	X			X
Assistant Superintendent	X	X	X	X	X	X			X
Operations Engineer	X	X	X	X	X	X			X
Maintenance Engineer	X	X	X	X	X	X			X
Nuclear Engineer		X	X	X	X	X			X
Results and Test Engineer		X	X	X	X	X			X
Shift Foreman	X			X	X	X			X
Licensed operators	X					X			X
Nonlicensed operators						X			X
Supervisor of Chemistry and Health Physics	X	X	X				X	X	
Health Physicist		X	X				X	X	
Health Physics Technicians								X	
Maintenance personnel	X[c]								X
Office personnel									X
Chemistry Technicians									X

a. Description in Section 13.2.1.2.

b. Description in Section 13.2.1.3.

c. Not all.

13.3 EMERGENCY PLANNING

The Ginna Station Nuclear Emergency Response Plan has been submitted to the NRC as a separate document. The Emergency Plan Implementing Procedures have also been submitted to the NRC.

Provisions have been made for periodic review and updating of the Nuclear Emergency Response Plan and Emergency Plan Implementing Procedures and for informing individuals and organizations that have responsibility for implementation of significant revisions to the plan and/or procedures.

The New York State Emergency Plan for Radiation Accidents, the New York State Bureau of Radiological Health Specific Operating Procedure for the Ginna Site, and the Monroe County and Wayne County radiation emergency response plans have been submitted to the NRC. These plans are submitted to the Federal Emergency Management Agency (FEMA) by New York State when revised and are submitted to the NRC for information.

An onsite Technical Support Center (TSC), Operational Support Center (OSC), and Survey Center have been established. Also, an offsite Emergency Operations Facility (EOF) has been established. Emergency support facilities have been upgraded to meet the requirements of NUREG 0737, Item III.A.1.2.

The offsite Emergency Operations Facility (EOF), including the Joint Information Center (JIC) and the offsite Survey Center, are located at 1255 Research Forest, Gananda Region of the Town of Macedon, New York. This facility is approximately 12.5 miles south of Ginna Station.

The Technical Support Center (TSC) is located adjacent to the turbine building on the second floor of the all-volatile-treatment building. The Operations Support Center (OSC) is located in the Outage Control Center (OCC), which is in the Ginna Service Building. The Survey Center (SC) is located in the EOF. The FEMA has determined that the alert and notification system installed around Ginna Station satisfies the requirements of NUREG 0654/FEMAREP-1, Rev. 1, and FEMA-43, and provides reasonable assurance that the system is adequate to promptly alert and notify the public in the event of a radiological emergency at the site.

13.4 REVIEW AND AUDIT

Three separate organizational units have been established for the purpose of review and audit of plant operations and safety-related matters. One of these is an onsite review group, the Plant Operations Review Committee (PORC). The second is the independent review group, the Nuclear Safety Review Board (NSRB). The third is the Nuclear Oversight (NOS) group, which performs independent audit and quality verification functions.

13.4.1 ONSITE REVIEW

Plant Operations Review Committee

The PORC is described in the Quality Assurance Topical Report (QATR). Review of changes to the program are conducted in accordance with 10 CFR 50.54(a).

13.4.2 INDEPENDENT REVIEW

Nuclear Safety Audit and Review Board

The NSRB is described in Exelon procedures.

13.4.3 AUDIT PROGRAM

13.4.3.1 Nuclear Safety Review Board

The NSRB is required to review the Station oversight program (including audits, assessments, and self-assessments) for effectiveness. Applicable audits are established and described, including minimum frequency, in the Quality Assurance Topical Report (QATR).

13.4.3.2 Nuclear Oversight (NOS)

NOS's organization, qualifications, responsibilities, and training of quality assurance personnel responsible for audits of safety-related activities are outlined in the Quality Assurance Topical Report (QATR).

13.5 PLANT PROCEDURES

13.5.1 ADMINISTRATIVE PROCEDURES

13.5.1.1 Conformance With Regulatory Guide 1.33

The administrative procedures for Ginna Station are maintained consistent with the commitments discussed in the Quality Assurance Topical Report (QATR) cited in UFSAR Section 17.2.

13.5.1.2 Preparation of Procedures

Cognizant station managers are responsible for initiating, preparing, and controlling plant procedures consistent with their responsibilities and for ensuring that any activity is performed in accordance with the latest applicable procedures. The Administrative Controls section of the Technical Specifications requires that written procedures be established, implemented, and maintained covering the following activities:

A. The applicable procedures recommended in Regulatory Guide 1.33, Revision 2, Appendix A, February 1978.

B. The emergency operating procedures required to implement the requirements of NUREG0737 and NUREG-0737, Supplement 1, as stated in Generic Letter 82-33.

C. Effluent and environmental monitoring.

D. Deleted; and

E. All other programs specified in the Programs and Manuals subsection of the Administrative Controls section of Technical Specifications.

The preparation, changing, revising, approval, updating, and document control of station procedures is controlled by the Quality Assurance Topical Report (QATR) and approved procedures.

13.5.1.3 Description of Administrative Procedures

Administrative procedures included in the applicable categories cited in Section 13.5.1.2 are available at the station for NRC review.

13.5.2 OPERATING AND MAINTENANCE PROCEDURES

13.5.2.1 Control Room Operating Procedures

Control room operating procedures include the following categories which are available at the station for NRC review:

- General operating procedures.
- System operating procedures.
- Emergency operating procedures.
- Turbine plant operating procedures.

- MODE 6 (Refueling) procedures.
- MODE 6 (Refueling) shutdown surveillance procedures.
- Alarm response procedures.
- Precautions, limitations, and setpoints.

13.5.2.2 Site Contingency Procedures

13.5.2.2.1 General

Site contingency procedures have been developed to ensure that proper action is taken in the event of an emergency.

Procedures have been prepared for many emergencies including the following: high radiation, adverse weather, high water or flood, earthquake, fire, and bomb threat. The Nuclear

Emergency Response Plan implementing procedures are discussed in Section 13.3. Bomb threat is covered in the Security Plan (see Section 13.6).

13.5.2.2.2 Adverse Weather Conditions

The adverse weather emergency plan describes the operator actions to be taken in the event of high winds, tornadoes, and ice storm conditions which could occur.

13.5.2.2.2.1 High Winds

The Shift Manager should be in communication with RG&E Energy Operations in regard to weather conditions if high winds are approaching the area. The Shift Manager will be kept informed of their course and intensity and of any changes in the forecast.

If, in the judgment of the Shift Manager, a question of the plant safety exists, the unit will be shut down.

13.5.2.2.2.2 Tornadoes

If area weather conditions are such that tornadoes are possible in the plant area, as determined from information supplied by RG&E Energy Operations, the Shift Manager will post a tornado watch with a radio on the roof of the turbine building.

If the tornado is sighted and observed to be a potential danger, the plant will be placed in a MODE 3 (Hot Shutdown) condition on orders of the Shift Manager.

13.5.2.2.2.3 Ice Storms

RG&E Energy Operations will keep the Shift Manager informed of the possibility of losing any transmission lines due to severe ice buildup. Load reduction will be determined through coordination between Energy Operations and the Shift Manager, dependent on the consequences of the storm and the need for protection of plant equipment and personnel.

13.5.2.2.3 High Water or Flood Emergency Plan

The high water or flood emergency plan describes the procedures that are followed in the event that high water or a flooding condition exists on the plant site. The actions taken will depend on the following conditions:

Flooding of Deer Creek

An analysis has been performed to determine the potential for site flooding from Deer Creek due to a major precipitation event. The results of this analysis are documented in the NRC Safety Assessment Report for SEP Topic II-3.B (*Reference 1*). It was determined that the flooding potential from Deer Creek was low. Emergency procedures require the installation of flood barriers and connection of the alternative cooling water supply to the diesel generators in the event that the water rises above the handrails of the access road bridge over Deer Creek. (See Section 2.4.3.4 for a discussion of beyond-design-basis reevaluated flood hazards, performed in response to the accident at Fukushima Dai-Ichi.)

A large pipe break or equipment failure

An evaluation of high and moderate energy pipe breaks, and potential tank failures has been conducted during review of SEP Topics III-5.A, III-5.B, and IX-3 (*Reference 1*). Emergency procedures provide for use of alternative sources of cooling water to the diesel generators and suction supply to the auxiliary feedwater systems, in the event of a loss of normal service water.

High lake level (flood)

If a lake level of 252 ft 0 in. occurs and a continued rise is observed or expected, the event will be classified as appropriate and closely monitored. If wave action causes splashing over the discharge canal wall or armor stone, a water level watch will be posted in the screen house. When water level begins to accumulate on the screen house operating floor, or a lake level of 253 ft 6 in. is observed, a plant load reduction to MODE 3 (Hot Shutdown) will be commenced, if necessary.

13.5.2.2.4 Earthquake Emergency Plan

The earthquake emergency plan describes the procedures that will be followed in the event an earthquake tremor occurs at the plant site. The procedures are designed to protect the plant personnel and equipment and to ensure the health and safety of the general public. If a tremor of greater than 0.01g is indicated, an inspection of important plant areas will be conducted. If any damage to the primary or engineered safety features systems is noted or if an accelerograph reading of 0.08g or greater is noted, the plant will be shut down.

13.5.2.2.5 Fire Emergency Plan

The fire emergency plan describes the prefire strategy, the equipment, and the procedures that will be followed in the event of a fire within the facility. The required actions are in accordance with commitments to NRC requirements and guidelines. The actions to be taken will depend on the following:

- Location of the fire.

- Severity of the fire.
- Type of fire.
- Effect on reactor safety.

The fire emergency plan is designed to detect, extinguish, and set forth procedures of plant operation in the event of a fire to protect plant equipment and to ensure the health and safety of the general public and plant personnel.

Ginna Station has contacted the Ontario Volunteer Fire Department and an understanding has been reached on the extent of assistance and equipment which will be available when needed.

13.5.2.3 Other Procedures

Other procedures include the following:

1. Maintenance procedures.
2. Emergency maintenance procedures.
3. Calibration procedures.
4. Test instrumentation calibration procedures.
5. Periodic test procedures.
6. Protective relay procedures.
7. Special test procedures.
8. Primary chemistry procedures.
9. Radioactive discharge procedures.
10. Radiation protection procedures.
11. Secondary chemistry procedures.
12. Chemistry environmental procedures.
13. Quality control inspection procedures.
14. Inservice inspection procedures.
15. Station modification procedures.
16. Ginna security procedures.

All operating, testing, and maintenance procedures are considered to be technical procedures. These procedures emphasize the precautions to be taken as well as the methods required for performing the work. Operating and special precautions are delineated as necessary in the procedures.

Maintenance at Ginna Station can be grouped into two categories: preventive or scheduled maintenance and troubleshooting or repair of equipment required to support operations. Preventive maintenance is scheduled during unit shutdown periods and during scheduled system outages while the unit in online. Breakdown maintenance is done immediately in accordance with provisions outlined in the Technical Specifications.

The planner identifies the need for a Radiation Work Permit in the work package, if required. In the event maintenance is required in a restricted area or on potentially contaminated equipment, Radiation Protection personnel will either be contacted or a Radiation Work Permit identified in the work package.

The Ginna holding rules must be followed for the maintenance of all equipment. Holding rules are established by a Ginna Station procedure and have as their purpose to isolate equipment to make it safe for work to be performed.

REFERENCES FOR SECTION 13.5

1. Letter from D. M. Crutchfield, NRC, to J. E. Maier, RG&E, Subject: Supplement to the Integrated Plant Safety Assessment Report for the R. E. Ginna Nuclear Power Plant, dated August 31, 1983.

13.6 INDUSTRIAL SECURITY

The Exelon plans for physical protection of Ginna Station are described in the NRC-approved plans which are withheld from public disclosure pursuant to 10 CFR 2.790(d) and 10 CFR 73.21. These plans are the Robert E. Ginna Station Physical Security Plan and the Safeguards Contingency Plan. The plans conform to the requirements of appropriate federal regulations governing security activities of nuclear power reactors. Changes to the plans are made in compliance with 10 CFR 50.54(p) or 10 CFR 50.90 as applicable.