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June 29, 2000

U.S. Nuclear Regulatory Commission
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Subject: River Bend Nuclear Station
Docket No. 50-458
License No.
Proposed Emergency Plan Change

File No. G9.20.6

RBG-45382
RBF1-00-0034

Ladies and Gentlemen:

River Bend Station submits the enclosed proposed change to the Emergency Plan for your review and approval in accordance with 10 CFR 50.54(q). This Emergency Plan change requests an extension of the time goal for the emergency response organization to respond and activate site facilities in the event of an emergency. Affected sections of the emergency plan are being changed as well as the table which depicts the augmented staffing.

The proposed change has been reviewed considering the requirements of 10 CFR 50.47, 10 CFR 50, Appendix E and other applicable NRC guidance. The review determined that the increased augmentation times are a reduction in commitments for the Emergency Preparedness Program but will not result in any reduction of the capability of the emergency response organization to respond to an emergency.

Attachment 1 discusses the justification for the change. Attachment 2, page one shows the present augmentation staffing requirements. Attachment 2, page two depicts the proposed change. Attachment 3 presents a probabilistic risk assessment discussion for the proposed change.

A045

The proposed change has been reviewed and approved by the Facility Review Committee.

If you have any questions regarding the proposal, please contact Mr. Michael Bakarich at 225-336-3310 or Mr. Joseph Leavines at 225-381-4642.

Sincerely,

RJK/DLM

Enclosure
Attachments

cc:

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PROPOSED REVISIONS TO EMERGENCY PLAN

Proposal:

Delay the augmentation/staffing of the operations support center (OSC), the emergency operations facility (EOF) and the technical support center (TSC).

Justification for Change:

The River Bend Station (RBS) Emergency Plan (E-Plan) defines four categories for an event. The first is "Notification of Unusual Event". The discussion of this event in the E-Plan notes that the ..."response can be handled by shift personnel without additional support or activation of emergency response facilities." The second classification is "Alert". The discussion of this second level event requires the activation of all emergency response facilities, however, the discussion in the E-plan also notes that ..."it is unlikely that an offsite hazard will be created." Based on the understanding of these lower classifications, the potential need for offsite assistance to immediately contain and mitigate an accident is small. RBS currently staffs all ERO facilities at an "Alert". All ERO teams are notified and expected to respond.

The highest two classifications, "Site Area Emergency (SAE)" and "General Emergency (GE)", are most likely to need augmentation from offsite personnel. All emergency facilities are activated at these classifications for events that have actual or high potential of affecting the protection for plant staff and/or the public. River Bend performed a risk assessment for a postulated large early release that could affect response to this level of event (see Attachment 3). The risk assessment indicated that extending the augmentation time would not have a negative affect on the health and safety of the public. Despite any expansion of allowed response time, the Emergency Director (initially the Operations Shift Superintendent) can initiate staff augmentation whenever the situation warrants. As a conservative position, RBS currently staffs all ERO facilities at the Alert level which ensures proper staffing of the facilities should conditions degrade to SAE or GE classification.

The extension of the augmentation time is a reduction in the commitments made for the Emergency Preparedness Program. However, considering plant policies, procedures, processes and training, the on-shift staffing is sufficient to manage an emergency event until the additional staffing can arrive in 60 –90 minutes. River Bend Station maintains multiple ERO teams with one team being

on-duty/on-call each week. When an emergency is declared, emergency response organization (ERO) members who have pagers are paged and are expected to report to their respective facilities. Personnel who do not carry pagers are called. The 90-minute augmentation time is expected to be the maximum time for personnel to respond to an off-hours notification. The allowance of 90 minutes will not be applied as permission to delay response to an event. This management expectation is emphasized in training. The first person for a position to arrive at a facility assumes that role whether or not they are the assigned duty team. This conservative policy ensures the rapid mobilization of the necessary personnel to augment the shift personnel.

Table 1 (page 10 of this attachment) displays the local communities where the members of the emergency response organization (ERO) reside and the typical augmentation time. The ERO demographics have changed over the operational life of the plant and more personnel now live at greater distances from the plant. The augmentation time includes about 10 minutes for awaking and responding to the page, 15 minutes to dress and prepare, driving time based on adherence to posted speed limits and time to ingress from the parking lot to the facility. The requested change to allow 60 to 90 minutes to augment will permit the ERO sufficient time given current demographics.

The augmentation time change will not adversely affect the safety of the public. A review of population density indicated that the population density reduced from the 1980 census to the 1990 census. Preliminary information from the year 2000 census is not available but local Chamber of Commerce projections show an increase of about 500-600 persons by 2004. As a conservative measure, no changes were made to the emergency plan due to the 1990 census reduction. Approximately, 420 individuals live within 2 miles of River Bend Station. An additional 2810 live between 2 miles and 5 miles. The highest sectors within 5 miles are to the northwest of the site in West Feliciana parish. Approximately 18,000 individuals live in the 5-mile to 10-mile distance from the site. The highest concentrations are southwest, southeast, and northeast of the site. The most populated towns in these areas of southeastern Louisiana are New Roads, Zachary (western outskirts) and Jackson. River Bend Station has an agreement with the West Feliciana Parish Sheriff to provide assistance in notifying personnel about an emergency and coordinating traffic control and evacuations if necessary. Therefore, the population density has not significantly increased and the proposed changes to the emergency plan will continue to provide adequate protection of the public.

Further justification for each of the affected positions is provided below.

Proposal:

Augment five additional Radiation Protection Technicians within 60-90 minutes versus current 30-minute augment time (Emergency Plan Section 13.3.4.2.2.5).

Justification for Change:

Table 13.3-17 of the RBS Emergency Plan requires two Radiation Protection Technicians to be on-shift at all times. This is in excess of NUREG-0654, Table B-1 requirements. These Radiation Protection Technicians (RPTs), working out of the Operations Support Center (OSC), will perform monitoring, provide radiation protection support, and limit access to radiologically controlled areas. Minimal involvement is needed by the on-shift Radiation Protection Technicians in the areas of personnel monitoring and access control.

Access Control

Worker access control is essentially automated since RP work processes have been computerized. Specifically, this includes an RWP (radiation work permit) access control computer system and the Electronic Alarming Dosimeter (EAD) computer system. The RWP access control and EAD computer systems work together to provide a fully integrated system allowing workers to sign-in on their emergency RWP and to self-issue EADs. Both systems have been on-line and used by plant workers for several years. Worker dose margins and training qualifications are also automatically verified when the RWP access control system is used by workers. During the log-in process, workers acknowledge their EAD alarm setpoints and that they have read and understand their RWP. The EAD provides the worker with a continuous status of dose received, work area dose rates, and will alarm at a preset dose or dose rate alarms. Worker use of EADs facilitates not sending RP technicians into the plant with all teams to provide RP coverage while preserving the ALARA concept.

In the past, these processes were RP labor intensive tasks and dedicated RPTs were required to check dose margins, training qualifications, and to ensure workers had read and understood their RWP. Access control is maintained since the worker must obtain an EAD and enter an RWP into the access control computer system prior to being allowed access into the Controlled Access Area (CAA). The computer also tracks exit from the CAA.

Personnel Monitoring

Personnel are required to perform a self-frisk using a PCM-1B or hand held frisker whenever they exit any CAA. No RP involvement is necessary during frisking since workers are trained to perform this task without RP supervision. While wearing EADs, workers monitor their dose received and in the event that their EAD alarms they are trained to leave the area and immediately contact RP.

For RP coverage and onsite surveys, the level of RP involvement is discussed below:

RP Coverage

RP coverage will only be performed if the radiological status of a room is unknown or the work to be performed will significantly change the radiological conditions and there is a definitive need for emergency workers to enter a room to perform a job. During the initial stages of an accident, all areas of the plant would not be affected by releases of radioactive materials; therefore, RP coverage would not be required for all areas. In addition to the RP coverage provided by the RP staff, Chemistry and Operations personnel are trained in the use of some portable radiation survey instruments so that certain functions can be performed without the assistance of RPTs. This provides additional on-shift emergency response capability and ensures that emergencies can be initially controlled when augmentation of the emergency response organization is delayed.

The plant-installed radiation monitoring system has area radiation monitors (ARMs) in many areas important to safety. The ARM system is provided to ensure compliance with the personnel protection guidelines of 10CFR20, 10CFR50, 10CFR70, and Regulatory Guides 8.2, 8.8 and 8.12. On-shift RP personnel use these ARM readings routinely so use during an emergency is not a change. Using data from these ARM readings, RP can brief emergency workers on potential dose rates for areas requiring entry. The ARMs also alarm locally to provide an audible and visual warning to workers if dose rate setpoints are exceeded. Workers are trained to exit areas if an ARM goes into alarm status. ARM alarms also annunciate in the control room and provide a continuous indication to shift personnel of any increases of radiation levels in the plant during an emergency.

Onsite Surveys

During an emergency, onsite, in-plant surveys are only performed when needed and are not performed on a continuous basis. Chemistry and Operations personnel are trained on some portable radiation monitoring instruments.

All expected release pathways are monitored. The preferred input for offsite dose assessment calculations is installed effluent radiation monitor readings. During the initial time frame (first 15 minutes out to and including 60-90 minutes) of an accident, normal effluent instrumentation would be used for offsite dose assessments and monitoring for potential releases.

Proposal:

Change 30 minute augmentation times for other positions noted in NUREG Table B-1 as 30 minute response to 60-90 minutes (Emergency Plan Section 13.3.4.2.2.4, 13.3.5.1 and Table 13.3-7).

Justification for Change:

OPERATIONS

Operations crews are purposefully overstaffed compared to the requirements of NUREG 0654 Table B-1 (See Attachment 2). According to the emergency plan, this is a planned staffing decision to ensure personnel are on-shift to facilitate handling postulated emergency events. This additional staffing, along with other on-shift ERO personnel (Chemistry, Maintenance, Radiation Protection) provides assurance that key functional tasks such as classifications, offsite notifications, protective action recommendations, and dose assessment can be performed without additional augmentation of personnel. Therefore, delaying augmentation will not impede the capability of the on-shift Operations personnel in the handling of an accident until the augmentation staff can arrive.

Emergency Implementing Procedure (EIP) implementation is included in simulator training as part of the licensed operator training program. The simulator training usually begins with a normal operating condition and escalates to an accident condition that enables the crew to enter the EIPs.

During this time, the Operations staff performs the functions they would normally be required to perform in an emergency condition prior to the OSC, TSC or EOF becoming operational. Conduct of these drills demonstrates the ability to adequately perform such key functional tasks as event classification, offsite dose assessment/calculations, offsite communications/notifications, accident mitigation, core thermal hydraulics, and team prioritization and tracking. On-shift Chemistry Technicians are responsible for working with the Operations staff in performing dose calculations and are periodically included in these simulator exercises as well.

COMMUNICATOR

The initial communicator for any event is a Nuclear Equipment Operator from the on-shift crew. This ensures immediate availability and a technical background to provide ability to comprehend/communicate the plant equipment and process issues. This individual serves as Emergency Notification System (ENS) Communicator until the TSC/Control Room (CR) Communicator arrives and assumes the responsibility.

Improvements were made in the emergency preparedness program, equipment, and readiness, which take some of the burden off of the communicator and provide further justification for allowing the response time goal change. These improvements are discussed below:

ERO NOTIFICATIONS

Management ERO members required to fully staff the emergency response facilities are assigned alphanumeric pagers that are activated using a computerized paging system. The previous method of pager activation consisted of using the plant paging system. In using the plant paging system, the control room communicator had to verify the ERO positions that responded to the page and call in alternates using the emergency telephone book. He/she no longer performs this task. The new computerized method initiates a global page and pages/calls in alternates as needed. With the new alphanumeric capability, the ERO is informed of the event classification and the action to take (i.e., report to facility). Backup actions are specified in the EIPs.

OFFSITE NOTIFICATIONS

RBS uses a computerized notification system to assist in simplifying and expediting the notification process to offsite agencies. This system contains links to the dose assessment computer to ensure up-to-date meteorological and radiological information is submitted simultaneously to all locations. Backup actions are specified in the EIPs.

NRC NOTIFICATIONS

For NRC notifications, a TSC/CR Communicator is assigned to the Emergency Response Organization. This individual reports to the control room upon the declaration of any classified emergency and relieves the control room communicator of NRC notifications and communication. Individuals filling this position on the ERO are licensed or certified senior reactor operators (SRO). The Control Room Communicator may make the initial notification to the NRC until the TSC/CR Communicator arrives. The TSC/CR Communicator maintains communications with the NRC until the TSC ENS Communicator is available.

RADIATION PROTECTION AND CHEMISTRY

OFFSITE SURVEYS and DOSE ASSESSMENT

Offsite surveys are available when the ERO is fully implemented. Radiological monitoring of the installed instrumentation would be sufficient for the first 60-90 minutes of an accident with on-site, out-of-plant surveys used for verification as needed.

Offsite radiological survey tasks such as soil, water, and vegetation sampling or environmental TLD retrieval can be performed when additional augmentation personnel arrive at 60-90 minutes. These particular samples (soil, water, and vegetation samples or environmental TLDs) are not used as input parameters for offsite dose assessment calculations. These types of radiological survey tasks would be considered in the recovery phase, following an offsite release of radioactive material, and are not needed for the immediate protection of the public health and safety.

Chemistry technicians are trained to perform dose assessment and the on-shift chemistry person would report to the main control room to perform dose assessment.

Dose assessment has progressed from calculations using spreadsheets and calculators to a stand alone computer program (CADAP) linked directly to the plant computer to obtain the most recent radiation monitor and meteorological data. Dose assessment and resulting Protective Action Recommendations can be made much more rapidly than a decade ago. If the link between the plant computer and the dose assessment computer is inoperable, the dose assessor simply enters the information manually using the same computer program. Laptop computers, loaded with the dose assessment program, are provided as backups in the event the computer system is inoperable. Due to the addition of the dose assessment program, on-shift staffing can maintain the dose assessment function with little impact on overall accident response. The increase in response time goals for Emergency Response Organization augmentation will have no impact on the ability of the plant staff to provide timely and accurate dose assessments and Protective Action Recommendations.

TECHNICAL SUPPORT

The technical support personnel on the Emergency Response Organization are provided to support supplemental actions needed to ensure the plant stays in a stable condition, restore capabilities needed for control of the plant and assist in planning/preparing necessary corrective maintenance.

These functions are not needed during the initial stage of an emergency. The technical support personnel are needed for assessing the extent and impact of damage, practical long-term stabilization options, priority corrective maintenance and other plant recovery work. Therefore, extension of the augmentation time for technical support personnel will not adversely impact the ability of the on-shift personnel to adequately handle the initial stage of an emergency.

MAINTENANCE

Due to the time needed to stabilize the plant and assess the event, the initial phase of an accident scenario is not expected to involve a large need for maintenance personnel. The maintenance staff on-shift will primarily be available to the Operations Shift Superintendent (OSS) to

assist in controlling/mitigating the event. Only after the plant is in a stable and understood status can attention be refocused to corrective maintenance that may be needed to restore plant capabilities.

Maintenance personnel can be used as needed by the OSS for decontamination support, observation, or other duties in the initial stages of an event. Until the reactor plant is stabilized and the causal agents are discerned, actual repairs or realignment of plant equipment should not require large-scale maintenance support. Therefore, extending the augmentation times for maintenance personnel should not adversely affect the ability of the on-shift personnel in handling the initial stage of an emergency.

Proposal:

Define deployment times for offsite monitoring teams (Emergency Plan Section 13.3.4.2.2.3)

Definition Description:

The offsite radiological monitoring teams are dispatched at a General Emergency or when the Emergency Director deems it necessary. The Emergency Plan currently states that "Deployment times for the offsite teams range from 45 minutes to 1 hour and 30 minutes". With offsite teams (Radiation Protection Technicians and Chemistry Technicians) reporting at 60-90 minutes, the deployment time is being defined as the time it takes to dispatch the teams upon deciding to deploy them.

Table 1
Typical Response Time For River Bend ERO

Community	Approximate Driving Distance	Total Augmentation Time (Minutes)	% Of ERO Personnel
St. Francisville	5 miles	30-35	22%
Jackson	11 miles	35-40	4%
Zachary	16 miles	35-55	27%
Baker	19 miles	40-55	5%
Clinton	22 miles	45-60	1%
Woodville, Ms.	23 miles	45-60	1%
North Baton Rouge	28 miles	50-65	8%
Central Baton Rouge	32 miles	55-70	5%
South Baton Rouge	35 miles	60-75	18%
West Baton Rouge	36 miles	60-75	1%
New Roads	40 miles	65-80	3%
Denham Springs	47 miles	70-85	3%
Other	Variable	Variable	2%

The proposed change does not reduce the number of personnel expected to respond. The expectation for the ERO staff is for all personnel to respond when an emergency is declared.

All facilities are staffed at the "Alert" level. After facilities are staffed and activated, additional personnel are released to prepare for personnel rotation/relief if the event is not quickly mitigated.

PRESENT EMERGENCY PLAN TABLE

Table 13.3-17

RESIDENTIAL SURVEY RESULTS
0654 TABLE B-1 COMPARISON

Position	Onshift B-1	Onshift RBS	Augmentation 30-min** B-1	Augmentation 30-min** RBS	Augmentation 60-min
Operations Shift Superintendent	1	1	0	0	All RBS emergency organizations available within 60 min under light traffic conditions. 75 min in severe weather or heavy traffic.
Control Room Supervisor	1	1	0	0	
Control Operator	2	2	0	0	
Equipment Operators	2	4	0	0	
STA	1*	1	0	0	
*Communicator	1	1	1	1	
Senior HP	0	0	1	3	
HP Technicians	1	2	6	5	
Chemistry Technicians	1	1	0	3	
***Technical Support	1	1*	1	6	
Mechanical Maint./ Radwaste Op.	1*	1	0	2	
Electrical Maint./ I&C Maint.	1*	1	2	2	
Security	all	all	-	-	
*Fire Brigade	Tech Specs.	5	Local	Local	
Totals	10	15	11	22	

*Filled by personnel assigned other functions.
**Augmentation capability during light traffic conditions, up to 45 min in severe weather or heavy traffic.
***Includes Sr. Engineering expertise and Sr. Operations personnel.

PROPOSED NEW EMERGENCY PLAN TABLE

Table 13.3-17

RESIDENTIAL SURVEY RESULTS
0654 TABLE B-1 COMPARISON

			Augmentation		
	Onshift		30 min	60-90 min	
Position	B-1	RBS	B-1	RBS	
Operations Shift Superintendent	1	1	0	0	All RBS emergency organizations available in 60 – 90 min.
Control Room Supervisor	1	1	0	0	
Control Operator	2	2	0	0	
Equipment Operators	2	4	0	0	
STA	1*	1	0	0	
*Communicator	1	1	1	1	
Senior HP	0	0	1	3	
HP Technicians	1	2	6	5	
Chemistry Technicians	1	1	0	3	
**Technical Support	1	1*	1	6	
Mechanical Maint./ Radwaste Op.	1*	1	0	2	
Electrical Maint./ I&C Maint.	1*	1	2	2	
Security	all	all	-	-	
*Fire Brigade	Tech Specs.	5	Local	Local	
Totals	10	15	11	22	

*Filled by personnel assigned other functions.
**Includes Sr. Engineering expertise and Sr.Operations personnel.

Probabilistic Risk Assessment (PRA)

The River Bend Emergency Plan has been developed to protect public health and safety for any type of event. The likelihood of an event leading to core damage and a Large Early Release of radioactive material is extremely remote. The River Bend plant Probabilistic Risk Assessment (Revision 2D) calculates a core damage frequency (CDF) of 3.16E-06/year. This is well below the Nuclear Regulatory Commission's (NRC's) safety goal of 1.0E-04/year. Further, only a fraction of the CDF would occur due to scenarios that result in core damage in two hours or less. The Level 2 PRA for River Bend, based upon the Revision 2D Level 1 PRA results, calculates a Large Early Release Frequency (LERF) which is only a small fraction (0.0018) of the CDF, or 5.8E-09/year. This is also below the NRC's safety goal for LERF of 1.0E-05/year. The scenarios, which are important contributors to Large Early Release, are Station Blackout events and events that involve the loss of the containment hydrogen igniters.

Per the EPRI PSA Application Guide (EPRI TR-105396, August 1995), a "Large, Early release is a radioactivity release from the containment which is both large and early. 'Large' is defined as involving the rapid, unscrubbed release of airborne fission products to the environment. 'Early' is defined as occurring before the effective implementation of the off-site emergency response and protective actions." The PSA Application Guide also discusses the measures used in utility Individual Plant Examination (IPE) submittals, which included Large Early Releases based on unscrubbed containment bypass pathways occurring with core damage or unscrubbed containment failure pathways of sufficient size to release the contents of the containment (i.e., one volume change) within one hour, which occurs before or within 4 hours of vessel breach.

The low value of LERF demonstrates the relatively low importance of events that result in early core damage on the health and safety of the public at River Bend. Approximately 33% of the calculated CDF occurs due to sequences involving a transient followed by long-term loss of all containment cooling functions ("TW" sequences). This CDF contribution of 1.04E-6/year involves a scenario where a gross failure of the primary containment is assumed in the Level 1 PRA due to overpressure at approximately 26 hours into the transient. The containment failure overpressurizes the annulus and, through standby gas treatment system ducting, the auxiliary building, leading to the loss of the ECCS injection systems located in the auxiliary building. While this is a transient in which the containment failure occurs prior to (and is the cause of) core damage, this scenario is extremely slow (i.e., 26 hours) in developing to the point of core damage and containment failure. Thus, protection of the health and safety of the

public would not be adversely affected in this scenario by the proposed emergency plan change.

Additionally, the Human Performance Analysis (HPA) for River Bend does not explicitly include the augmentation personnel. The River Bend HPA is based on the control room personnel's failure to implement actions required in the Emergency Operating Procedures (EOPs) and other normal and abnormal operating procedures. With the exception of the loss of offsite power, there are no recovery actions for failed equipment during the first 24 hours of the event. If core damage is prevented for the first 24 hours, it is assumed that recovery actions will have restored enough systems to prevent core damage. Increasing the augmentation time from 30 minutes to between 60 and 90 minutes will have an insignificant affect on the ability to recover systems given the large recovery time assumed. Thus, protection of the health and safety of the public would not be adversely affected by the proposed emergency plan change.

Note that River Bend has implemented Severe Accident Procedures as part of its Severe Accident Management Guideline program. These procedures provide guidance beyond that of the Emergency Operating Procedures (EOP's) aimed at controlling releases from containment after core damage has occurred. During the time following an initiator and prior to core damage, operator actions are plant centered and are being directed by the EOP's. These procedures are focused on establishing core cooling (thereby arresting or preventing core damage) and preventing containment failure.

The River Bend PRA results, based upon best estimate severe accident studies and updated to reflect plant modifications and plant specific data for important equipment such as diesel generators and ECCS systems, provides additional justification that the proposed changes in the emergency plan would not have a negative impact on the public health and safety.

The fully implemented emergency response organization divides radiological accident assessment into onsite and offsite groups. The onsite group is stationed in the OSC and is under the supervision of the Radiation Protection Coordinator. Nuclear Chemistry Technicians under the coordination of the OSC Director will be available in the OSC to assist in accident assessment. Radiation Protection Technicians can use portable equipment to determine radiation levels and contamination levels from liquid and gaseous releases. Nuclear Chemistry Technicians can provide samples of reactor coolant and containment atmosphere or suppression pool water to analyze for radioisotopic concentrations. Offsite radiation surveys will be directed and the results analyzed by the Radiation Protection Advisor at the EOF. Each offsite team includes two individuals of which at least one is a Radiation Protection Technician. The team is notified using appropriate EIPs. Radiological monitoring equipment for use by offsite dose assessment teams is stored in the EOF. The team will obtain samples in the local area as directed for analysis. The particulate filter and iodine cartridge can be evaluated in the field using portable radiation instruments, or may be returned to the site and analyzed using a multichannel analyzer, at the discretion of the Radiation Protection Advisor. The offsite teams have dedicated vehicles that are radio equipped for communications with the EOF. In addition, portable radios are available for use by the offsite emergency response teams. Deployment times for the offsite teams range from 45 minutes to 1 hour and 30 minutes, from the time it is decided to deploy them.

13.3.4.2.2.4 Plant Systems Engineering, Repair, and Corrective Actions

A Nuclear Equipment Operator, trained in the operation of the plant radioactive waste system, and an Instrument and Controls Technician are immediately available to perform repair and corrective actions as directed by the Operations Shift Superintendent.

Depending upon the type and severity of the emergency, a minimum of eight additional support personnel are available onsite within about ~~60~~ 60-90 minutes. The maintenance and repair personnel will operate out of the OSC.

Technical support will be provided by available RBS personnel. The TSC Manager will coordinate the technical support group which will develop plans and procedures to return the plant to a safe status.

13.3.4.2.2.5 Radiation Protection Coverage

Radiation protection coverage will be provided by the Radiation Protection staff. Five additional Radiation Protection Technicians are available within about ~~30~~ 60-90 minutes after notification of a radiological emergency. The Radiation Protection Technicians, working out of the OSC, will perform monitoring, provide radiation protection support, and limit access to radiologically controlled areas. In addition to the radiation protection coverage provided by the Radiation Protection staff, Chemistry and Operations personnel are trained in the use of portable survey instruments. Decontamination of personnel and equipment is under the direction of Radiation Protection personnel in accordance with RBS procedures.

13.3.5 Emergency Measures

EOI utilizes a method for classifying emergencies which results in four distinct classes. Definitions for each class are described in Section 13.3.3. Criteria for classifying emergency situations in each class are described in Table 13.3-1.

An emergency implementing procedure will be initiated on the basis of measured variables and at specified conditions, or at other times specified by either the Operations Shift Superintendent or the Emergency Director. These implementing requirements are referred to as Emergency Action Levels (EALs). EALs, as discussed in Section 13.3.3.1, are provided in the EIP used in classifying emergencies.

The initial evaluation by the Operations Shift Superintendent of abnormal conditions and situations, as well as accidents, will result in the initial classification of the emergency and the implementation of the appropriate procedures. The emergency actions will, as appropriate, require notification of the Emergency Director, other emergency organizations and personnel, and reassessment of the conditions and/or situations. As described in Appendix F, the EIPs associated with each emergency classification also apply to higher level emergencies.

Reassessment of the emergency may result in carrying out additional emergency actions, further notification of emergency organizations and personnel, or reclassification.

13.3.5.1 Activation of the Emergency Organization

Notification of the onsite emergency response organization and offsite agencies of an emergency declaration is accomplished in accordance with the EIPs. The EIPs also provide for notification message verification, as appropriate.

The response times of individuals assigned to the emergency organization ~~during various weather and traffic conditions~~ were studied to determine residential patterns.

~~For the 30-minutes augmentation criteria~~ the study showed that under normal weather and traffic conditions an adequate number of individuals live within ~~30~~ 60-90 minutes of the plant site to augment the emergency organization and fulfill the functional requirements of Table B-1, NUREG-0654 (see Table 13.3-17). ~~Under severe weather or heavy traffic conditions these same individuals could be available within approximately 45 minutes.~~

At RBS the primary individual for each key position will be alerted of an emergency by a pager system. If any primary individual does not respond to the pager within approximately 15 minutes, alternates for the position will be called using a listing of emergency response personnel in the Emergency Telephone Book. The key positions in the emergency response organization could be available within ~~60~~ 60-90 minutes during fair weather and light traffic.

Table 13.3-17

RESIDENTIAL SURVEY RESULTS
0654 TABLE B-1 COMPARISON

Position	Onshift B-1	Onshift RBS	Augmentation 30-min** B-1	Augmentation 30-min** RBS
Operations Shift Superintendent	1	1	0	0
Control Room Supervisor	1	1	0	0
Control Operator	2	2	0	0
Equipment Operators	2	4	0	0
STA	1*	1	0	0
*Communicator	1	1	1	1
Senior HP	0	0	1	3
HP Technicians	1	2	6	5
Chemistry Technicians	1	1	0	3
***Technical Support	1	1*	1	6
Mechanical Maint./ Radwaste Op.	1*	1	0	2
Electrical Maint./ I&C Maint.	1*	1	2	2
Security	all	all	-	-
*Fire Brigade	Tech Specs.	5	Local	Local
Totals	10	15	11	22

~~60-min~~ 60-90 min

All RBS emergency organizations available ~~within~~ 60-90 min ~~under light traffic conditions; 75 min in severe weather or heavy traffic.~~

~~*Filled by personnel assigned other functions.~~
~~**Augmentation capability during light traffic conditions, up to 45 min in severe weather or heavy traffic.~~
***Includes Sr. Engineering expertise and Sr.Operations personnel.