

WATTS BAR NUCLEAR PLANT

1994 ANNUAL EXERCISE

Developed by the WBN Scenario Development Team

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October 26, 1994 Watts Bar Nuclear Plant
Radiological Emergency Exercise Information

Watts Bar Nuclear Plant

1994 Annual Exercise

The 1994 Watts Bar Radiological Emergency Plan Annual Exercise will be initiated from the Simulator on October 26, 1994, and will have an approximate duration of about 5 hours. The exercise will involve the onsite and offsite TVA emergency organizations.

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Introduction

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Introduction

The 1994 Watts Bar Annual Exercise will be conducted within the following guidelines:

Self Contained Breathing Apparatus (SCBA):

SCBA equipment will be used in the exercise by up to two or three Operations Support Teams to demonstrate the methods and skills of the users. To minimize the depletion to the SCBA supply, not all teams will be required to actually use the SCBA equipment. The determination of which teams will use SCBA will be made by the Operations Support Center Lead Controller during the exercise.

Protective Clothing:

Protective Clothing (PCs) will be worn by personnel as determined by the Radiological Control participants. New Protective clothing is normally added through new clean clothing worn into the RCA from the OSC during these exercises. If this supply of new clothing runs low, the Operations Support Center Lead Controller may allow simulation of protective clothing.

Accountability:

Accountability WILL NOT be conducted. Site accountability and evacuation will be simulated.

Environmental Monitoring:

All TVA Environmental Teams including the courier will be participating. The screening van will be simulated.

NRC Notification (FTS2000 / ENS):

Make first call to inform NRC of the exercise and ask NRC if further follow-up is desired. If follow-up is requested, maintain the level of contact requested. Notify NRC of termination of the exercise.

Post Accident Sampling:

Post-Accident sampling will be conducted as part of this exercise.

Offsite Support:

Remember: Initiate all outside contact with THIS IS A DRILL!!!

Non-TVA Offsite Support such as Fire Departments, Police, and National Guard will be simulated. TVA and dedicated Nuclear Offsite Support organizations such as NRC, INPO, and TVA Corporate should be contacted but **DO NOT** actually activate any response.

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Scenario Confidentiality

Emergency Preparedness exercises are conducted prior to the issuance of an initial full power license to a facility and then on an annual basis to comply with the requirements established in 10 CFR 50.47 "Standards for Licenses and Preparedness for Production and Utilization Facilities".

Annual exercises are conducted to allow the NRC assessment of the continual state of onsite emergency preparedness. This assessment is accomplished by TVA's demonstration of its ability to provide protective measures in the event of a radiological emergency and protect the health and safety of the public. This demonstration is accomplished by an evaluation of the Plant staff/Emergency organization's response to a radiological emergency scenario developed by TVA personnel in cooperation with State authorities for offsite participation.

In order to provide for a true assessment of TVA's emergency preparedness, it is imperative that the content of scenarios developed for the annual radiological emergency exercise not be divulged prior to the exercise.

A compromised annual scenario would place the credibility of TVA in jeopardy and could have serious legal implications in the area of compliance with regulatory license requirements. As a result, the content of scenarios developed for annual radiological exercises is to be considered "**CONFIDENTIAL**" and is not to be disclosed to exercise participants or any individual not directly involved with the scenario development process prior to the conduct of the exercise.

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Objectives

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Watts Bar Nuclear's 1994 Radiological Emergency Plan Annual Exercise will be a full scale, partial participation exercise. TVA's participation will be as follows:

- **On site emergency organization will fully participate**
- **Off site emergency organization will fully participate except for the Joint Information Center**

The State and Local Government emergency agencies will partially participate.

EXERCISE GOALS

TVA's 1994 WBN annual exercise goals are as follows:

1. **Allow plant and offsite personnel to demonstrate and test the capabilities of the emergency response organization to protect the health and safety of plant personnel and the general public in accordance with the Nuclear Power - Radiological Emergency Plan (NP-REP), WBN Emergency Plan Implementing Procedures (EPIPs), and the Central Emergency Control Center (CECC) EPIPs.**
2. **Provide a comprehensive exercise to ensure proficiency of onsite and offsite emergency response capabilities.**
3. ***Provide training for emergency response personnel.***
4. **Identify emergency response capabilities that are in need of improvement or revision.**

EXERCISE OBJECTIVES

A. CONTROL ROOM/SIMULATOR

1. **Demonstrate the ability of the Shift Operations Supervisor to recognize conditions, classify emergencies, make required notifications in a timely manner, and assume the initial responsibilities of the Site Emergency Director (SED).**
2. **Demonstrate the ability of the Shift Operations Supervisor to maintain effective command and control of control room activities, perform classification analysis, periodically inform the control room staff of the status of the emergency situation, and provide a precise and clear transfer of responsibilities from the control room to the Technical Support Center (TSC) .**
3. **Demonstrate the ability of the control room staff to make a timely analysis of the incident, perform mitigating actions, keep onsite personnel informed of the emergency situation prior to TSC activation.**
4. **Demonstrate the ability of the control room staff to use appropriate procedures, maintain an accurate log of events, and defer problems that cannot be quickly resolved to the TSC for resolution.**
5. **Demonstrate the ability of the control room staff to continuously evaluate information, redefine/confirm conditions and event classifications, and establish an effective flow of information between the control room, the TSC, and the Operations Support Center (OSC).**

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B. TECHNICAL SUPPORT CENTER

1. Demonstrate the ability to perform a precise and clear transfer of responsibilities from the control room staff to the TSC staff and assume the primary responsibilities of the CECC prior to CECC activation.
2. Demonstrate the SED's ability to provide effective direction, command and control, to manage activities in a manner that promotes event classification, analysis, and mitigation of an event, and to perform periodic briefings for TSC/OSC staff and personnel.
3. Demonstrate the ability of the TSC staff to use appropriate procedures, solve problems related to incident identification and mitigation, and maintain accurate logs.
4. Demonstrate the TSC's ability to determine the appropriate sampling and monitoring required to support accident mitigation, perform timely assessments of onsite radiological conditions, and formulate, coordinate, implement, and track onsite protective actions.
5. Demonstrate the TSC's ability to maintain effective communication between the OSC, control room, CECC, and various groups within the TSC.
6. Demonstrate the ability of the TSC to continuously evaluate available information and redefine/confirm plant conditions and event classifications.
7. Demonstrate Site Security's ability to maintain effective site access control.
8. Demonstrate the ability of the TSC to timely and effectively activate and establish communication with environmental monitoring vans.

C. OPERATIONS SUPPORT CENTER

1. Demonstrate the ability of the OSC Manager, through effective command and control, to coordinate and initiate activities in a timely manner, maintain effective communications between various groups within the OSC, and use appropriate procedures.
2. Demonstrate the ability of the OSC staff to plan required tasks and promptly dispatch, track, and maintain communication with the response teams.
3. Demonstrate the ability of the OSC response teams to prepare, respond, make necessary repairs or inspections, and report results/status of activities upon returning to the OSC.
4. Demonstrate the ability of the OSC staff to maintain accurate status boards, team tracking boards, and logs. Demonstrate effective transfer of information between the OSC, TSC, Radcon laboratory, and Chemistry laboratory.
5. Demonstrate the ability of Radcon personnel to use appropriate procedures, follow Radcon and ALARA practices, ensure adequate worker protection, and perform effective inplant surveys.
6. Demonstrate the ability of the OSC to track changing radiological conditions through survey results and/or inplant monitors, control internal and external exposures and personnel contamination of onsite emergency workers, and incorporate the information into personnel protective actions and exposure tracking.
7. Demonstrate the ability to conduct habitability surveys for the TSC, OSC, control room/simulator, and all assembly areas.

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D. CENTRAL EMERGENCY CONTROL CENTER

1. Demonstrate the ability of the Operations Duty Specialist to make initial notifications to State agencies in a timely manner.
2. Demonstrate the ability to transfer offsite responsibilities from the TSC to the CECC.
3. Demonstrate the ability of the CECC Director to maintain effective command and control and promote internal communications.
4. Demonstrate the ability of the CECC to provide a status of emergency classifications, protective action recommendations, plant conditions, and dose assessment information to the State in a timely manner.
5. Demonstrate the ability to effectively obtain radiological survey information from the field, keep the field teams informed of emergency conditions, and provide them with exposure control.
6. Demonstrate the ability of the CECC staff to use appropriate procedures, maintain accurate logs, and to periodically evaluate available information and redefine/confirm plant conditions and event classifications.
7. Demonstrate the ability of the CECC staff to contact TVA corporate, vendor, or other outside support resource suppliers as appropriate or needed.
8. Demonstrate the ability of the CECC to obtain field and plant data needed to develop dose assessments in a timely manner.
9. Demonstrate the ability of the CECC staff to establish and maintain effective communication between the various emergency centers.
10. Demonstrate the ability of the CECC staff to analyze current plant conditions, identify projected trends, determine the potential consequences, make appropriate recommendations, and maintain accurate status board information.
11. Demonstrate the ability to establish and maintain security for the CECC.

E. EXERCISE SPECIFIC

1. Demonstrate the ability of the exercise controllers to perform their routine function without prompting, coaching, or otherwise interfering with the performance of exercise players.
2. The scenario should be technically accurate, anticipate emergency classifications, and be sufficiently difficult to exercise capabilities of the emergency plan.
3. Demonstrate the adequacy of control room and emergency response facilities, resources, equipment, and communication systems to support emergency operations.
4. Demonstrate the ability to alert and mobilize personnel for emergency response centers and activate the emergency centers in a timely manner.

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F. ENVIRONMENTAL MONITORING

1. Demonstrate the ability of the environmental monitoring teams to effectively utilize procedures to perform dose rate surveys and to collect and analyze radiological samples.
2. Demonstrate the environmental monitoring team's abilities to follow contamination control procedures in field conditions.
3. Demonstrate the adequacy of the environmental monitoring vans to support emergency operations (monitoring equipment, supplies, communication equipment, etc.).
4. Demonstrate the ability of the site to timely and effectively activate and establish communication with environmental monitoring vans.
5. Demonstrate the ability of the site to timely and effectively transfer control of the environmental monitoring vans to an offsite center.
6. Demonstrate the ability of the environmental monitoring team personnel to monitor their accumulated dose, report their accumulated doses to the Environs Assessor/Field Coordinator, and receive proper authorization for emergency exposures if required.

G. Medical Emergency Response Team

1. A Incident Commander is promptly dispatched to the scene of the emergency where he/she demonstrates ability to establish a command post, setup communication with the main control room, and effectively interact with the Medical Emergency Response Team (MERT) Leader.
2. The MERT arrived on the emergency scene in a timely manner and demonstrated ability to assess medical injuries, identify hazards, and provide medical care.
3. The priority of medical and radiological concerns were properly established and contamination control measures were implemented for personnel and equipment during the treatment, transport, and following transport of contaminated or potentially contaminated injured personnel.
4. Security personnel demonstrate their ability to provide sufficient and effective control at the scene of the emergency.
5. Demonstrate ability to determine means of transportation for injured personnel and provide follow-up notification to receiving hospital upon site departure.
6. Radcon personnel demonstrates their ability to monitor MERT exposures and provided sufficient radiological information to the Incident Commander and / or MERT Leader.
7. The Incident Commander and MERT Leader demonstrates ability to communicate effectively.

H. NRC FOLLOW-UP ITEMS

NONE

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I. THE FOLLOWING DRILLS WILL BE CONDUCTED DURING THE EXERCISE:

1. Communication Drill
2. Medical Emergency Drill
3. Radcon Drill
4. Radiological Monitoring Drill
5. Radiological Dose Assessment Drill

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Scenario

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Initial Conditions:

Unit 1: Unit 1 is at 100% power near middle of core life. Unit 1 has been at full rated power for the last 93 days since a short outage to repair the 1A Centrifugal Charging Pump (CCP) that failed a Surveillance Instruction due to insufficient discharge pressure. The 1A Centrifugal Charging Pump was repaired and Unit 1 returned to full power.

The 1BB Containment Spray Pump discharge valve repair (1-FCV-72-2) is being disassembled for repairs after it failed a Surveillance Instruction earlier this morning. The valve failed to fully close and either an obstruction of the sealing surface or damage to the valve disk is suspected. The valve disassembly is expected to be complete in about an hour and further information will be available then.

Unit 2: Unit 2 is under construction.

Common: Emergency Gas Treatment System (EGTS) train "B" is under repair to replace leaking Fire Suppression piping located in the filter banks. This job has been ongoing for 24 hours.

Limiting Conditions for Operations (LCOs):

LCO 3.6.6 1BB Containment Spray Pump
LCO 3.6.9 EGTS Train "B"

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Sequence of Events

Note: Times listed for the events are approximate. Activities are being conducted on the simulator. Considering operator actions, events may occur earlier or later than planned or may not occur at all (based on an alternate action being taken by the operators or Emergency Response Organization). The scenario will be flexible to incorporate player actions as much as possible.

The exercise begins at T=0:15 when the number 1 and number 2 Reactor Coolant Pump (RCP) seals fail on Unit 1 Reactor Coolant Pump Number 1 with the resultant leak in excess of the capacity of one charging pump. An **ALERT** will be declared around T=0:30 based on Emergency Action Level (EAL) 1.2.2 (Reactor Coolant System leakage exceeding the capacity of one charging pump). The Technical Support Center (TSC), Operations Support Center(OSC) and the Central Emergency Control Center(CECC) begin to staff due to the ALERT declaration.

At about T=0:50, a worker in the Elevation 713 pipe chase loses his/her balance, slips and falls striking their head on a sharp object in the room. The worker was wearing a hard-hat but because of the slip, struck the side of their head and the hard-hat offered no protection. The Medical Emergency Response Team responded to the location and, stabilized the patient, and transported the patient to a local hospital for further treatment and observation.

About T=1:30 the thermal barrier fails on the same Reactor Coolant Pump that has the damaged seal. The leak from the Reactor Coolant System enters the Component Cooling System. Isolation of the line using Component Cooling System isolation valves 1-FCV-70-90 and 1-FCV-70-87 is initiated based on a differential flow between the inlet to the Reactor Coolant Pumps and the discharge from the Reactor Coolant Pumps. However, the inboard isolation valve (1-FCV-70-87) fails to isolate due to an electrical problem with the motor control center and the outboard isolation valve (1-FCV-70-90) has a mechanical failure of the valve disk that lodges the valve in a partially closed position.

Shortly after these failures, the Control Room staff will identify the leakage and realize the inability to isolate the intersystem loss of coolant. Considering the leakage past the containment isolation valves (1-FCV-70-87 and 1-FCV-70-90), the Site Emergency Director (SED) in the Technical Support Center should declare a **Site Area Emergency** (SAE) based on Emergency Action Levels 1.2.2 and 1.3.3.

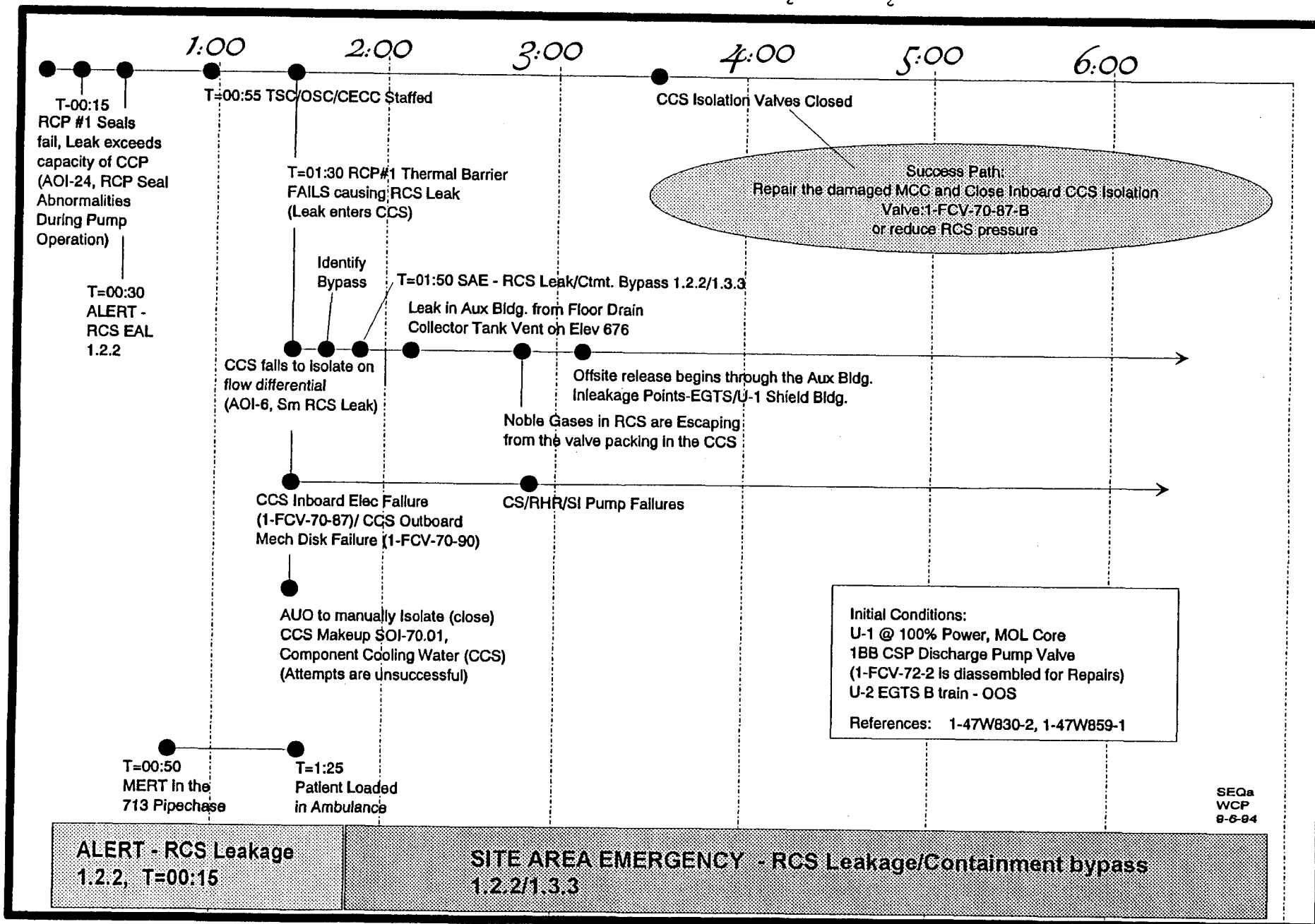
Annual Exercise

T-0:00 =0900

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Tennessee Valley Authority

THIS IS A DRILL.
THESE EVENTS
HAVE NOT OCCURRED.



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Due to the piping downstream of 1-FCV-70-90 being low pressure piping, the system cannot be isolated except by repairing the damaged Motor Control Center (MCC) and closing 1-FCV-70-87 or reducing Reactor Coolant System pressure to a point that no driving pressure remains or the downstream piping could withstand the pressure. (Note: The piping downstream of 1-FCV-70-90 is rated for 150 psi pressure and 200 degrees Fahrenheit.)

The Reactor Coolant System leakage into the Auxiliary Building will be circulated throughout the Component Cooling System as well as overflowing the Component Cooling System Surge Tank through the Floor Drain Collector Tank (FDCT) located on Elevation 676. The FDCT gasses were vented to the plant vent and insufficient liquid will be leaked to cause the liquid to overflow the available tank volume (if the tank were to overflow, it would go to the Auxiliary Building Floor and Equipment Drain Sump). However, leakage around a manway into the FDCT allows most of the noble gasses to escape onto Elevation 676 in the Auxiliary Building. Some of the noble gases are also escaping from the valve packing of Component Cooling System valves as these valves were not designed to operate at this temperature or pressure.

Up to the capacity of the ventilation systems, the leakage into the Auxiliary Building will be collected and filtered before release. The releases will be detectable but not a substantial impact on offsite populations. A separate leak is continuing for the duration of the exercise from the containment to the annulus at three times the design leakage rate (about 1500 cubic feet of gas per day or about 1 cubic foot per minute). This release is filtered by the remaining operable train of the Emergency Gas Treatment System (EGTS) and filtered before release via the Unit 1 Shield Building.

As the leak continues, the system may reach the criteria for Safety Injection. When Safety Injection is attempted, Safety Injection Pump 1AA will fail to start due to a breaker failure. Considering that both Centrifugal Charging Pumps and one Safety Injection Pump are operational, there is ample capacity to inject coolant to protect the core from becoming uncovered and overheating.

The exercise will be terminated when the leak is terminated by either isolation or pressure reduction and the Reactor Coolant levels are stabilized.

Controller Messages

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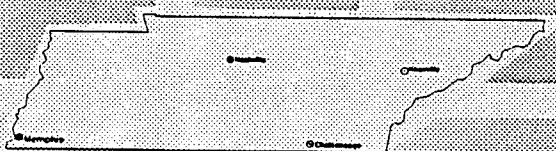
To: All Exercise Participants
From: Exercise Controllers
Location: All

Time: Initial Conditions

The attached are the conditions at the start of the exercise....

Watts Bar Nuclear Plant 1994 Graded Exercise

Exercise Participant's Initial Conditions Package



*Tennessee Valley Authority
Emergency Preparedness*

Week of October 24, 1994

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General Notes:

Locations in the actual operating areas of the plant will be used for training purposes in certain events. Please be aware of the operating areas that are sensitive to radio communications and other effects that may effect the units.

Mock-ups will be utilized for certain events associated with the exercise. Controllers will manage events associated with the mock-ups to ensure that team members are made aware of the locations and conditions of the mock-ups.

ERFDS will be simulated from the simulator in three locations (CECC, TSC, and OSC). ERFDS will be limited in its ability to perform as it currently exists be we area capable of producing plant parameters necessary for the exercise.

The training simulator will be utilized during the exercise to simulate the Unit 1 Control Room. For this reason, specific replacement telephone numbers for the following positions will be supplied to all players...

Unit 1 SOS
Unit 1 ASOS
Unit 1 Unit Operator
Unit 1 BOP

RADCON Lab
AUOs for the exercise
Chem Lab

Simulation and Personnel Safety

No action will actually be taken that may alter the operation of the site. Valves, pumps, switches, and other equipment will be physically located but verbal descriptions will be given instead of actual operations that may impact site operation. Actions that **WILL NOT** impact the site operations, like protective clothing and supplies, will be performed unless otherwise instructed by the controllers.

Personnel **WILL NOT** enter High Radiation or Contamination Areas
Full actions are expected and allowed on mock-ups.

Simulation Specifics:

- | | |
|---------------------------------|---|
| 1. Accountability | Assemble -- Simulate
Site Evacuation -- Simulate |
| 2. Security | Roadblocks -- Simulate |
| 3. Environmental Monitoring | Environs Vans -- Full Participation
Screening Van -- Simulate
Courier -- Full Participation |
| 4. NRC Notification (Red Phone) | Make first call to inform NRC of the exercise
Ask NRC if further follow-up is desired
All other contacts are based on NRC wishes
Notify NRC of termination of the exercise |
| 5. Post-Accident Sampling | PASF -- Full Participation |
| 6. Offsite Support | Non-TVA Offsite Support -- Simulate
TVA Offsite Support -- Contact but DO NOT actually activate |

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Instructions and Rules for Plant Players

A. Time

Even though controllers may refer to "Elapsed" or "Scenario" time, all players are to use only clock time (local time) in actions, logs, etc.

B. Conduct of an Exercise

There are five categories of persons during an exercise.

1. **Controller** -- runs the exercise, evaluates when won't interfere with conducting the exercise
Controllers conduct an exercise by providing information to players. A controller must accompany players on any task given. If a controller is not standing by, players should locate the lead controller for the area and notify him or her of their need for a controller.
2. **Evaluator** -- evaluates the actions of the controllers and players. May not interact, assist, or interfere with actions of players.
3. **Visitor (or Observer)** -- observes for own information, performs no evaluations. May not interact, assist, or interfere with actions of players
4. **Player** -- any person who participates in the exercise and actions are being graded. Must ensure a controller is available before performing tasks for proper exercise conduct.
5. **Drill Exempt** -- excluded from the exercise to perform routine duties. May not interact, assist, or interfere with actions of players. Does not have to react to drill events.

Demonstrate your knowledge of the emergency plan, emergency operations and procedures. Utilize status boards, log books, etc. as much as possible to document and record your actions, instructions, and reports to your co-workers. The controllers use these logs to credit you with actions and failure to maintain good logs may result in not being credited with actions you did perform.

C. Simulation

No action will actually be taken that may alter the operation of the site. Valves, pumps, switches, and other equipment will be physically located but verbal descriptions will be given instead of actual operations that may impact site operation. Actions that **WILL NOT** impact the site operations are played out as much as possible as if this were a real emergency. Unless authorized by a controller, you **SHOULD NOT** simulate these actions. It is to our advantage to perform as many of our actual tasks under simulated accident conditions to identify problems and improve our actions. Plant and personnel safety, however, always take precedent over exercise activities.

If authorized to simulate an action, tell the controller how and when you would actually perform each step. Clearly identify all actions you would perform so that the controller may credit you with prior actions. Remember, you are entering plant areas with actual day-to-day restrictions. A drill or exercise **DOES NOT** suspend plant procedures. **NO ONE**, not even controllers or evaluators, are exempt from normal station radiological, safety, or operating procedures. Report any hazardous conditions or situations immediately to the controller.

You must play as if the simulated radiological conditions provided by the controllers were real. You will be required to wear the appropriate protective equipment and follow proper practices including ALARA practices. Since controllers would not actually exist in a real emergency, controllers will not be wearing equivalent radiological protective clothing. Do not allow this to confuse you or make you act unwisely.

IN ALL CASES: Do not enter high radiation areas, contamination areas, or airborne contamination. The benefit of experience **DOES NOT** justify the additional dose and potential for contamination.

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D. Communications

Speak out, identifying your key actions and decisions to the controllers and evaluators. This may seem artificial, but it will assist in the conduct of the exercise and in your performance.

If you are ever in doubt about a message, ask the controller for clarification. Controllers will always repeat or clarify a message. The controller will not, however, prompt or coach you, but will tell you only what you would perceive with your own senses.

If a controller intervenes with your actions, it is for a good reason. Obey the controller's directions at all times. The controller will also periodically issue messages or instructions designed to initiate, clarify, or terminate an activity. You *MUST* accept these messages immediately and respond accordingly as they are essential for your successful performance.

If a situation arises where you disagree with the information that a controller provides, you may ask to have the information verified by the lead controller for that area. Once verified, however, you must act on the information without further delay. We cannot allow a technical disagreement to derail the exercise so, please continue with the information you have and the issue will be addressed after the exercise.

E. Post-Exercise Critique

At the end of the exercise, the players will be expected to evaluate their own performance. This is a very important activity as it demonstrates our ability to be self-critical and our desire to improve our own programs without the need for outside organizations. The intent of these critiques, both the players and controllers, is to improve TVA's response to an actual emergency.

Keep a list of items you feel will improve the emergency plan and procedures. Provide this during the post-exercise critique and give your notes to your lead controller after the player critique and he or she will ensure that they are considered.

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To: Shift Operations Supervisor -- Actual Unit 1/2 Control Rooms
From: Control Room Liaison
Location: Actual Unit 1/2 Control Room **Time: 0:00**

THERE IS LIMITED OFFSITE PARTICIPATION IN THIS EXERCISE...

If there are any requests for offsite assistance, SIMULATE making those calls. We will not actually activate any offsite assistance other than the TVA personnel in the CECC.

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To: Shift Operations Supervisor -- Actual Unit 1/2 Control Rooms
From: Control Room Liaison
Location: Actual Unit 1/2 Control Room **Time:** 0:40

There is a Medical Emergency as part of this exercise....

The medical drill will be initiated shortly...

A report of a fall with head injury in the 713 pipe chase is part of our exercise.... Please verify that any reported medical drill in that area is real and not part of the exercise.

Please do not confuse this drill with a real event.

SIMULATE ALL CALLS TO OFFSITE AUTHORITIES....

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To: Shift Operations Supervisor
From: Simulator Lead Controller
Location: Simulator

Time: 0:45

Contingency Message:

**If an ALERT has not been declared or declaration is not imminent....
then issue this message....**

You have determined that an ALERT exists due to...

EAL 1.2.2
**Non Isolable RCS Leak Exceeding The Capacity of One Charging Pump In The
Normal Charging Alignment**

**Watts Bar Nuclear Plant
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**To: Site Emergency Director
From: TSC Lead Controller
Location: Technical Support Center**

Time: 2:10

Contingency Message:

**If a Site Area Emergency has not been declared or declaration is not imminent....
then issue this message....**

You have determined that a Site Area Emergency exists due to...

EAL 1.2.2

**Non Isolable RCS Leak Exceeding The Capacity of One Charging Pump In The
Normal Charging Alignment**

and

EAL 1.3.3

Containment Isolation is Incomplete AND a Release Path to the Environment Exists

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Plant Parameters

Graded Data Primary System

Time HH:MM	RCS Temp DEGS F	PRZR Press PSIG	PRZR Level %	RCS Level %	Subcool Margin DEGF	CNTMT Press PSID	CNTMT SUMP %	RWST Level %	SG# 1 Level %	SG# 2 Level %	SG# 3 Level %	SG# 4 Level %	SG# 1 Steam #/HR	SG# 2 Steam #/HR	SG# 3 Steam #/HR	SG# 4 Steam #/HR	Time SEC
00:00	616.0	2220.0	61.0	100.0	37.9	-0.2	0.0	98.0	66.0	66.0	66.0	66.0	3.8e+06	3.8e+06	3.8e+06	3.8e+06	00:00
00:05	616.0	2220.0	61.0	100.0	37.9	-0.2	0.0	98.0	67.0	67.0	67.0	67.0	3.8e+06	3.8e+06	3.8e+06	3.8e+06	00:05
00:10	616.0	2220.0	60.0	100.0	37.6	-0.2	0.0	98.0	66.0	66.0	66.0	66.0	3.8e+06	3.8e+06	3.8e+06	3.8e+06	00:10
00:15	609.0	2190.0	60.0	100.0	42.6	-0.2	0.0	98.0	63.0	63.0	63.0	63.0	3.0e+06	3.0e+06	3.0e+06	3.0e+06	00:15
00:20	553.0	2070.0	38.0	100.0	84.4	-0.2	0.0	98.0	31.0	26.0	27.0	27.0	5.3e+04	1.6e+05	1.6e+05	1.5e+05	00:20
00:25	553.0	2160.0	35.0	100.0	92.7	-0.2	0.0	98.0	34.0	32.0	30.0	32.0	3.9e+04	7.4e+04	8.5e+04	7.6e+04	00:25
00:30	553.0	2250.0	36.0	100.0	98.8	-0.0	0.0	97.0	36.0	35.0	34.0	34.0	4.5e+04	7.7e+04	9.1e+04	7.7e+04	00:30
00:35	553.0	2280.0	38.0	100.0	99.9	0.2	0.0	97.0	38.0	34.0	33.0	34.0	4.3e+04	7.3e+04	8.3e+04	7.3e+04	00:35
00:40	525.0	2040.0	15.0	100.0	110.6	0.2	0.0	97.0	32.0	27.0	27.0	27.0	9.8e+04	1.7e+05	1.7e+05	1.7e+05	00:40
00:46	511.0	1980.0	11.0	100.0	124.8	0.2	0.0	96.0	34.0	32.0	31.0	32.0	5.2e+04	1.1e+05	1.1e+05	1.1e+05	00:46
00:51	504.0	2010.0	15.0	100.0	134.3	0.1	0.0	96.0	35.0	34.0	34.0	34.0	0.0	0.0	0.0	0.0	00:51
00:56	504.0	2070.0	18.0	100.0	135.1	0.1	0.0	96.0	35.0	35.0	35.0	35.0	0.0	0.0	0.0	0.0	00:56
01:01	497.0	1680.0	17.0	100.0	112.7	0.1	0.0	96.0	35.0	32.0	33.0	33.0	6.1e+04	1.7e+05	1.5e+05	1.5e+05	01:01
01:06	476.0	1290.0	29.0	100.0	96.1	0.1	0.0	95.0	35.0	32.0	32.0	32.0	5.9e+04	1.3e+05	1.3e+05	1.3e+05	01:06
01:11	469.0	990.0	32.0	100.0	77.5	0.1	0.0	95.0	35.0	34.0	34.0	34.0	4.6e+04	9.7e+04	9.2e+04	9.2e+04	01:11
01:16	462.0	900.0	36.0	100.0	73.2	0.1	0.0	95.0	36.0	34.0	34.0	35.0	3.5e+04	7.1e+04	6.9e+04	6.9e+04	01:16
01:21	455.0	900.0	40.0	100.0	73.6	0.1	0.0	95.0	35.0	34.0	33.0	34.0	3.6e+04	6.8e+04	6.9e+04	6.7e+04	01:21
01:26	455.0	930.0	42.0	100.0	82.2	0.1	0.0	94.0	35.0	34.0	32.0	34.0	3.4e+04	6.4e+04	6.5e+04	6.4e+04	01:26
01:31	448.0	960.0	42.0	100.0	89.9	0.1	0.0	94.0	34.0	34.0	33.0	34.0	3.5e+04	6.1e+04	6.0e+04	6.0e+04	01:31
01:36	448.0	960.0	36.0	100.0	94.3	0.1	0.0	94.0	34.0	34.0	33.0	35.0	3.7e+04	6.0e+04	5.8e+04	5.8e+04	01:36
01:42	441.0	960.0	34.0	100.0	99.8	0.1	0.0	94.0	34.0	34.0	33.0	35.0	3.1e+04	5.7e+04	5.8e+04	5.7e+04	01:42
01:47	441.0	990.0	30.0	100.0	106.2	0.1	0.0	94.0	34.0	34.0	33.0	35.0	2.7e+04	6.0e+04	5.4e+04	5.4e+04	01:47
01:52	434.0	1020.0	28.0	100.0	117.8	0.1	0.0	93.0	35.0	34.0	33.0	35.0	2.5e+04	5.2e+04	5.2e+04	5.2e+04	01:52
01:57	420.0	1200.0	45.0	100.0	145.6	0.1	0.0	92.0	35.0	35.0	33.0	35.0	2.3e+04	4.8e+04	4.8e+04	4.8e+04	01:57
02:02	413.0	1170.0	48.0	100.0	147.5	-0.0	0.0	91.0	35.0	35.0	34.0	35.0	1.9e+04	4.7e+04	4.7e+04	4.7e+04	02:02
02:07	406.0	1050.0	40.0	100.0	147.1	-0.0	1.0	91.0	34.0	32.0	33.0	35.0	3.1e+04	1.5e+05	5.2e+04	5.3e+04	02:07
02:12	385.0	960.0	35.0	100.0	150.6	-0.2	1.0	90.0	34.0	31.0	34.0	35.0	2.5e+04	1.3e+05	4.7e+04	4.9e+04	02:12
02:17	378.0	930.0	34.0	100.0	151.5	-0.2	1.0	90.0	35.0	33.0	35.0	36.0	1.4e+04	5.8e+04	2.8e+04	2.8e+04	02:17
02:23	371.0	510.0	52.0	100.0	93.6	-0.2	1.0	89.0	35.0	33.0	35.0	37.0	1.5e+04	6.7e+04	2.4e+04	2.4e+04	02:23
02:28	371.0	300.0	67.0	100.0	51.6	-0.2	1.0	89.0	35.0	35.0	35.0	36.0	2.7e+04	1.4e+05	4.0e+04	3.9e+04	02:28
02:33	371.0	300.0	55.0	100.0	56.0	-0.2	1.0	89.0	35.0	32.0	35.0	36.0	2.1e+04	8.1e+04	3.1e+04	3.2e+04	02:33
02:38	364.0	300.0	41.0	100.0	61.7	-0.2	1.0	89.0	35.0	33.0	35.0	36.0	2.1e+04	8.3e+04	3.1e+04	3.2e+04	02:38
02:43	357.0	240.0	32.0	100.0	47.4	-0.2	1.0	89.0	35.0	32.0	35.0	36.0	1.5e+04	8.0e+04	3.1e+04	3.2e+04	02:43
02:48	350.0	240.0	32.0	100.0	52.8	-0.4	1.0	89.0	36.0	33.0	35.0	36.0	7416.0	6.4e+04	2.4e+04	2.4e+04	02:48
02:53	350.0	240.0	34.0	100.0	58.7	-0.4	1.0	88.0	35.0	33.0	35.0	36.0	1.9e+04	6.8e+04	2.6e+04	2.6e+04	02:53
02:59	350.0	180.0	33.0	100.0	44.6	-0.4	1.0	88.0	35.0	33.0	35.0	36.0	2.4e+04	7.2e+04	2.7e+04	2.7e+04	02:59
03:04	343.0	210.0	30.0	100.0	54.1	-0.4	1.0	88.0	34.0	33.0	35.0	35.0	1.8e+04	7.2e+04	2.4e+04	2.5e+04	03:04
03:09	336.0	210.0	32.0	100.0	60.3	-0.4	1.0	88.0	35.0	33.0	35.0	36.0	1.8e+04	6.2e+04	2.3e+04	2.3e+04	03:09
03:14	329.0	210.0	31.0	100.0	77.5	-0.4	1.0	88.0	36.0	35.0	37.0	36.0	5220.0	6156.0	5148.0	7272.0	03:14

Graded Data RCS Data

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Time HH:MM	PI-68-64 RCS Press PSIG	TR-68-1 RCS LP1 HOT DEGS F	TR-68-24 RCS LP2 HOT DEGS F	TR-68-43 RCS LP3 HOT DEGS F	TR-68-65 RCS LP4 HOT DEGS F	TR-68-1 RCS LP1 COLD DEGS F	TR-68-24 RCS LP2 COLD DEGS F	TR-68-43 RCS LP3 COLD DEGS F	TR-68-65 RCS LP4 COLD DEGS F	RCS FLOW LOOP 1 NORM	RCS FLOW LOOP 2 NORM	RCS FLOW LOOP 3 NORM	RCS FLOW LOOP 4 NORM	RCP1 Motor Current AMPS	RCP2 Motor Current AMPS	RCP3 Motor Current AMPS	RCP4 Motor Current AMPS	Time HH:MM
00:00	2220.0	616.0	616.0	616.0	616.0	553.0	553.0	553.0	553.0	1.0	1.0	1.0	1.0	510.0	510.0	510.0	510.0	00:00
00:05	2220.0	616.0	616.0	616.0	616.0	553.0	553.0	553.0	553.0	1.0	1.0	1.0	1.0	510.0	510.0	510.0	510.0	00:05
00:10	2220.0	616.0	616.0	616.0	616.0	553.0	553.0	553.0	553.0	1.0	1.0	1.0	1.0	510.0	510.0	510.0	510.0	00:10
00:15	2190.0	609.0	609.0	609.0	609.0	560.0	560.0	560.0	560.0	1.0	1.0	1.0	1.0	500.0	500.0	500.0	500.0	00:15
00:20	2070.0	553.0	560.0	553.0	553.0	553.0	553.0	553.0	553.0	-0.3	1.1	1.1	1.1	0.0	490.0	490.0	490.0	00:20
00:25	2160.0	553.0	553.0	553.0	553.0	553.0	553.0	553.0	553.0	-0.3	1.1	1.1	1.1	0.0	490.0	490.0	490.0	00:25
00:30	2250.0	553.0	553.0	553.0	553.0	553.0	553.0	553.0	553.0	-0.3	1.1	1.1	1.1	0.0	490.0	490.0	490.0	00:30
00:35	2280.0	553.0	553.0	553.0	553.0	553.0	553.0	553.0	553.0	-0.3	1.1	1.1	1.1	0.0	490.0	490.0	490.0	00:35
00:40	2070.0	525.0	532.0	532.0	532.0	525.0	525.0	525.0	525.0	-0.3	1.1	1.1	1.1	0.0	510.0	510.0	510.0	00:40
00:46	2010.0	511.0	511.0	511.0	511.0	504.0	511.0	511.0	511.0	-0.3	1.1	1.1	1.1	0.0	520.0	520.0	520.0	00:46
00:51	2010.0	504.0	504.0	504.0	504.0	504.0	511.0	511.0	511.0	-0.3	1.1	1.1	1.1	0.0	520.0	520.0	520.0	00:51
00:56	2070.0	504.0	504.0	504.0	504.0	504.0	504.0	504.0	504.0	-0.3	1.1	1.1	1.1	0.0	520.0	520.0	520.0	00:56
01:01	1680.0	497.0	497.0	497.0	497.0	490.0	497.0	497.0	497.0	-0.3	1.1	1.1	1.1	0.0	520.0	520.0	520.0	01:01
01:06	1290.0	476.0	483.0	483.0	483.0	476.0	476.0	476.0	476.0	-0.3	1.2	1.1	1.1	0.0	530.0	530.0	530.0	01:06
01:11	990.0	469.0	469.0	469.0	469.0	469.0	469.0	469.0	469.0	-0.3	1.2	1.2	1.2	0.0	530.0	530.0	530.0	01:11
01:16	930.0	462.0	462.0	462.0	462.0	462.0	462.0	462.0	462.0	-0.3	1.2	1.2	1.2	0.0	530.0	530.0	530.0	01:16
01:21	900.0	455.0	462.0	462.0	462.0	462.0	462.0	462.0	462.0	-0.3	1.2	1.2	1.2	0.0	540.0	540.0	540.0	01:21
01:26	930.0	455.0	455.0	455.0	455.0	455.0	455.0	455.0	455.0	-0.3	1.2	1.2	1.2	0.0	540.0	540.0	540.0	01:26
01:31	960.0	448.0	455.0	455.0	455.0	455.0	455.0	455.0	455.0	-0.3	1.2	1.2	1.2	0.0	540.0	540.0	540.0	01:31
01:36	960.0	448.0	448.0	448.0	448.0	448.0	448.0	448.0	448.0	-0.3	1.2	1.2	1.2	0.0	540.0	540.0	540.0	01:36
01:42	990.0	441.0	448.0	448.0	448.0	441.0	441.0	441.0	441.0	-0.3	1.2	1.2	1.2	0.0	540.0	540.0	540.0	01:42
01:47	990.0	441.0	441.0	441.0	441.0	441.0	441.0	441.0	441.0	-0.3	1.2	1.2	1.2	0.0	540.0	540.0	540.0	01:47
01:52	1020.0	434.0	434.0	434.0	434.0	427.0	434.0	434.0	434.0	-0.3	1.2	1.2	1.2	0.0	550.0	550.0	550.0	01:52
01:57	1200.0	420.0	427.0	427.0	427.0	420.0	420.0	420.0	420.0	-0.3	1.2	1.2	1.2	0.0	550.0	550.0	550.0	01:57
02:02	1170.0	413.0	420.0	420.0	420.0	413.0	420.0	420.0	420.0	-0.3	1.2	1.2	1.2	0.0	550.0	550.0	550.0	02:02
02:07	1080.0	406.0	406.0	406.0	406.0	399.0	406.0	406.0	406.0	-0.1	1.3	-0.1	-0.1	0.0	560.0	560.0	560.0	02:07
02:12	990.0	385.0	392.0	392.0	392.0	385.0	392.0	392.0	392.0	-0.1	1.3	-0.1	-0.1	0.0	540.0	0.0	0.0	02:12
02:17	960.0	378.0	392.0	385.0	385.0	385.0	385.0	385.0	385.0	-0.1	1.3	-0.1	-0.1	0.0	550.0	0.0	0.0	02:17
02:23	540.0	371.0	385.0	378.0	378.0	371.0	385.0	371.0	371.0	-0.1	1.3	-0.1	-0.1	0.0	550.0	0.0	0.0	02:23
02:28	330.0	371.0	378.0	371.0	371.0	378.0	378.0	378.0	378.0	-0.1	1.3	-0.1	-0.1	0.0	550.0	0.0	0.0	02:28
02:33	330.0	371.0	371.0	371.0	371.0	371.0	371.0	371.0	371.0	-0.1	1.3	-0.1	-0.1	0.0	550.0	0.0	0.0	02:33
02:38	330.0	364.0	371.0	364.0	364.0	371.0	371.0	371.0	371.0	-0.1	1.3	-0.1	-0.1	0.0	550.0	0.0	0.0	02:38
02:43	270.0	357.0	364.0	357.0	357.0	357.0	364.0	364.0	364.0	-0.1	1.3	-0.1	-0.1	0.0	560.0	0.0	0.0	02:43
02:48	270.0	350.0	357.0	357.0	357.0	350.0	357.0	357.0	357.0	-0.1	1.3	-0.1	-0.1	0.0	560.0	0.0	0.0	02:48
02:53	270.0	350.0	357.0	350.0	350.0	350.0	350.0	350.0	350.0	-0.1	1.3	-0.1	-0.1	0.0	560.0	0.0	0.0	02:53
02:59	210.0	350.0	350.0	350.0	350.0	350.0	350.0	350.0	350.0	-0.1	1.3	-0.1	-0.1	0.0	560.0	0.0	0.0	02:59
03:04	210.0	343.0	343.0	343.0	343.0	343.0	343.0	343.0	343.0	-0.1	1.3	-0.1	-0.1	0.0	560.0	0.0	0.0	03:04
03:09	240.0	336.0	343.0	336.0	336.0	343.0	343.0	343.0	343.0	-0.1	1.3	-0.1	-0.1	0.0	560.0	0.0	0.0	03:09
03:14	240.0	329.0	329.0	308.0	329.0	322.0	322.0	308.0	322.0	-0.1	1.4	-0.1	-0.1	0.0	570.0	0.0	0.0	03:14

Graded Data Secondary System Data

Time HH:MM	LR-3-43 SG WR Level %	LR-3-43 SG WR Level %	LR-3-98 SG WR Level %	LR-3-98 SG WR Level %	PI-1-2A SG #1 Press PSIG	PI-1-9A SG #2 Press PSIG	PI-1-20A SG #3 Press PSIG	PI-1-27A SG #4 Press PSIG	AUX FW PMP A Current AMPS	AUX FW PMP B Current AMPS	AFPT SPEED NORM	LI-2-230A CNDS TK A GALS	Time HH:MM
00:00	70.0	70.0	70.0	70.0	1001.0	1001.0	1001.0	1001.0	0.0	0.0	0.0	3.2e+04	00:00
00:05	70.0	70.0	70.0	70.0	1001.0	1001.0	1001.0	1001.0	0.0	0.0	0.0	3.2e+04	00:05
00:10	70.0	70.0	70.0	70.0	1001.0	1001.0	1001.0	1001.0	0.0	0.0	0.0	3.2e+04	00:10
00:15	70.0	70.0	70.0	70.0	1053.0	1053.0	1053.0	1053.0	0.0	0.0	0.0	3.2e+04	00:15
00:20	73.0	70.0	71.0	71.0	1066.0	1079.0	1079.0	1079.0	36.0	36.8	1.0	3.2e+04	00:20
00:25	75.0	73.0	72.0	73.0	1066.0	1066.0	1066.0	1066.0	27.0	34.5	1.0	3.1e+04	00:25
00:30	75.0	74.0	74.0	74.0	1066.0	1066.0	1079.0	1066.0	19.5	24.8	1.0	3.1e+04	00:30
00:35	76.0	74.0	74.0	74.0	1066.0	1066.0	1079.0	1066.0	19.5	26.2	1.0	3.1e+04	00:35
00:40	73.0	71.0	71.0	71.0	845.0	858.0	858.0	858.0	38.2	39.8	1.0	3.1e+04	00:40
00:46	75.0	73.0	73.0	73.0	728.0	728.0	728.0	728.0	30.7	36.0	1.0	3.1e+04	00:46
00:51	75.0	74.0	74.0	74.0	676.0	689.0	689.0	689.0	24.8	27.0	1.0	3.1e+04	00:51
00:56	75.0	75.0	75.0	75.0	689.0	702.0	702.0	702.0	22.5	24.0	1.0	3.1e+04	00:56
01:01	75.0	73.0	73.0	73.0	650.0	650.0	650.0	650.0	29.2	33.0	1.0	3.1e+04	01:01
01:06	74.0	73.0	73.0	73.0	546.0	546.0	546.0	546.0	30.0	34.5	1.0	3.1e+04	01:06
01:11	75.0	74.0	74.0	74.0	494.0	494.0	494.0	494.0	27.0	29.2	1.0	3.1e+04	01:11
01:16	75.0	74.0	74.0	74.0	468.0	468.0	468.0	468.0	18.0	18.8	1.0	3.1e+04	01:16
01:21	75.0	74.0	74.0	74.0	455.0	455.0	455.0	455.0	19.5	21.0	1.0	3.1e+04	01:21
01:26	75.0	74.0	73.0	74.0	429.0	442.0	442.0	442.0	19.5	21.8	1.0	3.1e+04	01:26
01:31	74.0	74.0	73.0	74.0	416.0	416.0	416.0	416.0	20.2	21.8	1.0	3.1e+04	01:31
01:36	74.0	74.0	74.0	74.0	403.0	403.0	403.0	403.0	20.2	21.8	1.0	3.1e+04	01:36
01:42	74.0	74.0	74.0	74.0	377.0	390.0	390.0	390.0	20.2	21.0	1.0	3.1e+04	01:42
01:47	74.0	74.0	74.0	74.0	364.0	364.0	364.0	364.0	19.5	21.0	1.0	3.1e+04	01:47
01:52	75.0	74.0	74.0	74.0	338.0	338.0	338.0	338.0	19.5	21.0	1.0	3.1e+04	01:52
01:57	75.0	74.0	74.0	75.0	299.0	299.0	299.0	299.0	19.5	21.0	1.0	3.1e+04	01:57
02:02	75.0	74.0	74.0	75.0	286.0	286.0	286.0	286.0	18.8	21.0	1.0	3.1e+04	02:02
02:07	74.0	72.0	74.0	74.0	234.0	247.0	234.0	234.0	23.2	21.8	0.9	3.1e+04	02:07
02:12	74.0	72.0	74.0	74.0	195.0	208.0	195.0	195.0	25.5	21.8	0.8	3.1e+04	02:12
02:17	75.0	73.0	74.0	75.0	195.0	195.0	195.0	195.0	21.8	19.5	0.8	3.1e+04	02:17
02:23	75.0	74.0	75.0	75.0	182.0	182.0	182.0	182.0	21.0	18.8	0.8	3.1e+04	02:23
02:28	74.0	72.0	75.0	75.0	156.0	169.0	169.0	169.0	20.2	18.8	0.7	3.1e+04	02:28
02:33	75.0	73.0	75.0	75.0	156.0	156.0	156.0	156.0	22.5	18.8	0.7	3.1e+04	02:33
02:38	75.0	73.0	75.0	75.0	143.0	143.0	143.0	143.0	21.8	18.8	0.7	3.1e+04	02:38
02:43	75.0	73.0	74.0	75.0	130.0	130.0	130.0	130.0	23.2	19.5	0.6	3.1e+04	02:43
02:48	75.0	73.0	75.0	75.0	117.0	130.0	130.0	130.0	21.8	19.5	0.6	3.1e+04	02:48
02:53	75.0	73.0	75.0	75.0	117.0	117.0	117.0	117.0	21.8	19.5	0.6	3.0e+04	02:53
02:59	75.0	73.0	75.0	75.0	104.0	117.0	104.0	104.0	22.5	18.8	0.6	3.0e+04	02:59
03:04	74.0	73.0	74.0	75.0	104.0	104.0	104.0	104.0	23.2	19.5	0.5	3.1e+04	03:04
03:09	75.0	73.0	75.0	75.0	91.0	104.0	91.0	91.0	22.5	19.5	0.5	3.0e+04	03:09
03:14	75.0	75.0	75.0	75.0	91.0	91.0	91.0	91.0	20.2	18.0	0.5	3.0e+04	03:14

Graded Data Emergency System Data

Page 1

Time HH:MM	FI-62-93 CHRG FLOW GPM	FI-62-170 CHG TO BIT GPM	CMT SPARY FLOW Gal/Min	CMT SPRAY FLOW Gal/Min	CL1 BIT FLOW TO RCS Gal/Min	CL2 BIT FLOW TO RCS Gal/Min	CL3 BIT FLOW TO RCS Gal/Min	CL4 BIT FLOW TO RCS Gal/Min	SI FLOW TO RCS CL1 Gal/Min	SI FLOW TO RCS CL2 Gal/Min	SI FLOW TO RCS CL3 Gal/Min	SI FLOW TO RCS CL4 Gal/Min	SI FLOW TO HL1 Gal/Min	SI FLOW TO HL2 Gal/Min	SI FLOW TO HL3 Gal/Min	SI FLOW TO HL4 Gal/Min	Time HH:MM
00:00	56.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	00:00
00:05	56.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	00:05
00:10	58.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	00:10
00:15	56.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	00:15
00:20	172.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	00:20
00:25	154.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	00:25
00:30	136.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	00:30
00:35	132.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	00:35
00:40	172.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	00:40
00:46	182.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	00:46
00:51	30.0	210.0	0.0	0.0	53.7	53.7	53.7	53.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	00:51
00:56	28.0	200.0	0.0	0.0	51.9	51.9	51.9	51.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	00:56
01:01	200.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	01:01
01:06	200.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	01:06
01:11	112.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	01:11
01:16	116.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	01:16
01:21	86.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	01:21
01:26	86.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	01:26
01:31	76.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	01:31
01:36	68.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	01:36
01:42	128.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	01:42
01:47	108.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	01:47
01:52	50.0	350.0	0.0	0.0	88.9	88.9	88.9	88.8	91.7	91.6	91.6	91.6	0.0	0.0	0.0	0.0	01:52
01:57	38.0	240.0	0.0	0.0	61.4	61.2	61.2	61.2	72.3	72.3	72.3	72.3	0.0	0.0	0.0	0.0	01:57
02:02	80.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	77.4	77.4	77.4	77.4	0.0	0.0	0.0	0.0	02:02
02:07	82.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	48.3	48.3	48.3	48.3	0.0	0.0	0.0	0.0	02:07
02:12	146.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	52.7	52.7	52.7	52.7	0.0	0.0	0.0	0.0	02:12
02:17	148.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	02:17
02:23	150.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	1591.0	1660.0	0.0	0.0	0.0	0.0	0.0	0.0	02:23
02:28	62.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	02:28
02:33	62.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	02:33
02:38	52.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	02:38
02:43	176.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	02:43
02:48	118.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	02:48
02:53	60.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	02:53
02:59	40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	02:59
03:04	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	03:04
03:09	72.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	03:09
03:14	168.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2118.8	2119.1	1.9	0.0	0.0	0.0	0.0	03:14

Graded Data Misc Data

P

Time HH:MM	RHR FLOW TO SPRAY Gal/Min	RHR FLOW TO SPRAY Gal/Min	RHR FLOW TO CL1 Gal/Min	RHR FLOW TO CL2 Gal/Min	RHR FLOW TO CL3 Gal/Min	RHR FLOW TO CL4 Gal/Min	N31 COUNT RATE CPM	N32 COUNT RATE CPM	IR Power DEC	IR Power DEC	Time HH:MM
00:00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	00:00
00:05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	00:05
00:10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	00:10
00:15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	00:15
00:20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	00:20
00:25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	00:25
00:30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	00:30
00:35	0.0	0.0	0.0	0.0	0.0	0.0	3981.1	3981.1	3.1	3.1	00:35
00:40	0.0	0.0	0.0	0.0	0.0	0.0	1000.0	1000.0	2.4	2.4	00:40
00:46	0.0	0.0	0.0	0.0	0.0	0.0	794.3	794.3	2.3	2.3	00:46
00:51	0.0	0.0	0.0	0.0	0.0	0.0	631.0	707.9	2.2	2.3	00:51
00:56	0.0	0.0	0.0	0.0	0.0	0.0	707.9	794.3	2.2	2.3	00:56
01:01	0.0	0.0	0.0	0.0	0.0	0.0	631.0	707.9	2.3	2.2	01:01
01:06	0.0	0.0	0.0	0.0	0.0	0.0	631.0	562.3	2.1	2.2	01:06
01:11	0.0	0.0	0.0	0.0	0.0	0.0	446.7	446.7	2.0	2.1	01:11
01:16	0.0	0.0	0.0	0.0	0.0	0.0	446.7	446.7	2.0	2.0	01:16
01:21	0.0	0.0	0.0	0.0	0.0	0.0	446.7	398.1	2.0	2.0	01:21
01:26	0.0	0.0	0.0	0.0	0.0	0.0	354.8	398.1	1.9	2.0	01:26
01:31	0.0	0.0	0.0	0.0	0.0	0.0	446.7	446.7	1.8	1.9	01:31
01:36	0.0	0.0	0.0	0.0	0.0	0.0	354.8	354.8	1.9	1.9	01:36
01:42	0.0	0.0	0.0	0.0	0.0	0.0	354.8	354.8	1.9	1.8	01:42
01:47	0.0	0.0	0.0	0.0	0.0	0.0	354.8	316.2	1.8	1.8	01:47
01:52	0.0	0.0	0.0	0.0	0.0	0.0	316.2	281.8	1.8	1.8	01:52
01:57	0.0	0.0	0.0	0.0	0.0	0.0	281.8	251.2	1.7	1.7	01:57
02:02	0.0	0.0	0.0	0.0	0.0	0.0	177.8	251.2	1.6	1.6	02:02
02:07	0.0	0.0	0.0	0.0	0.0	0.0	199.5	199.5	1.6	1.6	02:07
02:12	0.0	0.0	0.0	0.0	0.0	0.0	199.5	177.8	1.6	1.6	02:12
02:17	0.0	0.0	0.0	0.0	0.0	0.0	177.8	158.5	1.5	1.5	02:17
02:23	0.0	0.0	0.0	0.0	0.0	0.0	177.8	177.8	1.5	1.5	02:23
02:28	0.0	0.0	0.0	0.0	0.0	0.0	158.5	158.5	1.4	1.4	02:28
02:33	0.0	0.0	0.0	0.0	0.0	0.0	141.3	177.8	1.5	1.4	02:33
02:38	0.0	0.0	0.0	0.0	0.0	0.0	125.9	125.9	1.4	1.5	02:38
02:43	0.0	0.0	0.0	0.0	0.0	0.0	141.3	141.3	1.4	1.3	02:43
02:48	0.0	0.0	0.0	0.0	0.0	0.0	141.3	125.9	1.3	1.3	02:48
02:53	0.0	0.0	0.0	0.0	0.0	0.0	112.2	125.9	1.4	1.3	02:53
02:59	0.0	0.0	0.0	0.0	0.0	0.0	112.2	112.2	1.4	1.3	02:59
03:04	0.0	0.0	0.0	0.0	0.0	0.0	100.0	125.9	1.2	1.2	03:04
03:09	0.0	0.0	0.0	0.0	0.0	0.0	112.2	100.0	1.3	1.3	03:09
03:14	0.0	0.0	0.1	-293.7	-293.8	-0.3	100.0	100.0	1.2	1.1	03:14

Watts Bar Nuclear Plant
1994 Annual Exercise

In Plant Rad Data

Watts Bar Nuclear Plant

LOCATION: Post Accident Sampling

[illegible]

Watts Bar Nuclear Plant

DRILL DATA

LOCATION: Post Accident Sampling

[illegible]

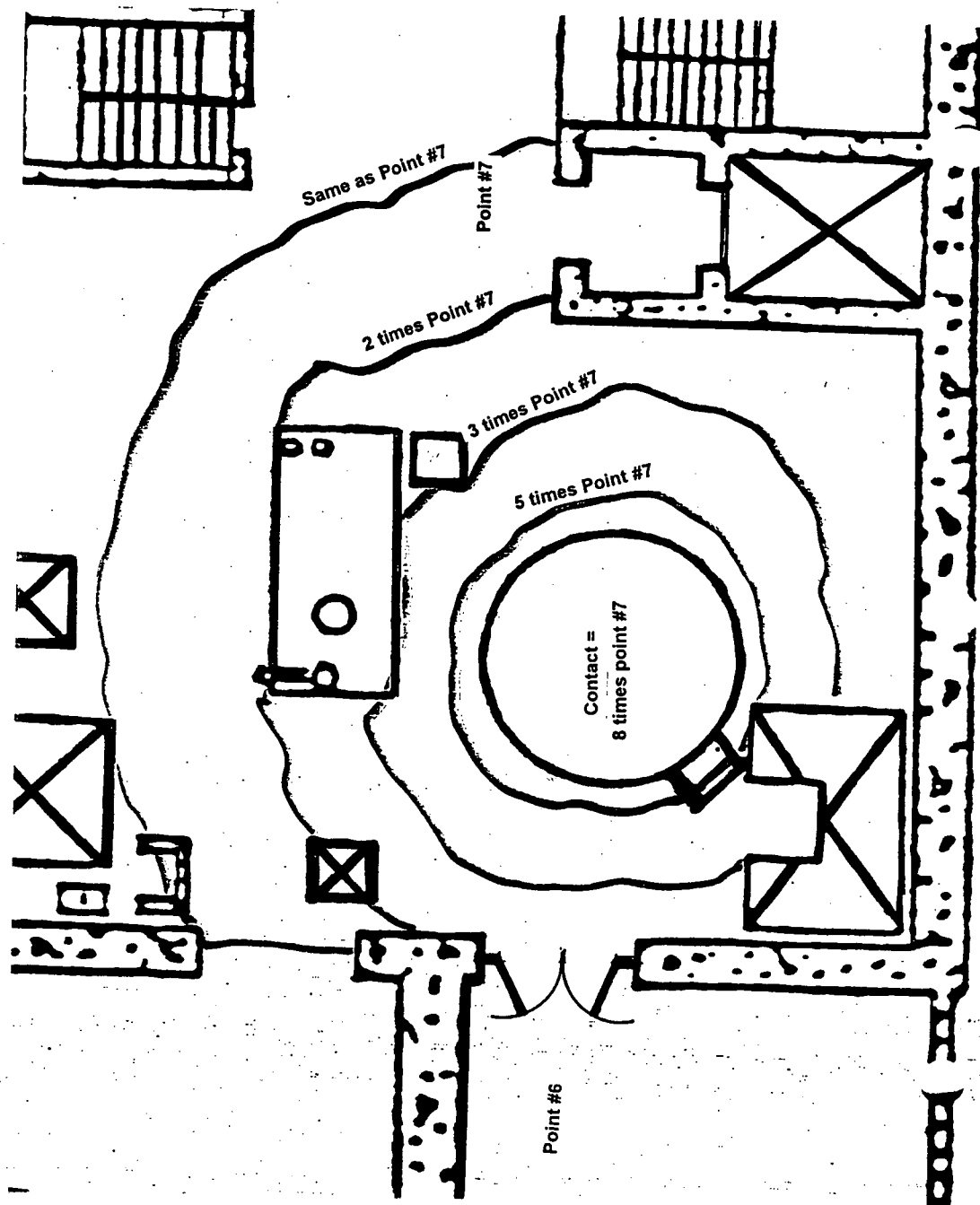
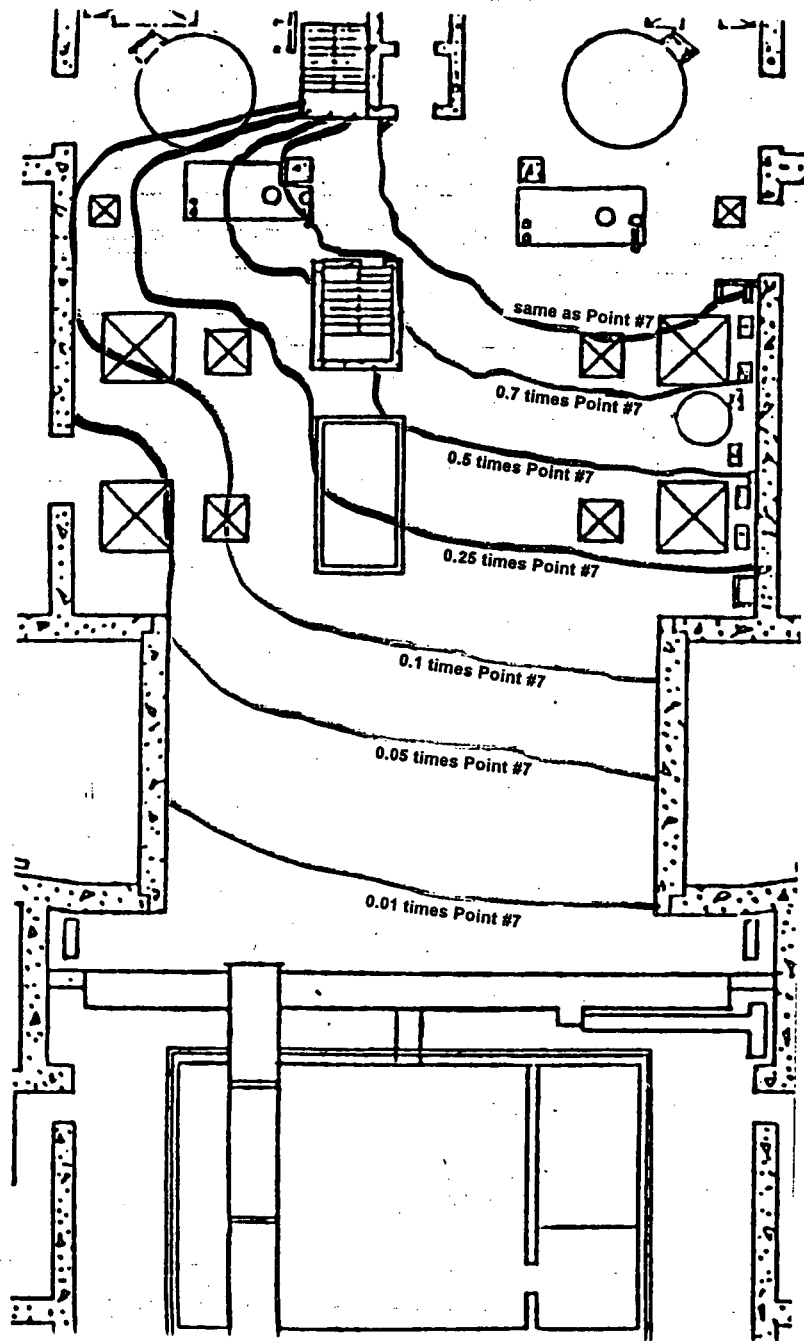
WBNPASF3.PRN wbn94ge
08-16-1994 18:24:50

Watts Bar Nuclear Plant

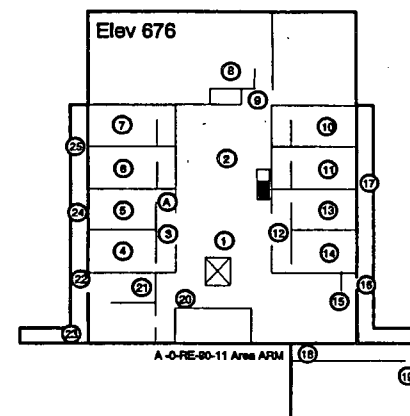
DRILL DATA

LOCATION: Post Accidnet Sampling

CONTAINMENT AIR SAMPLE (0.5 CC) ALSO SEE WBNPASF3 FOR NOBLE GAS READINGS												
NOBLE GAS VIAL				SHIELDED NOBLE GAS VIAL								
CONTACT	1FOOT	1METER		CONTACT	1FOOT	1METER						
00:00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	00:00
00:05	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	00:05
00:10	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	00:10
00:15	0.01	0.01	0.01	0.01	0.01	00:15
00:20	0.01	0.01	0.01	0.01	0.01	00:20
00:25	0.01	0.01	0.01	0.01	0.01	00:25
00:30	0.01	0.01	0.01	0.01	0.01	00:30
00:35	0.01	0.01	0.01	0.01	0.01	00:35
00:40	0.01	0.01	0.01	0.01	0.01	00:40
00:45	0.01	0.01	0.01	0.01	0.01	00:45
00:50	0.01	0.01	0.01	0.01	0.01	00:50
00:55	0.01	0.01	0.01	0.01	0.01	00:55
01:00	0.01	0.01	0.01	0.01	0.01	01:00
01:05	0.01	0.01	0.01	0.01	0.01	01:05
01:10	0.01	0.01	0.01	0.01	0.01	01:10
01:15	0.01	0.01	0.01	0.01	0.01	01:15
01:20	0.01	0.01	0.01	0.01	0.01	01:20
01:25	0.01	0.01	0.01	0.01	0.01	01:25
01:30	0.01	0.01	0.01	0.01	0.01	01:30
01:35	0.01	0.01	0.01	0.01	0.01	01:35
01:40	0.01	0.01	0.01	0.01	0.01	01:40
01:45	0.01	0.01	0.01	0.01	0.01	01:45
01:50	0.01	0.01	0.01	0.01	0.01	01:50
01:55	0.01	0.01	0.01	0.01	0.01	01:55
02:00	0.01	0.01	0.01	0.01	0.01	02:00
02:05	0.01	0.01	0.01	0.01	0.01	02:05
02:10	0.01	0.01	0.01	0.01	0.01	02:10
02:15	0.01	0.01	0.01	0.01	0.01	02:15
02:20	0.01	0.01	0.01	0.01	0.01	02:20
02:25	0.01	0.01	0.01	0.01	0.01	02:25
02:30	0.01	0.01	0.01	0.01	0.01	02:30
02:35	0.01	0.01	0.01	0.01	0.01	02:35
02:40	0.01	0.01	0.01	0.01	0.01	02:40
02:45	0.01	0.01	0.01	0.01	0.01	02:45
02:50	0.01	0.01	0.01	0.01	0.01	02:50
02:55	0.01	0.01	0.01	0.01	0.01	02:55
03:00	0.01	0.01	0.01	0.01	0.01	03:00
03:05	0.01	0.01	0.01	0.01	0.01	03:05
03:10	0.01	0.01	0.01	0.01	0.01	03:10
03:15	0.01	0.01	0.01	0.01	0.01	03:15
03:20	0.01	0.01	0.01	0.01	0.01	03:20
03:25	0.01	0.01	0.01	0.01	0.01	03:25
03:30	0.01	0.01	0.01	0.01	0.01	03:30
03:35	0.01	0.01	0.01	0.01	0.01	03:35
03:40	0.01	0.01	0.01	0.01	0.01	03:40
03:45	0.01	0.01	0.01	0.01	0.01	03:45
03:50	0.01	0.01	0.01	0.01	0.01	03:50



-A- 1-11B 676 ARM	
1.0E-01 to 1.0E+04 mr/hr	MIN to MAX Units
.	00:00
.	00:15
.	00:30
.	00:40
.	00:50
.	01:00
.	01:10
.	01:20
1.0E-1	01:30
1.5E-1	01:40
2.3E-1	01:50
2.9E-1	02:00
3.4E-1	02:10
3.8E-1	02:20
4.0E-1	02:30
4.2E-1	02:40
4.3E-1	02:50
4.4E-1	03:00
4.4E-1	03:10
4.3E-1	03:20
4.3E-1	03:30
4.2E-1	03:40
4.1E-1	03:50
4.0E-1	04:00



WBN676	09-02-1994 15:12:23 wbn94ge					Watts Bar Nuclear Plant					EP Map Points: All Other points				
	EP Map Points: 4, 5, 6, 7, 10, 11, 12, 13					EP Map Points: 18, 19					EP Map Points: All Other points				
	Data Location: RMR/CS Rooms Units 1/2					Data Location: FDCT Room					Data Location: All Other Locations				
Time	SURFACE CONTAM		AIR SAMPLE- 1m3		IODINE CARTRID	SURFACE CONTAM		AIR SAMPLE- 1m3		IODINE CARTRID	SURFACE CONTAM		AIR SAMPLE- 1m3		IODINE CARTRID
	FRISKER	ION	FRISKER	ION		FRISKER	ION	FRISKER	ION		FRISKER	ION	FRISKER	ION	
	CPM	MR/HR	CPM	MR/HR	GM	CPM	MR/HR	CPM	MR/HR	GM	CPM	MR/HR	CPM	MR/HR	GM
00:00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00
00:15	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00
00:30	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00
00:40	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00
00:50	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00
01:00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00
01:10	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00
01:20	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00
01:30	170	<2.0	700	<2.0	0.23	470	<2.0	1000	<2.0	0.56	170	<2.0	700	<2.0	0.23
01:40	1200	<2.0	1700	<2.0	0.23	2800	<2.0	4500	<2.0	3.20	1200	<2.0	1700	<2.0	0.23
01:50	1200	<2.0	1700	<2.0	0.23	3200	<2.0	4500	<2.0	8.50	1200	<2.0	1700	<2.0	0.23
02:00	1200	<2.0	1700	<2.0	0.23	3400	<2.0	4500	<2.0	8.50	1200	<2.0	1700	<2.0	0.23
02:10	1200	<2.0	1700	<2.0	0.23	3600	<2.0	4500	<2.0	8.50	1200	<2.0	1700	<2.0	0.23
02:20	1200	<2.0	1700	<2.0	0.23	3800	<2.0	4500	<2.0	8.50	1200	<2.0	1700	<2.0	0.23
02:30	1200	<2.0	1700	<2.0	0.23	4000	<2.0	4500	<2.0	8.50	1200	<2.0	1700	<2.0	0.23
02:40	1200	<2.0	1700	<2.0	0.23	4200	<2.0	4500	<2.0	8.50	1200	<2.0	1700	<2.0	0.23
02:50	1300	<2.0	1700	<2.0	0.23	4200	<2.0	4500	<2.0	8.50	1300	<2.0	1700	<2.0	0.23
03:00	1300	<2.0	1700	<2.0	0.23	4200	<2.0	4500	<2.0	8.50	1300	<2.0	1700	<2.0	0.23
03:10	1300	<2.0	1800	<2.0	0.23	4400	<2.0	4500	<2.0	8.50	1300	<2.0	1800	<2.0	0.23
03:20	1300	<2.0	1800	<2.0	0.23	4400	<2.0	4500	<2.0	8.50	1300	<2.0	1800	<2.0	0.23
03:30	1300	<2.0	1800	<2.0	0.23	4400	<2.0	4500	<2.0	8.50	1300	<2.0	1800	<2.0	0.23
03:40	1300	<2.0	1800	<2.0	0.23	4400	<2.0	4500	<2.0	8.50	1300	<2.0	1800	<2.0	0.23
03:50	1300	<2.0	1800	<2.0	0.23	4400	<2.0	4500	<2.0	8.50	1300	<2.0	1800	<2.0	0.23
04:00	1300	<2.0	1800	<2.0	0.23	4400	<2.0	4500	<2.0	8.50	1300	<2.0	1800	<2.0	0.23

Elev 692

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A - 0-RE-90-17 AREA CAM
B - 0-RE-90-9 AREA ARM
C - 1-RE-90-10 AREA ARM
D - 2-RE-90-10 AREA ARM

[illegible]

Elev 713

A - 0-RE-80-16 AREA CAM
 B - 0-RE-80-4 AREA ARM
 C - 1-RE-80-16 AREA CAM
 D - 1-RE-80-14 AREA CAM
 E - 1-RE-80-7 AREA ARM
 F - 1-RE-80-8 AREA ARM

The floor plan shows a central area with several rooms and corridors. Numbered locations (1-25) are marked throughout the plan. Camera locations (A-F) are marked near the perimeter. Two large circular areas are shown on the left and right sides of the plan, likely representing large windows or circular rooms. The plan includes various furniture items like desks, chairs, and a sofa, as well as architectural features like doors and walls.

04:00 |

A B C D E

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A - 0-RE-90-S AREA ARM
 B - 0-RE-90-18 CASK LOADING ARM
 C - 0-RE-90138 WASTE PKG ARM
 D - 1-RE-90-290 LH PASS ARM
 E - 1-RE-90-S RH BAY AREA ARM

Elev 737

[illegible]

WBNT37		09-02-1994 15:12:23		wbm94ge		Watts Bar Nuclear Plant														WBNT37		09-02-1994 15:12:23		wbm94ge		Watts Bar Nuclear Plant															
		Location 1 Near stairs at West end AB737		Location 2 Outside Hot Instru Shop		Location 3 Outside U-1 Penetration Rm		Location 4 Unit 1 Penetration Rm		Location 5 Unit 1 South Steam Vault		Location 6 Unit 1 South Steam Vault		Location 7 Component Cooling Hx		Location 8 Near Elevator		Location 9 Spent Fuel Pool Heat Exchanger		Location 10 U-1 Letdown Hx		Location 11 U-2 Letdown Hx		Location 12 Near Stairs on West End AB737		Location 13 Behind Heating & Ventilatr Rm		Location 14 Outside U-2 Penetration Rm													
Time		Closed Window mr/hr	Open Window mr/hr	Closed Window mr/hr	Open Window mr/hr	Closed Window mr/hr	Open Window mr/hr	Closed Window mr/hr	Open Window mr/hr	Closed Window mr/hr	Open Window mr/hr	Closed Window mr/hr	Open Window mr/hr	Closed Window mr/hr	Open Window mr/hr	Closed Window mr/hr	Open Window mr/hr	Closed Window mr/hr	Open Window mr/hr	Closed Window mr/hr	Open Window mr/hr	Closed Window mr/hr	Open Window mr/hr	Closed Window mr/hr	Open Window mr/hr	Closed Window mr/hr	Open Window mr/hr	Closed Window mr/hr	Open Window mr/hr												
00:00		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05											
00:15		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05											
00:30		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05											
00:40		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05											
00:50		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05											
01:00		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05											
01:10		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05											
01:20		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05											
01:30		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05											
01:40		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05											
01:50		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05											
02:00		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05											
02:10		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05											
02:20		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05											
02:30		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05											
02:40		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05											
02:50		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05											
03:00		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05											
03:10		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05											
03:20		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05											
03:30		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05											
03:40		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05											
03:50		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05											
04:00		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05											
WBNT37		09-02-1994 15:12:23		wbm94ge		Watts Bar Nuclear Plant														WBNT37		09-02-1994 15:12:23		wbm94ge		Watts Bar Nuclear Plant															
		Location 15 Unit 2 Penetration Rm		Location 16 Unit 2 South Steam Vault		Location 17 Unit 2 South Steam Vault		Location 18 Unit 2 ABGTS		Location 19 Unit 1 ABGTS		Location 20 Unit 1 North Steam Vault		Location 21 Unit 1 North Steam Vault		Location 22 Unit 2 North Steam Vault		Location 23 Unit 2 North Steam Vault		Location 24		Location 25		Location 26		Location 27		Location 28													
Time		Closed Window mr/hr	Open Window mr/hr	Closed Window mr/hr	Open Window mr/hr	Closed Window mr/hr	Open Window mr/hr	Closed Window mr/hr	Open Window mr/hr	Closed Window mr/hr	Open Window mr/hr	Closed Window mr/hr	Open Window mr/hr	Closed Window mr/hr	Open Window mr/hr	Closed Window mr/hr	Open Window mr/hr	Closed Window mr/hr	Open Window mr/hr	Closed Window mr/hr	Open Window mr/hr	Closed Window mr/hr	Open Window mr/hr	Closed Window mr/hr	Open Window mr/hr	Closed Window mr/hr	Open Window mr/hr	Closed Window mr/hr	Open Window mr/hr												
00:00		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05											
00:15		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05											
00:30		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05											
00:40		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05											
00:50		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05											
01:00		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05											
01:10		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05											
01:20		<0.05	<0																																						

Time	WBN757 09-02-1994 15:12:23 wbn94ge										Watts Bar Nuclear Plant										WBN757 09-02-1994 15:12:23 wbn94ge										Watts Bar Nuclear Plant										Time
	EP Map Points:16, 17, 18 Data Location:EGTS Room					EP Map Points:7,8,9,10,11,12,13,14,15 Data Location:Main Aux 757 Elev					EP Map Points:1, 2, 3, 4, 5, 6, 22 Data Location:Board Room/OSC					EP Map Points:19, 20, 21 Data Location:Control Room/TSC					EP Map Points: Data Location:Not Used					EP Map Points: Data Location:Not Used															
	SURFACE CONTAM		AIR SAMPLE- 1m3 PRE-FILTER		IODINE CARTRIDG	SURFACE CONTAM		AIR SAMPLE- 1m3 PRE-FILTER		IODINE CARTRIDG	SURFACE CONTAM		AIR SAMPLE -1m3 PRE-FILTER		IODINE CARTRIDG	SURFACE CONTAM		AIR SAMPLE -1m3 PRE-FILTER		IODINE CARTRIDG	SURFACE CONTAM		AIR SAMPLE -1m3 PRE-FILTER		IODINE CARTRIDG	SURFACE CONTAM		AIR SAMPLE -1m3 PRE-FILTER		IODINE CARTRIDG											
	FRISKER CPM	ION MR/HR	FRISKER CPM	ION MR/HR	CMR/HR	FRISKER CPM	ION MR/HR	FRISKER CPM	ION MR/HR	CMR/HR	FRISKER CPM	ION MR/HR	FRISKER CPM	ION MR/HR	CMR/HR	FRISKER CPM	ION MR/HR	FRISKER CPM	ION MR/HR	CMR/HR	FRISKER CPM	ION MR/HR	FRISKER CPM	ION MR/HR	CMR/HR	FRISKER CPM	ION MR/HR	FRISKER CPM	ION MR/HR	CMR/HR											
00:00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	00:00										
00:15	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	00:15										
00:30	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	00:30										
00:40	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	00:40										
00:50	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	00:50										
01:00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	01:00										
01:10	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	01:10										
01:20	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	01:20										
01:30	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	01:30										
01:40	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	01:40										
01:50	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	01:50										
02:00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	02:00										
02:10	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	02:10										
02:20	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	02:20										
02:30	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	02:30										
02:40	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	02:40										
02:50	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	02:50										
03:00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	03:00										
03:10	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	03:10										
03:20	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	03:20										
03:30	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	03:30										
03:40	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	03:40										
03:50	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	03:50										
04:00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	<100	<2.0	<100	<2.0	<0.00	04:00										

Watts Bar Nuclear Plant
1994 Annual Exercise

Rad Monitors

Time (Min)	1-112A UCntmt P	1-112B UCntmt N	1-112C UCntmt I	1-271 Up Cntmt	1-272 Up Cntmt	1-106A Lo Cntmt	1-106B Lo Cntmt	1-106C Lo Cntmt	1-273 Lo Cntmt	1-274 Lo Cntmt	1-130 Purge	1-131 Purge	1-60 Lo Cntmt	1-61 Lo Cntmt	1-62 Lo Cntmt	08-16-1994 18:24:52
	1.0E+01 to 1.0E+07 cpm	1.0E+01 to 1.0E+07 cpm	1.0E+01 to 1.0E+07 cpm	1.0E+00 to 1.0E+08 R/hr	1.0E+00 to 1.0E+08 R/hr	1.0E+01 to 1.0E+07 cpm	1.0E+01 to 1.0E+07 cpm	1.0E+01 to 1.0E+07 cpm	1.0E+00 to 1.0E+08 R/hr	1.0E+00 to 1.0E+08 R/hr	1.0E+01 to 1.0E+07 cpm	1.0E+01 to 1.0E+07 cpm	1.0E-01 to 1.0E+04 mr/hr	1.0E-01 to 1.0E+04 mr/hr	1.0E+01 to 1.0E+07 cpm	MIN to MAX Units
00:00	.	.	.	.	.	.	.	.	1.0E+0	1.0E+0	.	.	.	.	.	00:00
00:05	.	.	.	.	.	.	.	.	1.0E+0	1.0E+0	.	.	.	.	.	00:05
00:10	.	.	.	.	.	.	.	.	1.0E+0	1.0E+0	.	.	.	.	.	00:10
00:15	3.5E+2	2.2E+2	2.1E+1	1.0E+0	1.0E+0	3.8E+2	2.4E+2	2.3E+1	1.0E+0	1.0E+0	.	.	1.0E-1	1.0E-1	4.0E+2	00:15
00:20	1.6E+3	4.4E+2	6.4E+1	1.0E+0	1.0E+0	1.8E+3	4.8E+2	6.9E+1	1.0E+0	1.0E+0	.	.	1.0E-1	1.0E-1	1.8E+3	00:20
00:25	4.7E+3	6.5E+2	1.2E+2	1.0E+0	1.0E+0	5.1E+3	7.1E+2	1.3E+2	1.0E+0	1.0E+0	.	.	1.0E-1	1.0E-1	5.3E+3	00:25
00:30	1.0E+4	8.6E+2	2.1E+2	1.0E+0	1.0E+0	1.1E+4	9.2E+2	2.2E+2	1.0E+0	1.0E+0	.	.	1.0E-1	1.0E-1	1.1E+4	00:30
00:35	1.9E+4	1.0E+3	3.1E+2	1.0E+0	1.0E+0	2.0E+4	1.1E+3	3.4E+2	1.0E+0	1.0E+0	.	.	1.0E-1	1.0E-1	2.1E+4	00:35
00:40	3.2E+4	1.2E+3	4.3E+2	1.0E+0	1.0E+0	3.4E+4	1.3E+3	4.7E+2	1.0E+0	1.0E+0	.	.	1.0E-1	1.0E-1	3.6E+4	00:40
00:45	4.9E+4	1.4E+3	5.7E+2	1.0E+0	1.0E+0	5.3E+4	1.5E+3	6.2E+2	1.0E+0	1.0E+0	.	.	1.0E-1	1.0E-1	5.5E+4	00:45
00:50	7.2E+4	1.6E+3	7.3E+2	1.0E+0	1.0E+0	7.8E+4	1.7E+3	7.9E+2	1.0E+0	1.0E+0	.	.	1.0E-1	1.0E-1	8.1E+4	00:50
00:55	1.0E+5	1.8E+3	9.1E+2	1.0E+0	1.0E+0	1.0E+5	1.9E+3	9.8E+2	1.0E+0	1.0E+0	.	.	1.0E-1	1.0E-1	1.1E+5	00:55
01:00	1.3E+5	1.9E+3	1.1E+3	1.0E+0	1.0E+0	1.4E+5	2.1E+3	1.2E+3	1.0E+0	1.0E+0	.	.	1.0E-1	1.0E-1	1.5E+5	01:00
01:05	1.7E+5	2.1E+3	1.3E+3	1.0E+0	1.0E+0	1.9E+5	2.3E+3	1.4E+3	1.0E+0	1.0E+0	.	.	1.0E-1	1.0E-1	1.9E+5	01:05
01:10	2.2E+5	2.3E+3	1.5E+3	1.0E+0	1.0E+0	2.4E+5	2.4E+3	1.6E+3	1.0E+0	1.0E+0	.	.	1.0E-1	1.0E-1	2.5E+5	01:10
01:15	2.7E+5	2.4E+3	1.7E+3	1.0E+0	1.0E+0	3.0E+5	2.6E+3	1.9E+3	1.0E+0	1.0E+0	.	.	1.0E-1	1.0E-1	3.1E+5	01:15
01:20	3.3E+5	2.6E+3	2.0E+3	1.0E+0	1.0E+0	3.6E+5	2.8E+3	2.2E+3	1.0E+0	1.0E+0	.	.	1.0E-1	1.0E-1	3.8E+5	01:20
01:25	4.0E+5	2.7E+3	2.3E+3	1.0E+0	1.0E+0	4.4E+5	2.9E+3	2.5E+3	1.0E+0	1.0E+0	.	.	1.0E-1	1.0E-1	4.5E+5	01:25
01:30	4.8E+5	2.9E+3	2.6E+3	1.0E+0	1.0E+0	5.2E+5	3.1E+3	2.8E+3	1.0E+0	1.0E+0	.	.	1.0E-1	1.0E-1	5.4E+5	01:30
01:35	5.6E+5	3.0E+3	2.9E+3	1.0E+0	1.0E+0	6.0E+5	3.3E+3	3.1E+3	1.0E+0	1.0E+0	.	.	1.0E-1	1.0E-1	6.3E+5	01:35
01:40	6.5E+5	3.1E+3	3.2E+3	1.0E+0	1.0E+0	7.0E+5	3.4E+3	3.5E+3	1.0E+0	1.0E+0	.	.	1.0E-1	1.0E-1	7.3E+5	01:40
01:45	7.4E+5	3.3E+3	3.5E+3	1.0E+0	1.0E+0	8.0E+5	3.5E+3	3.8E+3	1.0E+0	1.0E+0	.	.	1.0E-1	1.0E-1	8.3E+5	01:45
01:50	8.4E+5	3.4E+3	3.9E+3	1.0E+0	1.0E+0	9.1E+5	3.7E+3	4.2E+3	1.0E+0	1.0E+0	.	.	1.0E-1	1.0E-1	9.4E+5	01:50
01:55	9.4E+5	3.5E+3	4.2E+3	1.0E+0	1.0E+0	1.0E+6	3.8E+3	4.6E+3	1.0E+0	1.0E+0	.	.	1.0E-1	1.0E-1	1.0E+6	01:55
02:00	1.0E+6	3.6E+3	4.6E+3	1.0E+0	1.0E+0	1.1E+6	3.9E+3	5.0E+3	1.0E+0	1.0E+0	.	.	1.0E-1	1.0E-1	1.1E+6	02:00
02:05	1.1E+6	3.7E+3	5.0E+3	1.0E+0	1.0E+0	1.2E+6	4.1E+3	5.4E+3	1.0E+0	1.0E+0	.	.	1.0E-1	1.0E-1	1.3E+6	02:05
02:10	1.3E+6	3.8E+3	5.4E+3	1.0E+0	1.0E+0	1.4E+6	4.2E+3	5.8E+3	1.0E+0	1.0E+0	.	.	1.0E-1	1.0E-1	1.4E+6	02:10
02:15	1.4E+6	4.0E+3	5.8E+3	1.0E+0	1.0E+0	1.5E+6	4.3E+3	6.3E+3	1.0E+0	1.0E+0	.	.	1.0E-1	1.0E-1	1.5E+6	02:15
02:20	1.5E+6	4.1E+3	6.2E+3	1.0E+0	1.0E+0	1.6E+6	4.4E+3	6.7E+3	1.0E+0	1.0E+0	.	.	1.0E-1	1.0E-1	1.7E+6	02:20
02:25	1.6E+6	4.1E+3	6.6E+3	1.0E+0	1.0E+0	1.8E+6	4.5E+3	7.2E+3	1.0E+0	1.0E+0	.	.	1.0E-1	1.0E-1	1.8E+6	02:25
02:30	1.8E+6	4.3E+3	7.1E+3	1.0E+0	1.0E+0	1.9E+6	4.6E+3	7.6E+3	1.0E+0	1.0E+0	.	.	1.0E-1	1.0E-1	2.0E+6	02:30
02:35	1.9E+6	4.3E+3	7.5E+3	1.0E+0	1.0E+0	2.1E+6	4.7E+3	8.1E+3	1.0E+0	1.0E+0	.	.	1.0E-1	1.0E-1	2.2E+6	02:35
02:40	2.1E+6	4.4E+3	8.0E+3	1.0E+0	1.0E+0	2.2E+6	4.8E+3	8.6E+3	1.0E+0	1.0E+0	.	.	1.0E-1	1.0E-1	2.3E+6	02:40
02:45	2.2E+6	4.5E+3	8.4E+3	1.0E+0	1.0E+0	2.4E+6	4.8E+3	9.1E+3	1.0E+0	1.0E+0	.	.	1.0E-1	1.0E-1	2.5E+6	02:45
02:50	2.4E+6	4.6E+3	8.9E+3	1.0E+0	1.0E+0	2.6E+6	4.9E+3	9.6E+3	1.0E+0	1.0E+0	.	.	1.0E-1	1.0E-1	2.7E+6	02:50
02:55	2.5E+6	4.6E+3	9.4E+3	1.0E+0	1.0E+0	2.7E+6	5.0E+3	1.0E+4	1.0E+0	1.0E+0	.	.	1.0E-1	1.0E-1	2.8E+6	02:55
03:00	2.7E+6	4.7E+3	9.9E+3	1.0E+0	1.0E+0	2.9E+6	5.1E+3	1.0E+4	1.0E+0	1.0E+0	.	.	1.0E-1	1.0E-1	3.0E+6	03:00
03:05	2.8E+6	4.8E+3	1.0E+4	1.0E+0	1.0E+0	3.1E+6	5.2E+3	1.1E+4	1.0E+0	1.0E+0	.	.	1.0E-1	1.0E-1	3.2E+6	03:05
03:10	3.0E+6	4.8E+3	1.0E+4	1.0E+0	1.0E+0	3.2E+6	5.2E+3	1.1E+4	1.0E+0	1.0E+0	.	.	1.0E-1	1.0E-1	3.4E+6	03:10
03:15	3.2E+6	4.9E+3	1.1E+4	1.0E+0	1.0E+0	3.4E+6	5.3E+3	1.2E+4	1.0E+0	1.0E+0	.	.	1.0E-1	1.0E-1	3.6E+6	03:15

Time (Min)	1-112A UCntmt P	1-112B UCntmt N	1-112C UCntmt I	1-271 Up Cntmt	1-272 Up Cntmt	1-106A Lo Cntmt	1-106B Lo Cntmt	1-106C Lo Cntmt	1-273 Lo Cntmt	1-274 Lo Cntmt	1-130 Purge	1-131 Purge	1-60 Lo Cntmt	1-61 Lo Cntmt	1-62 Lo Cntmt	08-16-1994 18:25:47
	1.0E+01 to 1.0E+07 cpm	1.0E+01 to 1.0E+07 cpm	1.0E+01 to 1.0E+07 cpm	1.0E+00 to 1.0E+08 R/hr	1.0E+00 to 1.0E+08 R/hr	1.0E+01 to 1.0E+07 cpm	1.0E+01 to 1.0E+07 cpm	1.0E+01 to 1.0E+07 cpm	1.0E+00 to 1.0E+08 R/hr	1.0E+00 to 1.0E+08 R/hr	1.0E+01 to 1.0E+07 cpm	1.0E+01 to 1.0E+07 cpm	1.0E-01 to 1.0E+04 mr/hr	1.0E-01 to 1.0E+04 mr/hr	1.0E+01 to 1.0E+07 cpm	MIN to MAX Units
03:20	3.3E+6a	5.0E+3	1.1E+4a	1.0E+0	1.0E+0	3.6E+6a	5.4E+3	1.2E+4a	1.0E+0	1.0E+0	.	.	1.0E-1	1.0E-1	3.7E+6a	03:20
03:25	3.5E+6a	5.0E+3	1.2E+4a	1.0E+0	1.0E+0	3.8E+6a	5.4E+3	1.3E+4a	1.0E+0	1.0E+0	.	.	1.0E-1	1.0E-1	3.9E+6a	03:25
03:30	3.7E+6a	5.1E+3	1.3E+4a	1.0E+0	1.0E+0	4.0E+6a	5.5E+3	1.4E+4a	1.0E+0	1.0E+0	.	.	1.0E-1	1.0E-1	4.1E+6a	03:30
03:35	3.8E+6a	5.1E+3	1.3E+4a	1.0E+0	1.0E+0	4.1E+6a	5.5E+3	1.4E+4a	1.0E+0	1.0E+0	.	.	1.0E-1	1.0E-1	4.3E+6a	03:35
03:40	4.0E+6a	5.1E+3	1.4E+4a	1.0E+0	1.0E+0	4.3E+6a	5.6E+3	1.5E+4a	1.0E+0	1.0E+0	.	.	1.0E-1	1.0E-1	4.5E+6a	03:40
03:45	4.2E+6a	5.2E+3	1.4E+4a	1.0E+0	1.0E+0	4.5E+6a	5.6E+3	1.5E+4a	1.0E+0	1.0E+0	.	.	1.0E-1	1.0E-1	4.7E+6a	03:45
03:50	4.3E+6a	5.3E+3	1.5E+4a	1.0E+0	1.0E+0	4.7E+6a	5.7E+3	1.6E+4a	1.0E+0	1.0E+0	.	.	1.0E-1	1.0E-1	4.9E+6a	03:50
03:55	4.5E+6a	5.3E+3	1.5E+4a	1.0E+0	1.0E+0	4.9E+6a	5.7E+3	1.6E+4a	1.0E+0	1.0E+0	.	.	1.0E-1	1.0E-1	5.1E+6a	03:55
04:00	4.7E+6a	5.3E+3	1.6E+4a	1.0E+0	1.0E+0	5.1E+6a	5.7E+3	1.7E+4a	1.0E+0	1.0E+0	.	.	1.0E-1	1.0E-1	5.3E+6a	04:00

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[illegible]

	0-105 CR CAM	0-125 CR Intak	0-126 CR Intak	0-205 CR Emerg	0-206 CR Emerg	1-400C ShldBld N	1-260 ShldBldg	1-261 ShldBldg	2-400C ShldBld N	2-260 ShldBldg	2-261 ShldBldg	0-102 FuelPool	0-103 FuelPool	This col unused	This col unused	08-16-1994 18:24:52
Time (Min)	1.0E+01 to 1.0E+07 cpm	1.0E+01 to 1.0E+07 cpm	1.0E+01 to 1.0E+07 cpm	1.0E+01 to 1.0E+07 cpm	1.0E+01 to 1.0E+07 cpm	1.0E-02 to 9.9E+09 uCi/s	1.0E-01 to 1.0E+04 mr/hr	1.0E+03 to 1.0E+07 mr/hr	1.0E-02 to 9.9E+09 uCi/s	1.0E-01 to 1.0E+04 mr/hr	1.0E+03 to 1.0E+07 mr/hr	1.0E-01 to 1.0E+04 mr/hr	1.0E-01 to 1.0E+04 mr/hr	0.0E+00 to 0.0E+00 UNUSED	0.0E+00 to 0.0E+00 UNUSED	MIN to MAX Units
00:00	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	00:00
00:05	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	00:05
00:10	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	00:10
00:15	.	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E-2	1.0E-1	1.0E+3	.	.	.	.	.	.	.	00:15
00:20	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E-2	1.0E-1	1.0E+3	.	1.0E-1	1.0E+3	.	.	.	.	00:20
00:25	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E-2	1.0E-1	1.0E+3	.	1.0E-1	1.0E+3	.	.	.	.	00:25
00:30	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E-2	1.0E-1	1.0E+3	.	1.0E-1	1.0E+3	.	.	.	.	00:30
00:35	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E-2	1.0E-1	1.0E+3	.	1.0E-1	1.0E+3	.	.	.	.	00:35
00:40	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E-2	1.0E-1	1.0E+3	.	1.0E-1	1.0E+3	.	.	.	.	00:40
00:45	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E-2	1.0E-1	1.0E+3	.	1.0E-1	1.0E+3	.	.	.	.	00:45
00:50	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E-2	1.0E-1	1.0E+3	.	1.0E-1	1.0E+3	.	.	.	.	00:50
00:55	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E-2	1.0E-1	1.0E+3	.	1.0E-1	1.0E+3	.	.	.	.	00:55
01:00	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E-2	1.0E-1	1.0E+3	.	1.0E-1	1.0E+3	.	.	.	.	01:00
01:05	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E-2	1.0E-1	1.0E+3	.	1.0E-1	1.0E+3	.	.	.	.	01:05
01:10	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E-2	1.0E-1	1.0E+3	.	1.0E-1	1.0E+3	.	.	.	.	01:10
01:15	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E-2	1.0E-1	1.0E+3	.	1.0E-1	1.0E+3	.	.	.	.	01:15
01:20	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E-2	1.0E-1	1.0E+3	.	1.0E-1	1.0E+3	.	.	.	.	01:20
01:25	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E-2	1.0E-1	1.0E+3	.	1.0E-1	1.0E+3	.	.	.	.	01:25
01:30	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E-2	1.0E-1	1.0E+3	.	1.0E-1	1.0E+3	.	.	.	.	01:30
01:35	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E-2	1.0E-1	1.0E+3	.	1.0E-1	1.0E+3	.	.	.	.	01:35
01:40	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E-2	1.0E-1	1.0E+3	.	1.0E-1	1.0E+3	.	.	.	.	01:40
01:45	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E-2	1.0E-1	1.0E+3	.	1.0E-1	1.0E+3	.	.	.	.	01:45
01:50	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E-2	1.0E-1	1.0E+3	.	1.0E-1	1.0E+3	.	.	.	.	01:50
01:55	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E-2	1.0E-1	1.0E+3	.	1.0E-1	1.0E+3	.	.	.	.	01:55
02:00	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E-2	1.0E-1	1.0E+3	.	1.0E-1	1.0E+3	.	.	.	.	02:00
02:05	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E-2	1.0E-1	1.0E+3	.	1.0E-1	1.0E+3	.	.	.	.	02:05
02:10	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E-2	1.0E-1	1.0E+3	.	1.0E-1	1.0E+3	.	.	.	.	02:10
02:15	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E-2	1.0E-1	1.0E+3	.	1.0E-1	1.0E+3	.	.	.	.	02:15
02:20	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E-2	1.0E-1	1.0E+3	.	1.0E-1	1.0E+3	.	.	.	.	02:20
02:25	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E-2	1.0E-1	1.0E+3	.	1.0E-1	1.0E+3	.	.	.	.	02:25
02:30	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E-2	1.0E-1	1.0E+3	.	1.0E-1	1.0E+3	.	.	.	.	02:30
02:35	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E-2	1.0E-1	1.0E+3	.	1.0E-1	1.0E+3	.	.	.	.	02:35
02:40	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E-2	1.0E-1	1.0E+3	.	1.0E-1	1.0E+3	.	.	.	.	02:40
02:45	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E-2	1.0E-1	1.0E+3	.	1.0E-1	1.0E+3	.	.	.	.	02:45
02:50	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E-2	1.0E-1	1.0E+3	.	1.0E-1	1.0E+3	.	.	.	.	02:50
02:55	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E-2	1.0E-1	1.0E+3	.	1.0E-1	1.0E+3	.	.	.	.	02:55
03:00	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E-2	1.0E-1	1.0E+3	.	1.0E-1	1.0E+3	.	.	.	.	03:00
03:05	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E-2	1.0E-1	1.0E+3	.	1.0E-1	1.0E+3	.	.	.	.	03:05
03:10	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E-2	1.0E-1	1.0E+3	.	1.0E-1	1.0E+3	.	.	.	.	03:10
03:15	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E-2	1.0E-1	1.0E+3	.	1.0E-1	1.0E+3	.	.	.	.	03:15

	0-105 CR CAM	0-125 CR Intak	0-126 CR Intak	0-205 CR Emerg	0-206 CR Emerg	1-400C ShldBld N	1-260 ShldBldg	1-261 ShldBldg	2-400C ShldBld N	2-260 ShldBldg	2-261 ShldBldg	0-102 FuelPool	0-103 FuelPool	This col unused	This col unused	08-16-1994 18:25:47
Time (Min)	1.0E+01 to 1.0E+07 cpm	1.0E+01 to 1.0E+07 cpm	1.0E+01 to 1.0E+07 cpm	1.0E+01 to 1.0E+07 cpm	1.0E+01 to 1.0E+07 cpm	1.0E-02 to 9.9E+09 uCi/s	1.0E-01 to 1.0E+04 mr/hr	1.0E+03 to 1.0E+07 mr/hr	1.0E-02 to 9.9E+09 uCi/s	1.0E-01 to 1.0E+04 mr/hr	1.0E+03 to 1.0E+07 mr/hr	1.0E-01 to 1.0E+04 mr/hr	1.0E-01 to 1.0E+04 mr/hr	0.0E+00 to 0.0E+00 UNUSED	0.0E+00 to 0.0E+00 UNUSED	MIN to MAX Units
03:20	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E-2	1.0E-1	1.0E+3	.	1.0E-1	1.0E+3	.	.	.	.	03:20
03:25	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E-2	1.0E-1	1.0E+3	.	1.0E-1	1.0E+3	.	.	.	.	03:25
03:30	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E-2	1.0E-1	1.0E+3	.	1.0E-1	1.0E+3	.	.	.	.	03:30
03:35	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E-2	1.0E-1	1.0E+3	.	1.0E-1	1.0E+3	.	.	.	.	03:35
03:40	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E-2	1.0E-1	1.0E+3	.	1.0E-1	1.0E+3	.	.	.	.	03:40
03:45	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E-2	1.0E-1	1.0E+3	.	1.0E-1	1.0E+3	.	.	.	.	03:45
03:50	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E-2	1.0E-1	1.0E+3	.	1.0E-1	1.0E+3	.	.	.	.	03:50
03:55	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E-2	1.0E-1	1.0E+3	.	1.0E-1	1.0E+3	03:55
04:00	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E+1	1.0E-2	1.0E-1	1.0E+3	.	1.0E-1	1.0E+3	04:00

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	0-133 ERCW	0-134 ERCW	0-140 ERCW	0-141 ERCW	1-104 Removed	1-170 U1 CVCS	2-104 Removed	2-170 U1 CVCS	1-101A AB Parti	1-101B AB NGas	1-101C AB Iodin	1-132A SrvBld P	1-132B SrvBld N	1-132C SrvBld I	This col unused	08-16-1994 18:24:52
Time (Min)	1.0E+01 to 1.0E+07 cpm	1.0E+01 to 1.0E+07 cpm	1.0E+01 to 1.0E+07 cpm	1.0E+01 to 1.0E+07 cpm	1.0E-05 to 1.1E-04 cpm	1.0E+01 to 1.0E+06 cpm	1.0E-05 to 1.1E-04 cpm	1.0E+01 to 1.0E+06 cpm	1.0E+01 to 1.0E+07 cpm	1.0E+01 to 1.0E+07 cpm	1.0E+01 to 1.0E+07 cpm	1.0E+01 to 1.0E+07 cpm	1.0E+01 to 1.0E+07 cpm	1.0E+01 to 1.0E+07 cpm	0.0E+00 to 0.0E+00 UNUSED	MIN to MAX Units
00:00	00:00
00:05	00:05
00:10	00:10
00:15	1.0E+1	1.0E+1	1.0E+1	.	00:15
00:20	1.0E+1	1.0E+1	1.0E+1	.	00:20
00:25	1.0E+1	1.0E+1	1.0E+1	.	00:25
00:30	1.0E+1	1.0E+1	1.0E+1	.	00:30
00:35	1.0E+1	1.0E+1	1.0E+1	.	00:35
00:40	1.0E+1	1.0E+1	1.0E+1	.	00:40
00:45	1.0E+1	1.0E+1	1.0E+1	.	00:45
00:50	1.0E+1	1.0E+1	1.0E+1	.	00:50
00:55	1.0E+1	1.0E+1	1.0E+1	.	00:55
01:00	1.0E+1	1.0E+1	1.0E+1	.	01:00
01:05	1.0E+1	1.0E+1	1.0E+1	.	01:05
01:10	1.0E+1	1.0E+1	1.0E+1	.	01:10
01:15	1.0E+1	1.0E+1	1.0E+1	.	01:15
01:20	1.0E+1	1.0E+1	1.0E+1	.	01:20
01:25	1.0E+1	1.0E+1	1.0E+1	.	01:25
01:30	1.0E+1	1.0E+1	1.0E+1	.	01:30
01:35	1.0E+1	1.0E+1	1.0E+1	.	01:35
01:40	1.0E+1	1.0E+1	1.0E+1	.	01:40
01:45	1.0E+1	1.0E+1	1.0E+1	.	01:45
01:50	1.0E+1	1.0E+1	1.0E+1	.	01:50
01:55	1.0E+1	1.0E+1	1.0E+1	.	01:55
02:00	1.0E+1	1.0E+1	1.0E+1	.	02:00
02:05	1.0E+1	1.0E+1	1.0E+1	.	02:05
02:10	1.0E+1	1.0E+1	1.0E+1	.	02:10
02:15	1.0E+1	1.0E+1	1.0E+1	.	02:15
02:20	1.0E+1	1.0E+1	1.0E+1	.	02:20
02:25	1.0E+1	1.0E+1	1.0E+1	.	02:25
02:30	1.0E+1	1.0E+1	1.0E+1	.	02:30
02:35	1.0E+1	1.0E+1	1.0E+1	.	02:35
02:40	1.0E+1	1.0E+1	1.0E+1	.	02:40
02:45	1.0E+1	1.0E+1	1.0E+1	.	02:45
02:50	1.0E+1	1.0E+1	1.0E+1	.	02:50
02:55	1.0E+1	1.0E+1	1.0E+1	.	02:55
03:00	1.0E+1	1.0E+1	1.0E+1	.	03:00
03:05	1.0E+1	1.0E+1	1.0E+1	.	03:05
03:10	1.0E+1	1.0E+1	1.0E+1	.	03:10
03:15	1.0E+1	1.0E+1	1.0E+1	.	03:15

Time (Min)	0-133 ERCW	0-134 ERCW	0-140 ERCW	0-141 ERCW	1-104 Removed	1-170 U1 CVCS	2-104 Removed	2-170 U1 CVCS	1-101A AB Parti	1-101B AB NGas	1-101C AB Iodin	1-132A SrvBld P	1-132B SrvBld N	1-132C SrvBld I	This col unused	MIN to MAX Units
	1.0E+01 to 1.0E+07 cpm	1.0E+01 to 1.0E+07 cpm	1.0E+01 to 1.0E+07 cpm	1.0E+01 to 1.0E+07 cpm	1.0E-05 to 1.1E-04 cpm	1.0E+01 to 1.0E+06 cpm	1.0E-05 to 1.1E-04 cpm	1.0E+01 to 1.0E+06 cpm	1.0E+01 to 1.0E+07 cpm	1.0E+01 to 1.0E+07 cpm	1.0E+01 to 1.0E+07 cpm	1.0E+01 to 1.0E+07 cpm	1.0E+01 to 1.0E+07 cpm	1.0E+01 to 1.0E+07 cpm	0.0E+00 to 0.0E+00 UNUSED	
03:20	1.0E+1	1.0E+1	1.0E+1	.	03:20
03:25	1.0E+1	1.0E+1	1.0E+1	.	03:25
03:30	1.0E+1	1.0E+1	1.0E+1	.	03:30
03:35	1.0E+1	1.0E+1	1.0E+1	.	03:35
03:40	1.0E+1	1.0E+1	1.0E+1	.	03:40
03:45	1.0E+1	1.0E+1	1.0E+1	.	03:45
03:50	1.0E+1	1.0E+1	1.0E+1	.	03:50
03:55	1.0E+1	1.0E+1	1.0E+1	.	03:55
04:00	1.0E+1	1.0E+1	1.0E+1	.	04:00

08-16-1994
18:25:47

[illegible]

[illegible]

	0-5B 737 ARM	1-6B 737 ARM	2-6B 737 ARM	2-1 757 ARM	0-135 CR ARM	1-1 757 ARM	0-12 757 CAM	1-290 U1 RHR A	1-291 U1 RHR A	1-292 U1 RHR B	1-293 U1 RHR B	2-290 U2 RHR A	2-291 U2 RHR A	2-292 U2 RHR B	2-293 U2 RHR B	08-16-1994 18:24:52 -
Time (Min)	1.0E-01 to 1.0E+04 mr/hr	1.0E-01 to 1.0E+04 mr/hr	1.0E-01 to 1.0E+04 mr/hr	1.0E-01 to 1.0E+04 mr/hr	1.0E-01 to 1.0E+04 mr/hr	1.0E-01 to 1.0E+04 mr/hr	1.0E+01 to 1.0E+07 cpm	1.0E-01 to 1.0E+04 mr/hr	1.0E+03 to 9.9E+09 mr/hr	1.0E-01 to 1.0E+04 mr/hr	1.0E+03 to 9.9E+09 mr/hr	1.0E-01 to 1.0E+04 mr/hr	1.0E+03 to 9.9E+09 mr/hr	1.0E-01 to 1.0E+04 mr/hr	1.0E+03 to 9.9E+09 mr/hr	MIN to MAX Units
00:00	00:00
00:05	00:05
00:10	00:10
00:15	00:15
00:20	1.0E-1	.	.	.	.	.	.	.	.	.	.	00:20
00:25	1.0E-1	.	.	.	.	.	.	.	.	.	.	00:25
00:30	1.0E-1	.	.	.	.	.	.	.	.	.	.	00:30
00:35	1.0E-1	.	.	.	.	.	.	.	.	.	.	00:35
00:40	1.0E-1	.	.	.	.	.	.	.	.	.	.	00:40
00:45	1.0E-1	.	.	.	.	.	.	.	.	.	.	00:45
00:50	1.0E-1	.	.	.	.	.	.	.	.	.	.	00:50
00:55	1.0E-1	.	.	.	.	.	.	.	.	.	.	00:55
01:00	1.0E-1	.	.	.	.	.	.	.	.	.	.	01:00
01:05	1.0E-1	.	.	.	.	.	.	.	.	.	.	01:05
01:10	1.0E-1	.	.	.	.	.	.	.	.	.	.	01:10
01:15	1.0E-1	.	.	.	.	.	.	.	.	.	.	01:15
01:20	1.0E-1	.	.	.	.	.	.	.	.	.	.	01:20
01:25	1.0E-1	.	.	.	.	.	.	.	.	.	.	01:25
01:30	1.0E-1	.	.	1.0E-1	1.0E+3	1.0E-1	1.0E+3	1.0E-1	1.0E+3	1.0E-1	1.0E+3	01:30
01:35	1.0E-1	.	.	1.0E-1	1.0E+3	1.0E-1	1.0E+3	1.5E-1	1.0E+3	1.5E-1	1.0E+3	01:35
01:40	1.0E-1	.	.	1.0E-1	1.0E+3	1.0E-1	1.0E+3	2.2E-1	1.0E+3	2.2E-1	1.0E+3	01:40
01:45	1.0E-1	.	.	1.0E-1	1.0E+3	1.0E-1	1.0E+3	2.8E-1	1.0E+3	2.8E-1	1.0E+3	01:45
01:50	1.0E-1	.	.	1.0E-1	1.0E+3	1.0E-1	1.0E+3	3.3E-1	1.0E+3	3.3E-1	1.0E+3	01:50
01:55	1.0E-1	.	.	1.0E-1	1.0E+3	1.0E-1	1.0E+3	3.8E-1	1.0E+3	3.8E-1	1.0E+3	01:55
02:00	1.0E-1	.	.	1.0E-1	1.0E+3	1.0E-1	1.0E+3	4.2E-1	1.0E+3	4.2E-1	1.0E+3	02:00
02:05	1.0E-1	.	.	1.3E-1	1.0E+3	1.3E-1	1.0E+3	4.5E-1	1.0E+3	4.5E-1	1.0E+3	02:05
02:10	1.0E-1	.	.	1.5E-1	1.0E+3	1.5E-1	1.0E+3	4.8E-1	1.0E+3	4.8E-1	1.0E+3	02:10
02:15	1.0E-1	.	.	1.8E-1	1.0E+3	1.8E-1	1.0E+3	5.1E-1	1.0E+3	5.1E-1	1.0E+3	02:15
02:20	1.0E-1	.	.	2.0E-1	1.0E+3	2.0E-1	1.0E+3	5.3E-1	1.0E+3	5.3E-1	1.0E+3	02:20
02:25	1.0E-1	.	.	2.3E-1	1.0E+3	2.3E-1	1.0E+3	5.5E-1	1.0E+3	5.5E-1	1.0E+3	02:25
02:30	1.0E-1	.	.	2.5E-1	1.0E+3	2.5E-1	1.0E+3	5.7E-1	1.0E+3	5.7E-1	1.0E+3	02:30
02:35	1.0E-1	.	.	2.7E-1	1.0E+3	2.7E-1	1.0E+3	5.8E-1	1.0E+3	5.8E-1	1.0E+3	02:35
02:40	1.0E-1	.	.	3.0E-1	1.0E+3	3.0E-1	1.0E+3	5.9E-1	1.0E+3	5.9E-1	1.0E+3	02:40
02:45	1.0E-1	.	.	3.2E-1	1.0E+3	3.2E-1	1.0E+3	6.0E-1	1.0E+3	6.0E-1	1.0E+3	02:45
02:50	1.0E-1	.	.	3.5E-1	1.0E+3	3.5E-1	1.0E+3	6.1E-1	1.0E+3	6.1E-1	1.0E+3	02:50
02:55	1.0E-1	.	.	3.7E-1	1.0E+3	3.7E-1	1.0E+3	6.1E-1	1.0E+3	6.1E-1	1.0E+3	02:55
03:00	1.0E-1	.	.	3.9E-1	1.0E+3	3.9E-1	1.0E+3	6.1E-1	1.0E+3	6.1E-1	1.0E+3	03:00
03:05	1.0E-1	.	.	4.1E-1	1.0E+3	4.1E-1	1.0E+3	6.2E-1	1.0E+3	6.2E-1	1.0E+3	03:05
03:10	1.0E-1	.	.	4.3E-1	1.0E+3	4.3E-1	1.0E+3	6.1E-1	1.0E+3	6.1E-1	1.0E+3	03:10
03:15	1.0E-1	.	.	4.5E-1	1.0E+3	4.5E-1	1.0E+3	6.1E-1	1.0E+3	6.1E-1	1.0E+3	03:15

Time (Min)	0-5B 737 ARM	1-6B 737 ARM	2-6B 737 ARM	2-1 757 ARM	0-135 CR ARM	1-1 757 ARM	0-12 757 CAM	1-290 U1 RHR A	1-291 U1 RHR A	1-292 U1 RHR B	1-293 U1 RHR B	2-290 U2 RHR A	2-291 U2 RHR A	2-292 U2 RHR B	2-293 U2 RHR B	08-16-1994 18:25:47
	1.0E-01 to 1.0E+04 mr/hr	1.0E-01 to 1.0E+04 mr/hr	1.0E-01 to 1.0E+04 mr/hr	1.0E-01 to 1.0E+04 mr/hr	1.0E-01 to 1.0E+04 mr/hr	1.0E-01 to 1.0E+04 mr/hr	1.0E+01 to 1.0E+07 cpm	1.0E-01 to 1.0E+04 mr/hr	1.0E+03 to 9.9E+09 mr/hr	1.0E-01 to 1.0E+04 mr/hr	1.0E+03 to 9.9E+09 mr/hr	1.0E-01 to 1.0E+04 mr/hr	1.0E+03 to 9.9E+09 mr/hr	1.0E-01 to 1.0E+04 mr/hr	1.0E+03 to 9.9E+09 mr/hr	MIN to MAX Units
03:20	1.0E-1	.	.	4.7E-1	1.0E+3	4.7E-1	1.0E+3	6.1E-1	1.0E+3	6.1E-1	1.0E+3	03:20
03:25	1.0E-1	.	.	4.8E-1	1.0E+3	4.8E-1	1.0E+3	6.1E-1	1.0E+3	6.1E-1	1.0E+3	03:25
03:30	1.0E-1	.	.	5.0E-1	1.0E+3	5.0E-1	1.0E+3	6.0E-1	1.0E+3	6.0E-1	1.0E+3	03:30
03:35	1.0E-1	.	.	5.2E-1	1.0E+3	5.2E-1	1.0E+3	6.0E-1	1.0E+3	6.0E-1	1.0E+3	03:35
03:40	1.0E-1	.	.	5.3E-1	1.0E+3	5.3E-1	1.0E+3	5.9E-1	1.0E+3	5.9E-1	1.0E+3	03:40
03:45	1.0E-1	.	.	5.5E-1	1.0E+3	5.5E-1	1.0E+3	5.9E-1	1.0E+3	5.9E-1	1.0E+3	03:45
03:50	1.0E-1	.	.	5.6E-1	1.0E+3	5.6E-1	1.0E+3	5.8E-1	1.0E+3	5.8E-1	1.0E+3	03:50
03:55	1.0E-1	.	.	5.7E-1	1.0E+3	5.7E-1	1.0E+3	5.7E-1	1.0E+3	5.7E-1	1.0E+3	03:55
04:00	1.0E-1	.	.	5.8E-1	1.0E+3	5.8E-1	1.0E+3	5.7E-1	1.0E+3	5.7E-1	1.0E+3	04:00

	1-421 MS Line1	1-422 MS Line2	1-423 MS Line3	1-424 MS Line4	1-120 SG BloDn	1-121 SG BloDn	1-124 SG BloDn	2-421 MS Line1	2-422 MS Line2	2-423 MS Line3	2-424 MS Line4	2-120 SG BloDn	2-121 SG BloDn	2-124 SG BloDn	This col unused	08-16-1994 18:24:52 -
Time (Min)	2.9E-04 to 2.9E+04 uCi/cc	2.9E-04 to 2.9E+04 uCi/cc	2.9E-04 to 2.9E+04 uCi/cc	2.9E-04 to 2.9E+04 uCi/cc	1.0E+01 to 1.0E+07 cpm	1.0E+01 to 1.0E+07 cpm	1.0E+01 to 1.0E+07 cpm	3.1E-04 to 3.1E+04 uCi/cc	3.1E-04 to 3.1E+04 uCi/cc	3.1E-04 to 3.1E+04 uCi/cc	3.1E-04 to 3.1E+04 uCi/cc	1.0E+01 to 1.0E+07 cpm	1.0E+01 to 1.0E+07 cpm	1.0E+01 to 1.0E+07 cpm	0.0E+00 to 0.0E+00 UNUSED	MIN to MAX Units
00:00	3.1E-4	3.1E-4	3.1E-4	3.1E-4	.	.	.	.	00:00
00:05	3.1E-4	3.1E-4	3.1E-4	3.1E-4	.	.	.	.	00:05
00:10	3.1E-4	3.1E-4	3.1E-4	3.1E-4	.	.	.	.	00:10
00:15	3.1E-4	3.1E-4	3.1E-4	3.1E-4	.	.	.	.	00:15
00:20	3.1E-4	3.1E-4	3.1E-4	3.1E-4	.	.	.	.	00:20
00:25	3.1E-4	3.1E-4	3.1E-4	3.1E-4	.	.	.	.	00:25
00:30	3.1E-4	3.1E-4	3.1E-4	3.1E-4	.	.	.	.	00:30
00:35	3.1E-4	3.1E-4	3.1E-4	3.1E-4	.	.	.	.	00:35
00:40	3.1E-4	3.1E-4	3.1E-4	3.1E-4	.	.	.	.	00:40
00:45	3.1E-4	3.1E-4	3.1E-4	3.1E-4	.	.	.	.	00:45
00:50	3.1E-4	3.1E-4	3.1E-4	3.1E-4	.	.	.	.	00:50
00:55	3.1E-4	3.1E-4	3.1E-4	3.1E-4	.	.	.	.	00:55
01:00	3.1E-4	3.1E-4	3.1E-4	3.1E-4	.	.	.	.	01:00
01:05	3.1E-4	3.1E-4	3.1E-4	3.1E-4	.	.	.	.	01:05
01:10	3.1E-4	3.1E-4	3.1E-4	3.1E-4	.	.	.	.	01:10
01:15	3.1E-4	3.1E-4	3.1E-4	3.1E-4	.	.	.	.	01:15
01:20	3.1E-4	3.1E-4	3.1E-4	3.1E-4	.	.	.	.	01:20
01:25	3.1E-4	3.1E-4	3.1E-4	3.1E-4	.	.	.	.	01:25
01:30	3.1E-4	3.1E-4	3.1E-4	3.1E-4	.	.	.	.	01:30
01:35	3.1E-4	3.1E-4	3.1E-4	3.1E-4	.	.	.	.	01:35
01:40	3.1E-4	3.1E-4	3.1E-4	3.1E-4	.	.	.	.	01:40
01:45	3.1E-4	3.1E-4	3.1E-4	3.1E-4	.	.	.	.	01:45
01:50	3.1E-4	3.1E-4	3.1E-4	3.1E-4	.	.	.	.	01:50
01:55	3.1E-4	3.1E-4	3.1E-4	3.1E-4	.	.	.	.	01:55
02:00	3.1E-4	3.1E-4	3.1E-4	3.1E-4	.	.	.	.	02:00
02:05	3.1E-4	3.1E-4	3.1E-4	3.1E-4	.	.	.	.	02:05
02:10	3.1E-4	3.1E-4	3.1E-4	3.1E-4	.	.	.	.	02:10
02:15	3.1E-4	3.1E-4	3.1E-4	3.1E-4	.	.	.	.	02:15
02:20	3.1E-4	3.1E-4	3.1E-4	3.1E-4	.	.	.	.	02:20
02:25	3.1E-4	3.1E-4	3.1E-4	3.1E-4	.	.	.	.	02:25
02:30	3.1E-4	3.1E-4	3.1E-4	3.1E-4	.	.	.	.	02:30
02:35	3.1E-4	3.1E-4	3.1E-4	3.1E-4	.	.	.	.	02:35
02:40	3.1E-4	3.1E-4	3.1E-4	3.1E-4	.	.	.	.	02:40
02:45	3.1E-4	3.1E-4	3.1E-4	3.1E-4	.	.	.	.	02:45
02:50	3.1E-4	3.1E-4	3.1E-4	3.1E-4	.	.	.	.	02:50
02:55	3.1E-4	3.1E-4	3.1E-4	3.1E-4	.	.	.	.	02:55
03:00	3.1E-4	3.1E-4	3.1E-4	3.1E-4	.	.	.	.	03:00
03:05	3.1E-4	3.1E-4	3.1E-4	3.1E-4	.	.	.	.	03:05
03:10	3.1E-4	3.1E-4	3.1E-4	3.1E-4	.	.	.	.	03:10
03:15	3.1E-4	3.1E-4	3.1E-4	3.1E-4	.	.	.	.	03:15

	1-421 MS Line1	1-422 MS Line2	1-423 MS Line3	1-424 MS Line4	1-120 SG BloDn	1-121 SG BloDn	1-124 SG BloDn	2-421 MS Line1	2-422 MS Line2	2-423 MS Line3	2-424 MS Line4	2-120 SG BloDn	2-121 SG BloDn	2-124 SG BloDn	This col unused	08-16-1994 18:25:47 -
Time (Min)	2.9E-04 to 2.9E+04 uCi/cc	2.9E-04 to 2.9E+04 uCi/cc	2.9E-04 to 2.9E+04 uCi/cc	2.9E-04 to 2.9E+04 uCi/cc	1.0E+01 to 1.0E+07 cpm	1.0E+01 to 1.0E+07 cpm	1.0E+01 to 1.0E+07 cpm	3.1E-04 to 3.1E+04 uCi/cc	3.1E-04 to 3.1E+04 uCi/cc	3.1E-04 to 3.1E+04 uCi/cc	3.1E-04 to 3.1E+04 uCi/cc	1.0E+01 to 1.0E+07 cpm	1.0E+01 to 1.0E+07 cpm	1.0E+01 to 1.0E+07 cpm	0.0E+00 to 0.0E+00 UNUSED	MIN to MAX Units
03:20	3.1E-4	3.1E-4	3.1E-4	3.1E-4	.	.	.	.	03:20
03:25	3.1E-4	3.1E-4	3.1E-4	3.1E-4	.	.	.	.	03:25
03:30	3.1E-4	3.1E-4	3.1E-4	3.1E-4	.	.	.	.	03:30
03:35	3.1E-4	3.1E-4	3.1E-4	3.1E-4	.	.	.	.	03:35
03:40	3.1E-4	3.1E-4	3.1E-4	3.1E-4	.	.	.	.	03:40
03:45	3.1E-4	3.1E-4	3.1E-4	3.1E-4	.	.	.	.	03:45
03:50	3.1E-4	3.1E-4	3.1E-4	3.1E-4	.	.	.	.	03:50
03:55	3.1E-4	3.1E-4	3.1E-4	3.1E-4	.	.	.	.	03:55
04:00	3.1E-4	3.1E-4	3.1E-4	3.1E-4	.	.	.	.	04:00

Watts Bar Nuclear Plant
1994 Annual Exercise

Environs Data

Watts Bar Nuclear Plant

1994 Annual Exercise

REP Exercise Offsite Radiological Monitoring Data

Attached are data sheets for every fifteen-minute period during the exercise in which detectable amounts of radiation or radioactivity is present. For each time period, there are four types of information provided:

Centerline Monitoring Data

This form gives the GM readings at one-meter above ground (open and closed window) and the I-131 concentrations directly on the centerline of the plume at selected distances.

TVA Monitoring Point Data

This form gives the GM reading at one-meter above the ground (open and closed window) and the I-131 concentrations at each of the pre-defined TVA's monitoring points that is impacted.

Total Body Dose Rate Isodose Charts (1, 10, and 50 miles)

These charts show the magnitude of the closed windows dose rate at each of the impacted receptors in the plume. The centerline is shown graphically, and a letter (coded to the magnitude) is placed at each impacted receptor.

I-131 Isoconcentration Charts (1, 10, and 50 miles)

These charts show the magnitude of the I-131 concentration at each of the impacted receptors in the plume. The centerline is shown graphically, and a letter (coded to the magnitude) is placed at each impacted receptor.

For all the data forms and charts, there may be some values given as 'less than' or 'greater than' some value. These indicate either that the reading at that location is background, or that the instrument reading is offscale.

Conversion factors

The types of data provided in this package are limited in order to conserve time and paper. For this reason, the following conversion factors are provided to give the controller some help in calculating other readings that the team may make during the exercise.

To Convert From	To...	Multiply By
15 minute air samples	5 minute air samples	0.33
<u>15 minute air samples</u>		
I-131 Air Sample Cartridge (cpm)	Iodine Cartridge Scan with GM tube (mrem/hr)	1.0E-4
Particulate Air Sample Filter (cpm)	Particulate Filter Scan with GM tube (mrem/hr)	1.0E-4

Watts Bar Nuclear Plant
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HISTORICAL METEOROLOGICAL DATA FOR WATTS BAR ANNUAL EXERCISE

Actual Meteorological Conditions at the site will be used for this exercise

Offsite Radiological Readings are below measurable so all readings past the site boundary
are ***"AS READ"***

OSC Tasks

Watts Bar Nuclear Plant
1994 Annual Exercise

Watts Bar OSC Tasks -- 1994

Task #	Task Description	Controller
1	EGTS Train B -- Fire Header Replacement T=0:00	Maddux
2	CS 1BB Discharge Isolation Valve Repair T=0:00	Bryant
3	Manually Close 1-FCV-70-90 T=1:30	Harless
4	Electrical Problem prevents closing 1-FCV-70-87 T=1:30	Hensley
5	SI 1AA fails to start on Breaker Problem T=2:30	Massey
6	Medical Emergency T=0:50	Williams

Watts Bar Nuclear Plant
1994 Annual Exercise

Task Description: EGTS train B – Internal Fire Header Replacement

Task ID: WB94-A1

Task Type: Fire

Developer: Williams/Ford

Purpose: Reduce ability to filter offsite releases.

Time Restrictions:

Must Start: Initial Condition

Must Finish: Not before T=4:00, Not required

Other:

References: 47W850

Description/Notes:

Will slightly effect the offsite iodine readings, should not allow completion of task before supported by printed offsite package.

Leakage from the internal fire header piping was noted on the last inspection of the EGTS filter internals. Workers have removed all piping and have the penetrations into the top of the filter housing open awaiting the installation of the new pipe. The HEPA filters and the charcoal beds have been removed to allow for working space inside the filter. Fire system is isolated at valve 0-ISV-26-1097.

Watts Bar Nuclear Plant

1994 Annual Exercise

Task Description: CS 1BB discharge isolation valve repair (1-FCV-72-2)

Task ID: WB94-A2

Task Type: Mech

Developer: Bryant

Purpose: Reduce ability to control Containment Pressure

Time Restrictions:

Must Start: Initial Condition

Must Finish: Not before T=4:00, Not required

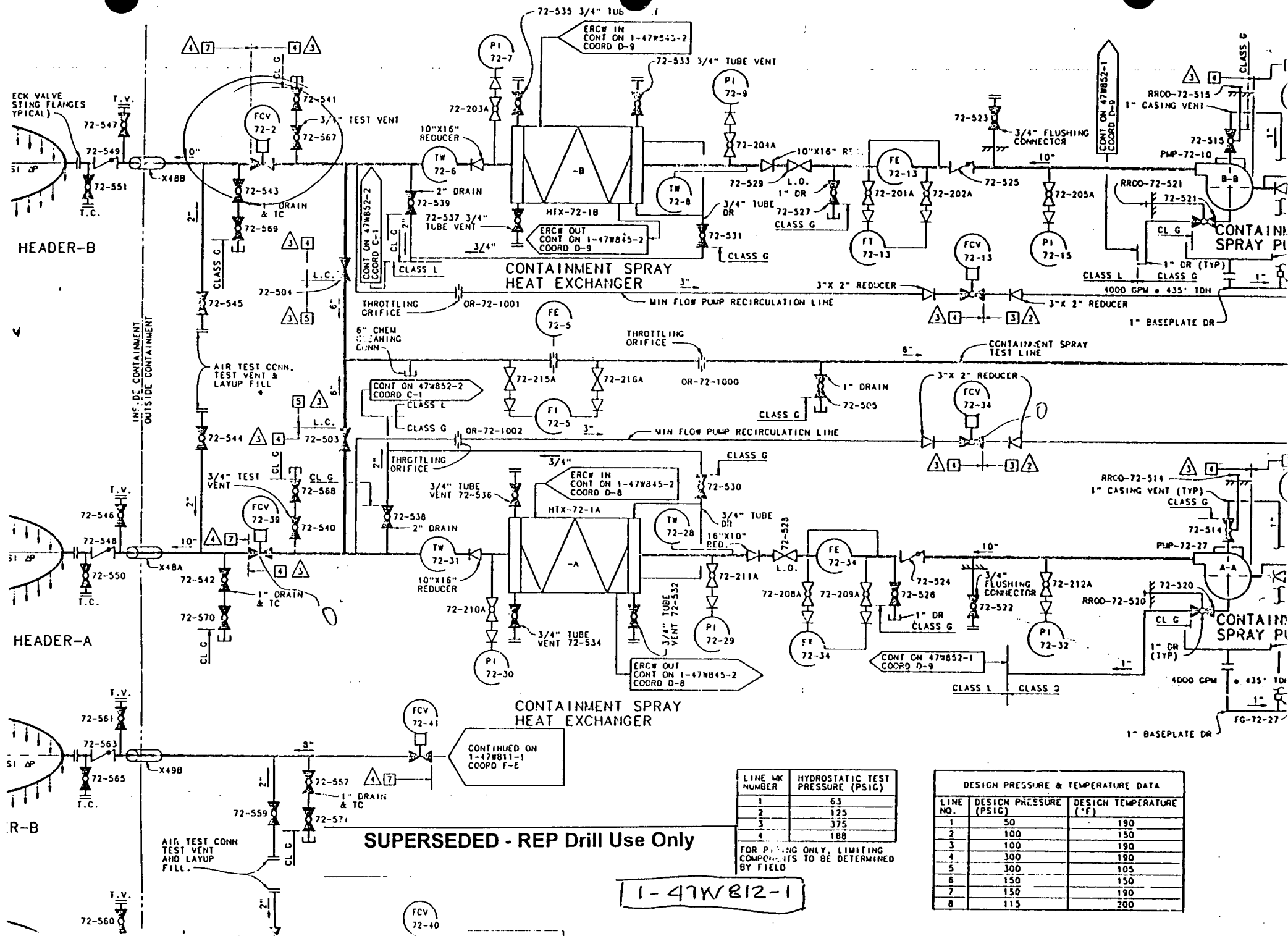
Other:

References: 1-SI-72-902-B, Valve Full Stroke Exercising during Plant Operations,
Containment Spray (Train B)
Tech Spec 5.7.2.11 (ASME Program)
VTM-W120-0800, VTD 2958
MI-0.002
1-47W812-1
1-45W760-72-4
1-47W437-5

Description/Notes:

Valve 1-FCV-72-2 (located in the Auxiliary Building Elevation 749 Column A4 about 6'5" south of the west line) is being disassembled for repairs after it failed Surveillance Instruction 1-SI-72-902-B. The valve failed to fully close and either an obstruction of the sealing surface or damage to the valve disk is suspected. A drill work package is available from the OSC Lead Controller.

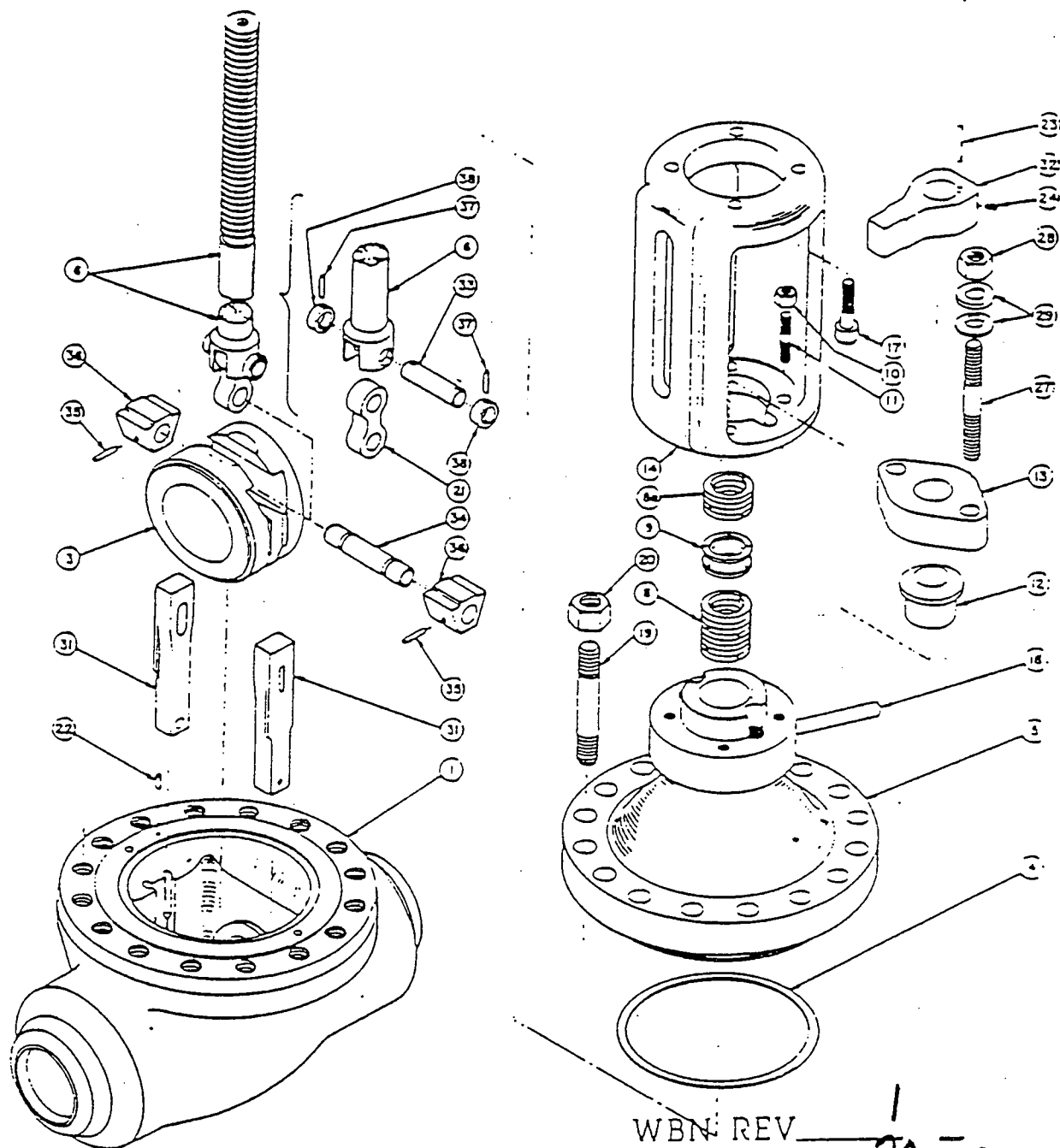
The valve disassembly is expected to be complete in about an hour and further information will be provided by the controller at that time. At about T=1:00, the cause of the valve failure will be determined to be foreign material on the valve seat with disc/seat damage.



LINE W/ NUMBER	HYDROSTATIC TEST PRESSURE (PSIG)
1	63
2	125
3	375
4	188

FOR PUMP ONLY, LIMITING COMPONENTS TO BE DETERMINED BY FIELD

DESIGN PRESSURE & TEMPERATURE DATA		
LINE NO.	DESIGN PRESSURE (PSIG)	DESIGN TEMPERATURE (°F)
1	50	190
2	100	150
3	100	190
4	300	190
5	300	105
6	150	150
7	150	190
8	115	200



WBN REV 1

WBN PAGE 20

- | | | |
|-----------------------|--------------------------|-----------------------|
| 1. Body | 13. Gland Follower | 28. Packing Gland Nut |
| 3. Disc | 14. Yoke | 29. Spherical Washer |
| 4. Main Flange Gasket | 17. Operator Cap Screw | 31. Guide |
| 5. Bonnet | 18. Leak-Off Pipe | 32. Torque Arm |
| 6. Stem | 19. Main Flange Stud | 33. Stem Pin |
| 8. Primary Packing | 20. Main Flange Nut | 34. Disc Pin |
| 8a. Secondary Packing | 21. Link | 35. Lock Pin |
| 9. Lantern Ring | 22. Pin | 36. Bearing Block |
| 10. Yoke-Bonnet Nut | 23. Torque Key | 37. Lock Pin |
| 11. Yoke-Bonnet Stud | 24. Torque Arm Set Screw | 38. Lock Ring |
| 12. Gland | 27. Packing Gland Stud | |

Gate Valve (Exploded View)

SUPERSEDED - REP Drill Use Only

1.0 INTRODUCTION

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1.1 Purpose

This Instruction provides detailed steps to verify the operational readiness of certain power operated American Society of Mechanical Engineers (ASME) code valves in the Containment Spray System that require cycling during plant operation.

1.2 Scope

1.2.1 Operability Tests to be Performed

Valves contained in this Instruction will be stroked to their safety related position to verify compliance with ASME Standard OM-1987, Part 10.

1.2.2 Surveillance Requirements Fulfilled and Modes

This Instruction partially implements Technical Specifications program 5.7.2.11 for Inservice Testing.

TECH SPEC SECTION	APPLICABLE MODES	PERFORMANCE MODES
p5.7.2.11	1, 2, 3, 4	All

1.3 Frequency and Conditions

- A. This Instruction is to be performed every 92 days.
- B. This Instruction is required to be in frequency before entry into Mode 4 from Mode 5.

2.0 REFERENCES

SUPERSEDED - REP Drill Use Only

2.1 Performance References

None

2.2 Developmental References

2.2.1 TVA Procedures

A. SSP-8.06, ASME Section XI Pump and Valve Inservice Testing.

2.2.2 TVA Drawings

A. 1-45W760-72-2.

B. 1-45W760-72-3.

C. 1-45W760-72-4.

D. 1-47W610-72-1.

E. 1-47W611-72-1.

F. 1-47W812-1.

2.2.3 Other

A. N3-72-4001, Containment Heat Removal Spray Systems.

B. Unit 1 Technical Specification Section 5.7.2.11.

3.0 PRECAUTIONS AND LIMITATIONS

- A. This Instruction is written for the system in normal lineup. Before cycling each valve, the possibility of creating an unsafe condition during testing should be evaluated due to any abnormal plant conditions that may exist.
- B. During testing of 1-FCV-72-2, CNTMT SPRAY HDR B ISOLATION, Containment Spray Pump 1B-B must be configured to prevent an inadvertent actuation of the Containment Spray System.
- C. When 1-HS-72-10A, CNTMT SPRAY PMP B, is placed in STOP-PULL TO LOCK to prevent an inadvertent containment spray actuation during valve testing, LCO 3.6.6 is applicable in Modes 1 through 4.
- D. If any valve fails to exhibit the required change of position in Mode 1, 2, 3, or 4, Limiting Condition for Operation (LCO) 3.6.6 is applicable.

WBN 1	VALVE FULL STROKE EXERCISING DURING PLANT OPERATION CONTAINMENT SPRAY (TRAIN B)	1-SI-72-902-B Revision 0 Page 11 of 13
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Data Package: Page ____ of ____

Date _____

APPENDIX C
Page 1 of 2

SUPERSEDED - REP Drill Use Only

1-FCV-72-2 DATA SHEET

Valve Description: CNTMT SPRAY HDR B ISOLATION
Timing Direction: CLOSED TO OPEN
Handswitch Location: 1-M-6
Tracking Number: *

[1] RECORD the following M&TE information:

DESCRIPTION	ID NUMBER	CALIBRATION DUE DATE
Stopwatch		

NOTE 1-XA-55-06D-134E, CNTMT/RHR SPRAY FCV-72-2/39/40/41 NOT CLOSED, will activate, if not already activated, during performance of this Appendix.

[2] RECORD as-found position of 1-FCV-72-2 using 1-HS-72-2A, CNTMT SPRAY HDR B TO CNTMT, position indication lights:

OPEN ☐ CLOSED ☐

[3] RECORD as-found position of Containment Spray Pump 1B-B handswitch, 1-HS-72-10A, CNTMT SPRAY PMP B:

A. A AUTO: ☐

B. STOP-PULL TO LOCK: ☐

NOTE 1 Containment Spray Pump B is to be inoperable to prevent an inadvertent actuation of the Containment Spray system.

NOTE 2 LCO 3.6.6 is applicable with Containment Spray Pump B being inoperable in Modes 1 through 4.

[4] ENSURE 1-HS-72-10A is in STOP-PULL TO LOCK. ☐

[5] ENSURE 1-FCV-72-2 is CLOSED. ☐

WBN 1	VALVE FULL STROKE EXERCISING DURING PLANT OPERATION CONTAINMENT SPRAY (TRAIN B)	1-SI-72-902-B Revision 0 Page 12 of 13
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NOTE The next step starts a timed sequence. Stroke time measurement starts when 1-HS-72-2A is placed in OPEN, and stops when the Green light on 1-HS-72-2A changes from LIT to NOT LIT.

[6] PLACE 1-HS-72-2A in OPEN, and

MEASURE stroke time of 1-FCV-72-2 with stopwatch. □

[7] RECORD measured stroke time:

STROKE DIRECTION	MEASURED STROKE TIME (secs)	STROKE TIME RANGE (secs)
C - 0		≤ 15 *

[8] VERIFY measured stroke time is within the range of less than or equal to 15 * seconds (Acc Crit). _____

[9] RETURN 1-FCV-72-2 to its as-found position. _____

[10] RETURN 1-HS-72-10A to its as-found position. _____

[11] VERIFY 1-FCV-72-2 is in its as-found position. _____

Independent

[12] VERIFY 1-HS-72-10A is in its as-found position. _____

Independent

SUPERSEDED - REP Drill Use Only

3.0 LIMITING CONDITION FOR OPERATION (LCO) APPLICABILITY

LCO 3.0.1 LCOs shall be met during the MODES or other specified conditions in the Applicability, except as provided in LCO 3.0.2.

LCO 3.0.2 Upon discovery of a failure to meet an LCO, the Required Actions of the associated Conditions shall be met, except as provided in LCO 3.0.5 and LCO 3.0.6.

If the LCO is met or is no longer applicable prior to expiration of the specified Completion Time(s), completion of the Required Action(s) is not required unless otherwise stated.

LCO 3.0.3 When an LCO is not met and the associated ACTIONS are not met, an associated ACTION is not provided, or if directed by the associated ACTIONS the unit shall be placed in a MODE or other specified condition in which the LCO is not applicable. Action shall be initiated within 1 hour to place the unit, as applicable, in:

- a. MODE 3 within 7 hours;
- b. MODE 4 within 13 hours; and
- c. MODE 5 within 37 hours.

Exceptions to this Specification are stated in the individual Specifications.

Where corrective measures are completed that permit operation in accordance with the LCO or ACTIONS, completion of the actions required by LCO 3.0.3 is not required.

LCO 3.0.3 is only applicable in MODES 1, 2, 3, and 4.

LCO 3.0.4 When an LCO is not met, entry into a MODE or other specified condition in the Applicability shall not be made except when the associated ACTIONS to be entered permit continued

(continued)

SUPERSEDED - REP Drill Use Only

3.0 LCO APPLICABILITY

LCO 3.0.4 (continued)

operation in the MODE or other specified condition in the Applicability for an unlimited period of time. This Specification shall not prevent changes in MODES or other specified conditions in the Applicability that are required to comply with ACTIONS.

Exceptions to this Specification are stated in the individual Specifications. These exceptions allow entry into MODES or other specified conditions in the Applicability when the associated ACTIONS to be entered allow unit operation in the MODE or other specified condition in the Applicability only for a limited period of time.

LCO 3.0.5

Equipment removed from service or declared inoperable to comply with ACTIONS may be returned to service under administrative control solely to perform testing required to demonstrate its OPERABILITY or the OPERABILITY of other equipment. This is an exception to LCO 3.0.2 for the system returned to service under administrative control to perform the testing required to demonstrate OPERABILITY.

LCO 3.0.6

When a supported system LCO is not met solely due to a support system LCO not being met, the Conditions and Required Actions associated with this supported system are not required to be entered. Only the support system LCO ACTIONS are required to be entered. This is an exception to LCO 3.0.2 for the supported system. In this event, additional evaluations and limitations may be required in accordance with Specification 5.8, "Safety Function Determination Program (SFDP)." If a loss of safety function is determined to exist by this program, the appropriate Conditions and Required Actions of the LCO in which the loss of safety function exists are required to be entered.

When a support system's Required Action directs a supported system to be declared inoperable or directs entry into Conditions and Required Actions for a supported system, the applicable Conditions and Required Actions shall be entered in accordance with LCO 3.0.2.

(continued)

SUPERSEDED - REP Drill Use Only

5.7 Procedures, Programs, and Manuals

5.7.2.10 Inservice Inspection Program (continued)

- b. Provisions that inservice inspection of all safety-related snubbers shall be performed in accordance with ASME OM Code-1990, except as modified by the guidance in Generic Letter 90-09. Safety-related snubbers include those installed on safety-related components and those installed on non-safety-related components if their failure or the failure of the component on which they are installed would have an adverse effect on any safety-related system.
- c. The provisions of SR 3.0.2 are applicable to the frequencies for performing inservice inspection activities;
- d. Inspection of each reactor coolant pump flywheel per the recommendations of Regulation Position c.4.b of Regulatory Guide 1.14, Revision 1, August 1975; and
- e. Nothing in the ASME Boiler and Pressure Vessel Code shall be construed to supersede the requirements of any TS.

5.7.2.11 Inservice Testing Program

This program provides controls for inservice testing of ASME Code Class 1, 2, and 3 components including applicable supports. The program shall include the following:

- a. Provisions that inservice testing of ASME Code Class 1, 2, and 3 pumps and valves shall be performed in accordance with Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda as required by 10 CFR 50.55a;
- b. Provisions that inservice testing of all safety-related snubbers shall be performed in accordance with ASME OM Code-1990. Safety-related snubbers include those installed on safety-related components and those installed on non-safety-related components if their failure or the failure of the component on which they are installed would have an adverse effect on any safety-related system.

(continued)

SUPERSEDED - REP Drill Use Only

5.7 Procedures, Programs, and Manuals

5.7.2.11 Inservice Testing Program (continued)

- c. Testing frequencies specified in Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda as follows:

<u>ASME Boiler and Pressure Vessel Code and applicable Addenda terminology for inservice testing activities</u>	<u>Required Frequencies for performing inservice testing activities</u>
Weekly	At least once per 7 days
Monthly	At least once per 31 days
Quarterly or every 3 months	At least once per 92 days
Semiannually or every 6 months	At least once per 184 days
Every 9 months	At least once per 276 days
Yearly or annually	At least once per 366 days
Biennially or every 2 years	At least once per 731 days

- d. The provisions of SR 3.0.2 are applicable to the above required Frequencies for performing inservice testing activities;
- e. The provisions of SR 3.0.3 are applicable to inservice testing activities; and
- f. Nothing in the ASME Boiler and Pressure Vessel Code shall be construed to supersede the requirements of any TS.

5.7.2.12 Steam Generator (SG) Tube Surveillance Program

Each steam generator (SG) shall be demonstrated OPERABLE by performance of the following augmented inservice inspection program and Specification 5.7.2.10.

- a. SG Sample Selection and Inspection - Each SG shall be determined OPERABLE during shutdown by selecting and inspecting at least the minimum number of SG specified in Table 5.7.2.12-1.

(continued)

Watts Bar Nuclear Plant
1994 Annual Exercise

Task Description: Manually close 1-FCV-70-90 -- Separated stem

Task ID: WB94-A3

Task Type: Mech

Developer: Ford

Purpose: Prevent isolation of the RCS leak into the Aux Building

Time Restrictions:

Must Start: As occurs on simulator (About T=1:30)

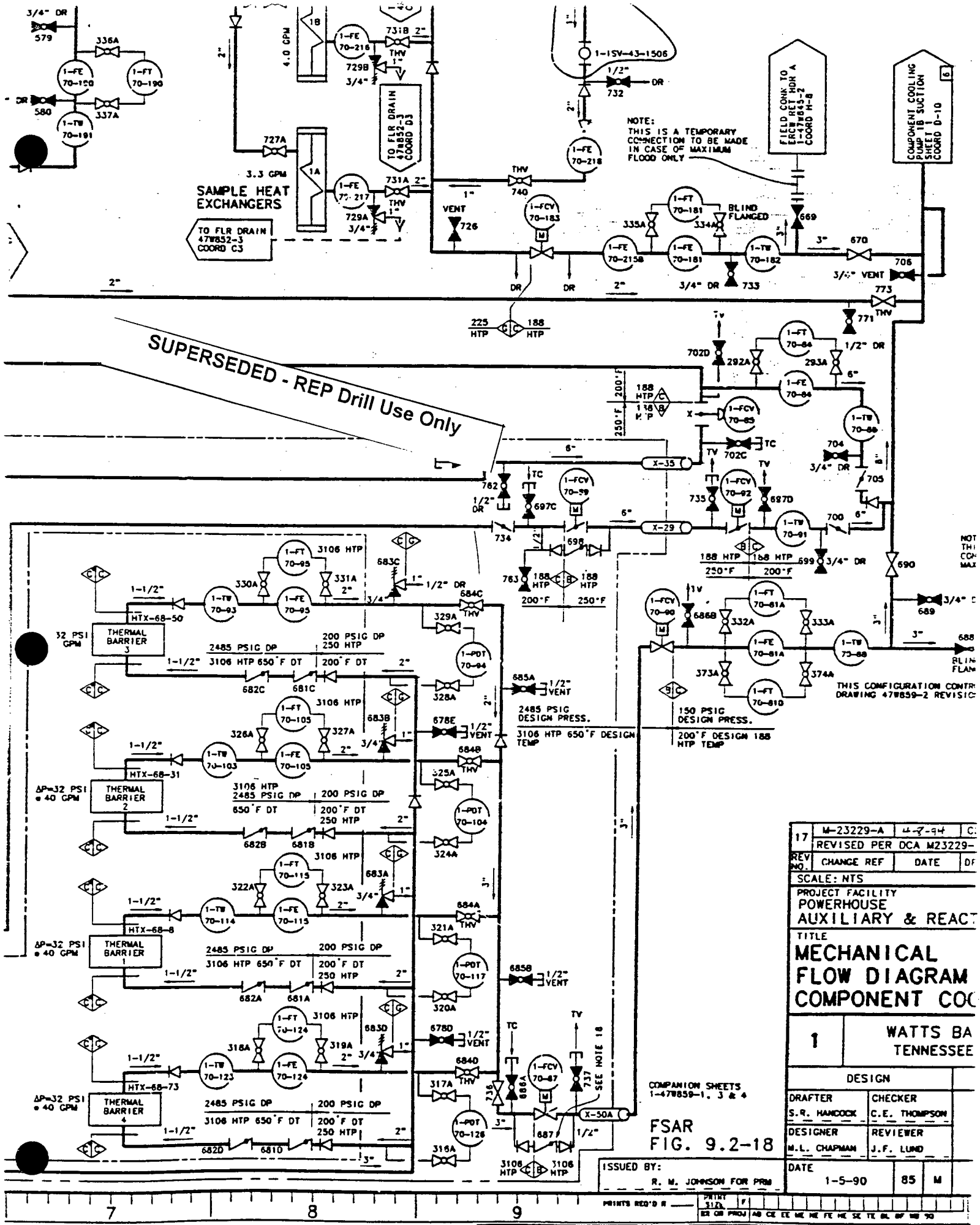
Must Finish: Cannot be Completed

Other:

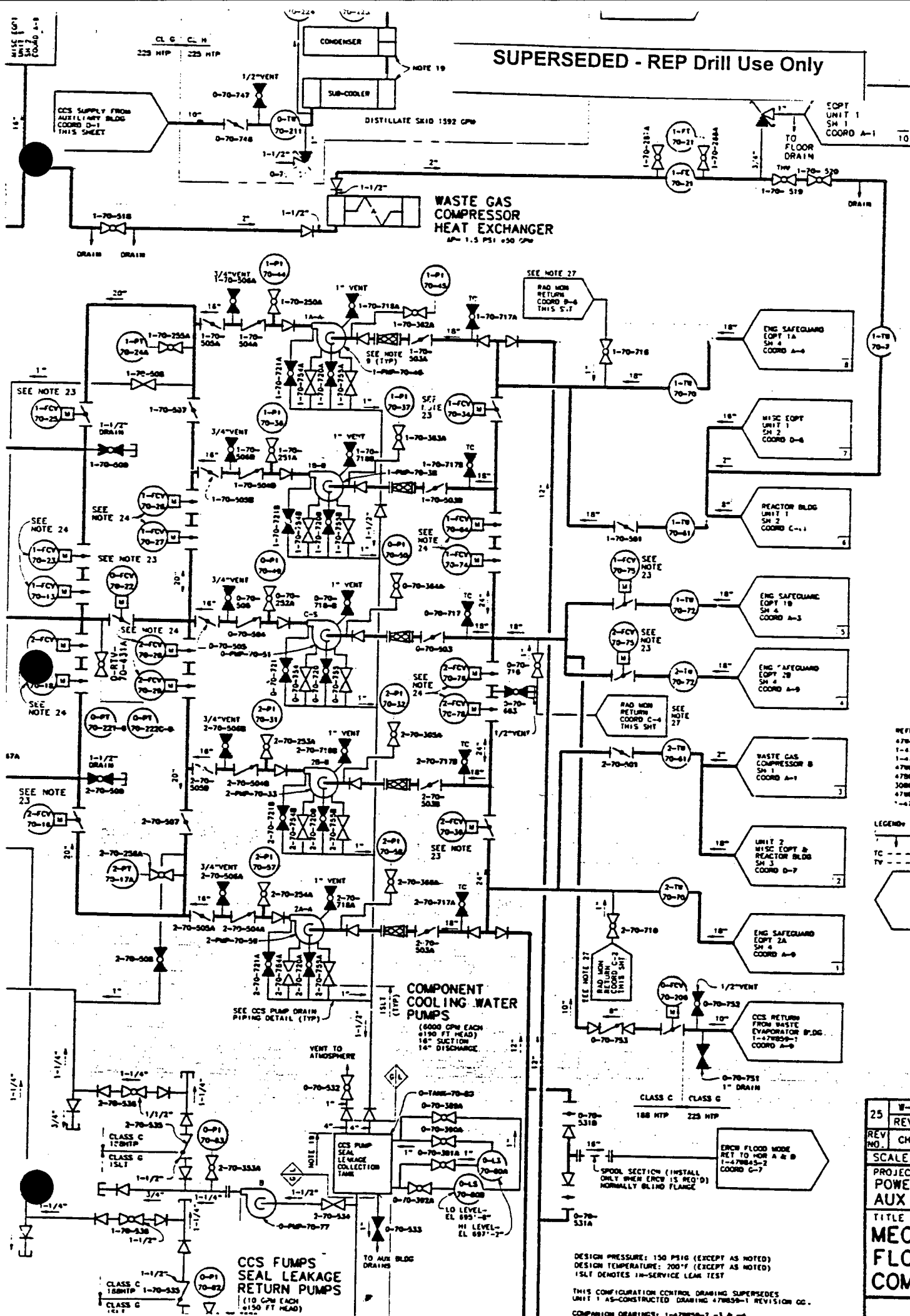
References: 47W859

Description/Notes: *A Mock-up may be used*

This valve cannot be isolated but the TSC/OSC/CR may attempt to close a nearby downstream manual isolation valve instead. Isolation of downstream valves can **ONLY** be successful **IF** the pressure is reduced below or near the design pressure of the lowest rated piping, in this case about 150 psig.



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3. ALL VALVE PREFIXED AND (2) PREFIXED
 4. MAIN PROC. OPERATING
 5. ALL INSTR. THE REMA. AND AS THE SAME
 6. ALL VALVE AND SHEET
 7. VALVES BY THE EQUIP.
 8. STRAINERS UP AND REV
 10. THE COMPON. AND THE C.
 11. HPI-INDICA. DETERMINE TO THE HPI TESTING M.
 12. ALL CLASS HYDROSTAT. PIPING IN AND THE PIPING DO. TO ATMOSP.
 13. VALVES ARE OPERATIONAL
 14. FOR CLASS
 15. FLOW CONT. LOCKED IN AT MOTOR BREAKERS OPERATION
 16. FOR DEFIN. TO VEND B.
 18. VALVES 1-1/2" SOFT SEAT
 19. THIS VENDOR HAS BEEN USE WITH 10. SEE C. 70-0053 / DESIGN OR USE THE SEE THE L. PIPING S.
 21. VALVES 2-1/2" HANDWHEEL A 1/16 IN. THE VALVE SILICONE VALVES B
 22. TEMPORARY
 23. VALVE IS BREAKER C
 24. VALVE IS BREAKER C
 25. THESE VAL. A. LOCK C
 26. (1,2) C THE STRUC. EQUIPMENT POINT, DE. MORE THAN
 27. TYPICAL CC 0, 1, 2-2F
 28. MECHANICAL PREVENTS
- REFERENCE DRAWINGS:
- 470444 SERIES-
 - 1-470000-1
 - 1-470100-1, 2, 3
 - 470111-70-1, 2, 3
 - 470601-70 SERIES
 - 300817 SERIES-
 - 470859-100 SERIES-
 - 1-470810-90-2

LEGEND

TC --- 1/2" TC

TV --- 1/2" TV

25	W-26336-A	REVISED PER C
REV NO.	CHANGE REF	
SCALE: NTS		
PROJECT FACILITY		
POWERHOUSE		
AUX BLDG UI		
TITLE		
MECHANIC		
FLOW DIA		
COMPON		

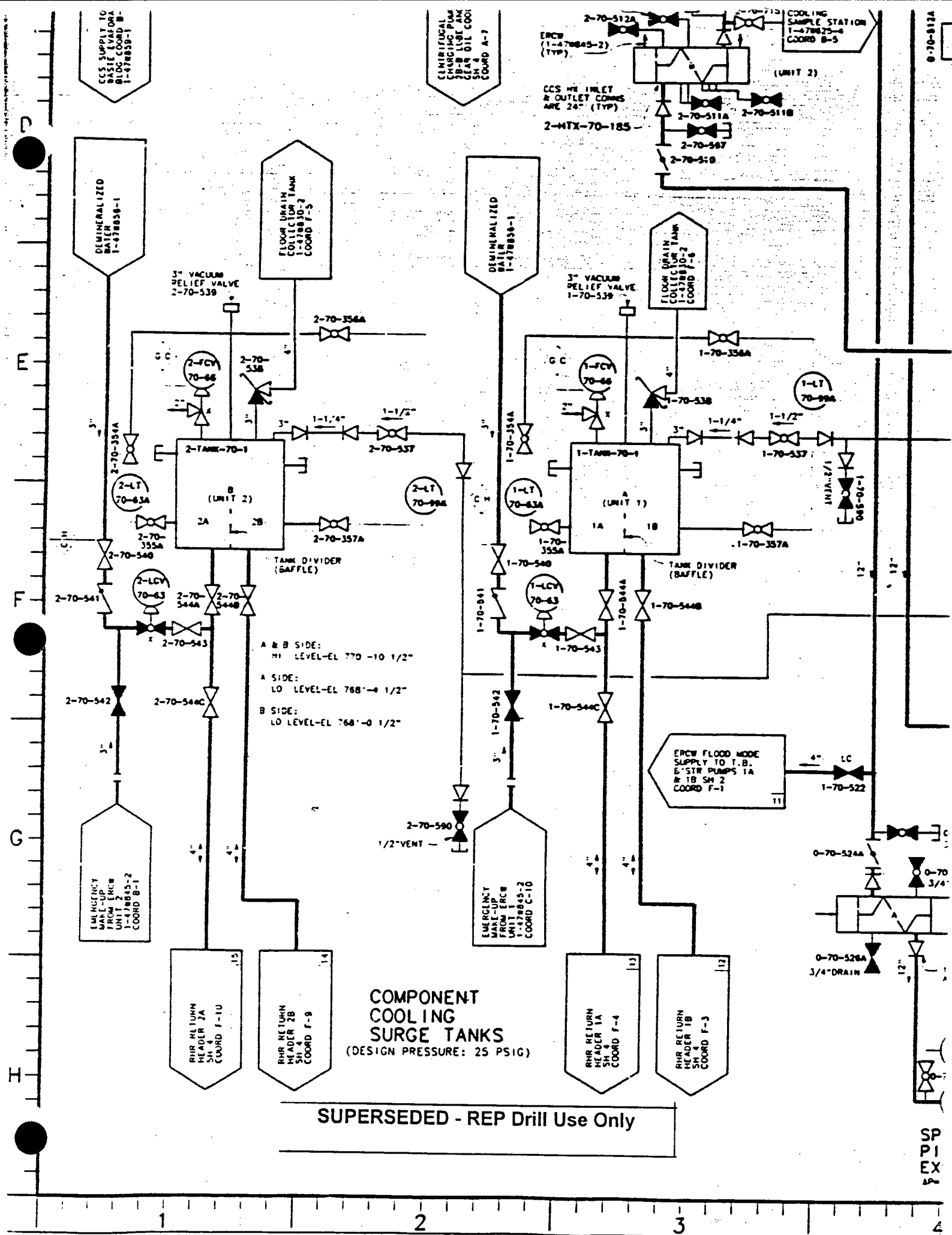
DESIGN PRESSURE: 150 PSIG (EXCEPT AS NOTED)

DESIGN TEMPERATURE: 200°F (EXCEPT AS NOTED)

15LT DENOTES IN-SERVICE LEAK TEST

THIS CONFIGURATION CONTROL DRAWING SUPERSEDES UNIT 1 AS-CONSTRUCTED DRAWING 470859-1 REVISION CC.

COMPANION DRAWINGS: 1-470859-2, -3 & -4



Watts Bar Nuclear Plant

1994 Annual Exercise

Task Description: Electrical problem prevents closing 1-FCV-70-87

Task ID: WB94-A4

Task Type: Elec

Developer: Hensley

Purpose: Prevent isolation of the RCS leak into the Aux Building

Time Restrictions:

Must Start: As occurs on simulator (About T=1:30)

Must Finish: Not Before T=4:00

Other:

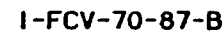
References: 480 RxMOV Board 1B2-B
1-45W751-10,12
1-45W760-70-4

Description/Notes:

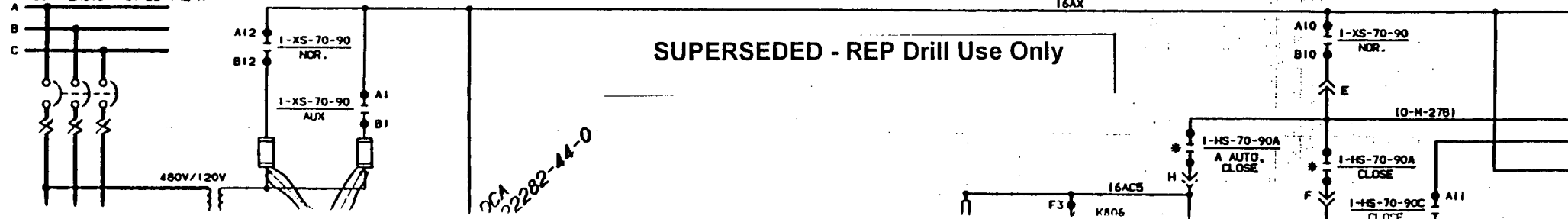
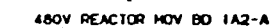
Either this isolation or reduction of pressure and isolation at another downstream valve is **REQUIRED** in order to isolate the release and thereby to be fully successful in the accident mitigation.

Isolation of downstream valves can **ONLY** be successful **IF** the pressure is reduced below or near the design pressure of the lowest rated piping, in this case about 150 psig. When the operator attempted to close 1-FCV-70-87, the valve did not close. A team dispatched to RxMOV Board 1B2-B will determine that the contactor is damaged beyond repair and institutes repairs.

If needed to maintain scenario timing.... After the repairs, the operators attempt to operate the valve, the valve does not move nor does it have position indication lights. Upon investigation, they determine that the breaker has no voltage on the load side of the breaker. They must now replace the breaker before attempting to operate the valve. If more time is needed after replacing the breaker.... The breaker trips when the handswitch is turned. Upon investigation a short is discovered in one phase of the circuit and must be repaired or replaced.



COMPONENT ID NO.	VALVE NOMENCLATURE	BOARD	WIRE PREFIX	CONTROL SWITCHES	K618 LOCATION CONT NOS.		K806 LOCATION CONT NOS.		HIGH FLOW C FDS NO.	REL. FDS NO.
1-FCV-70-87-B	ROP THERMAL BARRIER RETURN CONTAINMENT ISOLATION VALVE	182-B	120	1-HS-70-87A, C1 1-XS-70-87	1-R-51	7 & 8	1-R-53	F3 & F4	1-FDS-70-818	FCB
2-FCV-70-87-B	ROP THERMAL BARRIER RETURN CONTAINMENT ISOLATION VALVE	282-B	120	2-HS-70-87A, B, C1 2-XS-70-87	2-R-51	7 & 8	2-R-53	F3 & F4	2-FDS-70-818	FCB



SUPERSEDED - REP Drill Use Only

Watts Bar Nuclear Plant

1994 Annual Exercise

Task Description: SI Pump 1AA fails to start on Breaker Problem

Task ID: WB94-A5

Task Type: Elec

Developer: Massey

Purpose: Reduces injection capability

Time Restrictions:

Must Start: As occurs on simulator (About T=2:30)

Must Finish: Not before T=4:00, Not required

Other:

References:

Description/Notes:

Not substantial overall impact, does NOT have to be performed
Initial condition is that the safety injection pump 1A-A is not running nor has any indication of a problem. When the operator closes hand switch 1-HS-63-10B to start the pump, nothing happens. The pump does not start, the green light (open) status light stays lit, and the white light (disagreement light) stays unlit. Any operator action of the handswitch (open, close, etc.) will result in no change of lights or position.

If a team is dispatched to the 6.9kV Shutdown Board 1A-A compartment 15 they will see no apparent physical damage or burned areas on or near the board. If the relays are checked their status is:

Breaker Anti-Pump Aux Relay --1X	Deenergized
Breaker Latching Relay --30RX	Operate Position
Breaker Alarm Aux Relay --30X	Deenergized
All Protective Relays	Deenergized & No Target

The actual failure is that the open coil is burned out in the breaker anti-pump aux relay 1X. This relay must be energized to electrically close the breaker. It is also required to turn on the white disagreement light.

If the team replaces the breaker with a spare breaker, the disagreement light will not clear as the problem is in the control circuit. The possible fixes are to either:

- (1) Replace the 1X relay, jumper around the 1X and 30RX contacts, manually close the 1X relay with the cover removed while the operator closes hand switch 1-HS-63-10B (Relay replacement is the preferred fix)
- (2) manually close the breaker by removing the metal plate covering the closing spring release mechanism and releasing the mechanism with a stick

It is possible that the team will assess the situation and act before T=4:00, but unlikely.

Watts Bar Nuclear Plant

1994 Annual Exercise

Task Description: Medical Emergency - Worker slips, falls, and injures head

Task ID: WB94-A6

Task Type: MERT

Developer: Williams/Thomas

Purpose: Allow demonstration of MERT skills, take credit for MERT Drill

Time Restrictions:

Must Start: T=0:50

Must Finish:

Other: Estimated duration of 25 minutes

References:

Description/Notes:

TVA EMTs will take actions to transport the victim but will not actually go to the hospital. All communications offsite will be simulated.

The victim fell while collecting the trash in the Elev 713 pipe chase. He or she lost their balance, fell, and struck their head on a hanger. The worker was wearing a hard-hat but because of the slip, he/she struck the side of his/her head and the hard-hat offered no protection. The victims' co-workers call the control room and report that a worker has fallen in the Elev 713 pipe chase and hurt their head.

The victim will be found lying on the ground unconscious. Blunt trauma/laceration is obvious on the left side of the head. There is no other indication of injury to the victim.

Primary Medical Survey:

Airway, Breathing, and Circulatory status are satisfactory

Secondary Survey:

In addition to the trauma referenced above, the patient has loss of consciousness. Vital signs will initially be as obtained. If the patient is not transported within 45 minutes, vital signs may be simulated to indicate deteriorating status (BP 160/100, pulse of 40, respiration of 10, skin condition normal). Radiological survey indicates 400 cpm contamination in and around the laceration with spotty contamination of 400 cpm on the face. If the clothing is removed, the skin underneath areas of clothing will not be contaminated.

Watts Bar Nuclear Plant
1994 Annual Exercise

Public Information

Watts Bar Nuclear Plant

1994 Annual Exercise

Public Information

Instructions for Mock Media/Citizens

You have been assigned to assist the controller in the Watts Bar Exercise by making telephone calls to players and asking questions at media briefings. Media in the local area around the plant may have also been asked to participate in the exercise.

The controller will make assignments and will notify you at the start of the exercise. In order to make the exercise more realistic, you are not being supplied the scenario or information about plant conditions before the start of the exercise.

In making mock media/citizen calls, you should attempt to make enough calls to the appropriate players to exercise their ability to respond. You should develop your own questions/messages as the exercise progresses based on the events as being reported by the players. Questions should be challenging but try to be as realistic as possible.

Watts Bar Nuclear Plant

1994 Annual Exercise

Public Information

Instructions for Controller

Before the start of the exercise, the controller should contact all public information controllers and provide them with a copy of the Public Information Objectives and Instructions for the exercise. Mock media should be assigned to represent one or more local or national media outlets.

Following the Alert declaration and local media notification,

- (1) Calls should be made by mock media to Site Communications by local media with questions focusing on plant status and should the media go to the site for additional information. If you cannot reach Site Communications, you should call Media Relations in Knoxville.
- (2) Calls should be made by mock local citizens to Site Communications with questions focusing on the impact of what is happening at the site on you as a plant neighbor.

Following the sounding of the Accountability Sirens,

Calls should be made from mock local citizens living very near the plant concerning hearing the sirens or from local media receiving calls from plant neighbors.

Following declaration of a Site Area Emergency,

- (1) Calls should be made from national media (both newspaper and television).
- (2) Calls should also be made from mock citizens with questions focusing on clarification of information found in the calendar distributed to local EPZ residents or questions about information being broadcast by local media.
- (3) Calls should be made to TVA's Washington office from mock congressional staff of Tennessee Senators and Representatives from Southeast Tennessee.
- (4) Calls should be made to TVA's State Relations office in Knoxville from mock staff of Alabama and Georgia Governor's offices.

Worksheets

Exercise Evaluation Criteria

Instructions and Roles for Controllers, Evaluators, and Visitors

Role of a Controller:

Exercise Conduct

- Pass out data and messages required to guide the exercise.
- Provide additional information to emergency responders that they may request concerning accident details as long as this information would be directly available to them if this were a real event (earned data concept).
- Be familiar with the scenario, the data, and the messages you may have to pass out.
- Take whatever actions are required to keep the scenario on course (coordinate action with the Lead Controller when they are not within the scope of the existing scenario).
- Report to your Lead Controller any problems you are unable to resolve or impact multiple emergency facilities.

Exercise Evaluation (ONLY when this will not interfere with Exercise Control)

- Record any areas where you believe improvement is needed and present your comments at the post-exercise controller critique.
- Record any areas where you believe improvement is needed and present your comments at the post-exercise controller critique.
- Attend Post-Exercise Critique and develop list of action items to improve the EP response capability.

Role of an Evaluator:

Exercise Evaluation

- Record the positive and negative observations on player actions using the evaluation sheets provided in your scenario package.
- Record any areas where you believe improvement is needed and present your comments at the post-exercise controller critique.
- Attend Post-Exercise Critique and develop list of action items to improve the EP response capability.

Role of a Visitor:

Observation ONLY!

- Do not interact with the players.
- Do not discuss the scenario, impressions, or details during the exercise with anyone except controllers or evaluators.
- For scenario purposes you do not exist. Therefore having no interaction with the participants is your goal (and thereby no impact on their performance). Visitors are included in exercise for the personal improvement of the visitor, not the emergency organization.
- If you have any questions, check with the Lead Controller for your area.

Exercise Evaluation Criteria

Instructions for the Conduct of an Exercise

1. General Conduct:

- Know the overall controller organization
- Identify participants by position and name in notes, logs, and conversations.
- Identify yourself at all times and to all players by uses of a controller armband.
- The participants are expected to obtain information through the emergency organization and exercise their own judgment in determining response actions and resolving problems. In the event of an incorrect response, incomplete response, or if the participant indicates he does not know how to proceed; the controller may redirect the participant with the necessary instructions and will note the necessity to prompt on his evaluation sheet(s). Permission to prompt must be obtained from the Exercise Coordinator.
- Equipment problems not covered in the OSC Tasks section will be handled by the controllers as to minimize the impact on the exercise.
- There are not specific meal breaks in the exercise. Controllers should break for meals as time permits after consulting with their Lead Controller. Emergency Team Leaders should determine when their team should break for meals.

2. Exercise Control:

- Inform the Lead Controller of your pager number or other methods of reaching you quickly during the exercise if this is necessary.
- Remember to call the lead controller to report on the status of the players actions.
- Position yourself to maximize your effectiveness
- Personnel are assigned as controllers at all key function areas to monitor and control the exercise. They will accompany radiological monitoring teams, maintenance, search/rescue, and other teams as needed to provide the sensory information as necessary.
- The controller activities will be overseen by the Exercise Coordinator who will be in near constant communications with Lead Controllers for each facility. He will be responsible for the overall conduct of the exercise scenario.
- Messages and simulated Control Room data will be used to initiate, modify, and complete the events comprising the overall scenario. Selected controllers will use the messages sheets or OSC Task sheets to place the scenario events into effect and to trigger responses from the involved emergency responders. Each controller will have copies of the messages controlling the portion of the exercise scenario for which he is responsible. Participants are not allowed to interject events into the scenario.
- Controlling messages will be presented to the designated exercise participant at the time and under the conditions specified on the messages. Controllers should follow-up any messages with any necessary clarifying explanation to ensure that the participant fully understands the message.
- Selected Controllers will have real time-related plant and radiological data for issuance to exercise participants in position to have earned the data.

Exercise Evaluation Criteria

3. Plant Operations:

- Any portions of the scenario depicting plant system operations transients are simulated
- No actions involving operations of actual equipment impacting actual operation of the site
- All exercise messages, especially on radio, should include "This is a Drill"
- Controllers stationed at vital areas should be especially careful regarding operations of actual plant equipment

4. Scenario Awareness:

- Be aware at all times of where you are in the scenario. Don't leave your post at key times. Your Lead Controller can arrange for a replacement controller as needed.
- Be sure you understand the players actions and the master scenario,
- Keep the scenario on schedule by checking your timeline frequently.
- Issue the message(s) on time
- Do not issue messages that are inconsistent with the scenario or add events that were not approved in advance by your Lead Controller. Additional events may adversely impact out ability to evaluate the established objectives and must be carefully screened before being added to the exercise.

5. Interaction with Players:

- Allow players some flexibility to do their function and demonstrate their skills, knowledge, and initiative.
- Do not prompt the players.
- Identify the player's leader and work with him as appropriate.
- Don't allow media or other external influences to distract the players. No interviews with players are allowed during the exercises as this may be detrimental to the overall performance.
- Some exercise participants may insist that certain parts of the scenario are unrealistic. Controllers have the authority and responsibility to prevent this from interfering with the performance of the exercise. Controllers have the authority upon coordination with the Lead Controller to clarify any questions and basis of technical disagreements. In some cases, it may be necessary to invoke "Controllers Prerogative" to preserve the continuity of the exercise.

6. Personnel Safety:

- If a real emergency occurs, suspend the exercise and notify your Lead Controller IMMEDIATELY! Report any hazardous condition immediately.
- Controllers, evaluators, and visitors are not required to respond to the SIMULATED conditions (radiological, industrial, etc.). However, ALL PERSONNEL MUST FOLLOW ALL NORMAL SITE SAFETY PROCEDURES.
- Be sure to have a hard-hat, hearing protection, and safety glasses with you when entering the plant

Exercise Evaluation Criteria

	EXERCISE SPECIFIC CRITERIA	<input checked="" type="checkbox"/>
1.	Controllers did not prompt, coach, or otherwise interfere with the performance of control room personnel. (1.9.1)	
2.	TSC controllers did not prompt, coach, or otherwise interfere with the performance of TSC personnel. (1.9.1)	
3.	OSC controllers did not prompt, coach, or otherwise interfere with the performance of OSC personnel. (1.9.1)	
4.	CECC controllers did not prompt, coach, or otherwise interfere with the performance of CECC personnel (1.9.1)	
5.	TSC personnel participating in the exercise were not pre-positioned prior to commencement. (1.9.11)	
6.	OSC personnel participating in the exercise were not pre-positioned prior to commencement. (1.9.11)	
7.	CECC personnel participating in the exercise were not pre-positioned prior to commencement. (1.9.11)	
8.	Field personnel participating in the exercise were not pre-positioned prior to commencement. (1.9.11)	
9.	Players did not have prior knowledge of the exercise scenario initiation time. (Players may be aware of the exercise date due to prior release to the news media to prevent unnecessary public concern.)	
10.	Player actions did not imply prior knowledge of scenario details beyond those attributed to normal insight or expectations.	
11.	Technical accuracy of the scenario was within the scope of reasonably expected plant conditions.	
12.	The scenario adequately anticipated significant player actions and players were provided the associated supporting data.	
13.	The scenario was sufficiently difficult to exercise capabilities of the emergency plan and response personnel.	
14.	A players critique was conducted following the exercise and comments recorded for evaluation.	
15.	A controllers critique was conducted following the exercise and comments recorded for evaluation.	
16.	Player and controller comments were evaluated, categorized and prioritized by the lead controllers resulting in a clear and accurate synopsis of the exercise.	

17.	All proposals for de-escalation of an emergency and entry into the recovery phase were coordinated with the State by the CECC Director.	
18.	All emergency de-escalation's and recovery plans were decided on with the participation and concurrence of the CECC Director.	
19.	Recovery/Re-entry activities were planned and conducted in accordance with CECC-EPIP-13.	
20.	Communications systems adequately supported the needs of the Control Room staff. (Computer terminals, telephones, radios, etc.) (1.9.8)	
21.	Technical resources, plant procedures, drawings and other information were readily available and up-to-date to adequately support the needs of the control room. (1.9.2.)	
22.	The space and work area in the Control Room was adequate for the staff to work effectively.	
23.	TSC communications systems (telephones computer terminals, radios, etc.) adequately supported the needs of the TSC staff.	
24.	TSC communications systems functioned properly to the extent that required notifications or mitigating actions were not delayed or prevented. (2.10.6)	
25.	Technical resources, procedures, drawings, and other necessary information was readily available and current to adequately support the needs of the TSC staff. (2.10.2)	
26.	The space and work area in the TSC was adequate for staff personnel to work effectively.	
27.	Resources necessary to perform required analyses and assessments were available for TSC personnel. (RAC,SPDS,ERFDS, PC based assessment programs, etc.) (2.7.5)	
28.	Technical resources, procedures, drawings, and other necessary information was readily available and current to adequately support the needs of the OSC staff. (2.10.2)	
29.	The space and work area in the OSC was adequate for staff personnel to work effectively.	

Exercise Evaluation Criteria

30.	OSC communications systems (telephones, computer terminals, radios, facsimile machines, etc.) adequately supported the needs of the OSC staff and did not impede the progress of OSC response teams. (4.1.4., 4.3.3)	
31.	CECC communications systems functioned properly to the extent that required notifications or mitigating actions were not delayed or prevented.	
32.	CECC communications systems (telephones, computer terminals, radios, facsimile machines, etc.) adequately supported the needs of the CECC staff. (3.7.7)	
33.	Technical resources, procedures, drawings, and other necessary information was readily available and current to adequately support the needs of the CECC staff. (3.7.2, 3.7.12)	
34.	Resources necessary to perform required analyses and assessments were available for CECC personnel. (RED, FRED, PACDAM, SPDS, ERFDS, etc.) (3.7.12)	
35.	The space and work area in the CECC was adequate for staff personnel to work effectively.	
36.	The TSC was activated within 60 minutes of the declaration of an Alert, Site Area, or General Emergency. (2.1.1)	
37.	TSC staffing satisfied the minimum requirements of NUREG-0654 and NP-REP prior to a TSC declaration of activation. (2.1.2)	
38.	The SED clearly announced when the TSC was activated.	
39.	Personnel performing key functions in the TSC were those listed on the current duty roster. (2.1.4)	
40.	The OSC was activated within 60 minutes of the declaration of an Alert, Site Area, or General Emergency. (4.1.1)	
41.	OSC staffing satisfied the minimum requirements of NUREG-0654 and NP-REP prior to a OSC declaration of activation. (4.1.2)	
42.	The OSC Manager clearly announced when the OSC was activated. (4.1.1)	
43.	Personnel performing key functions in the OSC were those listed on the current duty roster. (4.3.7)	

44.	Sufficient staff was available in the OSC to support RADCON, chemistry, and maintenance activities. (4.2.1, 4.2.2, 4.2.3, 4.2.4, & 4.2.5)	
45.	At least eight RADCON technicians were available onsite within thirty minutes and at least fourteen were available onsite within 1 hour of the REP activation. (4.2.3)	
46.	The CECC was activated within 60 minutes of the declaration of an Alert, Site Area, or General Emergency. (3.1.1, 5.1.1, & 6.1.1)	
47.	CECC staffing satisfied the minimum requirements of NUREG-0654 and NP-REP prior to a CECC declaration of activation. (3.1.2, 3.1.2.1, 3.1.2.2, 3.1.2.3, & 3.1.2.4)	
48.	Personnel performing key functions in the CECC were those listed on the current duty roster. (3.7.4 & 6.1.3)	
49.	The ODS notified the appropriate TVA personnel in a timely manner according to EPIP-2, 3, 4, or 5.	
50.	Periodic radiation, airborne and contamination surveys were conducted in the Control Room area during the course of the event. (1.5.3)	
51.	Periodic radiation, airborne and contamination surveys were conducted in the TSC during the course of the event. (2.6.3)	
52.	Periodic radiation, airborne and contamination surveys were conducted in the OSC during the course of the event. (4.1.5)	
53.	RADCON personnel routinely took radiation, airborne (particulate and iodine), and contamination surveys of all assembly areas.	
54.	The TSC was able to establish and maintain an open communications line with the control room. (2. 1.1.6)	
55.	The TSC was able to establish and maintain, if requested, an open communications line with the NRC.	
56.	The OSC was able to establish and maintain an open communications line with the TSC and Control Room. (4.1.4)	
57.	The CECC was able to establish and maintain an open communications line with the TSC and Control Room.	
58.	The CECC was able to establish and maintain an open communications line with the State.	

Exercise Evaluation Criteria

59.	Sufficient qualified personnel were available for relief of Control Room personnel	
60.	Control Room relief personnel were properly and adequately briefed, by the individual being relieved, prior to the turnover of responsibilities. (1.9.13) (Evaluate only if relief occurs)	
61.	Sufficient qualified personnel were available for relief of TSC personnel.	
62.	TSC relief personnel were properly and adequately briefed, by the individual being relieved, prior to the turnover of responsibilities. (2.10.9) (Evaluate only if relief occurs)	
63.	Sufficient qualified personnel were available for relief of OSC personnel.	
64.	OSC relief personnel were properly and adequately briefed, by the individual being relieved, prior to the turnover of responsibilities. (Evaluate only if relief occurs)	
65.	Sufficient qualified personnel were available for relief of CECC personnel.	
66.	CECC relief personnel were properly and adequately briefed, by the individual being relieved, prior to the turnover of responsibilities. (3.7.11) (Evaluate only if relief occurs)	
67.	The OSC Post-accident sampling team members appeared knowledgeable, qualified and properly trained. (11.1.3)	
68.	The Post-accident sampling team demonstrated adequate familiarity with the equipment, procedures, radiation protective methods, and personnel protective equipment. (11.1.4)	
69.	Post-accident samples were collected and analyzed within 3 hours of the sample request. (11.1.7)	
70.	Post-accident sampling team member exposures did not exceed 1 REM TEDE or 25 REM to the extremities. (11.1.2)	
71.	Proper equipment was used to obtain the post-accident sample and it was transported properly. (11.1.5)	
72.	Sufficient precautions were taken during post-accident sample analysis to minimize personnel exposure and prevent contamination of the lab. (11.1.6)	
73.	Laboratory technicians demonstrated appropriate lab practices during post-accident sample handling and analysis (shielding, disposal, dilution techniques, etc.).	

74.	Post-accident sampling and analysis procedures were adequate to provide accurate and representative results.	
75.	The post-accident sample was analyzed for; noble gases, iodine, cesium, non-volatile isotopes, hydrogen, chlorides and boron. (11.1.7)	

Exercise Evaluation Criteria

CONTROL ROOM/SIMULATOR CRITERIA		<input checked="" type="checkbox"/>
1.	The Control Room staff properly recognized abnormal conditions based on interpretation of instrumentation and other available information. (1.1.1, 1.1.2)	
2.	The Control Room staff correctly assessed abnormal conditions and took appropriate mitigating actions expeditiously.	
3.	The SOS was immediately notified of abnormal conditions or events and promptly took charge.	
4.	Emergency classification of conditions was prompt, accurate and appropriate based on EPIP-1 EALs. (1.1.3)	
5.	The Control Room staff correctly implemented the EPIP immediate actions (EPIP 2, 3, 4, or 5) following recognition and classification of the emergency. (1.2.1)	
6.	The SOS coordinated and supervised the control room staff's response and re-directed actions when needed. (1.2.2)	
7.	Control room activities were conducted in a manner that did not interfere with the analysis, classification or mitigation of the abnormal condition. (1.2.3)	
8.	The SOS promptly initiated or recommended protective actions for on-site personnel, if appropriate. (for example) - evacuation of non-essential personnel from site. - access control, protective clothing requirements or KI administration for essential on-site personnel.	
9.	The Control Room staff tracked onsite protective actions initiated by the Control Room. (1.5.1)	
10.	The Control Room staff, prior to the staffing of the TSC and CECC, made any required offsite Protective Action Recommendations consistent with EPIP-5.	
11.	If a release was anticipated or ongoing prior to staffing of the TSC, the control room staff assessed reactor systems data, source term assumptions, and meteorological data to confirm the EAL classification and assess the magnitude and location of onsite and offsite radiological conditions. (SQ TI-30/BF TI-67) (1.6.1, 1.1.4)	
12.	Prior to operation of the OSC, all response teams dispatched by the control room were promptly assembled and adequately briefed prior to their dispatch.	

13.	The SOS briefed the Plant Manager/SED about plant conditions and emergency classification prior to the transfer of Site Emergency Director responsibilities. (1.9.9)	
14.	The responsibilities and authorities of the Site Emergency Director were clearly transferred from the SOS to the Plant Manager or his designee and key personnel notified. (1.9.9)	
15.	The SOS periodically informed the control room staff of the status of the emergency and any activities conducted by the OSC/TSC.	
16.	Prior to activation of the TSC, periodic announcements were made by the Control Room staff/SOS over the plant PA to provide information concerning plant status and major events to onsite personnel	
17.	Control Room staff actions were those that would be reasonably expected under the postulated plant conditions.	
18.	The Control Room staff tracked the status of critical equipment and was cognizant of the status of plant systems.	
19.	Congestion and noise in the Control Room were kept at reasonable levels. (1.9.7)	
20.	Technical issues and items that could not be promptly resolved by the Control Room staff were referred to the TSC. (1.9.6)	
21.	The Control Room staff reported information needed by the TSC regarding plant status, equipment availability, operator actions and changes in plans to the TSC immediately and also effectively shared information with all emergency centers. (1.9.4)	
22.	Communication links were established and maintained between the Control Room, TSC, OSC, NRC, and CECC. (1.4.5)	
23.	Information, decisions and recommendations from the TSC to the Control Room were received in a timely manner. (1.9.5)	
24.	The Control Room staff used appropriate procedures and properly implemented the actions. (1.2.1, 1.9.3)	
25.	Chronological logs were maintained, in a legible form, to document critical decisions, events, staff changes, calculations, equipment status, and notifications. (1.9.10)	
26.	Accountability of onsite personnel was completed within 30 minutes of sounding of the assembly and accountability siren. (1.5.2)	

Exercise Evaluation Criteria

27.	Search and rescue procedures, if required, were implemented for missing personnel within 45 minutes of the assembly and accountability siren. (1.5.2)	
28.	Response teams dispatched prior to the accountability siren, notified the Control Room of their location for accountability purposes.	
29.	Personnel performing key functions in the Control Room appeared knowledgeable of their duties and responsibilities. (1.9.12)	
30.	The ODS was notified of the event within 5 minutes of its declaration. (1.4.2)	
31.	NRC notifications were made within 1 hour of event declaration and an open line maintained if requested. (1.4.2, 1.4.3)	
32.	The Control Room staff initiated notification of response personnel via the Automatic Paging System or appropriate callout sheet in accordance with the EPIP and notified onsite personnel by Public Address announcements.	
33.	Evacuation of high noise areas, if required, was ensured by a team of Radcon and Operations personnel per Attachment 1 of EPIP-8. (BFN Only)	
34.	The Control Room staff re-evaluated available information at least every 2 hours for event classification.	

Exercise Evaluation Criteria

	TSC CRITERIA	<input checked="" type="checkbox"/>
1.	The SED was clearly in control and maintained TSC activities in an orderly manner.	
2.	Congestion and noise levels in the TSC were kept to an acceptable level. (2.10.5)	
3.	The SED maintained oversight of the TSC's analysis of conditions and events and any corrective actions taken. (2.7.1)	
4.	The SED implemented corrective action recommendations in an effective and timely manner.	
5.	The performance of peripheral TSC functions did not interfere with the classification, assessment, or mitigation of the principal event. (2.7.2)	
6.	The TSC staff provided adequate assistance to the Control Room in assessing event cause and the determination of appropriate mitigating actions. (2.1.1.2)	
7.	The TSC staff, when activated, assumed the responsibilities of overall plant operations. (2.1.1.1)	
8.	The TSC staff, using technical staff expertise and all available information, assessed and maintained an overview of reactor and plant conditions. (2.2.2, 2.2.4)	
9.	The SED evaluated and discussed with the CECC Director the potential onsite and offsite consequences of corrective actions taken. (2.7.4, 2.7.6)	
10.	Prior to activation of the CECC, the TSC initiated radiological effluent/environs monitoring and made dose projections as needed. (2.1.1.4)	
11.	Prior to activation of the CECC, the TSC made required notifications to Federal, State and Local emergency response organizations as conditions warranted. (2.1.1.5)	
12.	Prior to activation of the CECC, the TSC made offsite protective action recommendations if and when conditions warranted. (2.1.1.5)	
13.	Prior to activation of the CECC, the TSC dispatched the plant environs monitoring van if a release was anticipated or ongoing. (1.8.1)	
14.	Prior to activation of the CECC, the TSC provided the environs monitoring team with directions regarding geographical movement and measurements or samples to be taken. (1.8.1, 1.8.2)	

15.	Required notifications to State authorities were made within 15 minutes of event classifications.	
16.	The SED made prompt, accurate and appropriate event classifications per EPIP-1. (2.2.1)	
17.	The SED made prudent and timely protective action recommendations in accordance with EPIP-5.	
18.	The Site Director provided effective direction of Site Support personnel and resources to support the SED.	
19.	The SED, upon the classification of a Site Area Emergency, directed the initiation of personnel accountability, if not already performed.	
20.	The TSC promptly initiated onsite sampling and monitoring, given any release, to confirm the composition of the release. (i.e. iodine fraction) (1.6.2)	
21.	The TSC staff directed that post-accident containment air and/or reactor coolant samples be obtained and analyzed to determine appropriate protective actions for onsite personnel. (2.4.1)	
22.	If conditions warranted, the TSC initiated the evacuation of non-essential personnel from the plant to offsite locations per EPIP-8. (2.4.5)	
23.	The TSC recommended appropriate protective measures for essential personnel remaining onsite following evacuation. (i.e. protective clothing, KI, access control) (2.4.6)	
24.	The TSC staff confirmed and tracked the implementation of any onsite protective actions. (2.6.1)	
25.	Radcon tracked changing radiological conditions through the use of in-plant monitors and/or surveys and incorporated the information into protective action recommendations.	
26.	Key decisions, assignments, important events, data, calculations, and actions taken were chronologically recorded in the TSC logs. (2.10.8)	
27.	The TSC logs were maintained in a legible form.	
28.	The TSC staff used post-accident sampling and radiological monitoring results to assess, redefine and confirm conditions and emergency classifications. (2.2.5, 2.8.2, 2.8.3)	

Exercise Evaluation Criteria

29.	Effective communications were conducted between the TSC and other emergency centers (OSC, Control Room, CECC and NRC). (i.e. disregarding the accuracy, the information transmitted from one center was the information disseminated in the receiving center)	
30.	The information exchanged between the TSC and other emergency centers was accurate and timely based on the current conditions and available information.	
31.	Adequate information was exchanged/provided for the TSC to effectively perform its tasks. (1.9.9)	
32.	The TSC status boards were maintained accurate, based on available information, such that the TSC staff remained aware of important status and trends. (2.7.8)	
33.	TSC status boards were maintained current such that they did not impact the ability of the TSC to mitigate the event. (2.7.8)	
34.	OSC team location and progress information was maintained current on the TSC's OSC team tracking board to within 20 minutes of actual times.	
35.	The TSC kept the CECC informed of plant conditions and emergency status throughout the event.	
36.	The TSC informed onsite personnel initially and of any changes in: - Emergency conditions - Emergency classifications - Protective action recommendations - Radioactive release status	
37.	Available information was effectively shared within the TSC among Radcon, Operations, Technical Assessment, Maintenance, Chemistry, and the NRC.	
38.	Key managers in the TSC frequently consulted with each other and exchanged information during assessment and decision making activities. (2.7.9)	
39.	TSC staff briefings and general plant PA messages were performed at each significant event and about once every hour. (2.5.1)	
40.	The SED provided adequate information during periodic briefings to keep the TSC and OSC staffs apprised of ongoing activities and plant status.	
41.	Accountability of onsite personnel was completed within 30 minutes of the sounding of the assembly and accountability siren. (2.6.2, 8.2.1)	

42.	Search and rescue procedures, if required, were implemented for missing personnel within 45 minutes of the assembly and accountability siren. (2.6.2, 8.2.2)	
43.	Security personnel implemented accountability procedures in accordance with EPIP-8 (BFN) or EPIP-11 (SQN)	
44.	Following the initial accountability, onsite personnel were continuously accounted for during the emergency event. (8.2.3)	
45.	Security personnel established site access control in accordance with EPIP-11 without hindrance to emergency response personnel. (8.1.1)	
46.	Security practices or procedures did not impede the movement or access of operations or emergency response personnel. (i.e. card-key controlled doors, locked doors, etc.) (8.1.2)	
47.	Security personnel radiation exposure was monitored and appropriate protective actions were taken as necessary. (8.1.4)	
48.	Security personnel were knowledgeable in their duties and responsibilities. (8.3.2)	
49.	Applicable procedures were available in the TSC and were properly applied. (2.10.3)	
50.	Ongoing OSC tasks were periodically reviewed to determine their continued value given the current plant conditions.	
51.	TSC personnel performing assessments and involved in decision-making processes were aware of important trends or changes in plant status. (2.7.7)	
52.	The TSC staff confirmed the event classification at least every 2 hours. (2.2.3)	
53.	The responsibilities and authorities of the Site Emergency Director were clearly transferred from the SOS to the Plant Manager or his designee and key personnel were notified. (1.9.9)	
54.	Decisions for emergency classification downgrading were made based on SED consultations with plant technical and operations staffs and coordinated with the CECC Director.	
55.	Any on-site recovery actions were implemented in accordance with EPIP-16.	
56.	Plant parameter data sheets were transmitted to the CECC about every 30 minutes in accordance with EPIP-6 (BFN Only)	

Exercise Evaluation Criteria

57.	TSC accident assessment forms were completed and transmitted to the CECC each hour in accordance with EPIP-6. (SQN Only)	
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Exercise Evaluation Criteria

	OSC CRITERIA	<input checked="" type="checkbox"/>
1.	The OSC Manager was clearly in control and maintained OSC activities in an orderly manner. (4.1.3)	
2.	Congestion and noise levels in the OSC were kept to an acceptable level such that OSC activities were not adversely effected. (4.3.2)	
3.	The OSC Manager appeared to be knowledgeable of his duties and responsibilities. (4.1.3)	
4.	Prior to the deployment of OSC teams, each task was adequately planned and the hazards evaluated. (7.1.2)	
5.	The dispatching of OSC teams was orderly, organized, prompt, and consistent with TSC established priorities and authorization. (4.3.6, 7.1.1)	
6.	Each OSC response team member was checked for emergency response training, SCBA training, current whole body count, current DAC hours, and remaining allowable dose. (7.1.6)	
7.	Each OSC response team was briefed, in a single briefing, on the technical aspects of the task, existing radiological conditions, plant conditions, potentially hazardous situations, necessary tools or equipment, and the required frequency and method of communication. (7.1.2)	
8.	A team leader was clearly identified for each OSC response team.	
9.	Proper dosimetry was issued to each OSC response team member. (7.1.3)	
10.	Each OSC response team member was issued the necessary and proper respiratory equipment. (7.1.3, 4.1.6)	
11.	Response team task planning included aspects to aid the teams in expediency and exposure reduction.	
12.	Radiological burnout of personnel with key skills was considered in the task planning effort. (4.3.9)	
13.	Team tracking numbers were issued for each OSC response team.	
14.	OSC response teams were predressed and issued dosimetry prior to being called to the briefings when plant conditions are known to require dressout.	
15.	Following activation of the OSC, all response teams were dispatched with the knowledge of and under the direction of the OSC.	

16.	OSC response team members checked hand-held radios, radiological meters, sampling equipment, electronic equipment, and any special equipment, tools, or materials prior to entering the plant.	
17.	Response teams were able to reasonably assess, diagnose, and correct plant equipment problems and demonstrated proficiency in the use of tools, procedures, and protective equipment. (7.1.6, 7.1.7)	
18.	All response teams returned to the OSC and were de-briefed with technical aspects reviewed, unusual radiation levels and conditions reviewed, unusual physical conditions noted, and the need for special tools or equipment identified.	
19.	The location and progress of OSC response teams were kept current (within 15 minutes) as indicated on the OSC status board. (7.1.5)	
20.	Radios, as necessary, were issued to each team and the teams routinely used the radios to report progress. (7.1.5)	
21.	Adequate information was exchanged between the OSC and the response teams to maintain the OSC team tracking board current.	
22.	The information exchanged between the OSC and the OSC response teams was accurate and timely based on current conditions and available information.	
23.	All response teams dispatched prior to activation of the OSC were transferred to the OSC for tracking purposes. (7.1.5)	
24.	The OSC was immediately notified, by the team leader, of any team reassignment or inability to complete its mission.	
25.	OSC response team assignments were periodically reviewed to determine their continued benefit.	
26.	Reliable voice communications were established with the TSC, OSC, Radcon Lab and Chemistry Lab.	
27.	Information obtained from the field was quickly and accurately relayed to the OSC and then on to the TSC.	
28.	OSC, Radcon lab, Chemistry lab, staging area and field team personnel remained aware of any changes in: (2.5.1) - Emergency conditions - Emergency classification - Protective action recommendations - Radioactive release status	

Exercise Evaluation Criteria

29.	OSC staff briefings were performed at each significant event and about once every hour.	
30.	Radcon survey results were accurately transferred, in a timely manner, from the Radcon lab to the TSC and OSC.	
31.	Adequate information was exchanged or provided for the OSC, Radcon Lab, TSC, and Chemistry Lab to effectively perform their tasks.	
32.	The information exchanged between the OSC, TSC, Radcon Lab and Chemistry Lab was accurate and timely based on current conditions and available information.	
33.	OSC status boards were maintained current to a degree that they did not adversely impact the ability of the plant to mitigate the event.	
34.	OSC status boards were maintained accurate, based on available information, such that the OSC staff remained aware of important items and did not adversely impact event mitigation.	
35.	Adequate information was exchanged between the OSC, response teams, and the TSC to maintain the OSC status board information accurate and up to date.	
36.	Chronological logs were maintained to document critical decisions, assignments, important events, data, calculations, and actions taken.	
37.	OSC logs were maintained in a legible form.	
38.	The "position title", "plant", "date", "unit", and "personnel on duty" blanks were completed for each OSC position's log.	
39.	Radcon personnel provided adequate external and internal exposure estimates, in OSC task planning processes, and provided recommendations to minimize exposures. (4.3.9)	
40.	Radcon technicians in the field actively monitored and managed exposures to prevent unnecessarily exceeding personnel exposure limits.	
41.	Radcon responders appeared to be familiar with their equipment, procedures, and responsibilities.	
42.	Radcon promptly implemented or recommended appropriate iodine protective measures when conditions warranted. (Masks, KI, etc.) (4.1.6)	
43.	All response teams dispatched from the OSC had a Radcon member when plant radiological conditions warranted.	

44.	Radcon personnel provided detailed radiological briefings to each OSC response team prior to dispatch.	
45.	For a site evacuation, if radiological conditions warranted, a Radcon technician was dispatched to the site access control point to survey vehicles and personnel leaving the site. (BFN only)	
46.	Two radiological survey teams were formed and dressed out promptly upon activation of the OSC and effectively performed radiological surveys to determine the radiological conditions of the plant.	
47.	Applicable procedures were available in the OSC and were properly applied.	
48.	If dispatched prior to activation of the OSC, the Fire Brigade Team was located, assigned a tracking number, and tracked from that point.	
49.	Contamination control activities were conducted to minimize or prevent disruption of the TSC, OSC, or Control Room due to contamination during the event.	
50.	If requested by the Site Emergency Director, site boundary surveys were conducted, with results recorded and promptly reported to the OSC.	
51.	The principles of ALARA were effectively applied by Radcon personnel.	
52.	Air samples and contamination smears were collected and analyzed in a timely manner.	
53.	Results of all inplant and site boundary surveys were reported to the OSC in a timely manner.	
54.	The results from inplant and site boundary surveys were accurately transferred to and tracked on the OSC status boards.	
55.	Significant changes in radiological conditions were identified and appropriate personnel protective actions taken.	
56.	In-plant monitors were effectively utilized by the OSC to identify and track changing radiological conditions.	
57.	Individual internal and external exposures were managed to prevent exceeding established radiological limits. (Occupational limits of 10CFR20: 5REM/YR TEDE per Appendix B, Table 1 Column 1) (7.1.4)	
58.	Personnel protection requirement guidelines of EPIP- 14 were implemented as appropriate. (SQN only)	

Exercise Evaluation Criteria

59.	Any individual projected to exceed or who actually exceeded site limits, received a SED authorized extension in accordance with EPIP-15. (1 REM/YR TEDE)	
60.	Internal and external exposures were tracked to determine total doses. (7.1.4)	
61.	Internal exposures were minimized by appropriate respiratory protection for the radiological conditions.	
62.	Personnel contamination was controlled by the issue and proper use of protective clothing.	
63.	Contaminated personnel were identified then efficiently and adequately decontaminated (unless medical conditions dictate otherwise).	
64.	Available information was effectively shared within the OSC among Radcon, Fire Protection, Chemistry, Operations, OSC staging area and technical support. (i.e. I&C, Mech, Elect., etc.)	
65.	Key managers in the OSC frequently consulted with each other and effectively exchanged information during decision making activities.	
66.	Information exchange within the OSC was adequate for the various groups to effectively perform their jobs.	
67.	Communications between the various OSC groups did not delay or prevent the mitigation of critical plant events.	
68.	If dispatched prior to activation of the OSC, the MERT was located, assigned a tracking number, and tracked from that point.	
69.	The OSC Manager maintained oversight of OSC activities, plant conditions, and any corrective actions taken.	
70.	The OSC implemented TSC requests/directions in an effective and timely manner.	
71.	OSC response teams were kept aware of any changing radiological or physical plant conditions.	

Exercise Evaluation Criteria

OSC RESPONSE TEAM CRITERIA ☑	
Team: ____ Task: _____ _____ Task Identified by TSC/Control Room _____ Team Planning Started _____ Team Planning Completed _____ Personnel requested to report to OSC _____ Team Personnel arrived at OSC _____ Team Briefing Began _____ Team Briefing Ends _____ Team Dispatched from OSC _____ Team Obtains Necessary Equipment _____ Team Obtains Necessary Resp Eqpt _____ Team Enters the Plant _____ Team Arrives at the Work Location _____ Team Begins Task _____ Team Completes Task _____ Team Exits After Completing Task _____ Team Arrives at the OSC _____ Team Begins Debriefing _____ Team Completes Debriefing	
1.	The team maintained a log of repair actions taken.
2.	The task was adequately planned and the hazards evaluated prior to deployment of the team. (7.1.2)
3.	The response team's dispatch was organized, orderly, prompt, and consistent with the TSC established priorities and authorization. (4.3.6, 7.1.1)
4.	Each response team member was checked for emergency response training, SCBA training, current whole body count, current DAC hours, and remaining allowable dose. (7.1.6)
5.	The response team was briefed on the technical aspects of the task, existing radiological conditions, plant conditions, potential hazardous situations, necessary tools or equipment, and the required frequency and method of communications in a single briefing. (7.1.2)
6.	A team leader was clearly identified for each response team.
7.	Proper dosimetry was issued to each response team member. (7.1.3)
8.	Each response team member was issued the necessary respiratory equipment. (7.1.3, 4.1.6)
9.	Team task planning included aspects to aid the team in expediency and exposure reduction.

10.	Radiological burnout of personnel with key (critical) skills was considered in the task planning effort. (4.3.9)	
11.	The response team was predressed and issued dosimetry prior to the briefing when the plant conditions are known to require dressout.	
12.	Team members checked hand-held radios, radiological meters, sampling equipment, electronic equipment, and any special equipment, tools, or materials prior to entering the plant.	
13.	Team members were able to reasonably assess, diagnose, and correct plant equipment problems and demonstrated proficiency in the use of tools, procedures, and protective equipment. (7.1.6, 7.1.7)	
14.	The response team returned to the OSC and was de-briefed with technical aspects reviewed, unusual radiation levels and conditions reviewed, unusual physical conditions noted, and the need for special tools or equipment identified.	
15.	A radio, if necessary, was issued to the team and the team routinely and as directed in the OSC briefing used the radio to report progress.	
16.	If reassigned or unable to complete the assignment, the team leader immediately notified the OSC.	
17.	Adequate internal and external exposure estimates were provided by Radcon in the task planning process. (4.3.9)	
18.	Radcon personnel provided recommendations to minimize exposures during the task planning process. (4.3.9)	
19.	If conditions warranted, a Radcon member was dispatched with the team.	
20.	The response team was issued an OSC tracking number.	
21.	If potassium iodide (KI) was issued, the team members were given the KI package instructions and any questions about KI answered.	
22.	The response team contained an Operations member. (This is not a required item, but may provide useful information during the evaluation.)	

Exercise Evaluation Criteria

FIRE BRIGADE CRITERIA <input checked="" type="checkbox"/>		
<p> <input type="checkbox"/> Fire Reported] <input type="checkbox"/> Fire Brigade Dispatched <input type="checkbox"/> Incident Commander On Scene <input type="checkbox"/> Communications Established <input type="checkbox"/> Fire Brigade On Scene <input type="checkbox"/> Fire Brigade Engaged <input type="checkbox"/> Fire Extinguished or Under Control <input type="checkbox"/> Fire Brigade DeBriefing Begins <input type="checkbox"/> Fire Brigade DeBriefing Completed </p>		
1.	Upon notification of a fire, an Incident Commander was promptly dispatched to the scene.	
2.	An incident command post was properly established in a safe area at or near the scene and its location clearly reported (announced).	
3.	The Incident Commander promptly established and maintained communications with the Control Room. (7.1.5)	
4.	The Fire Brigade Team arrived on scene in a timely manner with sufficient fire fighting and protective equipment. (7.1.1)	
5.	Response sectors were properly established and the team members briefed.	
6.	Staging areas, with additional equipment and personnel, were established in safe locations and were clearly announced.	
7.	The team properly assessed the physical situation and identified any hazards associated with the incident. (radiological, physical, chemical, etc.)	
8.	Fire brigade team communications (radio, face-to-face) were professional, clear, and effective.	
9.	Fire fighting equipment selection, placement, and use was appropriate and effective.	
10.	Fire brigade team members demonstrated an adequate knowledge of fire fighting tactics and skills.	
11.	The Fire Brigade Leader's fire fighting strategy and tactics were appropriate for the situation.	
12.	The Fire Brigade Leader's command and control of the situation and interaction with support personnel was adequate and effective.	
13.	The interaction and coordination between the Incident Commander and the Fire Brigade Leader was adequate and effective.	

14.	Radcon personnel provided sufficient and prompt radiological information to the Fire Brigade Leader and Incident Commander.	
15.	Security personnel provided sufficient and effective scene control (access, escorts, etc.).	
16.	The Fire Brigade Team was briefed prior to dispatch or by radio enroute to the scene. (7.1.2)	
17.	The protective equipment provided to the Fire Brigade (SCBA, radiological monitoring, turnout gear, etc.) and its use was effective and adequate for the situation. (7.1.3)	
18.	Fire Brigade team exposure was monitored constantly and did not exceed EPA guidelines. (7.1.4)	

Exercise Evaluation Criteria

MEDICAL EMERGENCY RESPONSE TEAM (MERT) <input checked="" type="checkbox"/>	
<p> <input type="checkbox"/> Medical Emergency Reported <input type="checkbox"/> MERT Team Dispatched <input type="checkbox"/> Incident Commander On Scene <input type="checkbox"/> Communications Established <input type="checkbox"/> MERT On Scene <input type="checkbox"/> Victim Transported <input type="checkbox"/> MERT Team DeBriefing Started <input type="checkbox"/> MERT Team DeBriefing Completed </p>	
1.	Upon notification of a medical emergency, an Incident Commander was promptly dispatched to the scene.
2.	An incident command post was properly established in a safe area at or near the scene and its location clearly reported (announced).
3.	The Incident Commander promptly established and maintained communications with the Control Room. (7.1.5)
4.	The medical emergency response team (MERT) arrived on scene in a timely manner with proper and sufficient medical and protective equipment. (7.1.1)
5.	The interaction and coordination between the Incident Commander and MERT leader were adequate and effective.
6.	The medical situation was properly assessed and any medical injuries adequately identified.
7.	The team properly assessed the physical situation and identified any hazards associated with the incident. (radiological, physical, chemical, etc.)
8.	The MERT took adequate personnel protective actions for the hazards encountered.
9.	MERT exposures were monitored constantly and did not exceed EPA guidelines. (10.1.3)
10.	MERT communications (radio and face-to-face) were professional, clear, and effective.
11.	The MERT provided appropriate and satisfactory emergency medical care for the injuries sustained.
12.	The priority of medical and radiological concerns was properly established for contaminated or potentially contaminated injured personnel. (10.1.1)

13.	Proper contamination control measures were implemented for personnel and equipment during the treatment, transport, and following transport of contaminated or potentially contaminated injured personnel. (10.1.2)
14.	The Incident Commander and/or MERT leader were provided sufficient and prompt radiological information.
15.	Security personnel provided sufficient and effective scene control such that there was no associated delay in MERT response or victim transport. (access control, personnel escorts, ambulance escort, etc.)
16.	The means of transportation for injuries requiring offsite transport was determined by the severity of the injuries. (load-and-go or offsite ambulance support)
17.	Radcon personnel accompanied contaminated or potentially contaminated transport victims in the ambulance to provide radiological services as required. (10.2.6)
18.	The ambulance medical attendant provided a follow-up notification to the receiving hospital immediately upon site departure. (at a minimum provided ETA and confirmation of medical and radiological conditions.) (10.2.4)
19.	Agreement hospital facilities and personnel were properly prepared for the arrival of contaminated injured personnel. (10.1.4)
20.	The victim's radiological and medical condition was properly assessed and prioritized by the hospital staff. (10.2.7, 10.1.4)
21.	Adequate samples were properly collected (and labeled) for radiological assessment by the hospital staff. (10.1.4)
22.	Proper contamination control measures were implemented during the treatment and decontamination of the patient by the hospital staff. (10.1.4)
23.	The MERT leader command and control of the situation and his interaction with support personnel was adequate and effective.

Exercise Evaluation Criteria

	CECC CRITERIA	<input checked="" type="checkbox"/>
1.	Initial notification to the State of an emergency classification occurred within 5 minutes after the Operations Duty Specialist (ODS) was notified by the Site. (3.1.1.3)	
2.	Initial notification to the State of an emergency classification occurred within 15 minutes of the emergency declaration by the SED. (3.1.1.3)	
3.	The ODS accurately recorded the required information on the appropriate ODS incident form (App A or B) and relayed that information to the State and local agencies. (3.1.1.3)	
4.	The CECC Director clearly announced when the CECC was activated. (3.7.9)	
5.	The CECC Director was clearly in control and maintained CECC activities in an orderly manner. (3.7.4)	
6.	Congestion and noise levels in the CECC were kept to an acceptable level such that CECC activities were not adversely effected. (3.7.6, 5.3.3)	
7.	The CECC Director appeared knowledgeable of his duties and responsibilities. (3.1.2.7, 5.3.2)	
8.	CECC staff briefings were performed at each significant event and at least every 60 minutes.	
9.	The CECC Director provided adequate information during the periodic briefings such that CECC personnel remained aware of any changes in: - Emergency conditions - Emergency classification - Protective action recommendations - Radioactive release status	
10.	The appropriate NSSS vendor, INPO, DOE, and primary and excess property insurance carriers were notified promptly in accordance with EPIP-1 App. B.	
11.	The Resource Support Coordinator adequately obtained and coordinated off-site TVA and non-TVA logistics and technical support as requested, and did so in a timely manner. (3.1.1.1, 3.7.14)	
12.	The Radiological Emergency Notification Directory (REND) was readily available and provided adequate contact information such that requested offsite support was not significantly delayed.	
13.	Emergency funding was promptly authorized by the Senior VP Nuclear or his designee when needed.	

14.	Effective communications were conducted between the CECC and other emergency centers (TSC, JIC, RMCC, State and NRC). (i.e. disregarding the accuracy, the information transmitted from one center was the information disseminated in the receiving center)	
15.	The information exchanged between the CECC and other emergency centers was accurate and timely based on the current conditions and available information.	
16.	A TVA liaison was provided for the State Emergency Operations Center following emergency classifications of Site Area and General Emergency.	
17.	Emergency classification changes were discussed, with concurrence, between the TSC and CECC and when conditions allowed the State was informed prior to official declaration.	
18.	Plant and offsite status reports were periodically provided to the RMCC Coordinator.	
19.	Communications between the CECC dose assessment and the State dose assessment teams were promptly established and maintained.	
20.	Adequate information was exchanged or provided for the Plant Assessment Team to effectively perform their tasks.	
21.	Adequate information was exchanged or provided for the Core Damage Assessment Team to effectively perform their tasks.	
22.	The information flow between the Plant Assessment and Dose Assessment Teams was sufficient to allow effective offsite dose assessments and offsite dose projections, maintain an awareness of plant status, and anticipate the consequences of progressing events. (3.2.6)	
23.	Information flow between the Plant Assessment and Dose Assessment Teams was timely to the extent that dose assessments were maintained current with the Changes in plant status and conditions. (3.2.8)	

Exercise Evaluation Criteria

24.	The Dose Assessment Team was provided with sufficient information from site chemistry (TSC), meteorology, environs assessment, plant assessment, core damage assessment, and the engineering lab to develop adequate current and projected dose assessments. (i.e. real time and forecast met data, release rates, release paths, plant status, potential or anticipated release rates, water and atmosphere dispersions, etc.)	
25.	Plume plots were generated and provided in a timely manner to the CECC staff, TSC, and State for ongoing releases or to indicate estimated centerline locations for potential releases.	
26.	Dose assessments, when conducted, were approved by the Radiological Assessment Coordinator (RAC) and distributed to the CECC staff, TSC, and State in accordance with EPIP-8 App D.	
27.	Environmental/Radiological data was effectively obtained from field teams and plant monitors and utilized for dose projections. (3.1.1.2)	
28.	Dose Assessment promptly and correctly projected the direction and maximum dose within the plume EPZ and the distance at which the EPA PAGs were expected to be exceeded, for ongoing releases. (3.2.5)	
29.	The initial source term determination and any changes were provided to Dose Assessment in a timely manner. (1.7.4)	
30.	Current conditions and forecast meteorological information was readily available from both the Meteorological Data Station and offsite facilities. (3.2.7)	
31.	Dose Assessment provided the CECC staff with protective action recommendations based on dose assessment results in accordance with CECC-EPIP-8 Appendix C	
32.	The State was provided with dose assessment updates hourly and following any significant change.	
33.	The CECC Director made protective action recommendations that were appropriate for the emergency classification, plant conditions, radiological and meteorological conditions, and consistent with the EPA PAGs. (3.3, 3.3.1, 3.3.2, 3.3.3, 3.3.4, 3.3.5, 3.3.6)	
34.	Protective action recommendations were provided to the State in a timely manner. (3.1.1.3)	

35.	If the CECC was staffed and functional, protective action recommendations were provided to the State within 15 minutes of a General Emergency declaration. (3.3.3)	
36.	Periodic State Information forms (CECC-EPIP-1 App C) were provided to the State on at least an hourly basis.	
37.	The CECC Director confirmed that offsite authorities were aware of any protective action recommendations. (3.5.3)	
38.	The CECC determined from the State and local authorities the actual offsite protective actions taken and maintained awareness of any changes. (3.5.4, 3.5.5)	
39.	The State Communicator promptly established and maintained communications with the State Emergency Operations Center. (3.4.1, 3.4.3)	
40.	State authorities were initially briefed by the State Communicator and were kept informed of any changes in: (3.4.2) - Emergency conditions - Emergency classification - Radioactivity releases - Potentially effected population - Projected population doses - Protective action recommendations	
41.	The Plant Assessment Team provided assistance in the assessment of ongoing events and adequately assessed long-range projected plant conditions.	
42.	Plant Assessment provided accident assessment information to the CECC Director at least hourly, including protective action recommendations.	
43.	The Plant Assessment Team leader made prudent and timely protective action recommendations based upon the team's assessment.	
44.	Adequate information was exchanged between the CECC and the site to maintain the CECC status board information accurate and up to date. (3.7.13)	
45.	CECC status boards were maintained current to a degree that they did not adversely impact the ability of the CECC to mitigate the consequences of the event. (3.7.13)	
46.	CECC status boards were maintained accurate based on available information such that the CECC staff remained aware of important items and did not adversely impact mitigation activities. (3.7.13)	
47.	TVA Public Safety was promptly notified by the ODS when the CECC was activated.	

Exercise Evaluation Criteria

48.	Public Safety immediately established access control posts outside the CECC and Broadcast Operations Facility and maintained access control for the duration of the event. (8.1.3)	
49.	All personnel granted access to the CECC were pre- authorized members of the CECC Emergency team or were authorized by the CECC Director, Plant Communicator, or designated EP staff.	
50.	NRC responders to the CECC were adequately briefed upon arrival and kept informed of any changes in: (3.6.1, 3.4.2) - Emergency conditions - Emergency classification - Radioactivity releases - Potentially effected population - Projected population doses - Protective action recommendations	
51.	The NRC was kept informed of all offsite protective actions taken by State and Local authorities. (3.5.4)	
52.	CECC staff members were proficient in the use of their respective equipment (PACDAM, SPDS, RED, FRED, telephone systems, radios, etc.), technical references, procedures, and the requirements of their respective positions. (1.6.4, 3.2.9)	
53.	Applicable emergency procedures were readily available in the CECC and were properly applied.	
54.	Key decisions, assignments, important events, data, calculations, and actions taken were chronologically recorded in the CECC logs. (3.7.10)	
55.	CECC logs were maintained in a legible form.	
56.	The "position title", "plant", "name", and "date" were completed for each CECC position's log.	
57.	Radio communications with environmental monitoring teams were accurate, clear, and concise.	
58.	Survey results and general information flow between the environmental monitoring teams and the CECC or site were frequent, timely, and accurate. (6.2.11)	
59.	Briefings were provided to the environmental monitoring vans at each significant event and at least once an hour. (6.2.6)	

60.	The Plant/Core Damage Assessment Team effectively used results of the chemistry and post-accident sampling to redefine or confirm plant/reactor status or the emergency classification. (1.7.2, 3, 4)	
61.	Ongoing activities, onsite and offsite, were periodically reviewed to determine their continued value given the existing plant conditions. (3.2.8, 3.2.4)	
62.	CECC personnel performing assessments and/or involved in decision-making processes remained aware of important trends or changes in plant status. (3.2.8, 3.2.6, 3.2.7)	
63.	The CECC staff confirmed the event classification at least every 2 hours.	
64.	If environmental monitoring teams were dispatched prior to activation of the CECC, a smooth and orderly transfer of van control occurred between the site and the Environs Assessor/Field Coordinator.	
65.	The transfer of responsibilities from the SED to the CECC was clear, orderly, and timely. (3.7.8)	

Exercise Evaluation Criteria

	ENVIRONMENTAL MONITORING	<input checked="" type="checkbox"/>
1.	The plant environmental monitoring van was prepared and dispatched in a timely manner.	
2.	The environmental monitoring team members demonstrated their ability to properly follow the van check-out procedures.	
3.	The environmental monitoring van was equipped with adequate equipment and proper procedures.	
4.	Adequate communications were established and maintained between the plant monitoring van and the RADCON Lab, TSC, and or CECC.	
5.	An onsite environmental team was promptly dispatched and survey results were recorded and reported to the CECC.	
6.	Environmental monitoring teams adequately demonstrated the ability to locate monitoring points and the ability to perform a proper plume traverse. (6.2.3)	
7.	Each member of the environmental monitoring team appeared knowledgeable, qualified, and properly trained.	
8.	Environmental monitoring team personnel demonstrated proficiency with their monitoring equipment, radios, meters, procedures and normal practices.	
9.	Field samples were properly taken and appropriately tagged in accordance with CECC-EPIP-9. (6.2.4)	
10.	Environmental monitoring sample collection and analysis was performed efficiently and properly.	
11.	Environmental monitoring survey results were provided to the site/CECC in a timely manner.	
12.	Environmental monitoring teams utilized appropriate techniques to avoid contamination of personnel, equipment, or cross-contamination of samples.	
13.	Field team personnel followed the contamination control and sampling procedures of CECC-EPIP-9.	
14.	Field monitoring personnel adequately applied ALARA principles and adhered to TVA Protective Action Levels of CECC-EPIP-9 attachment 5.	
15.	Environmental monitoring teams were provided and utilized adequate dosimeter. (a 200MR and 5R direct reading dosimeters)	

16.	Field personnel routinely reported their TEDE doses to the Environs Assessor/Field Coordinator at approximately 100 mrem increments and the information was recorded on CECC-EPIP-9 Attachment G. (6.2.5)	
17.	Field personnel advised the Environs Assessor/Field Coordinator anytime whole body doses approached their individual exposure limits.	
18.	When required, emergency exposure limits for environs monitoring team members were authorized by the appropriate authority and documented on CECC-EPIP-9 Attachment H. (If vans are under site control, SED authorization is required, If vans are under CECC control, RAM authorization with CECC Director concurrence is required.	
19.	Field team personnel adequately demonstrated the proper use of required personnel protection equipment. (6.2.2)	
20.	The environmental monitoring vans contained sufficient equipment and supplies, operated properly, and adequately supported the needs of the monitoring team. (6.2.8.)	
21.	Environmental monitoring van communication systems operated properly and adequately supported the needs of the monitoring team, including full coverage of the 10 mile EPZ. (6.2.10)	
22.	The monitoring van instrumentation was calibrated and instrumentation was available to detect Iodine at levels as low as 1E-7 uci/cc under field conditions. (6.2.8. & 6.2.9)	
23.	The transfer of environmental monitoring team control was clearly announced on the radio for field personnel including acknowledgment.	
24.	Environmental monitoring teams were effectively deployed, if a release was occurring or anticipated, to appropriate locations to intercept the plume. (3.2.2)	
25.	The CECC staff (Environs Assessor) provided adequate direction regarding van team movement, positioning, and the samples or measurements to be taken. (3.2.2 & 3.2.3)	
26.	Positioning of the environmental monitoring vans was effectively coordinated between the CECC (TVA) and RMCC (STATE) coordinators.	

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	PUBLIC INFORMATION / JIC CRITERIA	<input checked="" type="checkbox"/>
1.	News statements released by TVA were properly coordinated with State, Federal, and NRC representatives. (9.1.2)	
2.	News statements released by the State were provided to TVA prior to their release.	
3.	The CECC communications staff provided adequate information concerning emergency events prior to activation of the JIC.	
4.	The CECC communications staff developed news releases providing information on plant status and any actions being taken on a routine basis.	
5.	News releases were developed by the CECC communications staff in a timely manner. (9.1.1)	
6.	The news releases developed by the CECC communications staff provided an accurate representation of the plant conditions. (9.1.1)	
7.	The CECC Information Manager was clearly in control and maintained public information activities in an orderly manner.	
8.	The CECC Information Manager maintained oversight of information center activities to ensure accurate and timely information was provided throughout the declared emergency.	
9.	Press briefings were conducted on a routine basis to provide updated information on the status of plant conditions and mitigating actions being taken.	
10.	The information disseminated at the periodic press briefings was timely, accurate, and current with plant events.	
11.	The format and information disseminated in the news briefings was coordinated by TVA and non-TVA agencies in organized pre-briefing sessions.	
12.	Periodic news briefings were conducted even if changes in plant status or activities had not occurred since previous briefings. (9.1.6)	
13.	Management personnel conducting periodic briefings adequately addressed media questions or were able to get requested information in a timely manner. (9.2.5)	
14.	Personnel conducting periodic briefings appeared to be knowledgeable, qualified, and competent. (9.2.5)	

15.	Sufficient media relations staff was available to answer media representative calls in a timely manner.	
16.	Sufficient information was provided to the media relations staff to adequately answer incoming media representative calls.	
17.	The information provided to the media relations staff was timely, accurate, and current with plant or offsite conditions.	
18.	Media relations staff personnel appeared to be knowledgeable, qualified, and competent. (9.2.2)	
19.	Sufficient public information staff was available to answer public citizen calls in a timely manner.	
20.	Sufficient information was provided to the public information staff to adequately answer incoming public citizen calls.	
21.	The information provided to the public information staff was timely, accurate, and current with plant or offsite conditions.	
22.	Public Information staff appeared to be knowledgeable, qualified, and competent. (9.2.2)	
23.	Media representatives, at the JIC, were provided with identification tags and were easily distinguishable from local, state and TVA personnel.	
24.	Security measures taken were adequate to insure that media access did not interfere with emergency response activities. (9.1.3)	
25.	Adequate facilities were provided for media reps to work allowing reasonable access to designated agency representatives to obtain official information.	
26.	Media interactions did not interfere with or hinder emergency response activities. (9.1.3)	
27.	Corrective or supplemental information was promptly released in the event of errors or misinformation in news stories. (9.1.4)	
28.	All news releases were reviewed for technical accuracy and approved by the CECC Director.	
29.	Media reports were monitored for accuracy with inaccuracies identified, noted, and corrected by direct interaction with media representatives, press briefings, and public information representatives handling public inquiries.	

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30.	Media Relations/Public Information staff personnel were promptly notified of any inaccurate information disseminated or rumors and provided with correct information.	
31.	News releases were concise, providing the basic facts in simple language. (9.1.5)	
32.	Official TVA representatives utilized adequate visual aids (graphics, etc.) to explain plant conditions. (9.1.5)	
33.	Technical briefings were conducted to provide additional information on plant operation and equipment when needed to explain plant-related information. (9.1.5)	
34.	JIC and Public Information communications systems functioned properly to the extent that the dissemination of information to the public was not significantly delayed or prevented.	
35.	JIC and Public Information communications systems adequately supported (i.e. number of phones and proper operation) the needs of the staff and media representatives. (9.2.4)	

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	EXERCISE CRITERIA	<input checked="" type="checkbox"/>
1.	Control Room controllers did not prompt, coach, or otherwise interfere with the performance of control room personnel. (1.9.1) (Note 1)	
2.	TSC personnel participating in the exercise were not pre-positioned prior to commencement. (1.9.11)	
3.	OSC personnel participating in the exercise were not pre-positioned prior to commencement. (1.9.11)	
4.	CECC personnel participating in the exercise were not pre-positioned prior to commencement. (1.9.11)	
5.	TSC controllers did not prompt, coach, or otherwise interfere with the performance of TSC personnel. (1.9.1) (Note 1)	
6.	OSC controllers did not prompt, coach, or otherwise interfere with the performance of OSC personnel. (1.9.1) (Note 1)	
7.	CECC controllers did not prompt, coach, or otherwise interfere with the performance of CECC personnel. (1.9.1) (Note 1)	
8.	Field personnel participating in the exercise were not pre-positioned prior to commencement. (1.9.11) (Note 2)	
9.	Technical accuracy of the scenario was within the scope of reasonably expected plant conditions.	

10.	The scenario adequately anticipated significant player actions and players were provided the associated supporting data.	
11.	Players had no prior knowledge of the exercise scenario initiation time. (Players may be aware of the exercise date due to prior release to the news media to prevent unnecessary public concern)	
12.	Player actions did not imply prior knowledge of scenario details beyond those attributed to normal insight or expectations.	
13.	A players critique was conducted following the exercise and comments recorded for evaluation.	
14.	A controllers critique was conducted following the exercise and comments recorded for evaluation.	
15.	Player and controller comments were evaluated, categorized and prioritized by the lead controllers resulting in a clear and accurate synopsis of the exercise.	
16.	The scenario was sufficiently difficult to exercise capabilities of the emergency plan and response personnel.	

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Controller: _____

Exercise Notes

Date: _____ Page: _____

Time

Events, Notes, Explanation, etc.

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Controller: _____

Exercise Notes

Date: _____ Page: _____

Time

Events, Notes, Explanation, etc.

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Watts Bar Nuclear Plant

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Controller: _____

Exercise Notes

Date: _____ Page: _____

Time

Events, Notes, Explanation, etc.

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Watts Bar Nuclear Plant

1994 Annual Exercise

Controller: _____

Exercise Notes

Date: _____ Page: _____

Time

Events, Notes, Explanation, etc.

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There are approximately 20 lines visible. On the left side, there is a vertical margin line, creating a narrow left margin. The paper appears to be from a notebook or a standard ruled sheet of paper.