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RECIP.NAME RECIPIENT AFFILIATION
MURLEY,T.E. Region 1, Office of Director

SUBJECT: Forwards Rev 0 to "Nuclear Emergency Radiation Plan," incorporating offsite & onsite plans & responding to mods recommended in IE Insp Rept 50-244/83-25.

"See Emergency Plans"

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NEW YORK STATE

ROGER W. KOBER
VICE PRESIDENT
ELECTRIC & STEAM PRODUCTION

TELEPHONE
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August 9, 1984

Dr. Thomas E. Murley, Regional Administrator
U. S. Nuclear Regulatory Commission
Region I
631 Park Avenue
King of Prussia, Pennsylvania 19406

Dear Dr. Murley:

Enclosed is the Rochester Gas and Electric "Nuclear Emergency Radiation Plan." This plan incorporates the Offsite Radiation Plan with the onsite plan into a single document, which replaces the SC-1 "Radiation Emergency Plan."

Included in this plan are the modifications listed in Enclosure 1 to Inspection No. 50-244/83-25, January 18, 1984, item 3.23.

Very truly yours,

Roger W. Kober

Roger W. Kober

Enc. (2)

xc: Document Control Desk (2)

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GINNA STATION NUCLEAR EMERGENCY RESPONSE PLAN

(NERP)

REVISION NUMBER	9	
REVISION DATE	01/01/91	
PORC APPROVED	91-009 MEETING NO.	01/23/91 DATE
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NUCLEAR EMERGENCY RESPONSE PLAN
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NUCLEAR EMERGENCY RESPONSE PLAN

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1.0. SCOPE AND APPLICABILITY:

The Nuclear Emergency Response Plan (NERP) describes the total preparedness program established, implemented and coordinated by the Rochester Gas and Electric Corporation (RG&E) to ensure the capability and readiness for coping with and mitigating both onsite and offsite consequences of radiological emergencies at RG&E's operating nuclear power plant, Ginna Station. The plan covers the spectrum of emergencies from minor localized incidents to major emergencies involving protective measures by offsite response organizations. Included are guidelines for immediate response, assessment of emergency situations, defined action criteria and delineation of support and recovery functions. Emergency implementing procedures provide detailed information for individuals who may be involved with specific emergency response functions.

The NERP provides for a graded scale of response for distinct classifications of emergency conditions, action within those classifications and criteria for escalating to a more severe classification. This classification system is identical to that used by the State of New York and the local (Wayne and Monroe County) emergency response agencies. The plans have four categories of emergencies: Unusual Event, Alert, Site Area Emergency and General Emergency. A fifth classification, Local Radiation Emergency has been added. A Local Radiation Emergency is less severe than an Unusual Event and does not involve any offsite organization.

The NERP describes the activities and provisions other than engineered safeguards systems which are intended to limit exposures to the general public as well as to plant personnel. The NERP covers the following conditions:

1) Major release to the atmosphere

2) Major release to the lake.

3) Abnormally high radiation or airborne radioactivity in a particular area of the plant.

4) Plant conditions that may lead to potential releases.

Rochester Gas and Electric Corporation has the immediate and continuing responsibility for limiting the consequences of an incident at the Ginna Nuclear Power Plant. Limiting the consequences to public health and safety should take clear precedence over limiting financial loss or adverse publicity. During a radiological emergency, RG&E should take whatever action is deemed necessary to limit the consequences to public health and safety, even if that action violates the Ginna Technical Specifications. Such actions would require concurrence of a minimum of two licensed reactor operators and follow up notification to the NRC in accordance with 10 CFR 50.54X.

RG&E is responsible for keeping local, State and Federal authorities informed on the status of the emergency as it relates to protection of the public health and safety. RG&E will recommend to local, State and Federal authorities specific protective actions to limit the danger to the public, including evacuation.

RG&E understands that it is the Nuclear Regulatory Commission's policy that the emergency should be managed by the licensee. The NRC staff at the Region I Operations Center is limited in its ability to provide detailed recommendations to plant personnel or plant managers at the site. RG&E understands that the NRC Operations Center will be the primary location where this agency will monitor and evaluate licensee actions. During that time, the normal response roles for the NRC Operations Center will be to monitor, inform, and, upon request, advise licensees and other local, State and Federal authorities. The authority for managing the NRC's emergency response efforts will be transferred to a senior onsite NRC representative when the NRC Regional Administrator is confident the onsite representatives are prepared to receive that authority. Their role will continue to be monitoring, advisory and informing plant and local authorities.

1.1 Definitions:

A. Assembly Area - A designated building in which all non-essential personnel congregate following a Site Evacuation.

B. Centers - Locations where communications are available, information is available and personnel will assemble to evaluate conditions during and after an event. See Section 6.1 for details.

C. Corporate Nuclear Emergency Planner - The individual who has overall responsibility for maintaining the Nuclear Emergency Response Plan and implementing procedures. He will also coordinate these plans with New York State and county organizations having emergency responsibilities. He will act as liaison with private organizations in developing plans which augment RG&E Plans.

D. Drill - A drill is a supervised instruction period aimed at developing, maintaining and testing skills needed for a particular operation. A drill will be supervised by qualified instructors or controllers.

E. Emergency Classification Levels - Four Emergency Classification Levels have been established by the NRC and incorporated into the NERP and State and County Plans. Each class requires a different degree of response actions by the state, counties and RG&E. The four classes are:

Unusual Event - an event which indicates a potential degradation of the level of safety of the plant

Alert - an event in progress which involves an actual or potentially substantial degradation of the level of safety of the plant

Site Area Emergency - events have occurred which involve actual or likely major failures of plant functions needed for protection of the public

General Emergency - events which involve actual or imminent substantial core degradation or melting with potential for loss of containment integrity

F. Emergency Coordinator - An individual who has received appropriate training in the actions to be taken in the event of an incident at Ginna Station. He has full authority and responsibility for meeting the emergency. This is the Shift Supervisor until he is relieved by the TSC Emergency Coordinator taking Command and Control. Finally when the EOF/Recovery Center assumes Command and Control, the EOF/Recovery Manager assumes overall responsibility for the emergency. The Emergency Coordinator maintains close liaison between the TSC and EOF.

G. Emergency Planning Zone (EPZ) - An area around Ginna Station divided into Emergency Response Planning Areas (ERPAS) for which preplanned actions to meet possible hazards have been developed. Actions to meet site hazards are the responsibility of RG&E. Protective actions in the Plume Exposure Zone (approximately 10 miles) are the responsibility of the county organizations. New York State is responsible for actions to limit ingestion exposure in the zone out to approximately 50 miles.

H. Survey Center - Field survey teams are dispatched from this facility to gather actual data for evaluation by the health physicists.

I. Emergency Operations Facility (EOF) - A facility located in the basement of 49 East Avenue from which additional RG&E personnel, consultants, NRC and other individuals can provide assistance to the plant in evaluating any emergency, gaining control of it and continuing the recovery operation. Meteorology, field monitoring and plant data can be evaluated here by a health physicist and recommendations made to the state and counties for protection of the public.

J. Exercise - An exercise is an event that tests the integrated capability and a major portion of the basic elements existing within the emergency response plans and organizations.

K. Joint Emergency News Center - Is located in the RG&E Corporate Office Building. It has facilities for press briefings, rumor control and general information dissemination. Information regarding the status of Ginna Station will come from the EOF/Recovery Center. The Joint News Center may be set up prior to activation of the EOF/Recovery Center. See EPIP 4-6, "Joint Emergency News Center Activation" for details.

L. Radiological Emergency - An incident that may result in the uncontrolled release of radioactive material leading to a hazard or potential hazard to the health and safety of the general public. As a result, the Ginna Emergency Organization, RG&E Recovery Organization, State and County Emergency Organizations may be activated, depending upon the level of response required.

M. Restricted Area - Those areas within the station fence. Normal access is through the guard-controlled main gate.

N. Offsite - All public and private property outside the site property owned by Rochester Gas and Electric Corporation.

O. Onsite - That property around Ginna Station which is owned and controlled by Rochester Gas and Electric Corporation.

P. Technical Support Center (TSC) - An onsite facility which is used by the plant staff to assist the operating personnel in evaluating an emergency and bringing the plant under control. The TSC is a coordinating center for gathering and initially evaluating information relative to accident conditions and possible offsite radiation and contamination. The initial EOF actions will take place here until that Center is manned. The Emergency Coordinator will maintain communications from here with the EOF personnel.

2.0 Summary Of Emergency Plan

The primary object of this plan is to protect the public and onsite personnel in the event of a radiation emergency. This plan describes in general the actions to be taken by RG&E personnel in coordination with local, state and federal authorities.

Through an emergency organization, which is described, the magnitude and impact of radioactive releases will be assessed and the need for the activation of a more extensive emergency response will be determined. The systems for notification of emergency personnel, federal state and local authorities and the public are described along with the emergency facilities and equipment which are available for the trained emergency staff. The goal of the RG&E Emergency Organization is the safe shutdown and recovery of Ginna Station and protection of the health and safety of the public and employees.

The general actions to be taken in the event of a radiation accident include the following:

1) Observation and determination of the class of the occurrence.

2) Prevention or minimization of radiation hazards by the Emergency Coordinator and the on-duty operators.

3) Evacuation of all non-essential personnel from the Plant to the Ginna Training Center.

4) Involvement of Plant Guards, Supervisory personnel, Chemistry and Health Physics personnel, and other plant staff.

5) Notification of NRC Operations Center and State and Local Authorities, issuance of news releases, and emergency medical treatment.

6) Activation of Emergency Response and Emergency Support Organizations.

7) Recovery and restoration of the plant to normal operation.

The extent of response to an emergency situation is determined by the seriousness of potential consequences. With the potential for effects to the general public, the assistance of state, local and federal agencies will be required. For situations which only affect on-site operations, the situation will be met by RG&E capability.

The awareness of an emergency situation will most likely originate in the Control Room. From an evaluation of plant parameters, the seriousness of the incident can be determined and the appropriate classification determined. The on-duty plant operators, under the direction of the Shift Supervisor, in consultation with the Shift Technical Advisor, will take action to mitigate the incident and to obtain the assistance of other plant and RG&E personnel.

Personnel onsite will be alerted by a warning signal if evacuation is deemed advisable and off-duty personnel will be called in through an established call procedure. Federal, State and County officials will be notified so that they may begin to set up their response organizations. If the level of the incident requires activation of the Emergency Organization, trained people will man the Technical Support Center, the Survey Center and later the Emergency Operations Facility. These centers will be activated, per procedure, by designated people who have been trained in the duties required to meet the incident. Sufficient individuals are trained so that the jobs can be filled regardless of who is on site or available for call-in.

Public officials will be kept informed of the situation as it progresses. For certain classes of events, the EOF will be activated for continuing management of the incident and to assist in restoring the plant to normal operation. A Joint Emergency News Center will be established to keep the public aware of the situation and news releases will be coordinated between RG&E, New York State and other government agencies.

3.0 EMERGENCY CONDITIONS:

Emergencies are classified into five categories which cover the entire spectrum from probable incidents to postulated major accidents. This system is coordinated with NRC, New York State, Wayne County and Monroe County to ensure that the classification system is compatible with that used by all organizations. The system provides for notification of appropriate emergency response organizations and implementation of actions immediately applicable to a specific condition. Provisions are included for revising the classification level and the corresponding responses in the event of a change in severity of the emergency condition. This section identifies the events which comprise each of the five emergency classifications.

Criteria for characterizing, recognizing and declaring each emergency class are given along with appropriate action levels. Recognition and action level criteria are based, to the extent feasible, on readily available information such as Control Room instrumentation. Plant parameter values and the corresponding emergency classifications are given in appropriate implementing procedures. Immediate actions to be taken in response to plant condition are detailed in plant operating and emergency procedures. Other emergency actions in response to radiation emergencies are identified in section 5.0 and described in detail in applicable Emergency Plan Implementing Procedures (EPIP) as listed in Appendix E.

The emergency classification system is illustrated by some examples provided in Table 3.1. A comprehensive listing of Ginna specific initiating conditions for each emergency classification is provided in EPIP 1-0. EPIP 1-0 is based on NRC guidance provided in NUREG 0654 Appendix 1 and demonstrates how an initiating condition leads directly to the appropriate emergency classification, based on the magnitude of the event. In some cases, extensive assessment is necessary to determine the applicable emergency classification. In any case, continuing reassessment is required to ensure that the classification is upgraded or downgraded commensurate with the severity of the condition.

Procedure EPIP 1-0 among others, can be found in the Control Room, Technical Support Center and Emergency Operations Facility.

3.1 Local Radiation Emergency:

Incidents may occur which require response only within the plant. A Local Radiation Emergency is defined as a radiation emergency condition whose consequences affect only personnel onsite. A Local Radiation Emergency shall be declared when 1) any area monitor alarms unexpectedly 2) there is reported an unexpected increase in the airborne activity in a work area, 3) there is a significant radioactive spill in an area, 4) Hi Flux alarm during shutdown, or 5) the operator in charge deems it necessary. Operator judgment shall prevail so that the emergency procedure may be initiated without total dependence on instruments.

A radiation alarm in the Auxiliary Building could indicate a faulty monitor, but if the vent monitor alarms concurrently, a serious condition has probably occurred. A release rate of less than Technical Specification limits can be treated as a Local Radiation Emergency.

An alarm on the liquid effluent monitor (R-18) could indicate a low level release of radioactivity into the lake. This would require action by plant personnel. A release at levels less than the limits given in 10CFR20, Appendix B, Table II, Column 2 can be treated as a Local Radiation Emergency.

3.2 Unusual Event:

Events within this classification generally characterize off-normal plant conditions which, by themselves, do not constitute significant emergency conditions. Some of these events could, however, indicate a potential degradation in the level of plant safety and/or could escalate to a more severe condition if appropriate action is not taken.

The primary purpose for this classification is to ensure that the plant operating staff recognizes initiating conditions, takes appropriate action and comes to a state of readiness to respond in the event that the condition becomes more significant. The Unusual Event classification or higher also requires that off-site authorities are promptly informed of the abnormal condition by use of the Radiological Emergency Communications System (RECS) and the New York State Radiological Data Form, Part I, EPIP 1-5. No response is necessary by off-site authorities for events within this classification. The TSC or EOF will not usually be activated, although the Plant Manager, Duty Engineer, and Operations Manager or their alternates will normally report to the TSC to provide communications assistance.

An example of EPIP 1-0 (Table 3.1) indicates the degree of severity which classifies an initiating condition such as an Unusual Event. When giving notice to state and county officials RG&E will make sure that they clearly understand the Unusual Event classification and that if conditions change there will be further notification.

3.3 Alert:

This classification is characterized by events which indicate an actual degradation of the level of plant safety. This classification may require response by the plant emergency organization, augmentation of onsite emergency resources, and constitutes the lowest level where emergency offsite response may be anticipated. EPIP 1-0 shows the degree of severity which categorizes plant conditions as "Alert" class. The Technical Support Center will be manned for all conditions of the Alert class. The EOF may be activated at the discretion of the EOF/Recovery Manager.

Prompt notification of an event within this class will be made to the NRC, State of New York and Monroe and Wayne Counties. While the initial assessment would not require immediate response, potential releases of radioactivity make it advisable to alert offsite organizations. Periodic status updates will be made to keep authorities aware of the situation.

3.4 Site Area Emergency:

A Site Area Emergency is characterized by events involving actual or probable major failures of plant functions needed for protection of the public. Most events within this classification constitute actual or clear potential for significant releases of radioactive material to the environment. Although emergency actions involving members of the public may not be necessary, offsite emergency response organizations should be mobilized and ready to implement protective measures. Protective actions taken onsite are: the evacuation of all persons in areas other than the Control Room and Technical Support Center; activation of the Technical Support Center; initiation of onsite and offsite radiation monitoring; and close monitoring of plant status so that utility and other authorities can be advised of changing conditions, whether increasing or decreasing in severity. Meteorological and release data and survey results will be used to provide offsite dose estimates. For a Site Area Emergency the EOF will be activated.

Examples of situations are provided in EPIP 1-0 to characterize the types of incidents which are expected to fall in this class. For the purpose of classifying an emergency, instrument indications in the Control Room will be used. The instruments of interest and appropriate action points are part of implementing procedures.

APPENDIX II DETAILED ACCIDENT CLASSIFICATION

INITIATING CONDITIONS	GENERAL PROCEED TO EPIP 1-4	SITE AREA PROCEED TO EPIP 1-3	ALERT PROCEED TO EPIP 1-2	UNUSUAL EVENT PROCEED TO EPIP 1-1
LOSS OF INDICATORS, ANNUNCIATORS, ALARMS, OR COMMUNICATIONS		ALL ANNUNCIATORS LOST FOR 15 MINUTES AND A PLANT TRANSIENT HAS OCCURRED AS DETERMINED BY THE SS/EC	MOST OR ALL ANNUNCIATORS PANELS LOST AS DETERMINED BY SS/EC	1) INDICATIONS OR ALARMS ON PROCESS OF EFFLUENT PARAMETER NOT FUNCTIONAL IN THE CONTROL ROOM TO THE EXTENT WHICH REQUIRES A PLANT SHUTDOWN 2) LOSS OF ASSESSMENT CAPABILITY SUCH AS: - LOSS OF ALL METEOROLOGICAL INDICATION - LOSS OF ALL TELEPHONE/RADIO OFFSITE COMMUNICATIONS
FIRE		FIRE COMPROMISING THE FUNCTIONS OF SAFETY SYSTEMS AS DETERMINED BY THE SS/EC	FIRE POTENTIALLY AFFECTING SAFETY SYSTEMS AS DETERMINED BY THE SS/EC	1) PLANT FIRE LASTING $\geq$ 10 MINUTES
CONTROL ROOM EVACUATION		EVACUATION OF CONTROL ROOM AND CONTROL OF SHUTDOWN SYSTEMS NOT ESTABLISHED FROM LOCAL STATIONS IN 15 MINUTES	CONTROL ROOM EVACUATION ANTICIPATED OR DIRECTED BY AP-CR.1 SERIES PROCEDURES	
SECURITY	OCCUPATION OF VITAL AREAS BY ADVERSARIES AS REPORTED BY SECURITY SHIFT SUPERVISOR OR OPERATIONS PERSONNEL	PHYSICAL ATTACK ON THE PLANT INVOLVING IMMINENT OCCUPANCY OF VITAL AREAS BY ADVERSARIES AS REPORTED BY SECURITY SHIFT SUPERVISOR	ON-GOING SECURITY COMPROMISE, EXAMPLE: ADVERSARIES COMMANDEERING A NON-VITAL AREA OF THE PLANT AS REPORTED BY THE SECURITY SHIFT SUPERVISOR	SECURITY SHIFT SUPERVISOR REPORTS: - SECURITY THREAT - UNAUTHORIZED ENTRY - ATTEMPTED SABOTAGE
CONTAMINATED INJURY				TRANSPORTATION OF CONTAMINATED INJURED INDIVIDUAL(S) FROM SITE

EPIP 1-0:14

3.5 General Emergency:

A General Emergency is characterized by events which involve actual or imminent substantial core degradation or melting with potential for loss of containment integrity. Initial declaration that a General Emergency may exist is based on a situation which may have the potential for serious radiological consequences to the health and safety of the general public. A Site Area Emergency most likely would have been declared earlier, and if events are in progress which may involve core degradation with potential for loss of containment integrity a General Emergency should be declared. For a General Emergency all centers will have to be activated.

The Emergency Coordinator or EOF/Recovery Manager, if he has assumed command and control, will promptly notify state and local authorities and the NRC of the plant status and reasons for declaring a General Emergency. The Emergency Coordinator or EOF/Recovery Manager will also make recommendations for offsite emergency measures to be taken. The responsibility for this recommendation to offsite authorities may not be delegated.

3.6 State of New York, Wayne and Monroe Counties Emergency Actions:

It is the responsibility of the Rochester Gas and Electric Corporation to provide prompt notification to State and County authorities when conditions or circumstances onsite have affected or may affect normal and safe plant operations.

It is the responsibility of these offsite agencies to provide prompt notification to their parent and support organizations if it is determined that conditions or circumstances either offsite or onsite have affected or may affect normal and safe plant operations, or conditions in the environs.

Wayne and Monroe Counties decision process includes EPA Protective Action Guidelines (PAG), current road and weather conditions, time requirements for implementing PAGS and accident diagnosis and prognosis received from the licensee, NYSDOH, USNRC and DOE.

For this purpose, the Nuclear Regulatory Commission (NRC) has established, and the State of New York, has accepted four Emergency Classification Levels for which RG&E shall provide early and prompt notification to both State and Local (County) authorities. The four Emergency Classification Levels that are in the New York State Radiological Emergency Preparedness Plan are:

a) Unusual Event
   Unusual events are in progress or have occurred which indicate a potential degradation of the level of safety of the plant.

b) Alert
   Events are in progress or have occurred which involve an actual or potential substantial degradation of the level of safety of the plant.

c) Site Area Emergency
   Events are in progress or have occurred which involve actual or likely major failures of plant functions needed for protection of the public.

d) General Emergency
   Events are in progress or have occurred which involve actual or imminent substantial core degradation or melting with potential for loss of containment integrity.

The rationale for the "Unusual Event" and "Alert" classes is to provide early and prompt notification of minor events which could lead to more serious consequences given operator error or equipment failure, or which might be indicative of more serious conditions which are not yet fully realized. A gradation is provided to assure more complete response preparations for more serious indicators.

The "Site Area Emergency" class reflects conditions where some significant releases are likely or are occurring but where a core-melt situation is not indicated, based on current information. The "General Emergency" class involves actual or imminent substantial core degradation or melting with the potential for loss of containment. For both the "Site Area Emergency" and "General Emergency," full mobilization of emergency personnel in the near-site environs is indicated as well as dispatch of monitoring teams and associated communications.

For a "General Emergency" immediate public protective actions are necessary. The State Commissioner of Health, based on information obtained from RG&E or other sources and his own understanding of events and circumstances, may recommend protective actions of different severity than those recommended by RG&E. If he does, the protective action recommended by the State will be the basis upon which emergency response actions are declared by both State and county authorities.

3.7 Other Emergency Plans:

In the event of an emergency such as adverse weather, earthquake, fire or high water, the appropriate Site Contingency Plan shall be put into effect. These plans are:

SC-2 Adverse Weather Emergency Plan

SC-3 Fire Emergency Plan and Implementing Procedures

SC-4 High Water (Flood) Emergency Plan

SC-5 Earthquake Emergency Plan

SC-6 Action for Hazardous Chemical Spill and Implementing Procedures

SC-7 Site Contingency Plan - Aircraft Crash

SC-8 Turbine Blade Failure and Missiles

GS-50 Security Contingencies

A-7 Procedures for Handling Illness or Injury at Ginna Station

In addition, RG&E's NERP and other implementing procedures are coordinated with those used by external organizations such as:

1. Decontamination and Treatment of the Radioactively Contaminated Patient at Rochester General Hospital.

2. Decontamination and Treatment of the Radioactively Contaminated Patient at Newark-Wayne Community Hospital.

3. Monroe County Radiological Emergency Preparedness Plan.

4. Wayne County Radiological Emergency Preparedness Plan.

5. New York State Radiological Emergency Preparedness Plan.

4.0 ORGANIZATIONAL CONTROL OF RADIATION EMERGENCY:

4.1 Normal Operating Organization:

The overall responsibility for safe operation of the plant rests with the Plant Manager. The normal staff organization is given in Figure 4.1. Individual responsibilities for normal operations are defined in Administrative Procedures. The minimum shift complement consists of the operating personnel as shown in Figure 4.2: one Shift Supervisor, one Control Room Foreman, one Head Control Operator, one Control Operator, two Auxiliary Operators, one Communicator, and a Shift Technical Advisor as specified in Technical Specifications. Also available for operational assessment is a Duty Engineer on 24 hour call. As part of each shift a third Auxiliary Operator is designated Communicator.

Radiation protection within the plant is provided by the Health Physics Technician on duty. This individual is also trained in chemistry and is scheduled around the clock for normal operations. According to the call-in procedure all other technicians and chemists can be called in to assist in case of emergency. He is augmented by Auxiliary Operators, who are also trained in health physics practices.

In accordance with the Technical Specifications, a 5 person fire brigade is on site at all times. Procedures provide for calling the local fire department for assistance, if needed.

Medical emergencies and First aid are covered by an administrative procedure (A-7 "Procedures for Handling Illness or Injuries at Ginna Station). Operations staff are trained in first aid.

The operating shift complement provides the initial emergency response and the communications links to offsite participating emergency organizations and/or to off-duty staff personnel. See Figure 5.1.

Site Access Control and Personnel Accountability is the responsibility of the security personnel.

NORMAL GINNA STAFF ORGANIZATION

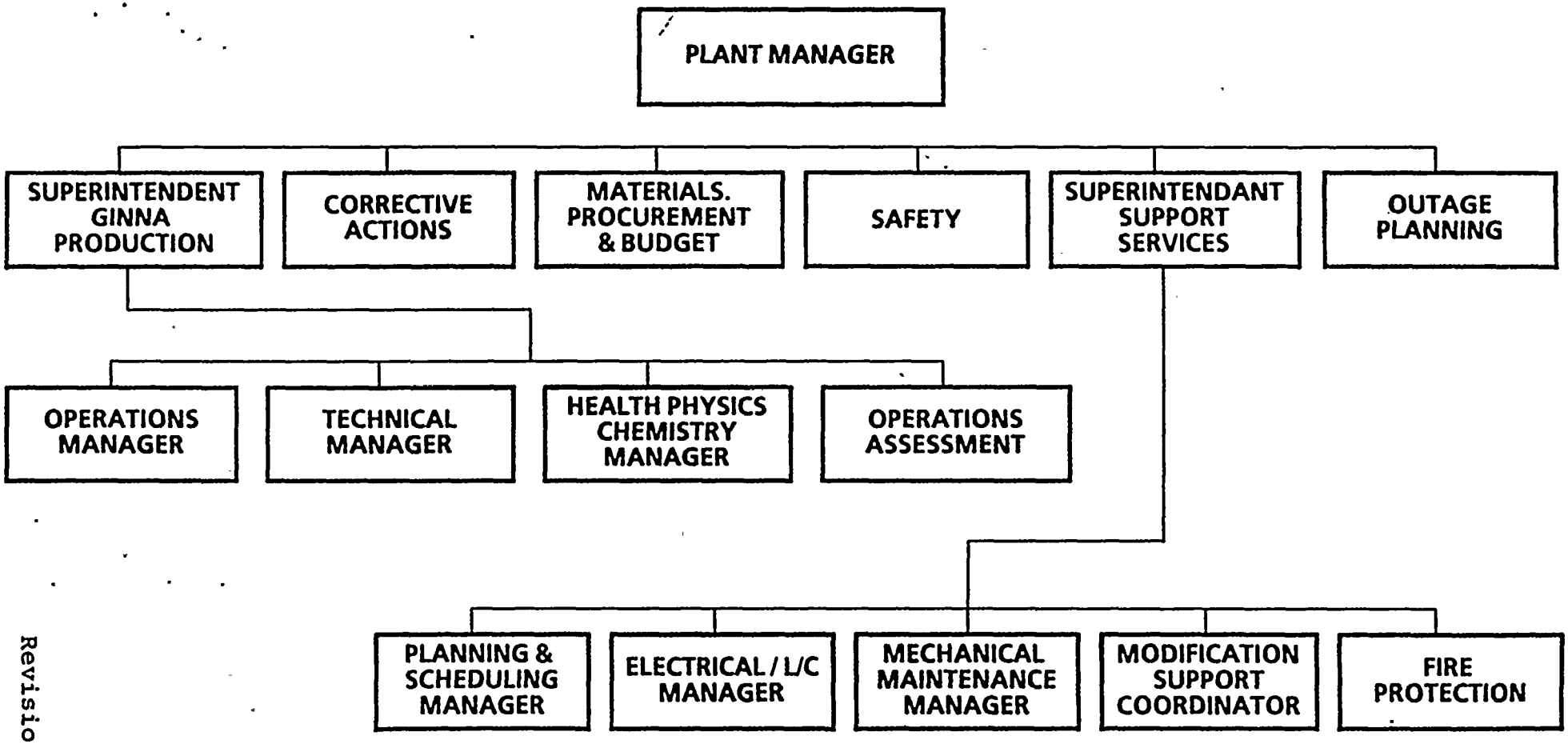
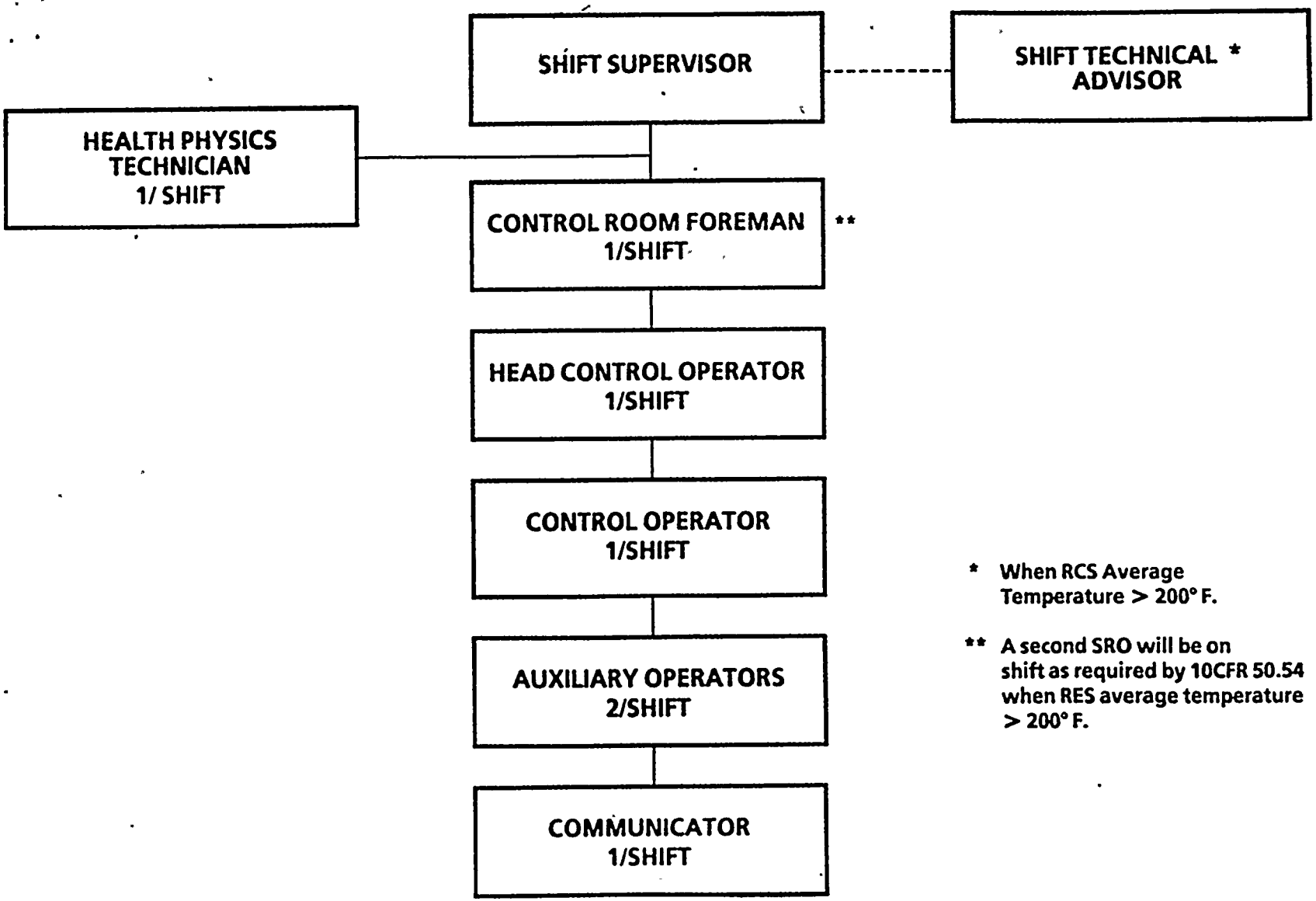


Figure 4.1

NORMAL OPERATIONS SHIFT COMPLEMENT



* When RCS Average Temperature > 200° F.

** A second SRO will be on shift as required by 10CFR 50.54 when RES average temperature > 200° F.

Figure 4.2

4.2 Emergency Organization:

4.2.1 The overall responsibility of the Nuclear Emergency Response Plan (NERP) implementation is assigned to an Emergency Coordinator. These individuals have received appropriate training in the actions to be taken in the event of an incident at Ginna Station. He has full authority and responsibility for meeting the emergency. This is the Shift Supervisor until he is relieved by the TSC Emergency Coordinator taking Command and Control. Finally when the EOF/Recovery Center assumes Command and Control, the EOF/Recovery Manager assumes overall responsibility for the emergency. The Emergency Coordinator maintains close liaison between the TSC and EOF.

The Emergency Coordinator is authorized to make any and all procurements and expenditures he deems necessary, and to order any services from within or outside the Company. He shall maintain communication and liaison with the NRC, State of New York cognizant agencies and county authorities regarding offsite support activities and will recommend protective actions based upon available information. Following the transfer of command and control to the EOF/Recovery Center, the EOF/Recovery Manager will assure a continuity of resources for continuous operations over a protracted period of time.

Figure 4.2A shows the organization with the Shift Supervisor as Emergency Coordinator. This Phase I organization is the normal Control Room complement and has Emergency responsibility until relieved by the TSC Emergency Coordinator and a Phase II organization. After the Plant Assessment Team is active, the Control Room organization reports to the Plant Operations Assessment Manager as shown in Figure 4.2B and then has the primary function of safe plant manipulation.

Table 4.1 illustrates the correlation between the Plant organization (Figures 4.2A and 4.2B) and NUREG 0654.

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STAFF RESPONSIBILITIES FOR NUCLEAR POWER PLANT EMERGENCIES

MAJOR FUNCTIONAL AREA	NORMAL ONSITE POSITION (FIG. 4.2.A)		SUBSEQUENT CALL IN POSITION (FIG. 4.2.B)
Plant Operations and Assessment of Operational Aspects	Shift Supervisor Control Room Foreman Head Control Operator Control Operator Auxiliary Operators Communicator	1 1 1 1 2 1	Operations Assessment Manager
Emergency Direction and Control alternate (Emergency Coordinator)	Shift Supervisor		Plant Manager or qualified
Notification/Communication Manager	Shift Communicator	1	Administrative/Communication
Radiological Assessment and Support of Operations Accident Assessment Offsite Surveys Onsite (out-of-plant) Chemistry/Radiochemistry	Health Physics Technician	1	Dose Assessment Manager HP and Chemistry Manager Survey Center Manager
Plant Systems Technical Support and Corrective Actions	Shift Technical Advisor	1	Plant Maintenance Assessment Mgr Plant Technical Assessment Mgr
Radiation Protection (In-plant)	Health Physics Technician Auxiliary Operators		HP and Chemistry Manager
Fire Fighting	Fire Brigade per T.S.		Ontario Fire Co.
Rescue Operations and First Aid Squad	First Aid Team		Ontario Volunteer Emergency
Site Access Control and Personnel Accountability	Security Personnel per Security Plan		Security Personnel

ONSITE ORGANIZATION
with Shift Supervisor as Emergency Coordinator

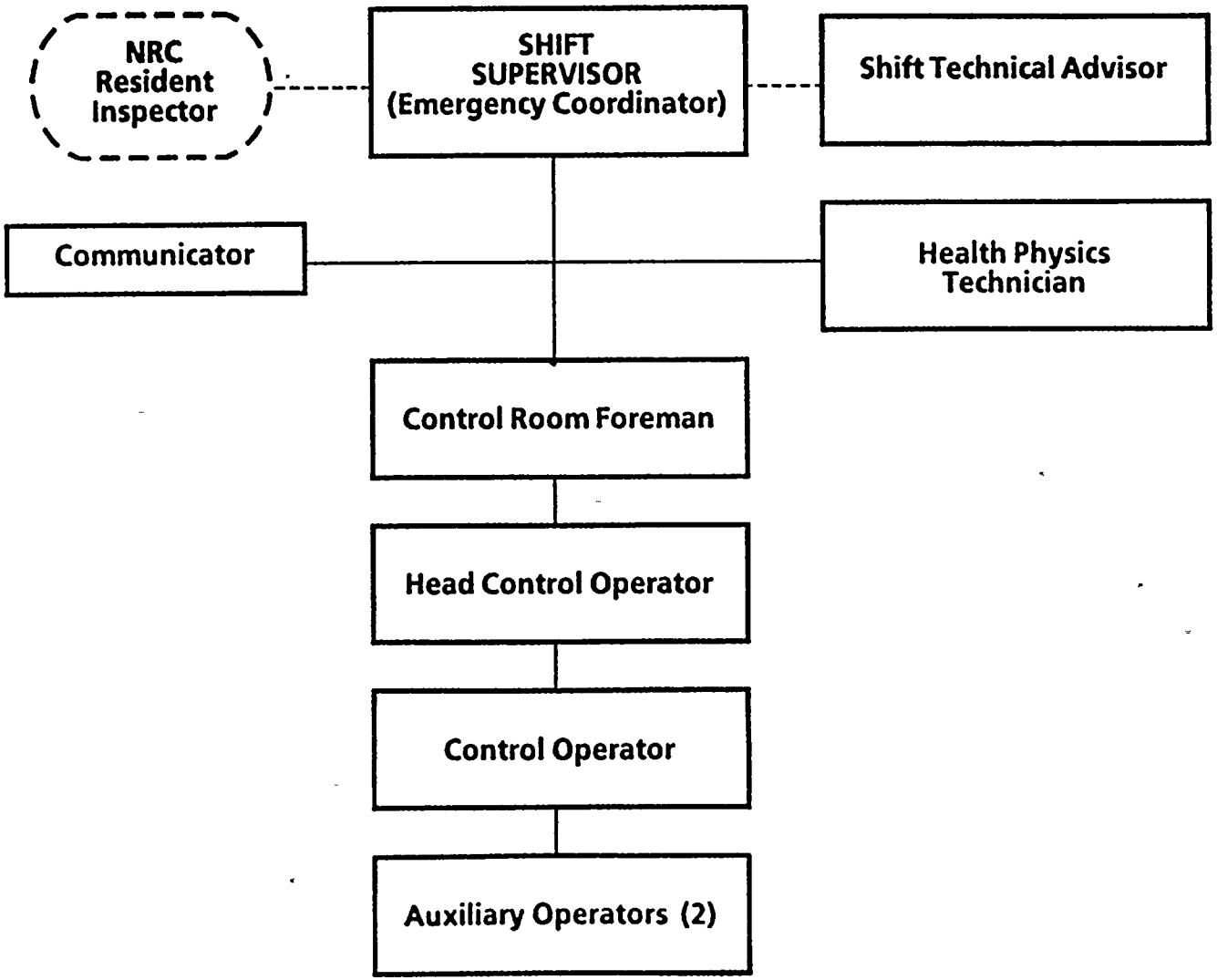


Figure 4.2A

TECHNICAL SUPPORT CENTER ORGANIZATION CHART

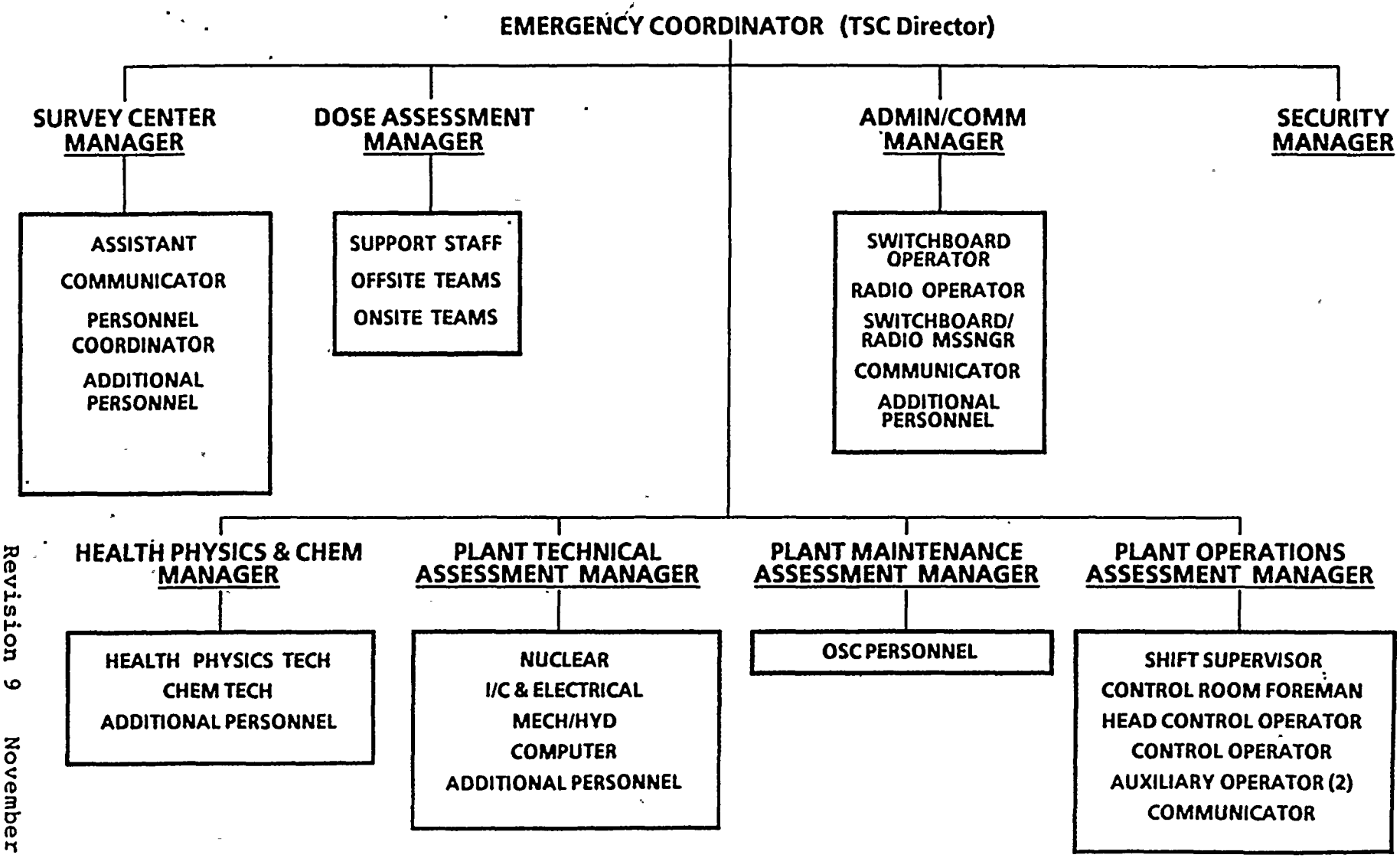


Figure 4.2B

4.2.2 Figure 4.2B shows the Emergency Organization after the TSC Emergency Coordinator assumes command and control.

Under the Emergency Coordinator there are eight major functions in the emergency organization, Admin./Communication, Security, Dose Assessment, Survey Center, Health Physics and Chemistry, Plant Technical Assessment, Plant Maintenance Assessment and Plant Operations Assessment. If onsite, when notified of TSC activation, the emergency organization personnel will report immediately to the TSC. If offsite when they receive notification, as specified in implementing procedures, personnel shall report to the Plant or Survey Center (if directed) to obtain assignments. The Ginna Training Center is used as an emergency congregating area for personnel called from offsite. A board in the Survey Center contains a number of tags on which there is a list of duties for each person. The tags are picked up in order of highest priority for which personnel are trained as they arrive at the Survey Center. They will proceed to the TSC as advised by the Survey Center Manager or Emergency Coordinator.

When onsite, the Operations Manager or his alternate shall report to the Technical Support Center to direct plant operations in combating the emergency. Accident assessment will be performed mainly in the Technical Support Center (TSC). This center will be manned by engineer level plant staff and will have available all information from the Control Room. The Ginna Emergency Response Organization consists of the following positions: Plant Manager, Operations Assessment Manager, Administrative/Communications Manager, Plant Technical Assessment Manager, Plant Maintenance Assessment Manager, Dose Assessment Manager, Health Physics and Chemistry Manager and Survey Center Manager. These positions will be manned by individuals reporting onsite within one hour of the declaration of an ALERT or higher classification.

The Plant Security organization will maintain liaison in the TSC so as to coordinate its onsite and site perimeter activities with the needs of the Emergency Coordinator (See Figure 4.2B).

Radiological Exposure Control is the responsibility of the Health Physics and Chemistry Manager and his health physicists. One Health Physicist is responsible for offsite dose assessment and one has onsite responsibility in the Technical Support Center. Dose assessment for offsite areas will be made at the TSC until such time as the EOF organization is manned and prepared to assume responsibility for offsite dose assessment. Maps, procedures, trained personnel and current plant data are available in the TSC for the aid in performing these assessments.

The initial warning of an emergency situation is given by the Control Room Operators. They will be aware of any changes in the situation and give warning of the need for a higher degree of action. The initial communication is also from the Control Room to local and state officials and to the plant staff. As soon as the Technical Support Center is operational, approximately 15 minutes after arrival of trained personnel, individuals trained in using the communications equipment will take the notification responsibility from the Control Room. They will continue to alert the plant staff and maintain contact with state and local officials. Thus the Control Room personnel are able to concentrate on the operations and/or shutdown of the plant.

Responsibility for onsite health physics protection rests with the Plant Health Physics and Chemistry Manager who is part of the TSC Staff. He will insure the precautions of section 5.4.4.1 are followed during the emergency.

The Ginna Training Center basement is used as the Survey Center for dispatching monitoring teams. Information gathered by the teams will be used by RG&E, the State Department of Health and local authorities to determine what actions should be taken to limit radiation exposure to the general public. An alternate Survey Team staging area will be used in case the Ginna Training Center Basement is not habitable. Alternate Survey Team Staging areas may include the onsite Projects Building or other offsite RG&E facilities. The Emergency Operations Facility (EOF) also maintains radio and telephone communications capability for Survey Team deployment and plume tracking.

The Survey Center Manager is one of the first positions filled. Trained Survey Team members pick up tags as they arrive and immediately prepare to follow assigned survey routes. Their equipment as specified in procedures includes radios for communications with the TSC communicator and the Dose Assessment Manager. Each team, consisting of two persons obtain transportation (See 6.4.7) and monitoring equipment (See 6.3.9 and Appendix D) and can be in the field within 45 minutes after the incident. Survey teams can be directed from the EOF if the Survey Center is not habitable or when EOF assumes formal control of the offsite teams.

All personnel are trained to specific responsibilities within the Emergency Organization and records are maintained by the Training Division and in Central Records.

4.2.3 If the incident warrants, an EOF/Recovery Center organization will be established off-site. The personnel which make up this organization are shown in Figure 8.1. The EOF Response Organization (See 6.1.6) will be manned and functioning within one hour of the decision to notify its personnel upon declaration of a Site Area Emergency and above. Each section manager maintains an up-to-date call list for his section. The Plant Manager reports through the Nuclear Operations Manager to the EOF/Recovery Manager.

4.3 Augmentation of the Emergency Organization:

The Ginna Emergency Organization is augmented by a number of offsite services. Figure 4.3 shows the relationship of non RG&E offsite organizations in emergency response. Letters of agreement are provided, in Appendix A. These agreements will be considered valid until changed by the authors. The role of the EOF Staff, made up of headquarters personnel operating from the EOF, is explained in Section 9.0.

Plant procedures contain the phone numbers and alternate means of contact needed to initiate emergency response actions. The communicator will initiate a call to New York State, Monroe County and Wayne County EOC, using the NYS Radiological Emergency Communication System (RECS) hot line. During working hours the EOC director will respond and during off hours a Sheriffs Department or the State Police responds for each Emergency Director to RECS hot line calls.

The EOF/Recovery Manager is alerted by a call from the Ginna Control Room. Other offsite assistance such as DOE-RAP team or Westinghouse is alerted by a call from the Emergency Coordinator or designee to their duty officer at the phone numbers listed in procedures.

4.3.1 State of New York:

RG&E has coordinated this emergency plan with the New York State Department of Health, and officials of Monroe and Wayne Counties. RG&E has agreed to notify these organizations in the event of any emergency involving the general public. The participation of the State and Counties in the emergency action is outlined in the New York State Radiological Emergency Preparedness Plan. In general the responsibility of the State of New York is to minimize the risk to the health of the inhabitants of the state, in the event of a radiological emergency.

INTERRELATIONSHIPS OF GINNA STATION AND RESPONSE ORGANIZATIONS

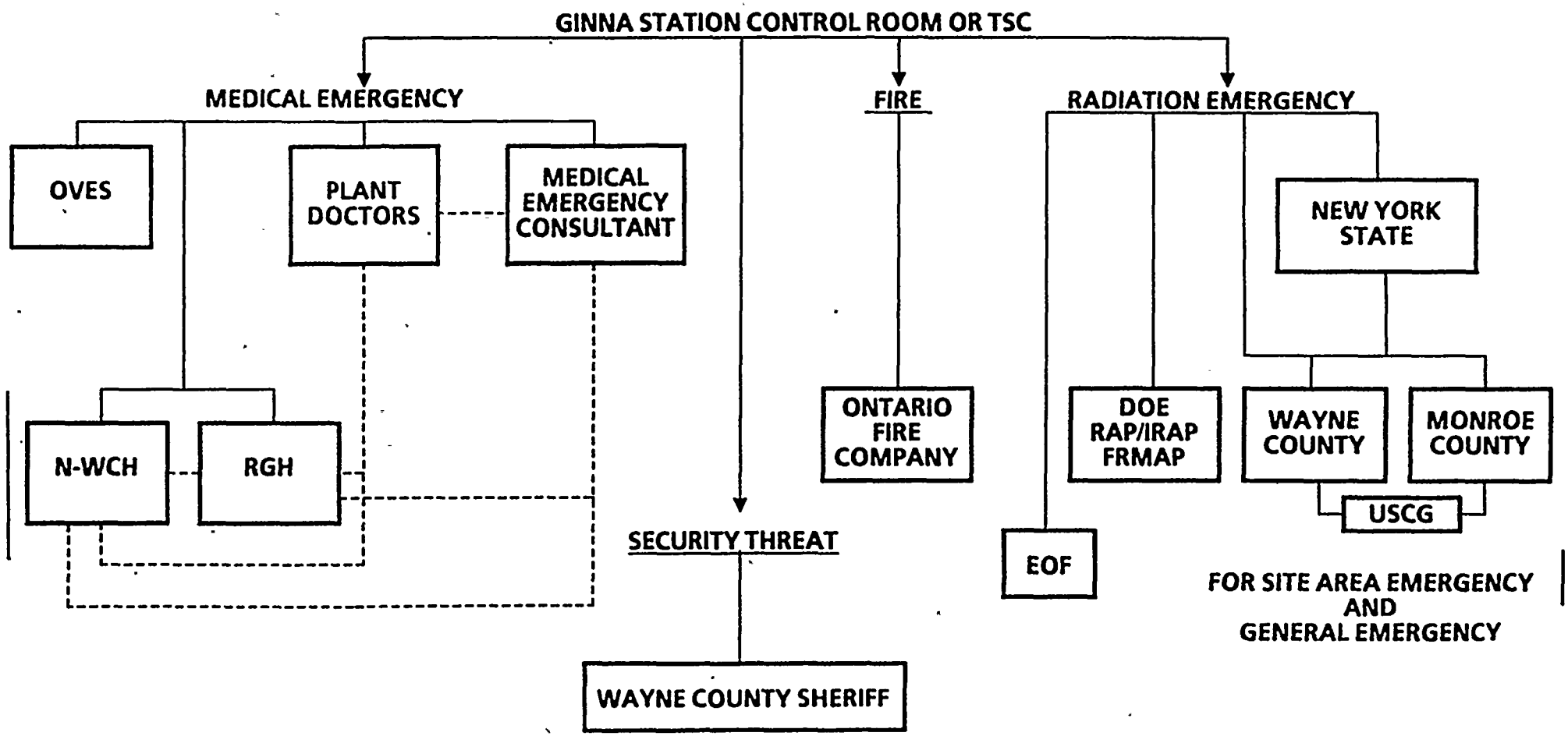


Figure 4.3

This will be accomplished by:

1. Identifying measures to prevent and mitigate such emergency.

2. Developing mechanisms to coordinate Federal, State, Local and Private Sector resources during and after such an emergency.

3. Determining and implementing a course of action to minimize the impact of a radiological emergency on the public health and property.

4. Providing for recovery following a radiological emergency.

4.3.2 Local Disaster Coordinator (Wayne County Office of Emergency Management and Office of Emergency Preparedness, Monroe County).

In general, the responsibilities of the Local Disaster Coordinator in each county include the following:

a) On receipt of notification from the State of New York, or Ginna Station Control Room, alert local authorities and officials in accordance with established plans.

b) Coordinate response of local authorities and provide for available local assistance to RG&E and State authorities in accordance with established plans.

The participation of the counties, upon notification of an event involving the general public, is outlined in their Radiological Emergency Plans, which are reviewed in Appendix B.

The Office of Emergency Preparedness in each county consists of small administrative staffs and a pool of reserve personnel located throughout the counties. Members receive training in monitoring, establishing relocation centers and providing medical attention, food, and lodging for evacuees. Extensive communication resources are available for use by the Local Disaster Coordinators and staff, including a number of radios for contacting the county Fire Coordinator, the Police Forces, Public Works and commercial radio stations. A roster of telephone numbers and contacts is maintained to communicate with agencies on state and local levels. Monitoring teams are available and radiological kits are maintained in shelters and fire houses located throughout the counties.

4.3.3 United States Coast Guard (USCG)

The USCG will provide emergency response upon notification by Wayne and Monroe Counties. Reference: Wayne County Radiological Emergency Preparedness Plan (REPP), Appendix C, and Monroe County REPP, Procedure J.

4.3.4 United States Department of Energy Radiological Assistance Program, Region I, Brookhaven Area Office, Upton, New York (DOE RAP/IRAP):

Since Ginna Station is located in DOE Region I, the Brookhaven Office of the U.S. Department of Energy (DOE) has the responsibility to provide radiological assistance in the event of an emergency. Their principal goal is to be prepared in the event of a major accidental release, or other loss of control of radioactive material.

Radiological assistance can be requested at any time by calling and indicating the nature of the incident, the location, and how to contact utility and local authorities so as to coordinate the Department of Energy response.

The assistance includes advice and emergency action essential for the control of the immediate hazards to health and safety. This preparedness includes plans and procedures for: effective and economic use of resources; minimization of radiation exposure of individuals and the public; prevention of the spread of radioactive materials into the environment; and appropriate countermeasures to control and remove radiological hazards. Large numbers of qualified radiation, nuclear and medical specialists are the principal resource that can be made available in an emergency along with quantities of radiation monitoring equipment and specialized detector and test equipment.

Most assistance requests can be handled by giving advice, by sending radiological safety experts to the incident scene, or by transferring the request to another federal agency or a state agency. The Department of Energy, Brookhaven Office has agreed to provide such assistance upon notification of a hazard to the general public. Available resources are noted in the County plans. Assistance could be on site within 4 hours of a request. RG&E will supply whatever support services and resources are needed to maintain federal assistance. RAP/IRAP teams initially report to the EOF for briefing and coordination.

It should be understood that this federal advice, assistance and equipment is provided to the local government institutions to assist in carrying out their responsibilities and authority for protecting the health and safety of the local population and in no way supersedes that local responsibility. Furthermore, this assistance may be terminated as soon as the immediate hazards are brought under control and there is reasonable assurance that public health and safety are being protected.

4.3.5 County Sheriff:

The Wayne County Sheriff's Department will assume responsibility for necessary police services in Wayne County. They respond to directions and requests from the Director of Wayne County, Office of Emergency Management, who identifies problems and designates responsibilities. RG&E, Ginna Station, does not make direct contact with the Sheriff's Department for radiation emergency.
The same arrangement is true for the Monroe County Sheriff's Department which is directed by the Monroe County Director of Emergency Preparedness.

4.3.6 Plant Doctors:

Three area physicians have been retained as plant doctors to be on call for emergency assistance. Whenever RG&E patients are referred to the hospital, a plant doctor monitors the cases for RG&E. These licensed physicians are available to Ginna Station as medical consultants and for immediate emergency treatment. They have attended the Training Seminars on Medical Care and Treatment of Radiation Accidents and seminars given by Radiation Management Consultants, and NRC.

4.3.7 Emergency Squad:

The responsibility of the Ontario Volunteer Emergency Squad (OVES) is to respond to requests by RG&E to assist in emergency first aid and to transport patients to the hospital if required. The Emergency Medical procedure includes the means of communications with Ambulance Squad.

OVES is located about five miles from Ginna Station. It is a volunteer organization consisting of about 60 members. They have been trained in rescue and first aid and require a certified medic (Emergency Medical Technician - EMT) to respond with all ambulance crews. The level of patient care OVES provides is sustained during transport to other advanced medical facilities such as Rochester General Hospital. The emergency squad maintains all required training certifications as required by the New York State Health Department Bureau of Emergency Health Services. Active members are required to be at least 18 years of age and have a minimum training level equivalent to the American Red Cross Standard First Aid Course. The members are invited to attend an annual Ginna Station site refamiliarization tour and are instructed in radiation protection requirements. An annual training session conducted by Radiation Management Consultants (RMC) is also offered.

4.3.8 Rochester General Hospital/Newark-Wayne Community Hospital:

Arrangements have been made with the designated hospitals to receive and assume control of patients from Ginna Station if requested. Implementing procedures include the means of communication between the utility and the hospital.

Facilities are available at the hospitals which can be converted to a radiation emergency area with adequate contamination control. Hospital personnel are trained in the handling of radiation accident patients and each hospital has an approved radiological emergency plan specific to their individual facilities and resources.

Planning has been carried out with coordination from Radiation Management Consultants (RMC) who provide formal training annually. Health Physics instrumentation has been supplied to the hospital by RG&E. Annual training drills are conducted by RG&E and the hospital staffs and include critiques and videos by RMC. Hospital staff also attend training seminars on treatment of radiation accident victims.

4.3.9 Medical Emergency Consultant:

Radiation Management Consultants (RMC) will respond as follows upon request from one of the plant doctors or from RG&E.

a) Dispatch a radiation emergency medical team, which is available on a 24 hour basis.

b) Make available the services of the Radiation Medicine Center of the Hospital of the University of Pennsylvania.

c) Make arrangements for air or ground transportation of patients to the Hospital of the University of Pennsylvania.

RMC has laboratory facilities at the University City Science Center in Philadelphia and maintains medical facilities at the Hospital of the University of Pennsylvania. RMC has an arrangement with the hospital for management and treatment of radiation accident victims and ensures that facilities necessary for treatment are readily available by equipping the hospital with the medical and radiological equipment needed. RMC has conducted an initial evaluation and made recommendations for an effective local medical emergency program, coordinating the planning for local medical support with RMC and the Hospital of the University of Pennsylvania. Periodic site visits are made to coordinate and review emergency medical support with company officials and local medical personnel.

RMC also provides radiological emergency training for plant, hospital and ambulance personnel.

4.3.10 Ontario Volunteer Fire Department:

The Ontario Volunteer Fire Department will provide fire fighting personnel and equipment in accordance with Site Contingency, Fire Emergency Plans, to supplement the trained personnel and equipment which is available on-site.

The Ontario Volunteer Fire Department is located about five miles from the Ginna Station. It is a volunteer organization consisting of about 50 active members. Additional fire fighting support is available to the Ontario Volunteer Fire Department through the Wayne County Mutual Aid Fire Coordinator. Weekly training meetings are conducted. On an annual basis the members are invited to Ginna Station site to refamiliarize them with the facility and its onsite fire fighting equipment and with radiation protection requirements.

4.3.11 Consultants and Contractors:

Implementing procedures give the name and phone contacts for additional consultants and contractors who may be requested to provide technical assistance to the emergency organization.

In case of a radiation event, the Emergency Coordinator has the authority to procure the services of any consultant group he may feel is needed. Rochester Gas & Electric as part of the Institute of Nuclear Power Operations (INPO) can call upon INPO resources to supplement RG&E efforts in executing emergency response plans. Support may be requested directly from utilities and service companies listed in the INPO Emergency Resources Manual or may be obtained by using INPO as an agent to arrange and coordinate the required support. RG&E also has agreements with New York State utilities for mutual assistance in times of emergency.

4.3.12 Laboratories:

There are two radiochemical laboratories at Ginna. One is adjacent to the controlled area and is used for primary coolant and other plant samples.

The second laboratory is used for environmental samples and is located in the Ginna Training Center East, remote from the plant. This laboratory duplicates the main laboratory equipment and could be used for diluted post accident samples if needed. It would most likely remain at a lower background level.

The laboratory at James A. Fitzpatrick Nuclear Power Plant of NYPA is available for analysis of samples. The laboratory is located about 45 miles distant near Fulton, NY.

5.0 EMERGENCY MEASURES:

The following sections provide the guidelines for the implementing procedures of the five emergency categories described in Section 3.0.

5.1 Local Radiation Emergency:

A Local Radiation Emergency classification is established to provide a level of response to a radiological incident which is less serious than the four Emergency Classifications. It has no effect offsite and has no potential for any offsite effects. There is normally no notification or actions required by offsite agencies.

a) Any individual aware of an incident shall notify the Control Room of this fact.

b) The licensed Reactor Operator shall announce over the Plant P.A. System that a local evacuation of the area is required.

c) All personnel in the affected area shall report to the Lunch Room in the Service Building after being monitored for contamination.

5.1.1 On-Duty Shift Supervisor:

The on-duty Shift Supervisor shall:

a) Report to Control Room.

b) Evaluate plant conditions by checking readings of all control system measured parameters and radiation monitors and evaluate any surveys taken.

c) Dispatch a Survey Team (Health Physics Technicians or Auxiliary Operators) to conduct both in-plant and area surveys as necessary who should:

1. Isolate the affected area (rope barriers if necessary).

2. Determine cause of accident and restore conditions in the area to normal if possible.

d) Inform the Plant Manager or his alternate and the Duty Engineer.

5.1.2 Other Personnel:

The Plant Manager, the Duty Engineer and Health Physicist will, if onsite, evaluate the situation and determine the course of action.

Non-operating personnel in the affected area who are not contaminated shall report to the Service Building Lunch Room for debriefing. Contaminated personnel should report the Decontamination Area and proceed with decontamination. Specific instructions are provided in administrative radiation protection procedures. If emergency medical treatment is required, administrative procedures provide specific actions for such incidents.

Affected areas will be evacuated for local Radiation Emergencies by making an announcement to clear those areas. Upon assessment of plant conditions, the Emergency Coordinator may determine that the plant is safe for personnel to return to normal duties.

5.1.3 Subsequent Action:

The Shift Supervisor and/or the Plant Manager shall determine the course of action to be taken to clean up the affected area, correct the cause of the accident and return the area to normal operation. State and county authorities may be notified of the incident for informational purposes but no actions are required off-site. Management will be notified and the Plant Operation Review Committee shall review the accident and recommend actions to prevent its recurrence.

5.2 Unusual Event:

The purpose for the Unusual Event classification is to provide early warning of minor events which could lead to more serious consequences. The Unusual Event conditions indicate a potential degradation of the level of safety of the plant. No releases of radioactive material requiring offsite response or monitoring are expected unless further degradation of safety systems occurs. Declaring an Unusual Event assures that the first step for any response later found to be necessary has been carried out by bringing onsite staff and offsite organizations to a state of readiness, thereby providing a system for handling information and decision making.

The NRC, state and county authorities will be promptly notified to assure that the first step of any necessary response can be initiated. Plant Manager and the Duty Engineer will be notified of the Unusual Event Emergency to bring the plant staff to a state of readiness and provide for responsible decision making. On-shift resources can be augmented so as to be able to assess and respond as needed. Offsite organizations will stand by for further information or closeout.

5.3 Alert:

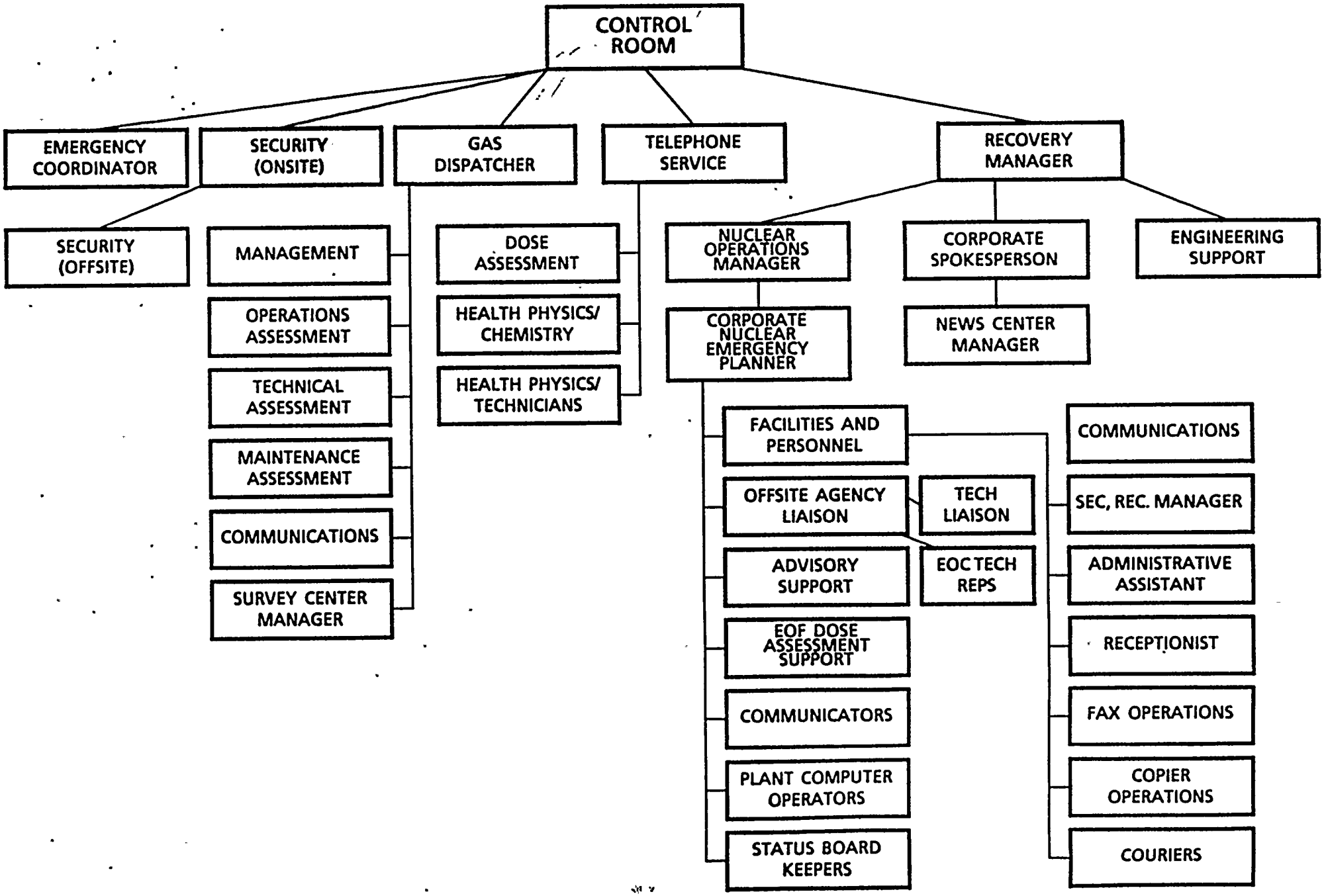
Events of the Alert classification involve actual or potential degradation of the level of safety of the plant. Any radioactivity released would result in exposures only a small fraction of the guidelines for required offsite action. By assuring that emergency personnel are available to respond if the situation should become worse, protective actions could be taken much quicker, such as, performing confirmatory radiation monitoring and providing offsite authorities with current status information.

For events which fall in the Alert classification, Ginna Station will promptly notify the NRC, state and county authorities of the Alert status and the reasons for the classification. The Technical Support Center will be manned so as to assist in the assessment of the incident and determination of a proper response. Periodic plant status updates will be given to offsite authorities, who will also be advised of any change in the classification of the incident. The EOF will not necessarily be manned at this level but the EOF Organization may be put on standby so as to be ready if the condition degrades.

Offsite agencies will activate primary response centers to stand by status and will alert other key emergency personnel, such as monitoring teams and communications centers, Emergency Broadcast System, or law enforcement. They will be ready to escalate to a more severe classification if appropriate.

ROCHESTER GAS AND ELECTRIC CORPORATION

GINNA NOTIFICATION PROCESS



5.4 Site Area Emergency:

A Site Area Emergency is declared when events are in progress or have occurred which involve actual or likely major failures of plant functions needed for the protection of the public. Any releases are not expected to exceed EPA Protective Action Guideline exposure levels except near the site boundary.

In the event that a Site Area Emergency is declared, the actions to be taken by various plant groups are detailed in the implementing procedures for the Plant. The Control Room will make the initial notification to the NRC, state and county authorities.

The purpose of the declaration of a Site Area Emergency is to assure that personnel required for evacuation of near-site areas are at their duty stations if such an evacuation is called for. Also offsite agency authorities will be available at primary response centers for consultation and updates on the situation, and to provide information to the public.

5.4.1 Activation of Emergency Organization:

Emergency procedures necessary to cope with the plant system malfunction will be implemented. All on-duty operations personnel will report to the Control Room. Control Room ventilation dampers will be switched from outside to inside air and the charcoal filters will be put into service. Communications will be established by ensuring that the emergency radio remote/local switch is in the local position and by plugging in the intercom for communications with the Emergency Centers as backup for the phone system. Plant staff will be notified as specified in the implementing procedures. This series of calls is arranged in order of importance and will activate the Emergency Organization.

Unless they are already in the plant, persons so notified will report to the Survey Center where jobs are assigned in line with the trained capabilities of the individual. Procedures provide for manning the Technical Support Center, the Survey Center and the Operational Support Center. The Recovery organization will be activated at the offsite Emergency Operations Facility. Figure 5.1 shows the notification scheme.

Plant Security:

The plant guards assist in the activation of the plan as follows: One guard shall deliver the log sheets, extra keys and radios to the Survey Center. He will unlock the Training Center if necessary, report his arrival there to the Control Room by radio and direct all non-essential personnel to the auditorium.

One guard shall proceed with his radio to the Plant entrance at Lake Road and report his arrival there to the Control Room by radio. He shall direct any traffic enroute to the Plant to the Training Center instead and remain at the Lake Road entrance until released by the Emergency Coordinator. One other guard shall remain in the Guard House to instruct all plant personnel leaving the plant to retain their TLD's and standby in the Training Center until released. After all personnel, except operating personnel, have cleared the plant restricted area, the guard shall lock the Guard House entrance and remain in the Secondary Alarm Station.

The Plant Guards will stop all visitors and their vehicles from entering the site until the Emergency Coordinator or his designee notifies them that the condition has been corrected.

The Health Physics and Chemistry Manager shall assist the Emergency Coordinator in evaluating the emergency. During working hours he will report directly to the Technical Support Center. Other Health Physics section personnel will:

a) Pick up extra survey instruments from the Health Physics office.

b) Pick up RWP and SWP Auxiliary Building and Containment sign in sheets.

c) Report to Training Center Basement and pick up numbered tags or assume responsibilities as stated in the implementing procedures.

d) One Health Physicist will report to the Technical Support Center.

During off-duty hours the Health Physicists and technicians shall report to the Survey Center and pick up numbered tags or assignments as stated in the implementing procedures. The Health Physics technician on shift shall report to Control Room and assist as deemed necessary by the Shift Supervisor.

Off-Duty Personnel, upon notification, shall report to the Survey Center and pick up duty tags and TLD's. They shall assist the Emergency Coordinator and the on-duty Shift Supervisor as necessary.

5.4.2 Immediate Assessment:

The Shift Supervisor shall immediately assess the incident. The Shift Supervisor is responsible for the implementation of the Emergency Plan until relieved. The Shift Supervisor shall report to the Control Room, evaluate plant conditions by quickly checking the status of control and safeguards systems, and radiation monitors. He shall ensure a call is made to the New York State warning point, Albany, New York and give the following information:

a) Name of facility and communicator

b) Date/time of incident

c) Class of Emergency (Unusual Event, Alert, Site Area Emergency, General Emergency)

d) Brief Description of Event

e) Radioactive Material Release (None, Atmospheric, Ground, Lake)

f) Protective Actions Recommended for appropriate population

g) Winds and weather

The Wayne County Office of Emergency Management and Monroe County Office of Emergency Preparedness will be notified at the same time thru the use of the state hotline. An emergency communicator is part of each shift and will maintain contact with NRC, NY State and the Counties. As the hotline is a closed system, call back verification by the state and counties is not necessary.

If necessary, the Shift Supervisor shall issue radiation protection equipment and dispatch a survey team to conduct in-plant or area surveys. A relief schedule will be determined if it is necessary. (See Radiation Protection During an Emergency, Section 5.4.4.1).

5.4.3 Subsequent Actions:

To ensure that immediate and direct action shall be taken in an emergency situation both the Technical Support Center and Survey Center will be manned. Details for manning are in implementing procedures. During normal working hours individuals assigned to the Technical Support Center will go there directly. Others assigned to the Survey Center will report there.

During off-duty hours, upon notification of an emergency through the call procedure, personnel may report to the TSC using normal procedures or they may be directed to the Survey Center. At the Survey Center a large tag board displays a series of tags with written instructions to ensure that each person knows exactly what to do and in what order. As personnel arrive at the Survey Center each shall obtain an instruction tag in sequence except as detailed in the implementing procedures or as directed by the Emergency Coordinator. The first qualified staff member shall be Survey Center Manager. When the Plant Manager, one of the Superintendents or other qualified individual arrives, he shall assume the responsibilities of Emergency Coordinator.

The Emergency Coordinator shall assume responsibility for the plant and Emergency Centers and establish contact with the Control Room over the direct intercom, the plant intercom system or by telephone. The Emergency Coordinator will request from the on-duty Shift Supervisor an evaluation of plant conditions and all data which have been relayed to the State. Meteorological conditions will be obtained from weather instrument readouts in the Control Room and X/Q overlays will be selected to determine maximum concentration points. The Emergency Coordinator or Survey Center Manager will dispatch offsite monitoring teams to areas of interest and request each team to report by telephone or radio. Survey teams shall not receive a whole body dose greater than 1 Rem without special permission from the Emergency Coordinator or Dose Assessment.

The Emergency Coordinator will report the accident and current conditions to Company management as specified in the implementing procedure. Knowledgeable individuals will be assigned as the RG&E Technical Liaisons at the State and County Emergency Operating Centers.

The Emergency Coordinator will evaluate radiological data from the survey teams and plant parameters. Current conditions and follow-up actions will be reported to management periodically. The State Bureau of Radiological Health, Monroe County and Wayne County Directors of Emergency Management will be kept advised of changing conditions.

Follow-up messages to offsite authorities will contain the following information as appropriate:

a) Location, name of caller

b) Class of emergency and date and time of incident

c) Type of actual or projected release, estimated duration and impact time.

d) Estimated quantity of release for various materials

e) Chemical and physical form of release material (noble gases, iodine, particulate)

f) Current weather conditions

g) Actual or projected dose rate and time integrated dose at site boundary

h) Projected dose rate and integrated doses in affected sectors

i) Estimation of any surface radioactive contamination

j) Recommended emergency response actions or protective measures

k) Prognosis for course of the event

l) Status of in-plant emergency control actions, and licensee response to actions underway

m) Request for further support

The Emergency Medical Plan will be instituted if necessary. The Shift Supervisor shall be provided with any survey data necessary for him to meet his responsibilities.

The Emergency Coordinator will determine if additional personnel should be called to the plant to cope with emergency conditions.

Personnel and cars shall be monitored and surveyed to assess the extent of contamination before leaving the site. All non-essential personnel should be allowed to leave the site.

5.4.4 Onsite Protective Actions:

During any radiological emergency, protective actions will be employed as follows:

5.4.4.1 Radiation Protection During an Emergency:

During a radiological emergency, precautions and limitations to minimize doses shall be observed by personnel entering an incident area. In general, doses will be limited to normal exposure limits. Every effort shall be made to keep exposure to a minimum while accomplishing the necessary tasks. Radiation exposures in an emergency shall be evaluated on an ALARA basis. Survey teams are limited to 1 Rem dose during the incident unless special permission is given by the Emergency Coordinator or Dose Assessment.

For life saving actions such as the removal of an injured person and providing first aid, ambulance service, medical treatment other actions required to reduce severe health effects to the public, volunteers may receive up to 75 Rem whole body exposure. The limit set for performing assessment actions or undertaking corrective actions to prevent substantial radiological releases is 25 Rem. Authorization to receive these high doses can be given only by the Emergency Coordinator.

All entries into high radiation areas must be carefully planned from available survey data, review of personnel current exposure records, and pre-planning of the activities to be accomplished. Whenever entering an incident area, high range survey instruments and personnel monitoring devices shall be employed, protective clothing and self-contained breathing apparatus shall be worn and survey teams will consist of at least two persons. The Emergency Coordinator shall be notified before any survey team enters an incident area and close communications shall be maintained as much as possible.

The radiation program during an emergency will be based on the program as laid out in the HP series of procedures. Dosimeters and film badges are available in the Survey Center for the survey teams. Provisions for round-the-clock capability to issue dosimeters and maintain dose records will be established to meet long term needs of the plant procedures. The capability to read TLDs will be used to maintain control of individual doses.

5.4.4.2 Site Evacuation:

The instructions for restricted area evacuation are specified in the implementing procedures. In general, the procedures provide that:

Any licensed Reactor Operator may sound the evacuation alarm (special tone) if evacuation of the plant is deemed advisable.

Upon becoming aware of the evacuation alarm all personnel, except those whose duties during an emergency specify otherwise, shall immediately leave their area of work by the nearest exit. Auxiliary Building exits (south and east) to the outdoors may be used. Shoe covers should be removed. Personnel will walk to the Assembly Area and stand by for further instructions. All film badges and dosimeters will be retained by the individual.

The "Assembly Area" refers to the Training Center or alternate location depending on plume direction and habitability considerations. Alternate locations may include onsite buildings out of the plume (eg. Projects Building) or other offsite RG&E facilities.

The guide accompanying any visitors is responsible to see that visitors are taken to the Assembly Area. Other personnel who may be on-site outside the restricted area would hear the site evacuation signal. One siren of the ERPA - Wayne 1 is located on-site and would warn these workers when the general population is alerted.

After evacuation of the plant areas, an accounting will be made of all personnel who were on site. Accountability of personnel is carried out by plant security using the "Onsite" computer list to determine that all persons are accounted for. A check with Control Room, Technical Support Center, and Operations Support Center determines who is at those locations. Drills have indicated that this procedure can be completed within 30 minutes. This procedure is verified to be complete by the Emergency Coordinator using his check list.

Cars will be monitored and surveyed as necessary before they are allowed to leave the site. Personnel leaving the site will take a route selected by the Emergency Coordinator, after consultation with the Wayne County Emergency Operations Center giving consideration to the wind direction or road impediments. (See Figure 5.2) Before leaving, persons will be monitored for contamination and film badges collected.

Normally private cars would be used for leaving the site. In case cars are contaminated, buses will be brought in for the evacuation. The Emergency Coordinator will advise the Wayne County Emergency Director of the personnel, vehicles and evacuation routes which will be used.

5.4.4.3 Emergency Medical Treatment:

All emergency medical treatment will be carried out using an emergency medical treatment plan. This plan specifies the types of medical action to be taken in any type of radiation or contamination emergency. First aid team members maintain their proficiency through Red Cross First Aid Training.

EPIP 2-9 provides guidelines for the administration and use of potassium iodide (KI) for onsite personnel and survey teams. The determination of need for KI is the responsibility of the Dose Assessment Manager or Health Physics and Chemistry Manager. Approval of the Emergency Coordinator is required.

Radio-protective drugs will be issued for the general public only if approved by the New York State Department of Health.

5.4.4.4 Search and Rescue:

Following site evacuation all personnel will be accounted for using security records, sign-in sheets, log sheets, etc. The Emergency Coordinator will determine the necessity for a search and rescue operation. Such an operation will be coordinated by the Shift Supervisor and the Emergency Coordinator.

The search and rescue team will consist of at least three persons including Security, Health Physics and a person who knows the missing individual.

The search should start at the last known location or work assignment of the unaccounted-for individual. Radiation surveys should be made as the team progresses. It may be necessary to administer first aid to the individual after he is located. The Emergency Coordinator or Control Room shall be advised of the situation.

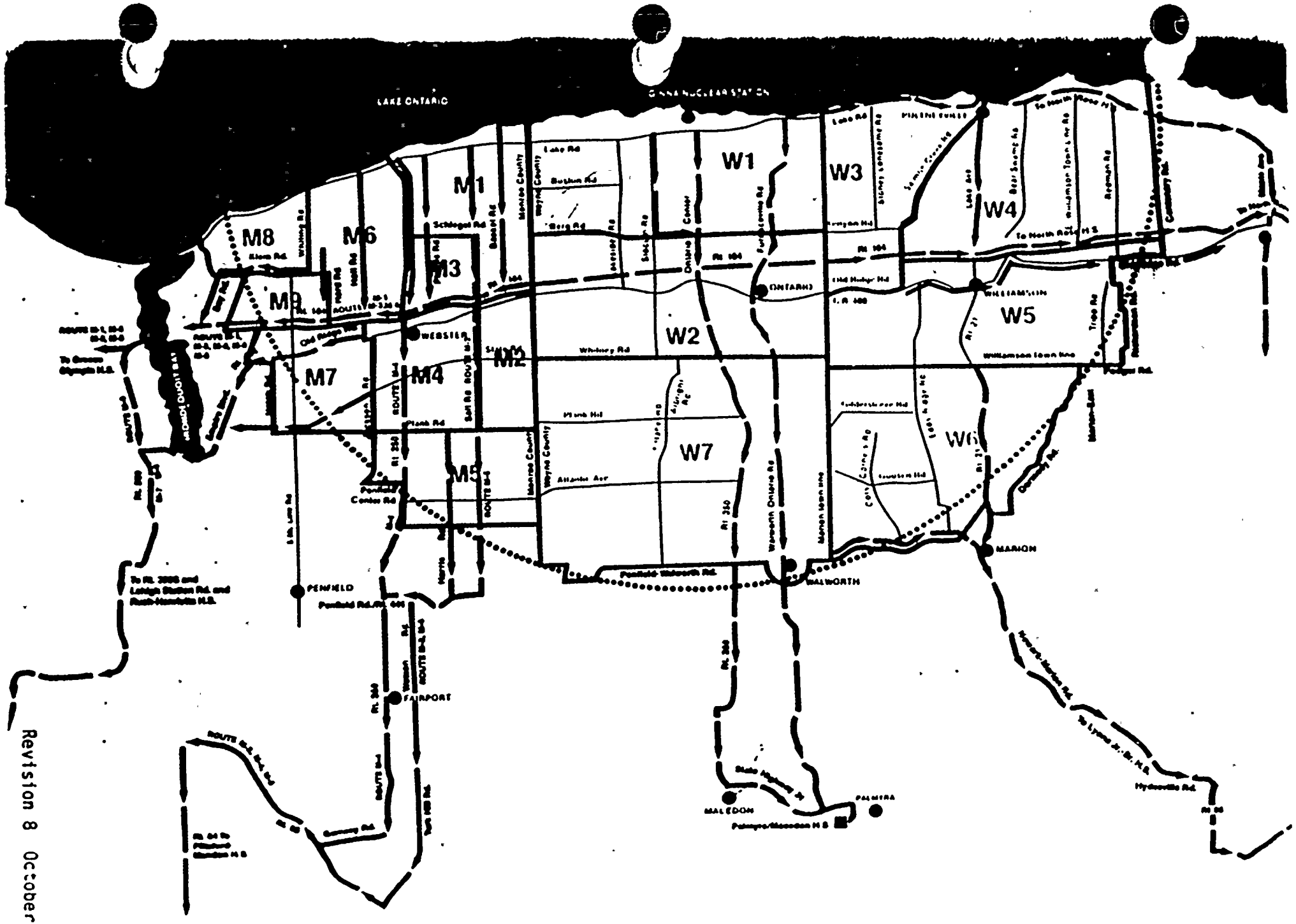


Figure 5.2
Evacuation Routes

5.4.4.5 Decontamination:

A Health Physics procedure (HP-6.3 "Personnel Decontamination") provides guidance for graduated measures to be used for decontamination. The objective of decontamination is to prevent the spread of radioactive material on the individual, to the environment, or to other personnel and to reduce the resultant dose. Decontamination is essentially the removal of radioactive material and is performed starting with the highest level of contamination using the simplest procedures. Continued decontamination may show diminishing effectiveness and require a decision to stop or use more potent agents.

Decontamination kits which contain items to decontaminate the skin, for wound cleansing and nose irrigation are available. Decontamination should continue until it is no longer effective but not so as to abrade skin. This procedure should be effective against Iodine and other contaminants.

If personnel cannot be decontaminated to the limits of Procedure HP-6.3, Radiation Management Consultants may be contacted.

Instruments are available to determine contamination levels of personnel or equipment and the effectiveness of decontamination. Waste drums are available as containers for radioactive waste and emergency clothing is available if needed.

5.4.4.6 Offsite Authority Actions:

Offsite authorities will provide assistance as needed to protect the public. In the event a Site Area Emergency is declared this may include activating the public notification system and providing information and periodic updates of the situation through the EBS (Emergency Broadcast System) and/or press briefings. Resources at primary response centers will be augmented by calling other emergency services to stand by status and dispatching certain emergency personnel to initiate their functions, ie, monitoring and communications. Information from the licensee, monitoring teams and weather stations will be continually evaluated with regard to changes in protective actions already initiated for the public, such as sheltering of people or milk animals. Monitoring results and any actions taken should be reported to the licensee and others having a need to know.

5.5 General Emergency:

The General Emergency will be declared when the conditions described in Section 3.5 exists.

The purpose of the General Emergency declaration is to (1) initiate protective actions for the public as predetermined or as indicated by actual releases, (2) provide continuous assessment of information from Ginna Station and offsite measurements, (3) provide consultation with offsite authorities, and (4) keep the public informed thru updates of the situation through the Joint Emergency News Center.

5.5.1 RG&E Actions:

A General Emergency requires that all actions prescribed for the Site Area Emergency (See Section 5.4) be implemented. The NRC, State Bureau of Radiological Health, and county authorities who will already have been contacted for lower classifications, will now be updated.

The Emergency Coordinator may request the assistance of offsite groups which could include Radiation Management Consultants, plant doctors, and Department of Energy-Brookhaven Radiation Assistance Program. Technical personnel from other RG&E departments and/or consultants will be called as needed.

The Emergency Coordinator has the responsibility to determine the magnitude and extent of the incident by evaluating information from the Control Room and the Survey Teams. This information will consist of instrumentation readings and any survey results available. He shall update the state and local authorities with new survey data and other information and recommend protective actions. Protective action will be based on the "Manual of Protective Action Guides and Protective Action for Nuclear Incidents" EPA-520/1-75-001-A, January 1990, U.S. Environmental Protection Agency. A summary of recommended actions is presented in Table 5.1.

In making his recommendation for sheltering or evacuation, the Emergency Coordinator should evaluate the weather forecast in relation to changing winds and precipitation. he should also evaluate the calculated evacuation times (Appendix G) in relation to predicted start, length and termination of a release. Due to the nature of our climate and corresponding construction of dwellings, the shielding effects of sheltering are greater than in many other areas. A dose reduction factor of 0.6 - 0.9 is assumed for residences in this area for whole body direct plume radiation.(1, 2)

The Director of the New York State Bureau of Radiological Health shall determine, by evaluating the information given by the Emergency Coordinator (or EOF/Recovery Manager as appropriate) if area evacuation is necessary, to what extent, and how to undertake protective action including evacuation. A projection of population distribution in the 10 mile plume exposure zone is included in Appendix F.

All survey and sample analysis results will be retained by the Health Physics and Chemistry Manager for appropriate documentation. Formal reports shall be written and distributed as required by 10CFR20 and the Technical Specifications. Information concerning the offsite consequences of the incident and protective actions to protect the public will be handled by New York State Radiological Emergency Plan and County Emergency Plans. An RG&E Corporate Spokesperson in the JENC will release the information concerning the plant, plant safeguards and its employees, and assistance being provided to State and Local authorities.

5.5.2 Offsite Authorities Actions:

All actions of paragraph 5.4.4.6 for Site Area Emergency will be reviewed and enacted for a General Emergency. All emergency personnel will have been activated and all response centers are operating. Information is evaluated and passed to the proper authorities and the public. Protective actions will be instituted as needed for the public and animals.

5.6 Major Release to the Lake:

If a major release to the lake occurs which exceeds the Technical Specification limit or the limiting concentrations specified in 10CFR20, Appendix B, Table II, Column 2, at the point of discharge the following actions shall be taken:

The release will be classified per EPIP 1-0, "Ginna Station Event Evaluation and Classification" and appropriate notifications will be made, if necessary, per the classification and corresponding procedures. The Ontario Water District will be notified. The waste discharge will be isolated, grab samples will be obtained, and dilution will be estimated.

The Health Physics section will be instructed to monitor the Ontario Water District Station water.

(1) Reference: "Public Protection Strategies for potential Nuclear Reactor Accidents" Sheltering Concepts with Existing Public and Private Structures" (SAND 77-1725), Sandia Laboratory.

(2) Protective Action Evaluation Part II, Evacuation and Sheltering as Protective Actions Against Nuclear Accidents Involving Gaseous Releases" (EPA 520/1-78-001B). U. S. Environmental Protection Agency.

TABLE 5.1 Recommended protective Actions to Reduce Whole Body and Thyroid Dose from Exposure to a Gaseous Plume (EPA 520/1-75-001-A January 1990)

Projected Dose (Rem) to the population	Recommended Actions (a)	Comments
Whole body <1 Thyroid <5	No planned protective actions. (b) State may issue an advisory to seek shelter and await further instructions. Monitor environmental radiation levels.	Previously recommended protective actions may be reconsidered or terminated.
Whole body 1 to <5 Thyroid 6 to <25	Seek shelter as a minimum. Consider evacuation. Evacuate unless constraints make it impractical. Monitor environmental radiation levels and adjust area for mandatory evacuation based on these levels. Control access.	If constraints exist, special consideration should be given for evacuation of children and pregnant women.
Whole body 5 and above Thyroid 25 and above	Conduct mandatory evacuation. Monitor environmental radiation levels and adjust area for mandatory evacuation based on these levels. Control access.	Seeking shelter would be an alternative if evacuation were not immediately possible.
Projected Dose (Rem) to Emergency Team Workers		
Whole body 25 Thyroid 125	Control exposure of emergency team members to these levels except for lifesaving missions. (Appropriate controls for emergency workers, include time limitations, respirators, and stable iodine).	Although respirators should be used where effective to control dose to emergency team workers, thyroid dose may not be a limiting factor for lifesaving missions.
Whole body 75	Control exposure of emergency team members performing lifesaving missions to this level. (Control of time of exposure will be most effective.)	

(a) These actions are recommended for planning purposes. Protective action decisions at the time of the incident must take existing conditions into consideration.

(b) At the time of the incident, officials may implement low-impact protective actions in keeping with the principle of maintaining radiation exposures as low as reasonable achievable.

5.7 Public Relations:

Public information will be released by an RG&E Information Officer operating from the Joint Emergency News Center. Public Information personnel will be assisted by a Technical Spokesman who keeps in touch with the Emergency Coordinator and EOF operations. RG&E personnel will exchange information with government Public Information Officers on a timely basis. All news releases will be coordinated among Federal, State, County and RG&E sources.

Rochester Gas & Electric Corporation Public Relations Department will be notified of any activation of this plan as soon as practical. Generally this notice will be from the Emergency Coordinator after he has compiled his evaluation of the situation.

A Joint Emergency News Center (6.1.7) will be established which may be activated during a nuclear emergency. It can be activated for the Alert Class or a less severe event. The Emergency Plan Implementing Procedures provide for staffing this center and outlines the duties of various positions. Individuals who are qualified to assume those positions are designated. Space is allocated in the Joint Emergency News Center for the use of various regulatory and government officials so as to coordinate and facilitate the flow of accurate information to the public. A Corporate Spokesperson who has access to the EOF will be available to the news media for briefing and questions.

Information concerning the status of the plant employees and Public Safety Recommendations shall be released by the Public Information Officers representing RG&E and local, state, and federal governments.

A public information program to acquaint the public with the proper actions to be taken in the event of a nuclear emergency at Ginna Station will be provided on an annual basis. This program will include information about radiation, protective actions which can be taken, suggested evacuation routes, special needs of the handicapped, proper responses to warning signals, and where additional information can be obtained. The program will be coordinated with RG&E, State and County Officials.

Material for placement in parks, motels and retail establishments to which transients have access will be provided on an annual basis.

An annual briefing and training session will be held to acquaint the news media with our emergency plans. Information on plant operation, radiation effects and concerns, the implementation of our emergency plan, points of contact for the release of public information at RG&E and other relevant topics will be kept current through these sessions.

Figure 5.7 is a preformatted press statement which can be used to inform the public of the situation at Ginna.

PRESS STATEMENT

REVISE 7-28-89

ROCHESTER GAS AND ELECTRIC
89 EAST AVENUE ROCHESTER N.Y. 14649 - 546 2700

DATE: _____

HOUR: _____

THIS (IS) (IS NOT) A DRILL.

ROCHESTER, NY -- ROCHESTER GAS AND ELECTRIC CORPORATION REPORTED AND (ALERT) (SITE EMERGENCY) (GENERAL EMERGENCY) AT ITS GINNA NUCLEAR STATION LOCATED IN THE TOWN OF ONTARIO, WAYNE COUNTY, NEW YORK, 16 MILES EAST OF ROCHESTER ON LAKE ONTARIO AT (TIME) ON (DATE).

PRELIMINARY INFORMATION INDICATES (GIVE NATURE OF PROBLEM).

_____

_____

_____

THE STATUS OF THE STATION IS (STABLE) (IMPROVING) (DEGRADING) (NOT KNOWN).

A RELEASE OF RADIOACTIVITY (IS) (IS NOT) TAKING PLACE. (PROVIDE SPECIFIC INFORMATION IF RELEASE IS TAKING PLACE.)

_____

_____

_____

ADDITIONAL DETAILS WILL BE PROVIDED AS AVAILABLE (IF PRESS BRIEFINGS HAVE BEEN SCHEDULED, PROVIDE SCHEDULE AND LOCATION).

THIS (IS) (IS NOT) A DRILL.

###

EXHIBIT 4

Figure 5.7

6.0 EMERGENCY FACILITIES:

Emergency facilities comprise a number of categories including emergency response facilities, communications systems, assessment facilities, protective facilities and first aid and medical facilities. Each is briefly described as follows:

6.1 Emergency Response Facilities(RG&E):

Locations have been designated to be used for evaluation and control of an emergency situation; the Control Room, the Survey Center, the Technical Support Center, Operations Support Center, Emergency Operations Facility, Engineering Support Center and the Joint Emergency News Center. Figure 6.1 shows the relationship of these Centers during an emergency.

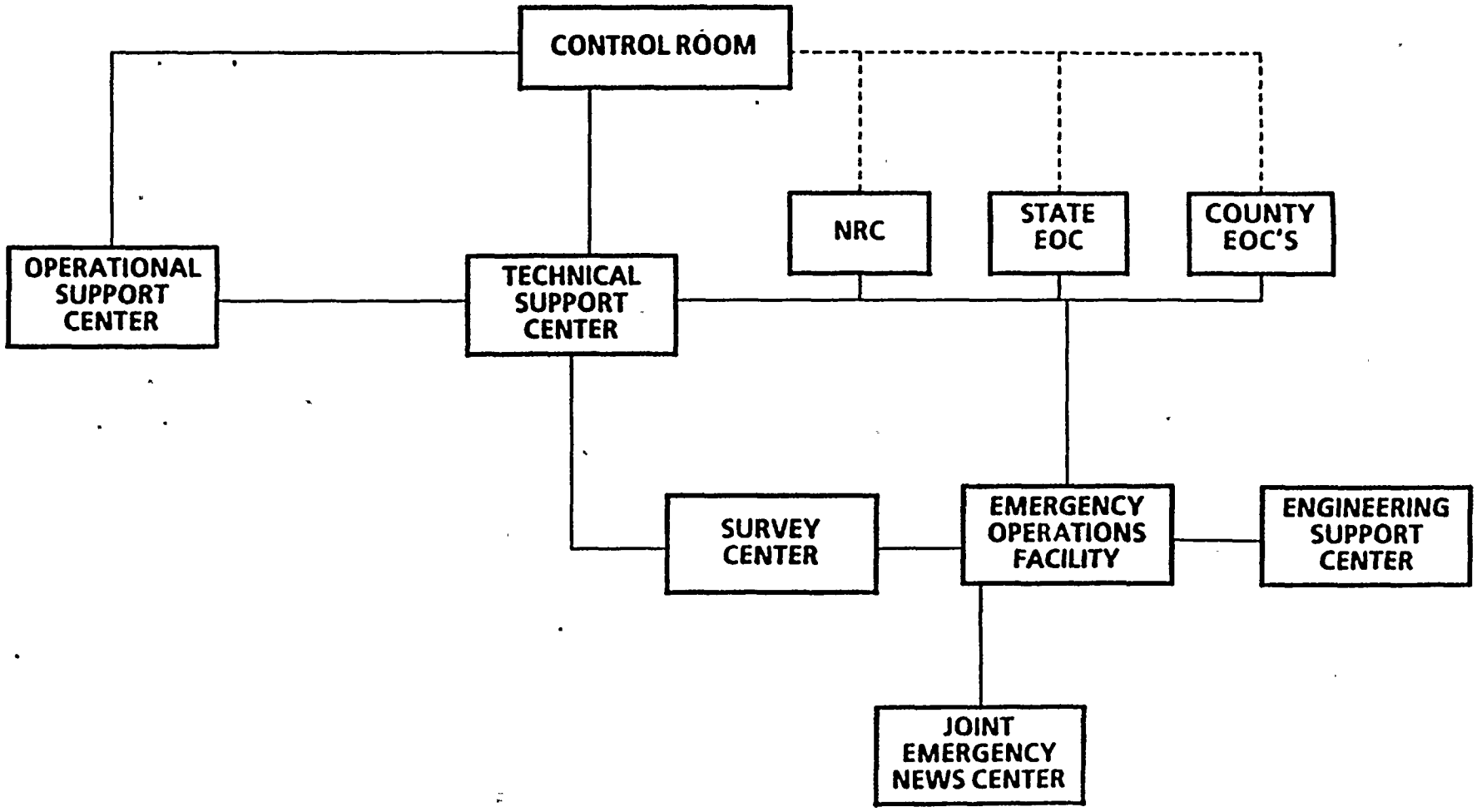
6.1.1 Control Room:

The Ginna Station Control Room is designed for continuous occupancy following the most limiting accident; therefore, control of plant systems will take place from this center, and on-shift crew activities relating to mitigating the consequences of the accident will be initiated and coordinated by the on-duty Shift Supervisor in the Control Room. Equipment for radiation monitoring and protective clothing and respiratory equipment is kept in an emergency cabinet.

6.1.2 Survey Center (SC):

The basement of the Ginna Training Center will be used as dispatching center for survey teams. Their equipment will be stored in lockers so that availability of equipment is assured. All field monitoring data will be reported through a communicator to the TSC or EOF Dose Assessment Manager as appropriate. The Dose Assessment Manager will evaluate the data and make protective action recommendation if needed.

ROCHESTER GAS AND ELECTRIC CORPORATION
GINNA STATION EMERGENCY CENTER INTERFACES



INITIAL CONTACT ONLY ------

Figure 6.1

6.1.3 Alternate Survey Team Staging Area:

An alternate Survey Team Staging Area will be designated by the Emergency Coordinator if the SC is not habitable because of high radiation levels or airborne contamination levels. Alternate Survey Team Staging Areas may include the onsite Projects Building or other offsite RG&E facilities.

6.1.4 Technical Support Center (TSC):

An area at the east end of Ginna Station Turbine Building has been constructed for use as the TSC. It is equipped with an intercom for direct communication with the Control Room, Survey Center, and Operational Support Center. The TSC also has direct phone lines to the NRC, New York State, Monroe and Wayne Counties as well as radios and normal phones. A terminal to the plant process computer data link is installed in the Center for obtaining plant operational data. Piping and equipment drawings are also available. A radiation monitor is mounted in the Technical Support Center. The center has filtered air supply and is shielded to meet the same habitability requirements as the Control Room. A constant air monitor is installed to indicate the activity of airborne particulate. This center meets the criteria of NUREG 0696 and is within 2 minutes walking time of the Control Room. Protective clothing and breathing apparatus are available if needed.

6.1.5 Operational Support Center (OSC):

An area within the TSC has been designated as the OSC. Personnel will be assigned to this area in case of an emergency who are capable of giving support to operational needs of the plant. They will be directed from the Control Room or the TSC. Phones and the plant GAI-tronics page are available.

This area was selected for its capacity to provide an adequate assembly area for operators, technicians, and repairmen. Personnel designated by implementing procedures will report to the OSC, either directly if already on site or through the Survey Center if called in from off-hours. The OSC meets the criteria of NUREG - 0696. Supplies provided at this center include respiratory protection equipment, protective clothing, portable lighting and portable radios.

Potassium Iodide tablets and self-reading pocket dosimeters are included in the equipment stored in the OSC. Radiation monitoring equipment for surveys of the OSC or for use out on a job is available in the TSC or as dedicated equipment in the Health Physic's office. Emergency equipment necessary to repair, control or mitigate the consequences of an accident are available in shops and the stockroom within the plant.

6.1.6 Emergency Operations Facility (EOF):

The EOF has been established offsite adjacent to RG&E Headquarters in Rochester. This facility meets the criteria of NUREG-0696. Offices will be provided for Federal, State, and Local Officials. In addition, sufficient offices for RG&E support personnel and backup groups (such as Westinghouse, Gilbert Commonwealth, etc.) is available in the same building. A work area sized to accommodate the numbers of people anticipated and the facilities for these people will also be incorporated into the complex. Facilities are provided for the news media and RG&E public relations personnel in the headquarters building.

Ample telephone communications will be provided, with degrees of redundancy achieved by utilizing the Rochester Telephone system in conjunction with the New York Telephone system. Also a microwave system provides communication capability between Technical Support Center and the EOF.

To aid in emergency assessment, pertinent information (such as blue prints, UFSAR, Technical Specifications, etc.) are stored at the facility and will be kept current. A data link will provide hard copy information from the plant computer to the EOF. This information is programmed into groups of various essential plant and site parameters required for emergency evaluation. As the emergency is evaluated, accurate and up-to-date information of the situation is relayed to appropriate governmental agencies and the public through this Center.

Communications equipment and radiation monitoring equipment for use by field teams from the EOF is maintained and readily available to them.

6.1.7 Joint Emergency News Center (JENC):

A JENC has been established in conjunction with the EOF. The center will house offices for the NRC, FEMA, NYS, Wayne and Monroe County, and RG&E Public Information Officers. It will also have facilities for press briefing, small conference rooms, General Information and Rumor Control, and Security.

Basic information regarding the status of the Ginna Nuclear Power Plant will come from the Emergency Coordinator. After review by RG&E corporate personnel, news releases will be issued from the Emergency News Center. A telephone center for response to the general public will be established and the RG&E Government Relations Department will be in contact with elected officials. See EPIP 4-4 and 4-6 for details.

6.2 Communications Systems: (Ginna Station)

A broad range of communications equipment is available at Ginna Station. Several systems are installed for communications between RG&E Emergency Centers, and for communications with outside agencies. Equipment is periodically verified operable by plant procedure. The use of particular types are specified in the appropriate implementing procedures as first choice and backup systems. All services other than radio are underground between centers. Communications Systems are tested periodically.

6.2.1 Evacuation Warning:

A special warbling tone on the GAI-Tronics page system is sounded from the Control Room to warn personnel of a site evacuation. Warning is immediate to all persons on-site at the time of an accident. High noise areas have, in addition to the Public Address system, red warning lights with signs to direct personnel to evacuate. Special announcements on the page and special tones are used for other emergencies.

6.2.2 Phone Systems:

Communications between the Control Room, Technical Support Center, Survey Center and other operations centers can be established using either telephone, 2-way intercom, radio or plant PA System. Communications systems are tested periodically according to the schedule in implementing procedure.

The AT&T System 75 telephone system at Ginna affords a great deal of flexibility and capacity. Calls can be received or made to either the Rochester Telephone System or the Ontario System (New York Telephone Co.). The AT&T system has its own power supply located on-site which could maintain house phones independent of off-site lines. There are also Rochester direct lines that are powered by Rochester Telephone and Ontario direct lines powered by New York Telephone. During an emergency phone usage can be controlled by an operator at the console located in the Technical Support Center.

In case of an emergency, personnel not at the plant can be summoned using either the AT&T phones or direct lines to the Ontario and Rochester Systems. If necessary, Control Room personnel may use the direct lines to a Rochester located dispatcher who would then make the necessary offsite calls. A base radio transmitter in the Control Room may be used to call the Electric Line Operator who can also call personnel to the plant.

6.2.3 Radio Systems:

There are three frequencies available for use at Ginna Station. They are assigned to the Fire Brigade, Security and Radiation Survey Teams. The base stations and antennae are located for maximum transmission coverage of the areas of use. The security channel is monitored at Central Security and at the Guardhouse. The Radiation Survey Teams have operator capability at the Survey Center, Technical Support Center and at the Emergency Operations Facility. The Fire Brigade communicator will be in the Control Room. Portable radios with three channels are available for the use of survey teams in the field.

The Ginna Control Room also has a receiving and broadcasting station on a frequency which is monitored off-site by Electric Power Control and Line Maintenance. This channel is available for indirect communication to the State Police, Monroe and Wayne County Sheriffs and Wayne or Monroe County EOC's.

Portable low power hand radio sets are located in the Technical Support Center to be distributed in the event of an emergency for backup or mobile communication. Portable hand radio sets are also located in the Survey Center for the use of survey teams. Offsite survey teams can communicate through these portable radio sets to a base station which may be set up at either the Survey Center, Technical Support Center or EOF. The base station is capable of operating with 12 volt DC power (an automobile system) as an alternate power source.

6.2.4 Offsite Communications:

Notification to state and county emergency response organizations is available 24 hours per day. The State Warning Point is staffed during normal working hours by the Office of Disaster Preparedness. Monroe County Office of Emergency Preparedness and Wayne County Office of Emergency Management answer the RECS line during the work day. During non-business hours, weekends and holidays, the same phone line is covered for the State by the State Police Warning Point and for Monroe County at the Rochester Fire and Public Safety Building. For Wayne County the Sheriffs Office covers the warning system during off hours. At Ginna Station there are always Control Room personnel to originate calls. New York State has responsibility for communications to other counties which may fall within the ingestion pathway exposure zone. Any contacts with Canada or Ontario Province would also be through the state agencies.

To contact appropriate offsite agencies the telephones would normally be used as above (6.2.2), with direct lines or the dimension system. If necessary the Power Control Dispatcher or Electric Line Operator may be contacted as described above and instructed to notify the state police or sheriff and relay message through their radio systems.

Communications with federal emergency response organizations consists of telephone contact to the Department of Energy Brookhaven Radiological Assistance Program. This call would be made by the Emergency Coordinator per our letter of agreement with Brookhaven. Their assistance may also be requested by the State or counties.

NRC Emergency Notification System (ENS) "red phones" are installed in the Control Room, the EOF and the Technical Support Center. NRC Health Physics Network phones are also available in the Technical Support Center and EOF.

6.3 Assessment Facilities:

Facilities are provided for the assessment of post accident radiological conditions in order to determine the appropriate emergency measures. They consist of onsite monitoring systems, laboratory facilities and environmental radiological monitoring and sampling equipment.

6.3.1 Process Radiation Monitoring System:

The process radiation monitoring system provides indications and alarms which permit assessment of in-plant conditions, as well as providing certain automatic actuations. The general functions of these systems are as follows:

a) To indicate primary system leakage and fuel rod failures.

b) To indicate radioactivity levels in selected process systems.

c) To indicate radioactivity released through vents or drains.

d) To provide visible and audible alarms in the Control Room when a significant increase in radiation occurs in systems or areas.

e) To alarm in the Control Room on monitoring equipment failure.

f) To shut down a purge or a release if radioactivity reaches the alarm setpoints and thereby avoid exceeding the discharge limits.

6.3.2 Effluent Monitors:

Effluent monitors available at Ginna are listed in Tables 6.3A and 6.3B. Of these monitors, particular importance is placed upon the plant vent monitors and liquid release monitor; the former because, as described in Section 3.0, Emergency Conditions, in combination with other monitors, it indicates the need for site evacuation and protective actions for the public; the latter because it indicates the need for protective measures with regard to the use of lake water.

Alarm setpoints are based upon the maximum allowable environmental radioactivity concentration and dose which might result from a release and set at a fraction of those values. Monitor calibration factors, correlating monitor readings and vent concentrations can be used to estimate the release rate. From vent concentrations, the offsite dose or concentration levels can be calculated. Table 6.3A summarizes these monitors and alarm functions.

Several approaches are available to supplement effluent monitor readings for the assessment of release rates and projected doses. Estimates of radioactive materials released and projected doses are provided for various accident categories and modes of safeguard equipment operation in an implementing procedure for the Emergency Coordinator's use.

High range monitors have been established for the estimation of noble gas release from the plant ventilation exhaust point in the event that normal range effluent monitors are off scale or inoperable. Periodic grab samples of effluent release paths would also be used to quantify and further refine estimated releases from the plant. Table 6.3B summarizes the SPING 4 high range monitoring system.

If no release data are available, a method for assessment of release rates is used in conjunction with the X/Q map overlays and offsite concentrations. The release rate of radio active material from the plant can be calculated from the measured airborne concentration at a given downwind sample location and the X/Q value for that location read from the map overlay. The airborne concentration is divided by the X/Q value and multiplied by the wind speed to obtain an estimated release rate from the plant.

Appendix C, Table C-1 of this plan contains a table of resultant doses and quantities released from selected potential accidents. These doses and releases are based upon 10% of the values used as part of the plant safety evaluation.

"Manual of Protection Actions Guides and Protective Actions for Nuclear Incidents" (EPA 520/1-75-001), NUREG 133 (Nov. 78) and Regulatory Guide 1.109 Rev. 1 (Oct. 77) provide the methodology for relating radiological measurements in various environmental media or effluent monitor readings to offsite dose or dose rates. Meteorological conditions can be factored into these calculations.

A procedure for manually estimating offsite doses for areas around the plant is available at the TSC and EOF. Based upon these results, protective actions can be recommended. A computer program operating on a microcomputer is also available in the TSC and EOF. This system mimics the overlay method of calculating downwind dose rates and airborne contamination levels. A more sophisticated computer program which uses the methods used for environmental dose calculations required by Federal regulations is also available to assess doses during and after an emergency. Additional information on the radiological consequences of a variety of accidents can be found in Chapter 15 of the Ginna Updated Final Safety Analysis Report.

TABLE 6.3A

RADIATION MONITORS	LOCATION	DETECTOR TYPE	METER READOUT	DETECTOR RANGE	PURPOSE
R-10A Containment Iodine	Top Floor Cold Side Intermed. Bldg.	Scintillation Detector	Control Room & Plant Comput	10^1-10^7 cpm	Indicates the concentration of Iodine -131 in the Containment Building or Containment Vent
R-10B Plant Vent Iodine	"	"	"	10^1-10^7 cpm	Indicates concentration of Iodine-131 in the Plant Vent air
R-11 Containment Particulate	"	"	"	10^1-10^7 cpm	Normally measures short-lived particulate daughters of noble gases in the Containment Vent or Containment Atmosphere
R-12 Containment Gas	"	"	"	10^1-10^7 cpm	Measures the noble gas concentration in which Zenon, 133 is the major isotope present in the Containment Vent or Containment Atmosphere
R-13 Plant Vent	"	"	"	10^1-10^7 cpm	Plant Vent particulate monitor normally measures short-lived particulate daughters of noble gas
R-14 Plant Vent	"	"	"	10^1-10^7 cpm	Plant Vent noble gas monitor normally measures low concentrations of Xe-133 from Reactor Coolant Leak in the Aux. Bldg.
R-15 Air Ejector	N.E. Corner Top Floor Turb. Bldg.	"	"	10^1-10^7 cpm	Measures condenser off gas and is usually the first sensor of primary to secondary leakage
R-16 Containment Fan Cooling Water	Basement Floor Cold Side Intermediate Bldg. by Cable Tunnel	"	"	10^1-10^6 cpm	Monitors the service water from the Containment Fan Coolers
R-17 Component Cooling Water	Intermediate Floor Aux. Bldg. NUT Area	"	"	10^1-10^6 cpm	Used to detect leakage of primary coolant into the Component Cooling Water
R-18 Liquid Waste Disposal	Aux. Bldg. West End Top Floor	Scintillation Detector	Control Room & Plant Computer	10^1-10^6 cpm	Monitors liquid released for unexpected activity levels - an alarm will isolate the release

TABLE 6.3A (Continued)

RADIATION MONITORS	LOCATION	DETECTOR TYPE	METER READOUT	DETECTOR RANGE	PURPOSE
R-19. S/G Blowdown	Intermediate Floor Hot side Intermed.	"	"	10^1-10^6 cpm	Monitors Steam Generator blowdown water for primary to secondary leakage High activity will isolate S/G blowdowns
R-20A Spent Fuel Pool Heat Exchg. 1A Cooling Water	West end - Intermediate Floor Auxiliary Bldg.	"	"	10^1-10^6 cpm	Monitors for leakage from the Spent Fuel Pool into the service water due to heat tube leaks
R-20B Spent Fuel Pool Heat Exchg. 1B Cooling Water	Aux. Bldg. Top Floor	"	"	10^1-10^7 cpm	Monitors for leakage from the Spent Fuel Pool into the service water due to heat exchanger tube leaks
R-21. Retention Tank	Basement Serv. Bldg. Recirculation Line	Scintillation Detector	Locally Alarm in CR	10^1-10^6 cpm	Monitors Retention Tank water which is collected from normally clean areas of the plant - and will isolate normal release path when on alarm
R-22 High Conductivity Waste Tank	AVT Room	Scintillation Detector	AVT Control Panel	10^1-10^6 cpm	Monitors Condensate Polisher regeneration waste water activity and will isolate the normal discharge upon alarm

TABLE 6.3B
SPING 4 RADIATION MONITORING SYSTEM
Unit #01 Containment Vent Sampler, Unit #02 Plant Vent Sampler

CHANNEL	DETECTOR	RANGE
#01 Beta Particulate	Scintillation	$1.0x10^{-6}$ to $1x10^{0}$ uCi/on the filter
#02 Alpha Particulate	Open Face Diode	Radon/thoron detector to correct beta particulate levels.
#03 Iodine	Scintillation, 2x2 NaI single Channel Analyzer	to 10 uCi on the filter
#04 Iodine Adjacent Window	Scintillation	Note this channel only compensates channel 3
#05 Noble Gas Low Range	Scintillation	$1.0x10^{-8}$ to $1x10^{-2}$ uCi/cc Eq Xe^{133}
#06 Area Monitor	G-M Tube	0.001 to 1000 mR/hr. Monitors Radiation Levels at Unit
#07 Noble Gas Mid. Range	G-M Tube	$1.0x10^{-3}$ to $1x10^{3}$ uCi/cc Eq Xe^{133}
#08 Gamma Background	G-M Tube	Note this channel is used only for Gamma compensation on channel 05 and 07.
#09 Noble Gas High Range	G-M Tube	$1.0x10^{-1}$ to $1.0x10^{5}$ uCi/cc Eq Xe^{133}

Note: Units 1 and 2 can be read on the PPCS or locally on the 296' level of the clean side of the Intermediate Building. Read out of SPING 4 data is available in the TSC.

TABLE 6.3B (CONTINUED)
SPING 4 RADIATION MONITORING SYSTEM

Unit #03 Air ejector monitor. Note: Channel 1-4 exist in the unit but are not used. Unit 3 can be read on the PPCS in the TSC or the turbine floor of the Turbine Building (North Wall).

CHANNEL	DETECTOR	RANGE
#05 Noble Gas Low Range	Scintillation	$1.0x10^{-8}$ to $1x10^{-2}$ uCi/cc Eq Xe^{133}
#06 Area Monitor	G-M Tube	0.001 to 1000 mR/hr
#07 Noble Gas Med. Range	G-M Tube	$1.0x10^{-3}$ to $1x10^{3}$ uCi/cc Eq Xe^{133}
#08 Gamma Background	G-M Tube	Channel 8 only compensates channel 05 and 07.
#09 Noble Gas High Range	G-M Tube	$1.0x10^{-1}$ to $1.0x10^{5}$ uCi/cc Eq Xe^{133}
Unit #04 Steamline Monitors. Note: Unit 04 can be read on the PPCS, on a control room recorder, in the TSC, or at the 296' level of the clean side of the Intermediate Building.		
#01 "A" Steamline Monitor	G-M Tube	10^{-2} to 10^{+4} mR/hr
#02 "B" Steamline Monitor	G-M Tube	10^{-2} to 10^{+4} mR/hr

TABLE 6.3C

RADIATION MONITORS	LOCATION	DETECTOR TYPE	METER READOUT	DETECTOR RANGE	POSSIBLE MEANINGS OF ALARM OR UPWARD TRENDING OF MONITORS
R-1 Control Room Monitor	Control Room	Ionization Chamber	Control Room & Plant Compt.	10^1-10^7 mR/hr	Rising Radiation Level in the Control Room Possible Control Room Inaccessibility
R-2 Containment	By Personnel Hatch	"	"	"	Rising Radiation Levels in Containment
R-7 Incore Detector Area	Intermediate Floor-Containment	"	"	"	Indicates Flux Mapping in Progress or possible rising radiation levels in containment
R-9 Letdown Line Monitor	NaOH Tank Room Basement Floor Auxiliary Bldg.	"	"	"	Increasing Radiation Levels in the Reactor Coolant System
R-29 High Range Containment Monitor	Containment NW Operating Floor	Ionization Chamber	"	1 R/hr-10^7R/hr	Primary Coolant Leak in Containment
R-30 High Range Containment Monitor	Containment NE Operating Floor	Ionization Chamber	"	1 R/hr-10^7R/hr	Primary Coolant Leak in Containment

External dose or dose rates from surface contamination or airborne radioactivity are determined by direct field measurements (TLD or survey meter.) Internal dose commitments from key isotopes via water or airborne pathways would be evaluated using the uptake rates, dose conversion factors, and other pathway parameters given in EPA 520, NUREG 133 and Regulatory Guide 1.109. Computer software is available through consultants using these dose calculational models so as to determine the radiological dose assessment. In this manner, rapid determination of dose estimates from multiple pathways may be made for comparison with protective action guides.

6.3.3 Area Radiation Monitoring System:

The plant area radiation monitoring system provides indications and alarms which assist in assessment of plant conditions. Its general functions are as follows:

a) To indicate the general radiation level in specified areas of the plant.

b) To provide visible and audible alarms at both the Control Room and the remote meter location when a significant increase in radiation level occurs.

c) To provide a visible alarm in Control Room on meter or detector failure.

As described in Section 3.0, Emergency Conditions, this system is used to initiate local radiation emergency protective action, and in combination with other systems to indicate the need for a site evacuation and possible off-site protective measures. TABLE 6.3C lists the location of area monitors of major interest. Alarm setpoints can be found in Procedure P-9.

High Range Radiation Monitors are installed within containment with digital readout in the Control Room. A procedure is available by which readings can be converted to an interpretation of the extent of fuel damage and/or radioactivity released to the containment atmosphere.

6.3.4 Source Range Nuclear Instrumentation:

The two source range channels are used at shutdown to provide an audible count rate signal and audible alarms both in the Control Room and Containment to call attention to unexpected increase in neutron flux. A high source range alarm in containment is the signal to evacuate the area.

6.3.5 Continuous Air Monitors:

Several mobile radiation monitors are available within the controlled areas particularly for use during work where local detection of excessive airborne contamination is advisable. Various combinations of noble gases, iodine and particulate analyzers are available. These are equipped with meter and chart readouts, as well as audible and visible alarms.

6.3.6 Portable Monitors, Sampling Equipment, and Other Special Equipment:

Portable monitors, sampling equipment and other special equipment for assessing the extent of the consequences of a radiation emergency are located in the Control Room, the Health Physics Office, the Auxiliary Building and the Survey Center, including individual survey equipment boxes for each survey team. A summary of this equipment is given in Appendix D. Additional sampling and monitoring equipment is also available in the TSC and the EOF.

6.3.7 Process and Containment Monitors:

Numerous process variables are indicated and recorded in the Control Room to ensure safe and orderly operation of all systems and processes over the full operating range of the plant, as well as for detection of off-normal or emergency conditions. Of these monitors, particular importance is placed upon those which provide for detection of a loss of coolant accident and the immediate automatic actuation of equipment to mitigate its consequences. These include 4 channels for Pressurizer pressure, 3 channels for Pressurizer level, 4 channels for Steam Generator level, 4 channels for Reactor Coolant average temperature, 2 channels for steam flow and feedwater flow for each Steam Generator. Along with these are indications of Containment conditions which include 6 channels for Containment pressure, sump level and pump actuation, safety injection recirculation sump level indicator, 4 channels for fan cooler condensate level, and 6 channels for dew point temperature. Greater detail for the process and containment monitors is given in the UFSAR, Chapter 7 and in our letter dated January 31, 1984 from John E. Maier, RG&E to Dennis Crutchfield, NRC.

Seismic and hydrologic emergencies are treated by procedure SC-5 and SC-4 respectively. A seismic monitor (Accelograph) is located in the intermediate building sub-basement and a lake level indication is available from the plant computers.

Information concerning seismic or hydrologic events can be obtained from offsite agencies such as the NYS geologist at the State Education Dept. or at Cornell University Geology Dept.

6.3.8 Plant Laboratories:

The laboratory area of the plant is maintained for the purpose of monitoring the condition of a variety of fluid streams and stored fluids, including the activity and isotopic content; for assessing the degree of contamination of plant areas, movable items and personnel; and for storing, calibrating and maintaining portable and laboratory radiation measuring instruments. Separate laboratory facilities are provided for assessing the effect of the plant operation on the environs.

By the use of a Post Accident Sampling System located in the controlled area of the Intermediate Building, samples can be drawn from reactor coolant, containment atmosphere, and containment sump. These samples are processed from a remote control board to open valves collect the sample and read out results of analysis. The sample can be remotely analyzed for dissolved hydrogen, dissolved oxygen, boron and pH. Analysis for chlorides and radioactive isotopes can be completed on diluted, shielded grab samples in a laboratory facility within the times required by NRC NUREG-0737. Samples can be taken and analyzed without exceeding personnel doses of 5 Rem. This system will also be used for normal operational samples.

In addition to laboratory facilities within the plant, some laboratory capability is provided at the Survey Center for use in assessing the offsite effects of an incident. An Environmental Laboratory, located on the site property, but outside the main plant building, contains all the equipment necessary for isotopic analysis. The resources of the Environmental Laboratory operated by the New York Power Authority at Fulton, New York are also available as noted in a letter of agreement.

6.3.9 Meteorological Monitoring:

Data on meteorological conditions are available to the Control Room for use in assessing the consequences of an airborne release of radioactive matter. All meteorological measuring devices, with the exception of the precipitation measuring system, are mounted on a 250 foot weather tower located at the Ginna Plant site. Windspeed, wind direction and temperature are measured at the 33, 150, and 250 foot levels. The 33 ft. wind speed and direction sensor readings are recorded on the Radiation Monitoring System Panel in the Ginna Control Room. Temperatures at three tower levels are also indicated in the Control Room by digital display. This information will be relayed to the NRC Operations Center, the New York State and County EOCs. Meteorological data is available continuously and is also programmed for print out at 15 minute averages, accessible from the TSC and EOF.

Rainfall is measured by a tipping bucket rain gauge located at the base of the Ginna weather tower. Wind direction, windspeed, and temperature indications from the three tower elevations are also registered on the Ginna Plant Process Computer System. Instrumentation and calibration procedures associated with the Ginna meteorological program are in conformance with Regulatory Guide 1.23.

The weather tower is equipped with redundant sensing devices for use as backup indicators of windspeed, direction, temperature and temperature difference. All meteorological data will be collected and computer-processed to provide estimates of radioactive materials transport and diffusion under routine and accidental conditions. Power for the meteorological measurements system and associated equipment is supplied by an electrical feed separate from the plant. Means for remote interrogation of the meteorological system by telephone link, is available to the Technical Support Center and EOF via computer terminals at each location.

Rochester Monroe County Airport (US Weather Service) has meteorological instrumentation readings which can be accessed by private phone number on a 24 hour basis. A backup weather tower is located on Rt. 104, approximately 3.5 miles south of the plant and has wind and temperature recorders. Means for remote interrogation of the back-up meteorological system is available at the TSC and EOF via computer terminal.

An implementing procedure describes the method by which onsite meteorological information is used for the estimation of offsite radiation doses. Based upon wind conditions and determined atmospheric stability, estimates of downwind radioactivity concentrations and doses can be made by the Health Physicist in the Dose Assessment Areas using pre-printed overlays placed on a regional map.

6.3.10 Environs Radiological Monitoring:

Sampling systems are established for normal environmental sampling in the immediate area surrounding the plant and also in locations whose distance from the plant roughly corresponds to 1/100th of the onsite radioactivity concentrations estimated from annual average atmospheric dispersion. These stations contain provisions for air sampling and for radiation dose measurement. Certain stations include precipitation collectors. They provide information about the extent of a general emergency and its effect on the environment, in accordance with appropriate implementing procedure.

In addition, an array of thermoluminescent dosimeters (TLD's) is in place at the site boundary, at approximately 5 miles from the site, at the offsite sampling stations (approximately 10 miles) and at the onsite sampling stations. The survey teams will place up to 25 additional TLD's at specified locations during their tours after an incident, which will add to the evaluation of doses throughout the emergency planning zone. The placement of these TLD's around Ginna Station for routine or post accident radiation assessment is given in an implementing procedure. Maps are included in that procedure so as to locate the TLD's for best coverage (Figure 6.3). The radiological program provided meets the minimum requirements of the NRC Radiological Assessment Branch Technical Position for Environmental Radiological Monitoring.

Monitoring teams are quickly dispatched to follow designated routes for the field monitoring within the plume exposure zone. A Ginna Station procedure details the method used for the rapid field determination of airborne particulate and radioiodine concentrations following an accident in addition to radiation levels. The procedure consists of operating a portable air sampler which contains a silver zeolite cartridge and particulate filter, followed by direct filter measurement with a count rate meter probe. The minimum sensitivity for iodine by this method, based upon a 6 minute sampling time is approximately 2.3 E-8 uCi/cc.

It is recognized that under certain post-accident conditions, some unavoidable interference from noble gas or high background levels may affect the initial filter readings being taken in the field. The absorption of noble gases in the charcoal cartridge would lead to an over estimate of airborne radioiodine concentrations. Therefore, silver zeolite is used. If background levels are too high to determine a proper filter reading, an alternate location out of the radiation plume will be used to obtain filter measurements.

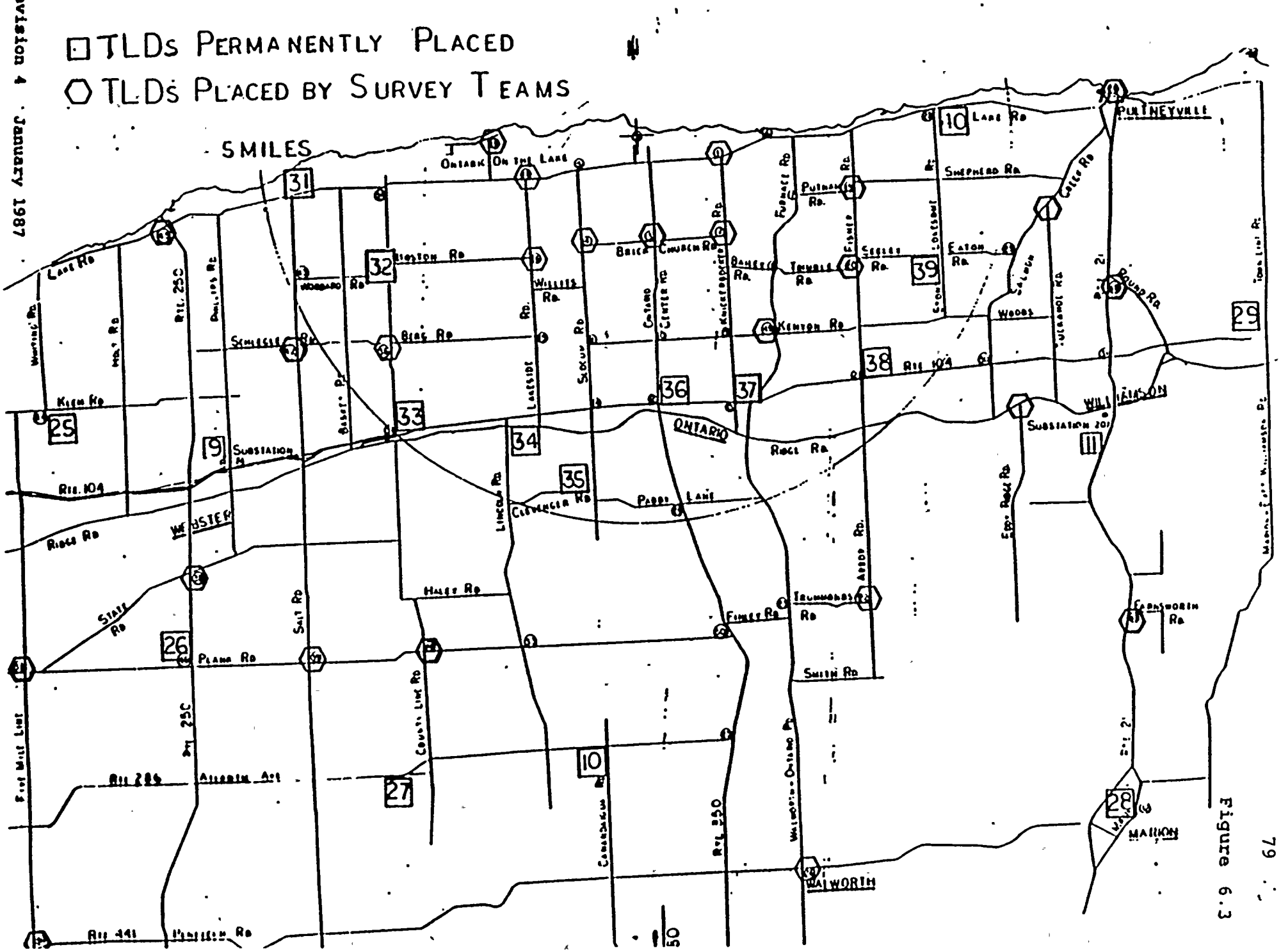

TLDs PERMANENTLY PLACED
TLDs PLACED BY SURVEY TEAMS
SMILES
ONTARIO ON THE LAKE
PUTNEYVILLE
WEBSTER
ONTARIO
WALWORTH
MARION
WILLIAMSON
SUBSTATION
LAKE RD
RIDGE RD
RTE. 104
RTE. 250
RTE. 441
RTE. 286
ALLEGAN AVE
PLANK RD
HALEY RD
PARDY LANE
CLEMENCE RD
KEMPTON RD
BIRGE RD
SCHLEGEL RD
SHEPHERD RD
EATON RD
SMITH RD
FINNEY RD
COUNTY LINE RD
CANANDAIGUA RD
SALT RD
STATE RD
MAY RD
DOUGLAS RD
LAKESIDE RD
SODUS RD
WILLARD RD
BRICK CHURCH RD
FURNACE RD
PUTNEY RD
FISHER RD
TRUMBULL RD
SEELEY RD
ABBOTT RD
EAST RIDGE RD
FARNSWORTH RD
MANNING RD
TOWN LINE RD
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Figure 6.3

Air samples collected by survey teams from portable sampling devices and from fixed air monitoring systems may be evaluated using higher sensitivity methods with onsite or near-site analytical equipment (e.g., environmental laboratory trailer).

6.3.11 Emergency Instruments and Equipment:

Emergency equipment for the various centers is described in Appendix D. This equipment is checked monthly to be certain that it is available, in place and operable. Any instrument or equipment found to be in need of repair or calibration is immediately replaced from the Health Physics reserve supplies. Instruments are calibrated along with plant instruments by the Health Physics Section according to HP Procedures which meet the manufacturers recommendations. Sufficient reserves of instruments and equipment to replace those that are removed from service for maintenance and/or calibration are available.

6.3.12 Public Alerting System:

An alerting system to make the public aware of an incident at Ginna Station which may require protective action on their part has been developed and installed. The Ginna prompt public notification system consists of 96 sirens supplemented by more than 40 tone alert radios at schools, nursing homes and industrial establishments. The special needs of transient populations at locations, such as motels, parks and work camps will be addressed by utilizing mobile loud speakers and direct facility notification. Instructions for transient populations have been distributed to such locations.

The design objective for this system is to complete the initial alerting of the affected population within the Plume Exposure Pathway within 15 minutes after the notification of local and state government by the Nuclear Facility Operator. The system was designed to assure coverage of essentially 100% of the population within the 10 mile Emergency Planning Zone.

The control of the system rests with the County officials within their respective borders. In Monroe County the County Executive has this authority and in Wayne County, it is the Chairman of the Board of Supervisors. RG&E and the NYS Health Department will make recommendations to activate the system if necessary.

Sirens and tone alerts are activated by a radio signal and a digital encoding system is employed to insure a secure, reliable control.

A backup transmitter is available in each county for activating the alert system should the primary transmitter fail. The siren portion of the alert system is designed to produce a minimum 10dB(c) above ambient sound levels in all portions of the Emergency Planning Zone or a minimum of 70dB at 100 ft. from the siren base.

The objectives of the Ginna prompt public notification system are two fold: to notify the general public both indoors and out of the existence of an emergency situation, and to provide for the communication of preliminary emergency information.

In conjunction with the alert system, the public will be kept informed of the procedures they should follow if the system is activated, through activation of the Emergency Broadcast System.

Sample message to be given over the EBS radio are part of the county procedures. A brochure to be distributed annually provides information regarding the system and appropriate actions to be taken.

Siren reliability will be tested periodically at 3 levels of operation.

1. Bi-weekly silent tests to verify system electronic components are functioning.

2. Quarterly manually activated growl tests.

3. Annual full duration audible tests of the entire system.

Periodic surveys will be taken by the Federal Emergency Management Agency to determine any difficulties which may require corrective measures.

Alert system operational reliability is expected to be greater than 95%. Sirens are powered off the RG&E distribution system which has better than 99% availability. It is fed from the New York State Power Pool grid, therefore, it is not dependent on the operation of Ginna. Rochester Gas and Electric Corporation has the responsibility for maintaining the alert system operative. The location of sirens and tone alert radios is given in Appendix I.

6.3.13 Fire Protection Facilities:

The fire protection facilities comprise a number of automatic and non-automatic protection systems as well as assessment and alerting equipment.

Fire protection facilities have been installed in accordance with the Ginna Station Technical Specifications and NRC Fire Protection Safety Evaluations. Detection is provided in all areas of the plant that contain vital equipment. The system initiates suppression systems and alarms in the Control Room.

6.4 Protective Facilities:

Aspects of the plant which are provided to serve a protective function to personnel onsite in the event of an emergency are described in this section. They include accident shielding, protective ventilation, emergency condition signaling equipment, reassembly locations, containment control provisions, and other protective equipment and supplies. First aid and medical facilities are treated separately in Section 6.5.

6.4.1 Accident Shield:

The containment vessel consists of the 3 ft. - 6 in. thick reinforced concrete cylinder capped by a hemispherical reinforced concrete dome of a 2 ft. - 6 in. thickness. The shielding includes supplemental shields in front of the containment personnel hatch and 20 inch walls, east and south sides and the roof of the Control Room. The equipment access hatch is shielded by a 3-foot thick concrete shadow shield and a 1-foot concrete roof to reduce scattered dose levels. Concrete walls and ceiling of the Technical Support Center provide shielding.

6.4.2 Protective Ventilation:

During normal operation fresh makeup air is admitted to the Control Room ventilation system through an intake louvre located in the Turbine Building outside wall; the amount of makeup air varies between 15 and 100 percent of the unit flow rate, depending on outside air temperature. Pneumatically operated dampers can be positioned from the Control Room to isolate the fresh air intake and to place a separate charcoal filter unit in recirculation service.

The charcoal filter unit includes both high efficiency particulate air (HEPA) and charcoal filters for removing radioactive particulate and gaseous iodine from the Control Room atmosphere. Its capacity is approximately 25 percent of the system flow rate, and the unit is installed in a normally isolated bypass circuit. In the event of high radiation levels in the Control Room, the Control Room radiation monitor will automatically close the redundant dampers in the fresh air intake duct and the dampers in the return air duct to the Turbine Building, and will open the damper in the charcoal filter unit inlet duct. This signal will also start a separate fan to provide flow through the charcoal filter unit.

Until radioactivity in the Control Room atmosphere is reduced to a safe level, system flow will be in a closed cycle from the Control Room, with approximately 25 percent bypass flow through the charcoal filter unit, through the air conditioning unit and back to the Control Room.

The dampers can also be positioned to permit fresh air makeup to the system through the charcoal filter unit. Since all Control Room penetrations including doors are designed to high standards of leak tightness and the Control Room is maintained at essentially atmospheric pressure, the infiltration of contaminated air into the Control Room is limited to a very low rate. With the charcoal filter unit in service, airborne particulate activity can be cleaned up at an effective rate of approximately 5 air changes per hour. In addition, Control Room personnel have access to portable respiratory equipment.

The Control Room contains sufficient air to permit safe occupancy by the operating staff for as long as necessary before outside air makeup is required for breathing. Bottled air is available.

The Technical Support Center has filtered fresh air makeup, with charcoal filtration, to meet habitability requirements for unlimited occupancy.

6.4.3 Alerting Equipment:

Plant personnel are signaled to evacuate at once by a special tone, activated manually in the Control Room. In areas where audible signals may not be heard special flashing lights have been installed. For fire and Medical emergencies, an explicit announcement is made over the PA system.

6.4.4 Reassembly Locations:

Several reassembly locations have been established, the selection of which will depend on the conditions of the emergency. Non-operating personnel affected by a local radiation emergency are to report to the Decontamination Area or the Service Building Lunch Room, depending on the presence of personal contamination.

In the event of a site evacuation, all Control Room operators are to report to the Control Room, the protective features of which are described above. Non-operating personnel are to reassemble at the Ginna Training Center, except for those having a role in the Technical Support Center, Operational Support Center or the Survey Center described in Section 6.1. The Training Center Auditorium, roughly 600 feet from the Reactor, seats 150 people; there is additional room in the classrooms and offices. A local radiation monitor is installed on the Training Center which houses the Survey Center to aid in the evaluation of the necessity for emergency organization personnel to relocate.

6.4.5 Contamination Control Provisions:

The plant site is divided into two categories, the Clean Area and the Radiation Control Area. Entry to and exit from the Radiation Control Area is normally through the designated Access Control Point. Any area in which radioactive materials and radiation are present shall be surveyed, classified, roped and conspicuously posted with the appropriate radiation caution sign. These then become Radiation Control Areas and proper access is provided and controlled. Plant procedures provide the radiation or contamination levels at which an area is declared, a Radiation Control Area or removed from radiation control status.

The general arrangement of the service facilities is designed to provide adequate personnel decontamination and change areas. The clean locker room is used to store items of personal clothing not required or allowed in the Radiation Control Area.

The Access Control Point is employed as a protective clothing change area. A supply of clean protective clothing for personnel is maintained in this area, and there is provision for collection of used protective clothing.

All personnel will survey themselves on leaving the Radiation Control Area using equipment provided at the Access Control Point. A decontamination shower and washroom are located adjacent to the Access Control Point.

Personnel decontamination kits with instructions posted for their use are available in the dispensary described in Section 6.5, First Aid and Medical Facilities. The dispensary also contains an emergency treatment and decontamination table for handling contaminated personnel who are seriously injured.

In the event of a site evacuation, provisions for decontamination are available at the Survey Center.

A 1000-gallon holding tank is available to contain decontamination water from a sink and shower located in the Survey Center. Decontamination water will be sampled prior to transfer, treatment or disposal.

6.4.6 Protective Equipment and Supplies:

All personnel entering the Radiation Control Area are required to wear protective clothing. The nature of the work to be done governs the selection of protective clothing to be worn by individuals. The protective apparel available are shoe covers, head covers, gloves and coveralls. Additional items of specialized apparel such as plastic suits, face shields, and respirators are available for operations involving high level contamination. In all cases, Health Physics personnel shall evaluate the radiological conditions and specify the required items of protective clothing to be worn. Respiratory protective devices are required wherever an airborne radiation area exists or is expected. In such cases, health physics personnel monitor the airborne concentrations and specify the necessary protective devices according to concentration and type of airborne contaminants present.

Available respiratory devices include full or half face air purifying respirators (filter type both negative and pressured powered air purifying units). Air line supplied respirators of pressure demand type are used as well as constant flow hoods. Self-Contained Breathing Apparatus using full face masks and pressure demand regulators are also available.

For use in an emergency, equipment and supplies are located in the Control Room, Technical Support Center, Respiratory Protection Facility and the Survey Center. Equipment categories are given in Appendix D.

6.4.7 Emergency Vehicles:

In the event it becomes necessary to make use of automotive equipment, a number of vehicles will be available. These include company-owned vehicles and personal vehicles. A small delivery truck and a small work truck are assigned to the Station. The ground maintenance garage, nearby, is assigned a 4-wheel drive truck. Use of personal vehicles is allowed by the Company policy regarding paid mileage for company use. Lastly, a large and diverse fleet of vehicles is available from the Rochester Gas and Electric Transportation Department.

6.5 First Aid and Medical Facilities:

First Aid and medical provisions include both onsite and offsite facilities. The latter are described in Section 4.3, Augmentation of the Emergency Organization. A dispensary on site contains sinks, a toilet, an emergency treatment and decontamination table, personnel decontamination and bioassay collection kits, a bed, a stretcher and miscellaneous first aid equipment and supplies. Additional decontamination kits can be obtained from the main H.P. Frisking Station area.

Operations personnel, shop foremen, Health Physics Technicians and Plant Staff are trained in first aid procedures using Red Cross Multi-Media or an equivalent program. An administrative procedure establishes a First Aid Team and the actions to be followed in the event of illness or injury at Ginna Station

7.0 MAINTAINING NUCLEAR EMERGENCY PREPAREDNESS:

Formalized training program(s) have been established to ensure that all personnel who actively participate in the Nuclear Emergency Response Plan (NERP) maintain their familiarity with the plan and their required response. A radiation emergency exercise shall be conducted at least annually, with emphasis placed upon orderly implementation of the emergency plan.

Personnel trained for onsite response to a radiation emergency are part of the regular plant staff and are trained to specific responsibilities within the Emergency Organization. Training is documented by the Department Manager, Production Division Training and Corporate Nuclear Emergency Planner. Any Emergency Plan work by consultants will be under the control of, and reviewed by, the Corporate Nuclear Emergency Planner.

Drills shall be evaluated by the Corporate Nuclear Emergency Planner and reviewed by the Plant Operations Review Committee, thus assuring the effectiveness of the plan throughout the lifetime of the R.E. Ginna facility.

7.1 Training and Drills:

Training classes on the emergency plan shall be conducted annually for all RG&E personnel who may actively participate in the radiation emergency plan. Details of the training programs are established in EPIP 5-4. Training will include a demonstration of their ability to perform the functions to which they may be assigned. During drills on the spot corrections of erroneous performance will be made, followed by a demonstration of proper performance.

Specialized Training will be provided for:

1. Technical Support Center assignees
2. Operation Support Center assignees
3. First Aid Teams
4. Survey Teams
5. Emergency Operations Facility personnel
6. Security personnel
7. Local Emergency Support Services personnel
8. Fire Brigade personnel

7.1.2 Emergency Coordinator:

Training of Emergency Coordinators will be given annually to the Plant Manager, plant superintendents, shift supervisors, and engineering staff who may be assisting the Emergency Coordinator during a Site Radiation Emergency. This training will cover responsibilities, communications, Emergency Action Levels, Protective Action Recommendations, and review of all procedures pertinent to the Nuclear Emergency Response Plan. The Training Manager shall prepare necessary lesson plans and document this training. The individuals to be trained and material to be covered are delineated in EPIP 5-4.

7.1.3 Survey Teams

Survey Team training will be given to selected personnel. Training material will cover health physics practices and techniques utilized during radiation monitoring, Survey Center equipment and its use, radio communications techniques, monitoring and sampling procedures, survey routes and sample points, contamination and decontamination considerations, and review of implementing procedures used by survey teams. Field training will be given as needed.

7.1.4 Special Training for Participating Agencies:

Training shall be provided for the following groups:

a) Ontario Volunteer Fire Company

b) Ontario Volunteer Emergency Squad

c) Rochester General Hospital

d) Newark-Wayne Community Hospital, Inc.

Training for these groups consist of lectures concerning their required involvement during radiation emergencies, procedures for notification and basic radiation protection.

7.1.5 Drills and Exercises:

An administrative procedure establishes the training program which develops and maintains the proficiency of emergency response personnel. This program meets the requirements of 10CFR50 Appendix E Section IV F regarding coping with emergencies. Through the training program personnel will be familiarized with the intent of the plan and the content of implementing procedures. Key personnel will be trained in the specific duties to which they may be assigned. Lectures and field training will be used, as appropriate, to familiarize personnel in their duties.

Communications equipment and processes are checked periodically as established by an implementing procedure. The New York State-County Hot Line and the NRC Hotline are tested monthly. Fire drills are conducted in accordance with plant Technical Specifications and implementing procedures. A medical emergency drill which involves a simulated contaminated/injured individual and participation by the local support services will be conducted annually. A plant environs radiological monitoring drill (onsite and offsite) will be conducted annually in conjunction with training for and during the annual exercise. This shall include collection and review of analysis procedures for environmental samples. Health Physics drills, which include sampling and analysis of simulated high activity post accident samples using the post accident sampling system, will be conducted semi-annually.

Preparation of the scenarios for use in exercises and drills will be coordinated by the Corporate Nuclear Emergency Planner (CNEP). The scenario package shall include the scope, goals and objectives of the exercise, a time-line of real and simulated events, a narrative summary, participating organizations, appropriate messages and data sheets, evaluation criteria, and information for official observers. The CNEP with the assistance of the Department Manager, Production Division Training, will arrange for qualified observers/controllers and coordinate activities of participating organizations. The scenario should be varied from year to year to test all major elements of the plan within a 5 year period. The exercise shall simulate an emergency that results in offsite radiological releases which require response by offsite authorities.

Annually, a radiation emergency exercise will be held. This exercise will be coordinated with participating offsite agencies, testing at a minimum the communications links and one other element. Drills will be started at various times of the day and under various weather conditions. Some exercises will be unannounced. Scenarios will be developed which allow for free play in decision making by those individuals in responsible positions. Structured responses will be used only to the extent necessary to keep the exercise moving so as to meet the objectives of the exercise.

Written evaluation of the Radiation Emergency Exercise shall be submitted by the CNEP to the Plant Operations Review Committee emphasizing areas of strength and weakness and outlining plans for remedial action, as necessary.

A critique at which controllers, observers or participants may make comments will be held as soon as practical after the exercise to evaluate the actions and interactions of response organizations. Training Evaluation Action Reports (TEARS) may develop from the critique comments. TEARS are reviewed by the Plant Operations Review Committee, Plant Manager and the CNEP to assure that necessary corrections to the Plan are implemented.

7.1.6 Corporate Nuclear Emergency Planner (CNEP) and Onsite Emergency Planner (OEP):

The Corporate Nuclear Emergency Planner (CNEP) is responsible for coordinating the NERP with other response organizations. He will review the Plan and agreements to certify that they are current. The update will take into account changes identified by drills and exercises.

The CNEP reports to the Director, Corporate Radiation Protection within the Electric Production Department. An Onsite Emergency Planner (OEP) provides assistance on Emergency Planning issues in the plant and will be designated duties and responsibilities similar to those of the CNEP. See Figure 7.1.

The CNEP/OEP will maintain his awareness of emergency response activities, facilities and procedures by participating in related committees and reviewing completed documentation. The CNEP is a member of the Emergency Plan Implementing Procedures Committee (EPIPC) which reviews all changes to EPIP's and emergency facilities.

The CNEP/OEP conduct surveillance of the Emergency Response Facilities through scheduled inspections and tests to ensure their readiness.

The CNEP/OEP meet routinely with Ginna Management and supervisors to discuss emergency concerns, training and changes relative to emergency planning. These meetings include: Milestone Committee, PORC, EPIPC, MOPAR, and Special Task Forces.

The CNEP/OEP will attend appropriate training, seminars, workshops, and conferences sponsored by RG&E, the Nuclear Industry, Federal, State and Local Governments to keep current on Emergency Planning techniques and concepts.

NUCLEAR EMERGENCY PLANNING ORGANIZATION

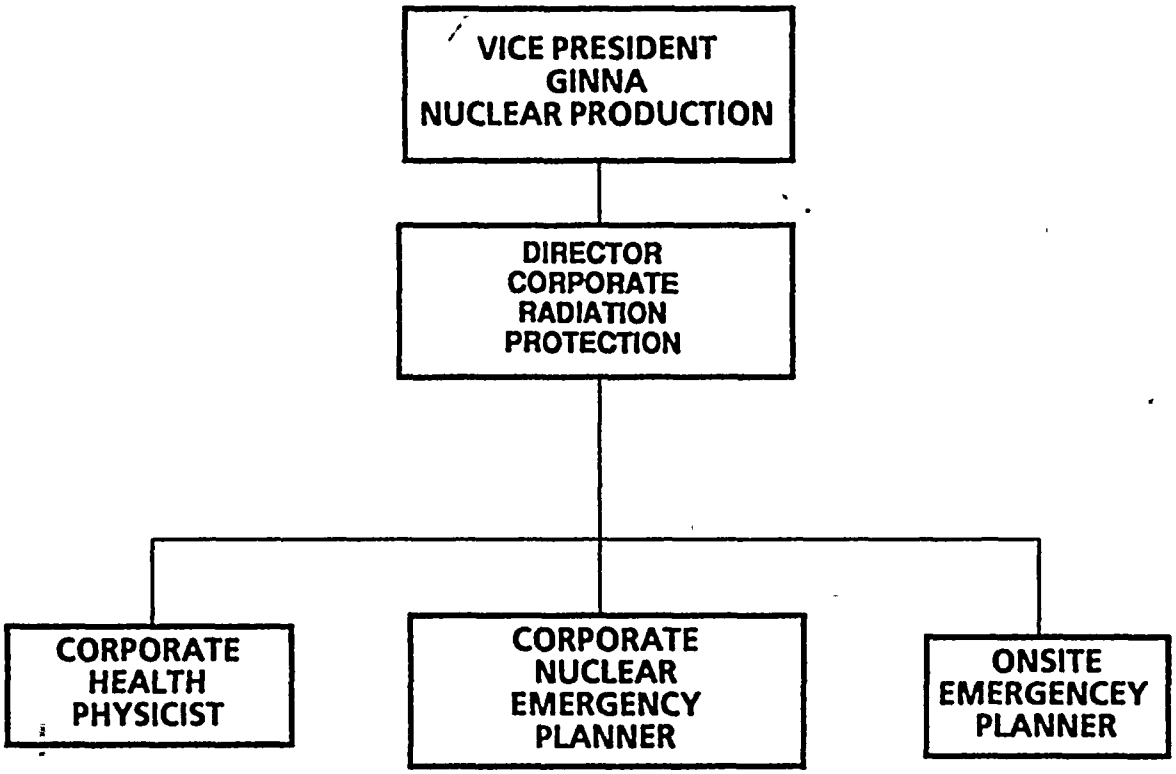


Figure 7.1

7.2 Review and Revision of the Plan and Procedures:

Review and revision of the Nuclear Emergency Response Plan and the Emergency Plan Implementing Procedures (EPIP) may be the result of drills, exercises or routine surveillances. Revisions to the plan are subject to approval by PORC and the Nuclear Safety and Audit Review Board (NSARB).

Plant and corporate implementing procedures are reviewed by EPIPC and approved by PORC.

An Administrative procedure provides for the distribution of revised procedures and a PORC review of each procedure every 2 1/2 years.

Emergency procedure changes are controlled so that only current copies are available for use. Revised procedures are distributed to a list of controlled copy holders with receipt verification. Shift Operators and Licensed Staff are made aware of revisions by initialing an Operator Acknowledge Sheet for relevant procedure changes. Emergency telephone numbers are kept up to date through quarterly review and distribution of revisions.

7.3 Emergency Equipment and Supplies:

The operational readiness of all items of emergency equipment and supplies will be assured through monthly inspections of emergency equipment. The implementing procedure includes inspecting and testing of equipment stored in the Control Room, Survey Center, Technical Support Center, Health Physics office and EOF/Recovery Center. Also included is the procedure for testing the operability of the equipment.

Necessary transportation for offsite surveys will be a personal car supplied by one member of the team. Company policy provides for mileage reimbursement; therefore, no lack of vehicles is anticipated, due to the remoteness of the facility, employees commute by private car.

7.4 Auditing:

The Nuclear Emergency Response Plan, its implementing procedures, equipment, training and interface with state and county authorities is audited at the frequency required by Ginna Technical Specifications and is reviewed by the NSARB. Any audit findings are documented and reviewed with the Vice President, Ginna Nuclear Production. An Audit Finding Corrective Action Report (AFCAR) is used to document the corrective action. The audit results are also reviewed by NSARB. Audit documents are retained for 5 years.

8.0 HEADQUARTERS OFFSITE RESPONSE PLAN:

8.1 Summary:

This Section provides guidance for the RG&E Headquarters response to, and recovery from, an emergency condition at the Ginna Nuclear Power Plant. In the event of an emergency condition at Ginna, the normal company headquarters and the plant organizational structures will be transformed into an Emergency Response Organization or Emergency Support Organization.

The Company's Emergency Support Organization is charged with the responsibility of bringing together a cohesive Company management and technical team. This organization will be calling upon the maximum resources available within the Company and the entire nuclear industry for the goals of (1) assuring the safe shutdown and recovery of Ginna Station following an accident condition and, (2) minimizing the impact of the situation on the health and safety of the public.

The Company's Emergency Support Organization is established under the leadership of a single individual called the EOF/Recovery Manager. The EOF/Recovery Manager is supported by various technical and advisory disciplines including Engineering, Facilities and Personnel, Nuclear Operations, Public Affairs and System Operations.

This Emergency Support Organization will be available to the Ginna Station Plant Manager for implementation of long-term recovery operations. The Ginna Station short-term responding organization is made-up of site personnel, those on-shift and those immediately available from the plant staff complement.

The Nuclear Emergency Response Plan is compatible with the New York State and local (Wayne and Monroe Counties) emergency plans. Total emergency response, is therefore, a combined and coordinated effort involving plant, company, private, local, and State resources.

This portion of the plan provides a mechanism by which the functions of the station and corporate staffs are immediately directed to accident termination or mitigation, the determination of offsite conditions and station recovery operations. The plan also provides for obtaining additional support if the emergency is of such a magnitude that Company resources are overextended. Such support may be additional manpower to augment the station's operating staff, manpower in specialized disciplines, or specialized emergency response equipment and services.

Ginna Station procedures provide that the Senior Vice President, Production and Engineering is notified and provided with details concerning the emergency, the emergency classification, station status, and immediate Corporate assistance, if any, which may be required. The EOF/Recovery Manager has the authority to activate the Emergency Support Organization. The Emergency Support Organization Figure 8.1 will be activated under the Site Area and General Emergencies although it may be either partially or fully activated under other categories. The EOF/Recovery Manager will be responsible for the offsite radiological consequence assessment and interaction with the remainder of emergency and recovery plan arrangements. Emergency Support Organization participants under the EOF/Recovery Manager possess the necessary experience and expertise in radiological assessment to effectively evaluate possible accident consequences. The EOF/Recovery Manager will be responsible for communications with offsite authority designated in the Emergency Plan and for providing the accident diagnosis and prognosis information for the offsite authorities to assist in their emergency response. He will arrange through the other Emergency Support Organization members for the dispatch of any special assistance or service requested by the station and serve as the primary coordinator between the station and Emergency Support Organization.

Reporting to the EOF/Recovery Manager will be the Emergency Support Organization. Members of the Emergency Support Organization are company officials experienced in their area of responsibility. Each official will manage an adequately staffed group in the following areas:

1. Technical support with the nuclear experience and technical expertise in support of station operations and recovery.

2. Offsite Dose Assessment, radiological control and waste management with the nuclear experience and technical expertise to manage the Offsite Dose Assessment, radioactive waste and radiological control aspects of the response and recovery operations.

3. Design and construction support with the responsibility of coordinating the activities of the Company, A/E, NSSS supplier and construction forces on proposed station modifications or other design and construction support required for response and recovery.

4. Advisory support function with advisory support consisting of senior representatives of the NSSS supplier and special consultants as necessary.

5. Public affairs staff with the responsibility of providing administration, logistics, communications, and personnel support for response and recovery operations.

6. Administration and logistics with the responsibility of providing administration. logistics, communications, and personnel support for response and recovery operations.

An organization chart for the Emergency Support Organization is provided in Section 8.2.

The EOF/Recovery Manager may call on other people within the company to support the emergency response effort and may request assistance from other utilities, INPO, consultants, vendors or any other sources capable of providing support.

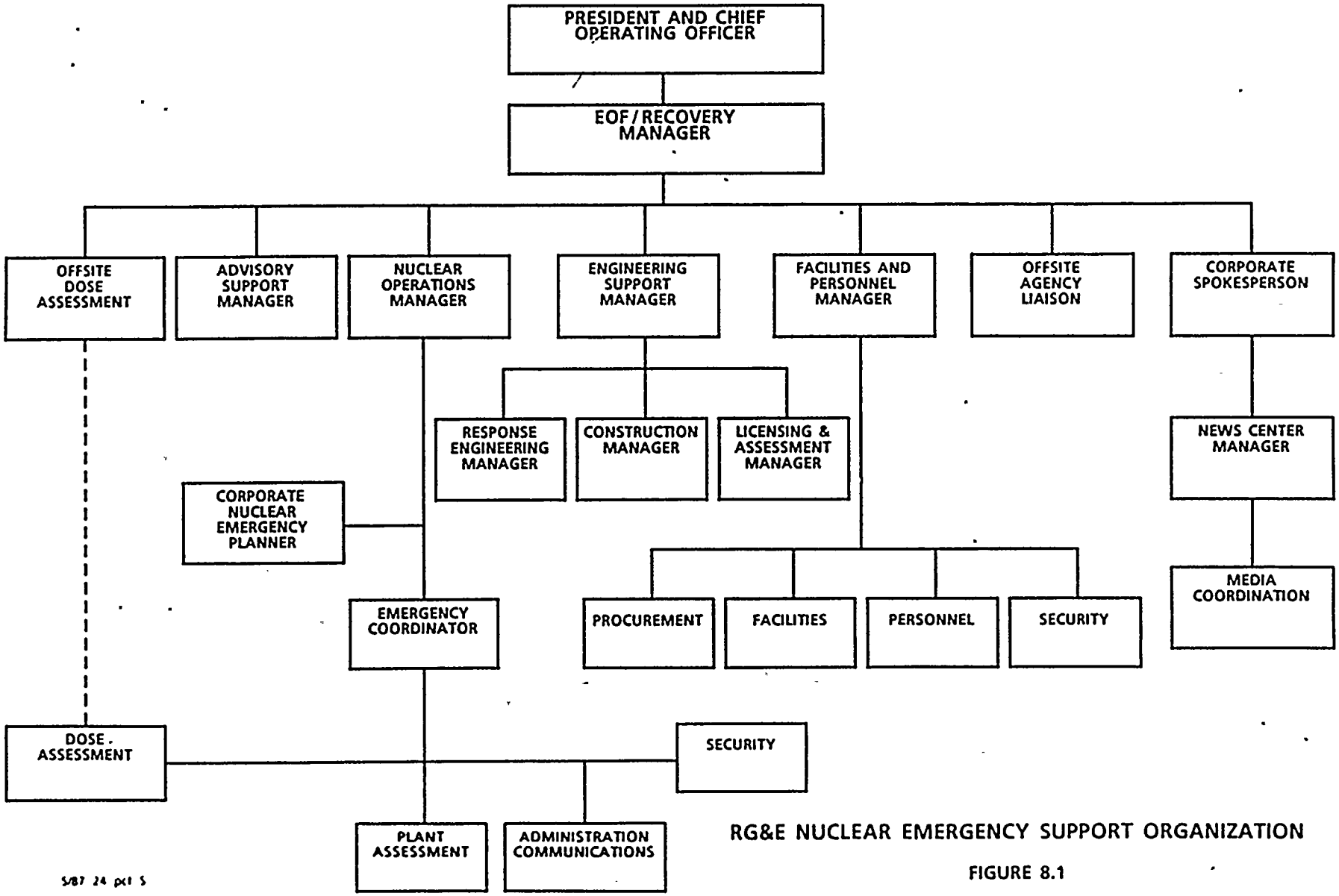
Upon activation of the Emergency Support Organization, the EOF/Recovery Center is established in the leased office building basement, adjacent to corporate headquarters.

A Joint Emergency News Center will also be activated upon activation of the Emergency Support Organization or in other situations as may be required. The Center will be used to coordinate all news releases and press conferences with the appropriate Federal, State, and local authorities.

Personnel who have responsibilities in the EOF/Recovery Center will be notified of an incident and the need for them to report to the EOF/Recovery Center according to an approved procedure. Each individual assigned to the Center will have a designated alternate who will be notified as necessary. The EOF/Recovery Center will be activated and manned by RG&E personnel within about one hour of declaration of a Site Area Emergency and above. Other personnel from RG&E, consultants, and contract personnel will be called to the EOF/Recovery Center to assist as needed.

8.2 Organization

The EOF/Recovery Center will be organized as shown on the attached Emergency Support Organization Chart figure 8.1. The positions will be filled by trained individuals as listed in Section 8.3.



RG&E NUCLEAR EMERGENCY SUPPORT ORGANIZATION

FIGURE 8.1

5/87 24 pct 5

8.3 Responsibilities

The following positions are the principal managers and coordinators which make up the team in the EOF/Recovery Center and Joint Emergency News Center in response to a nuclear emergency at Ginna Station. The responsibilities for each position are given in EPIP 5-7.

8.3.1 EOF/Recovery Manager

8.3.2 Advisory Support Manager

8.3.3 Nuclear Operations Manager

8.3.4 Engineering Support Manager

8.3.5 Facilities and Personnel Manager

8.3.6 News Center Manager (at EJNC - via Corporate Spokesperson)

8.3.7 Corporate Spokesperson

8.3.8 Offsite Agency Liaison

8.3.9 EOF Dose Assessment Manager

8.3.10 Corporate Nuclear Emergency Planner

8.4 Facilities

8.4.1 General

A. Joint Emergency News Center (JENC)

The Joint Emergency News Center for the Ginna Nuclear Power Plant is located in the Rochester Gas and Electric Corporation office building. The building is a twelve story structural steel, reinforced concrete floor, structural tile wall structure with brick facing. The structure was built in accordance with the City of Rochester building code.

B. Engineering Support Center (ESC)

The engineering organization works out of their normal office area and is managed from the Engineering Support Center where the engineering support managers can coordinate their activities. This is located on the fourth floor of the leased office building at 49 East Avenue. As structural records are incomplete, it is assumed to be a structural steel reinforced concrete floor structure, built in accordance with the City of Rochester building codes.

C. Emergency Operations Facility (EOF)

The Emergency Operations Facility (EOF) for the Ginna Nuclear Power Plant is located in the basement of the Rochester Gas and Electric Corporation leased office building at 49 East Avenue, next to the main corporate office building. An area of the basement is designated and kept in readiness to operate as an EOF. The building is assumed to be a structural steel reinforced concrete floor structure, built in accordance with the City of Rochester building codes.

The leased office building and the corporate office building are located approximately 18 miles WSW of the Ginna plant in the center of the City of Rochester.

During emergency operation, the basement and the Fourth Floor of the leased office building and the basement of the corporate office building will be secured from the remainder of the buildings for exclusive use by emergency personnel. The basement level of the corporate office building will be utilized by Rochester Gas and Electric Public Affairs personnel and the news media. A portion of the Fourth Floor of the leased office building will be occupied by engineering support personnel and a portion of the basement floor by Rochester Gas and Electric Management personnel assigned to direct overall Company operation during a Ginna plant accident. Also, responsible emergency personnel from Local, State and Federal agencies will be located in the basements and furnished with the appropriate accommodations.

8.4.2 Size and Staffing

A. Joint Emergency News Center (JENC)

During a Ginna plant emergency, major corridors, the auditorium and other facilities in the basement of 89 East Avenue will be made exclusively available to Rochester Gas and Electric, Federal, State and Local agencies public relations personnel. The major corridors (approximately 700 sq. ft.) will be used for phone communications by the news media. Participating emergency agencies will occupy approximately 2500 sq. feet for private use and the remaining offices on the floor are for RG&E Public Relations personnel use. A media work area has been designated which will be equipped with typewriters, tables, chairs and office supplies in support of the news media objective. The auditorium has a 250 seat capacity, with a 300 sq. ft. raised stage at the north end. The auditorium will be used for press conferences during the emergency, and when not used for press conferences, it will be partitioned into a work area and conference room. Figure 8-2 is a layout of the basement as it will be used for a Joint Emergency News Center.

B. Engineering Support Center (ESC)

The Fourth Floor at 49 East Avenue is normally occupied by the RG&E Engineering Department. All facilities required for the engineering functions that are necessary to support the Ginna plant, i.e. reproduction, word processing, drafting, records, drawings, equipment manuals, plant technical specifications, FSAR, Ginna procedures, computer terminals, data displays, communications, etc. are either located on this floor or in the building.

During an emergency, engineering support personnel for the plant will locate here, since such personnel are in fact Engineering Department personnel. They will be supplemented by outside consultants and accommodations will be made available for these groups.

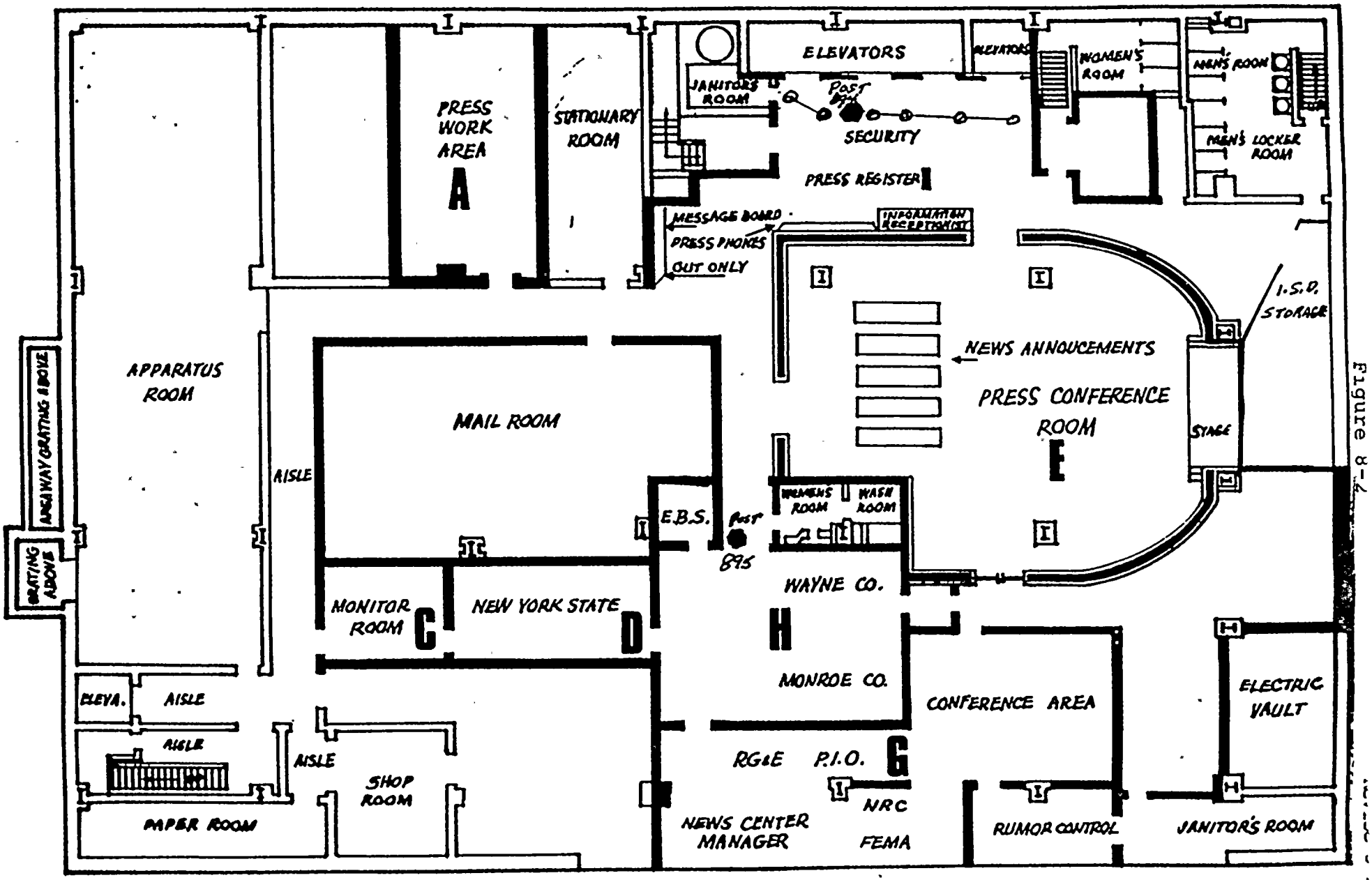
C. Emergency Operations Facility (EOF)

The basement of 49 East Avenue, a large area (approximately 3200 sq. ft.) set aside for the Emergency Operations Facility (EOF) and dedicated for use by emergency personnel. Federal, State and Local agencies involved and RG&E Management assigned to the Ginna plant emergency operations locate here. Figure 8.3 is a layout drawing of the EOF and adjacent floorspace for use by NRC.

During an emergency, the entire basement level will be secured for exclusive use by emergency personnel.Although the entire area may not be required to cope with the emergency, it is available if unforeseen circumstances arise.

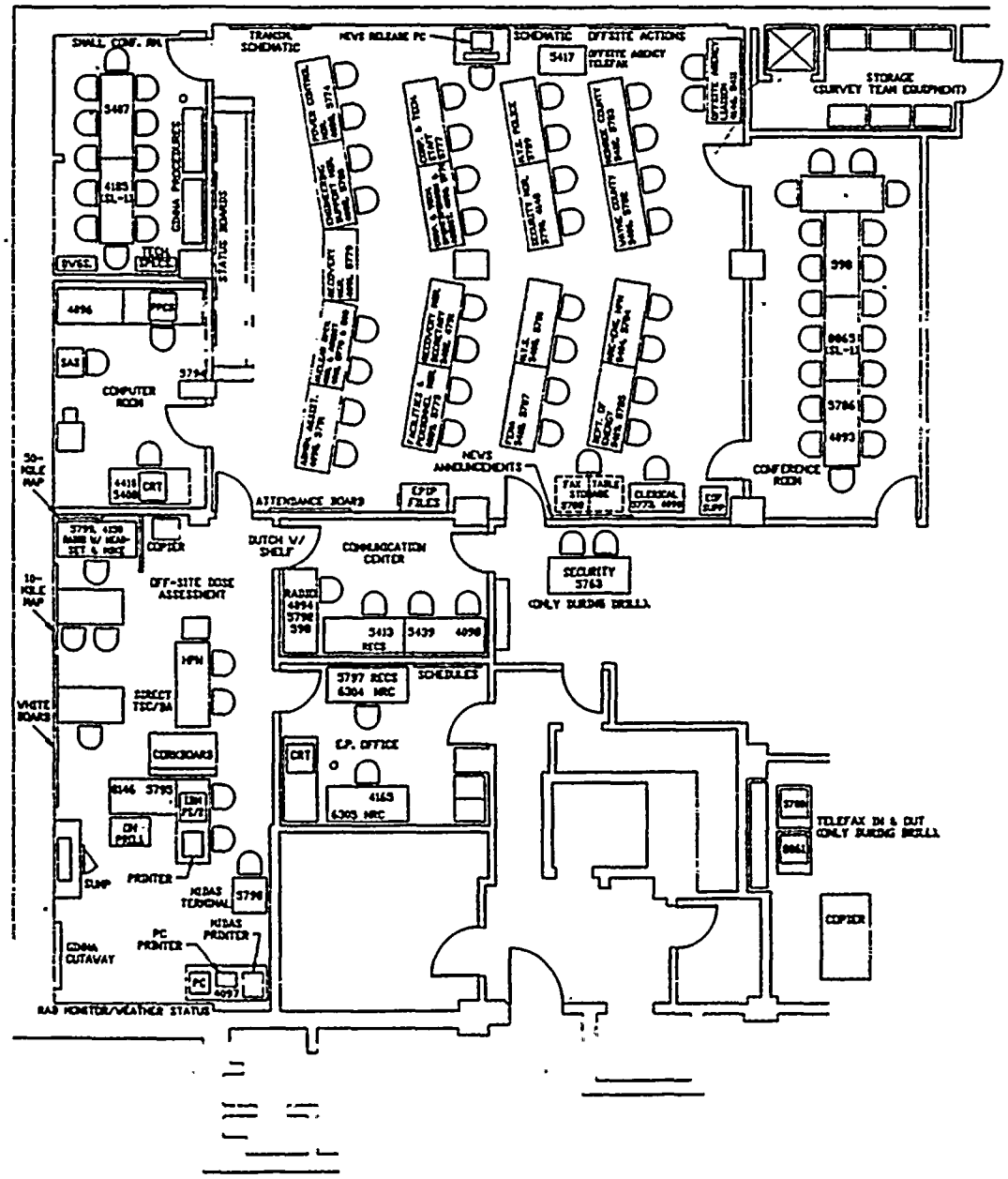
8.4.3 Habitability

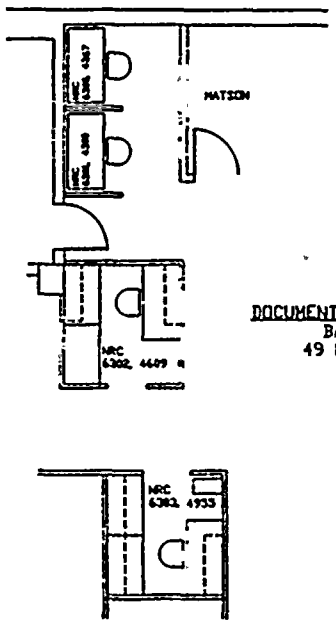
These facilities are located in the opposite direction of the prevailing winds, and is such distance from the Ginna plant, that radiation protection equipment is not a consideration. Building heat is supplied by the downtown Rochester District Heating Cooperative. Electric requirements are provided by the RG&E 11KV underground downtown electric network system; two circuits to 89 East Avenue and one circuit to 49 East Avenue. Lavatory facilities are available on each floor and can accommodate the normal work force of the buildings and any additional emergency personnel anticipated. First Aid facilities are available on the first floor of 89 East Avenue and are manned during normal working hours. They can be available at anytime as determined by the Facilities and Personnel Manager.



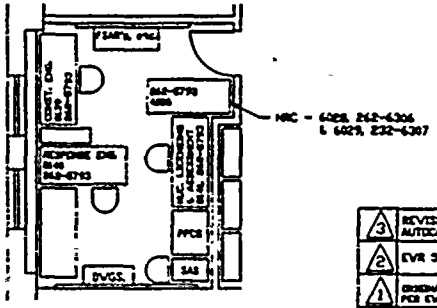
RG&E JOINT EMERGENCY NEWS CENTER

Figure 8-4





DOCUMENT CONTROL AREA
BASEMENT
49 EAST AVE.



ENGINEERING SUPPORT ROOM
4th FLOOR
49 EAST AVE.

3	REVISED & REDRAWN AUTOCAD REL. 10	TPK			
2	EVR 3123				
1	ORIGINAL REDRAWN PER EVR 4445	INITIAL			
		DATE			

FRONT ST. EAST AVE. - MONTCLAIR
SCALE NONE

EMERGENCY OPERATIONS FACILITY

JOB NO.	DRAWING NO.	SHEET	REV.
	31739-309		3

8.5 Communications

8.5.1 Telephone and Radio

Extensive phone communications capability exists at the RG&E Corporate main office and the 49 East Avenue building. There are presently 600 telephone lines from the Corporate main office to the Corporate telephone exchanges at Front and Andrews Streets (a mile distance). Each one of these lines can have several handsets at different locations sharing a common circuit. The RG&E Corporate System is powered by two redundant AC power supplies which are backed up with a motor generator and battery uninterruptible power supply. The Corporate phone system can communicate with the Ginna plant system over 15 two-way tie lines -- 9 in the RG&E wholly owned 2 GHZ Microwave System -- 6 in New York Telephone and Rochester Telephone facilities. Additional circuits to the Ginna plant are provided by five outgoing, and five incoming lines provided by the New York Telephone System.

A 98 line Centrex System from RTC Central Office to the EOF and Joint News Center is totally separate from the RG&E corporate system.A direct line is connected between EOF dose assessment and TSC dose assessment. Also, a Ginna Station telephone system line has several drops in the EOF/Recovery Center.

A radio communications system provides the backup to the Ginna phone system. The Control Room has direct contact with Power Control by radio on a frequency of 153.53 K Hertz. Three other frequencies are available in the Control Room and Technical Support Center for the use of Fire Brigades, Radiation Survey Teams, and Plant Security. The use of these channels are explained in Section 6.2.3, Page 66.

The EOF/Recovery Center has access to all channels except security and provides monitoring of the Radiation Survey Teams during an incident.

Direct contact between the EOF and the TSC or Control Room is possible on the 153.53 K Hertz channel in case of phone failure.

The New York State Radiological Emergency Communications System (RECS) has drops at 14 locations across the state connecting Ginna Plant, TSC, EOF, 2 Counties and New York State Emergency Preparedness centers and State Police.

There is also a network of facsimile machines connecting key areas as well as telephone paging units for key staff position persons.

8.5.2 Safety Assessment System and Plant Process Computer System (SAS/PPCS)

The SAS/PPCS computer system at Ginna Station provides historical and real time plant information via displays and hard copy devices that are located in the Ginna Control Room, the Technical Support Center, the Emergency Operations Facility and the Engineering Support Center. The SAS and PPCS are two independent computer systems.

SAS display information is accessed solely via push button requests. SAS provides the Safety Parameter Display System capability. SAS also provides CRT trends of critical plant parameters.

PPCS display and report information is accessed via an alpha-numeric keyboard that supports both menu driven functions and push button requests. PPCS provides the logging and archival capability.

Both computer systems are designed to assist control room operators and emergency response personnel in the decision making process during normal and abnormal plant conditions.

8.5.3 Records Management and Availability

As previously described, all the required records and information necessary to support the recovery of the Ginna plant in an emergency is available and up-to-date at the EOF. Specifically, this information is located at 49 East Avenue in the Engineering Records Room and the Technical Information Center (Technical Library). On a daily basis several people maintain these two sources of information in a current status since these centers of information are primary sources of information to both the Engineering Department and the Ginna plant. During an emergency, the responsible managers of these informational sources are assigned to the Technical Support staff to insure immediate availability of information.

8.6 Training and Procedure Maintenance

Individuals responsible for various aspects of these plans and procedures will receive initial training and will be retrained annually through formal sessions and drills. The drills will check communication systems, response time, performance of participants, and interrelations of the various emergency centers. Training drills may be held prior to any exercises. Exercises will be held in conjunction with Ginna Station, New York State and local governments as required by regulations and Technical Specifications.

All aspects of an exercise will be monitored by trained observers and a report made to the Nuclear Safety Audit and Review Board. Any comments will be evaluated and actions taken if appropriate.

Managers of EOF functions will evaluate their procedures, notification lists, and equipment needs annually to ensure that they can meet their assigned functions.

9.0 RECOVERY

After the initial emergency response actions are concluded (i.e., the plant is in cold shutdown and under control), a decision to begin the recovery phase will be initiated. A number of considerations will enter into this decision to begin the recovery phase and dismantle the Emergency Response Organization. The decision to enter the recovery phase will be made by the EOF/Recovery Manager in consultation with his Support Managers, NSARB and onsite personnel.

The decision to enter the recovery phase should be based upon a comprehensive review of station parameters and conditions. These should include, but are not limited to the following:

1. Station parameters of operation no long indicate a potential or actual emergency exists.

2. The reactor shutdown conditions are stable.

3. The reactor containment building integrity is sufficient to meet shutdown conditions.

4. The release of radioactivity from the station is controllable and no longer exceeds permissible levels, and no danger to the general public from the above source(s) is credible.

5. Plant radioactive waste systems and decontamination facilities are operable to the extent needed.

6. A reactor heat sink is available and operating.

7. Power supplies and electrical equipment needed for the station to be capable of sustaining itself in a long-term shutdown condition are available.

8. The operability and integrity of instrumentation, including radiation monitor equipment needed to maintain shutdown has been demonstrated.

9. Trained personnel and support services are available for station entry and cleanup, without workers receiving an excess of their permissible exposures.

Federal, State and Local authorities shall be advised of any decisions and resulting changes pertaining to the Emergency Response Organization status.

9.1 Recovery Actions

Re-entry of the plant, decontamination, repair, and return to operation will be controlled by a general implementing procedure which provides for development of a flexible plan of actions and specifies particular evaluation and planning activities. A recovery organization to provide long term augmentation of the emergency organization has been established. Figure 8.1 shows this organization by function of those involved. A procedure to alert these people and put the EOF/Recovery Center into operation is part of our implementing procedures.

RG&E personnel are assigned to the Recovery Organization to fill the following positions:

EOF/Recovery Manager

Nuclear Operations Manager

Engineering Support Manager

Advisory Support Manager

Facilities and Personnel Manager

News Center Manager

EOF Dose Assessment Manager

Offsite Agency Liaison

Corporate Spokesperson

Corporate Nuclear Emergency Planner

Each of the aforementioned will have a designated alternate and a staff assigned to assist in the event of an accident. The EOF/Recovery Center will be activated and manned by RG&E personnel within 1 hour after the decision to establish an off-site recovery organization has been made for Site and General Emergencies. This Organization would be available to assist the Plant and the Emergency Coordinator in the event of an extended emergency situation. The members of the Recovery Organization will be given appropriate training annually.

In order for the recovery phase to commence, the conditions which caused the incident must no longer exist. (See Section 3.0, Emergency Conditions). If the Emergency Coordinator, on evaluating survey data, finds no readings significantly above background, and on consultation with the Operating Shift Supervisor, determines that the emergency is or was local, personnel may return to the plant.

If off-site consequences of the occurrence were such that off-site support assistance was required, the RG&E Nuclear Safety Audit and Review Board and the Plant Operations Review Committee must agree that the site is safe and the plant can be returned to normal operation.

The EOF/Recovery Manager will notify all response organizations that recovery operations are underway.

In the recovery phase, all actions will be carefully planned by station supervisory personnel in conjunction with the Recovery Team, the Technical Support Center personnel and the Plant Operations Review Committee. Planning for recovery will include evaluation of survey data, review of exposures incurred, projection of manpower and equipment needs, and re-entry survey team activities. Actions prescribed upon re-entry include a comprehensive survey of the plant to define radiological problem areas. Based on survey results, high radiation areas and areas of contamination will be isolated and posted, and, if possible, portable shielding will be used, as appropriate.

Upon evaluation of plant conditions, further activities for making necessary repairs, decontamination and restoration to normal operations will be outlined by the Plant Operations Review Committee in accordance with standard Health Physics practices. Personnel radiation exposure during the recovery stage of the incident shall be closely controlled and documented. Individual exposures shall be in accordance with 10CFR20 limits.

Corporate management and technical support personnel will augment the Plant Staff in long term recovery operations.

a) The Employee Relations Department has investigated the availability and made preliminary plans for providing logistics support.

b) Technical Support will be provided by the Nuclear Engineering Services Department and consultants under the direction of the Department Manager, Nuclear Engineering Services.

c) The Sr. Vice President, Production and Engineering, will provide management level interface with government authorities. He will be assisted by the Governmental Affairs Group.

d) Communicating with the President of the United States and the Governor of New York State, is the responsibility of RG&E senior management.

e) The Public Affairs Department, through a series of EPIPs, will coordinate general news releases with the government authorities.