

FLORIDA POWER AND LIGHT COMPANY
TURKEY POINT NUCLEAR PLANT
1993 EMERGENCY PREPAREDNESS
EVALUATED EXERCISE

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**FLORIDA POWER AND LIGHT COMPANY
TURKEY POINT NUCLEAR PLANT
1993 EMERGENCY PREPAREDNESS
EVALUATED EXERCISE
DECEMBER 15, 1993**

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1.0 INTRODUCTION

**FLORIDA POWER AND LIGHT COMPANY
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1.0 INTRODUCTION

This Scenario Section contains the following information:

Section 1.1 FOREWORD - A brief introduction to the basis for the exercise and the layout of the scenario data.

Section 1.2 SCHEDULE OF EVENTS - Date, time, location, purpose and participants for the following meetings and critiques for exercise performance and evaluation.

- 1.2.1 Controller Briefing
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1.1 FOREWORD

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1.1. FORWARD

In the interest of assuring that the health and safety of the general public is protected in the event of a radiological accident at Turkey Point Nuclear Plant (PTN), and to meet the requirements of 10 CFR 50, Appendix E, the Florida Power and Light Company (FPL) plans and conducts annual emergency preparedness exercises. This scenario has been written to conduct the 1993 Annual Evaluated Emergency Preparedness Exercise on December 15, 1993.

The exercise scenario will be performed during normal working hours (7:30 A.M. to 4:00 P.M. EST) and will involve full activation and participation by State and Local Government Agencies. The participation will include the activation of Emergency Response Facilities, mobilization of resources and full communications networks activity in response to an escalating emergency condition at Turkey Point Nuclear Plant possibly resulting in a simulated release of radioactivity to the environment.

In accordance with NUREG 0654, FEMA-REP-1, Rev. 1, *Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants*: "An exercise is an event that tests the integrated capability and a major portion of the basic elements existing within the emergency preparedness plans and organizations." This exercise will include the elements of a Control Room drill, a communication drill, a Health Physics drill and a medical emergency drill. It will require the activation of the Florida Power and Light Emergency Response Organization and Facilities. It will also include the exercise of the response and monitoring activities of the State of Florida and Local Government Agencies.

Exercise participants ("players") will have no prior knowledge of the exercise scenario. The intent of this exercise is to demonstrate that those individuals that are assigned responsibilities in a radiological emergency are adequately trained to perform in accordance with emergency preparedness plans and procedures.

The exercise will be observed, evaluated and critiqued by representatives of the Federal Emergency Management Agency (FEMA) and the Nuclear Regulatory Commission (NRC). The exercise will be controlled, observed, evaluated and critiqued by an FPL Controller Organization for the Turkey Point Plant portion of the exercise. The exercise will be controlled, observed, evaluated and critiqued by a State and Local Government Controller Organization for the off-site portion of the exercise.



1.1 FORWARD (Continued)

This scenario manual has been prepared to provide the Controller Organization the information and data necessary to conduct the exercise in an efficient and coordinated manner. It contains the following scenario sections:

Section 2.0, SCOPE, OBJECTIVES AND RULES; describes the exercise scope and objectives and sets forth the guidelines for conducting the exercise to meet those objectives. In addition, the rules for conduct of the exercise are detailed.

Section 3.0, SCENARIO; describes the postulated sequence of plant events that should require the various onsite and off-site Emergency Response Organizations to respond.

Section 4.0, MESSAGES; includes information in the form of message sheets which are utilized to control scenario activities. Messages will be used to initiate activities and ensure proper progression of the scenario. In addition, this section provides a scenario and messages for conducting the radiological medical emergency drill and mini-scenarios associated with various in-plant response teams.

Section 5.0, PLANT PARAMETERS; includes information concerning the status of plant parameters and equipment to provide backup for ongoing play in the simulated Unit 3 Control Room (PTN Plant Simulator).

Section 6.0, METEOROLOGICAL PARAMETERS; contains postulated meteorological information to be used for the scenario.

Section 7.0, RADIOLOGICAL DATA; contains time-related information concerning simulated radiological conditions at postulated onsite and off-site monitoring locations. Also included in this section is information concerning primary coolant activity, radiological release data, area radiation monitor readings, process radiation monitor readings and plume data for the teams tracking and monitoring the simulated release of radioactivity.

Section 8.0, MISCELLANEOUS DATA; contains evaluation materials for the FPL Controllers, a listing of acronyms and abbreviations, and site location information.

Copies of this manual will be provided to the exercise controllers, evaluators and observers prior to the exercise. **NOTE:** *The scenario sequence of events, timing and data are to be maintained confidential and not available to the participants prior to the exercise.* Following the exercise, copies of this manual should be available to key exercise participants for their information and review.



1.2 SCHEDULE OF EVENTS



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1.2 SCHEDULE OF EVENTS

1.2.1 Nuclear Regulatory Commission Entrance

Date: Monday, December 13, 1993
Time: 1:00 P.M.
Location: Turkey Point Nuclear Plant (PTN) Site Vice President's Conference Room
Purpose: Exercise conduct. Introduction of Key Players, Controllers and NRC evaluators.
Participants: Plant Management and Nuclear Regulatory Commission Evaluation Team

1.2.2 Controller Briefing

Date: Tuesday, December 14, 1993
Time: 8:30 A.M.
Location: PTN Nuclear Training Center (NTC), Room 123 N & S
Purpose: Exercise control and evaluation overview. Review of rules for controllers.
Participants: Florida Power and Light Company Controllers, Controller/Evaluators and Evaluators

1.2.3 Federal Emergency Management Agency Entrance/Briefing

Date: Tuesday, December 14, 1993
Time: 4:00 P.M.
Location: Dade County Office of Emergency Management, Emergency Operations Center (EOC)
Purpose: Exercise conduct. Introduction of Key Players, Controllers and FEMA evaluators.
Participants: FPL Management Representative, State and County Emergency Management Representatives and Federal Emergency Management Agency Evaluation Team

1.2.4 Nuclear Regulatory Commission Briefing

Date: Tuesday, December 14, 1993
Time: TBD
Location: PTN NTC, Room 123 N
Purpose: Exercise Scenario Review, Plant and Emergency Response Facility (ERF) familiarization
Participants: Lead Controllers, Scenario Development Team and Nuclear Regulatory Commission Evaluation Team



1.2 SCHEDULE OF EVENTS (Continued)

1.2.5 Exercise

Date: Wednesday, December 15, 1993
Time: Normal Working Hours (7:30 A.M.- 4:00 P.M.).
Location: Turkey Point Nuclear Plant, Dade County and Monroe County.
Purpose: Demonstration of emergency response capabilities
Participants: All exercise participants

1.2.6 Facility Critiques

Date: Wednesday, December 15, 1993
Time: Exercise Termination
Location: All Emergency Response Facilities
Purpose: Review and evaluate exercise performance
Participants: All exercise participants

1.2.7 Florida Power and Light Company Controller/Evaluator Critique

Date: Thursday, December 16, 1993
Time: 8:30 A.M.
Location: PTN NTC, Room 123 N & S
Purpose: Review and evaluate exercise play. Formal exercise critique. Collect and prepare final critique comments.
Participants: All Florida Power and Light Company Controllers, Controller/Evaluators and Evaluators (Note: mandatory for all Lead Controllers).

1.2.8 Federal Emergency Management Agency Critique/Public Exit

Date: Thursday, December 16, 1993
Time: 1:30 P.M.
Location: FPL Emergency News Center (ENC), Miami General Office (GO)
Purpose: Presentation of major critique items by Federal Emergency Management Agency.
Participants: FPL Management Representatives, State and County Emergency Management Representatives and Federal Emergency Management Agency Evaluators

1.2.9 Florida Power and Light Company Management Critique/Nuclear Regulatory Commission Exit

Date: Friday, December 17, 1993
Time: 10:00 A.M.
Location: PTN NTC, Room 123 N & S
Purpose: Presentation of major critique items to Plant Management, Nuclear Regulatory Commission preliminary Exercise findings.
Participants: Plant Management, Key Players, Lead Controllers and Nuclear Regulatory Commission Evaluators

1.3 PARTICIPATING AGENCIES

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1.3 PARTICIPATING AGENCIES

1.3.1 Utility

Florida Power and Light Company (FPL)

Turkey Point Nuclear Plant (PTN)

1.3.2 Federal

United States Nuclear Regulatory Commission (NRC), Region II (Evaluators)

Federal Emergency Management Agency (FEMA), Region II (Evaluators)

1.3.3 State

State of Florida Division of Emergency Management (DEM)

State of Florida Department of Health and Rehabilitative Services (DHRS), Office of Radiation Control

1.3.4 County

Dade County Emergency Management

Monroe County Emergency Management

1.3.5 Support Organizations

Mercy Hospital

Metro-Dade Fire/Rescue

2.0 SCOPE, OBJECTIVES, AND GUIDELINES

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2.0 SCOPE, OBJECTIVES AND GUIDELINES

This Scenario Section contains the following information:

- Section 2.1 SCOPE** - Describes the overall content and intended activities of the drill. Details the anticipated responses and the emergency facilities to be activated.
- Section 2.2 OBJECTIVES** - Describes the objectives that will be evaluated for determination of satisfactory performance during the course of the drill.
- Section 2.3 GUIDELINES** - Describes the rules for Participants, Controllers, Evaluators and Observers which will be applied to the conduct of the drill.

2.1 SCOPE

**FLORIDA POWER AND LIGHT COMPANY
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2.1 SCOPE

To assure that the health and safety of the general public is protected in the event of an accident at Turkey Point Nuclear Plant (PTN), it is necessary for the Florida Power and Light Company (FPL) to conduct an annual emergency preparedness exercise. This exercise involves mobilization of FPL, State of Florida and Local Government Agency personnel and resources to respond to a simulated accident scenario. The exercise will be evaluated onsite by the Nuclear Regulatory Commission (NRC) and off-site by the Federal Emergency Management Agency (FEMA). An FPL Controller organization will control, observe, evaluate and critique the PTN portion of the exercise and the NRC will evaluate the FPL performance so that the emergency response capabilities of the utility may be assessed. The State of Florida, and Dade and Monroe County emergency response organizations will participate fully and FEMA will evaluate the off-site performance so that the emergency response capabilities of those agencies may be assessed.

Due to the compressed timeline of the exercise, some portions of the FPL Emergency Response Organization and State organization may be prepositioned. All onsite Emergency Response Facilities will be activated in accordance with simulated conditions and appropriate emergency response procedures for the exercise. Exercise participants ("players") will not have any prior knowledge of the simulated accident events, operational sequence, radiological effluents or weather conditions.

In addition, the exercise incorporates the following:

Health Physics Drill - both onsite and off-site teams will be dispatched during the exercise to obtain required air samples and measurements associated with a simulated offsite release of radioactivity and communicate these results to the appropriate Emergency Response Facility (ERF). (Field monitoring team protective clothing and respiratory protection will be simulated in the field.) Teams will also demonstrate radiation exposure control, emergency dosimetry and the use of protective equipment onsite.

Communications Drill - Actual usage and demonstration of the integrity of emergency response communications links and equipment.



2.1 SCOPE (Continued)

Medical Emergency Drill - a demonstration of the response to a simulated medical emergency situation involving radiological considerations including the packaging and transport of the simulated injured person to the designated off-site treatment facility. The medical emergency will also test the ability of the designated off-site treatment facility, Mercy Hospital, to treat a contaminated/injured patient.

The preceding sub-drills are incorporated into the exercise scenario and will be demonstrated concurrently in the course of the exercise.

The overall intent of the exercise is to demonstrate that the FPL staff assigned responsibilities in an emergency situation are adequately trained to perform in accordance with the Emergency Plan and its implementing procedures. And to assist the State and local government agencies in demonstrating to FEMA that they are adequately trained to perform in accordance with emergency plans and procedures.

2.2 OBJECTIVES

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2.2 OBJECTIVES

The Turkey Point Nuclear Plant (PTN) emergency preparedness evaluated exercise objectives are based upon Nuclear Regulatory Commission requirements provided in 10 CFR 50: a) 50.47, *Emergency Plans*; and b) Appendix E, *Emergency Planning and Preparedness for Production and Utilization Facilities*. Additional guidance provided in NUREG-0654, FEMA-REP-1, Revision 1, *Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants*, was utilized in developing the objectives. The exercise will be conducted and evaluated using a realistic basis for activities.

The following objectives for the PTN portion of the exercise are consistent with the aforementioned documents:

A. Exercise Planning

1. Conduct an exercise of the PTN Emergency Plan.
2. Provide an opportunity for the State of Florida and Dade and Monroe Counties to participate in an exercise.
3. Prepare an exercise information package, original and dissimilar to practice drill(s), to include:
 - a. The objectives of the exercise and appropriate evaluation criteria.
 - b. The date, time period, place, and a list of participating organizations
 - c. The simulated sequence of events.
 - d. The time schedule of real and simulated initiating events.
 - e. The narrative summary.
4. Conduct a critique of the exercise and prepare an evaluation report.



2.2 OBJECTIVES (Continued)

B. Emergency Organizations, Support, and Resources

1. Demonstrate the prompt activation, adequacy of the staffing and set up, as appropriate, of emergency response facilities as follows:
 - Control Room
 - Technical Support Center (TSC)
 - Operations Support Center (OSC)
 - Emergency Operations Facility (EOF)
 - Emergency News Center (ENC)
2. Demonstrate the capability of the FPL Emergency Response Organization to implement their Emergency Plan Implementing Procedures.
3. Demonstrate the ability of the Emergency Response Facility Managers/Supervisors to provide overall direction, including "command and control" by initiating, coordinating, and implementing timely and effective decisions during a radiological emergency.
4. Demonstrate the ability to effectively transfer command and control of emergency response functions from the Control Room to the TSC/EOF.
5. Demonstrate the provisions for continuous staffing of the emergency facilities.
6. Demonstrate the interface capability between the FPL Emergency Response Organization and the State of Florida and Dade and Monroe Counties for effective response coordination to a radiological emergency and adequate protection of the health and safety of the public.
7. Demonstrate the ability to control access to emergency facilities.
8. Demonstrate adequacy of designated facilities and equipment to support emergency operations.
9. Based on scenario events, demonstrate that outside support agencies and organizations are available to provide assistance, as necessary.
10. Demonstrate the ability of corporate personnel to augment the Emergency Response Organization (ERO) and support the plant staff.

2.2 OBJECTIVES (Continued)

C. Accident Assessment and Classification

1. Demonstrate the availability of methods, equipment, and expertise to make assessments of the consequences of radiological hazards, including the dispatch and coordination of Field Monitoring Teams.
2. Demonstrate the ability to recognize emergency action levels (EALs) and properly classify emergencies in accordance with the Turkey Point Emergency Plan Implementing Procedures (EPIP)s.

D. Notification and Communication

1. Demonstrate the ability to notify offsite emergency organizations within approximately 15 minutes of each emergency classification.
2. Demonstrate the ability to notify the NRC of any emergency classification within approximately one hour of the declaration.
3. Demonstrate the ability to notify FPL Emergency Response Organization personnel.
4. Demonstrate the ability to develop and send timely information to State and local authorities as required by the Emergency Plan.
5. Demonstrate the ability to communicate among the Control Room, TSC, OSC, EOF, and ENC, as appropriate.
6. Demonstrate that adequate communication capabilities exist between FPL, and the State and local Emergency Operations Centers (EOCs).
7. Demonstrate that adequate communications capabilities exist among FPL, the State Radiation Monitoring Teams and the Turkey Point Plant.
8. Demonstrate the ability to communicate among the Control Room, TSC, and EOF.

E. Radiological Consequence Assessment

1. Demonstrate methods and techniques for determining the source term of releases or potential releases of radioactive material.
2. Demonstrate the adequacy of methods and techniques for determining the magnitude of the releases of radioactive materials based on plant system parameters and effluent monitors.



2.2 OBJECTIVES (Continued)

E. Radiological Consequence Assessment (Continued)

3. Demonstrate the ability to estimate integrated dose from projected or actual dose rates and to formulate Protective Action Recommendations (PARs).
4. Demonstrate the ability to monitor and control emergency worker radiation exposure and implement exposure guidelines as appropriate.
5. Demonstrate the availability of respiratory protection, and protective clothing for onsite emergency response personnel.
6. Demonstrate the capability for onsite contamination control.
7. Demonstrate the ability to decontaminate onsite personnel, as appropriate.
8. Demonstrate the ability to evaluate the radiation exposure and contamination levels (external) of an accident victim, as appropriate.
9. Demonstrate the capability for onsite and offsite radiological monitoring, to include collection, and analysis of sample media (e.g. air) and provisions for communications and record keeping.
10. Demonstrate the capability to use the Post Accident Sampling System (PASS) (walk-through/simulate).
11. Demonstrate that a program exists to analyze fluid samples and provide the isotopic and chemical results of the analysis within three hours of the time the sample was first requested.

F. Protective Action

1. Demonstrate the ability to recommend protective actions to appropriate offsite authorities.
2. Demonstrate the ability to advise individuals onsite or in owner controlled areas of emergency conditions.
3. Demonstrate the capability for onsite first aid.
4. Demonstrate the ability to conduct search and rescue procedures if persons are identified as missing during accountability procedures.



2.2 OBJECTIVES (Continued)

G. Public Information

1. Demonstrate the operations of the ENC and the availability of space for the media.
2. Demonstrate the ability to brief the media in a clear, accurate and timely manner.
3. Demonstrate the ability to produce accurate press releases in appropriate time frames.
4. Demonstrate coordination of information prior to its release.
5. Demonstrate the ability to establish and operate rumor control in a coordinated fashion.

H. Recovery Operations

1. Demonstrate the availability of procedures to support re-entry and recovery, including de-escalation/termination from the emergency phase, and transition to recovery phase.

I. Medical Emergency

1. Demonstrate the ability to respond to a radiation medical emergency in a timely manner
2. Demonstrate the capability of the First Aid Team to respond to a medical emergency, administer first aid, and survey for contamination on a simulated contaminated, injured individual.
3. Demonstrate the capability to arrange for and obtain transportation and off-site medical support for a radiological accident victim.
4. Demonstrate the ability of Mercy Hospital personnel to treat a contaminated, injured patient.

2.2 OBJECTIVES (Continued)

J. Exemptions

Areas of the PTN Emergency Plan that will NOT be demonstrated during this exercise include:

1. Site evacuation of non-essential personnel.
2. Onsite personnel accountability.
3. Actual shift turnover (long term shift assignments will be demonstrated by rosters).
4. Real time activation of the EOF and ENC by Corporate Emergency Response Organization and governmental agencies.
5. Actual drawing of a sample utilizing the Post-Accident Sampling System (PASS).

2.3 GUIDELINES



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2.3 GUIDELINES

The following exercise guidelines have been established in order to define the "extent of play" of exercise players at Turkey Point Plant and to meet the drill objectives.

A. General Information

Since exercise players will not be informed of the exercise start time or the initiating events, all personnel should follow their normal routines prior to the exercise.

The exercise will include postulated conditions necessitating initiation of the Emergency Plan and may require escalation to a Site Area Emergency or General Emergency.

Four groups of personnel will be in attendance at the exercise and will function as described below:

1. **PLAYERS** are members, supervisors, operators' chemistry/HP personnel, maintenance personnel, etc., who have been assigned a "player" role during the emergency exercise. These people serve to take necessary actions to mitigate, terminate, correct, and/or recover from the simulated emergency.
2. **CONTROLLERS** are those designated FPL personnel who serve an active role in the exercise by providing data to players. The **CONTROLLERS** may also serve to prompt or initiate certain actions in order to assure continuity of the events described in the exercise scenario. **CONTROLLERS** are the only personnel who will provide information to the **PLAYERS**; other inputs of information from personnel not designated as **CONTROLLERS** will be ignored by the **PLAYERS**. **CONTROLLERS** will also serve as **EVALUATORS**.
3. **EVALUATORS** are personnel designated by FPL to provide documentation and assessment of the exercise. As **EVALUATORS** they serve a passive function and will only note actions taken by **PLAYERS**. These personnel have received specific instructions on what areas to consider in their evaluation of the exercise. **EVALUATORS** may ask questions of participants to clarify actions taken or procedural concerns. They should not interfere with the flow of events, and should interface with a **CONTROLLER** before questioning a **PLAYER**.



2.3 GUIDELINES (Continued)

A. General Information (Continued)

4. OBSERVERS are personnel who serve no evaluation, control, or participatory function in the exercise. Visitors from other utilities or organizations may be present. Observers shall not interfere with EVALUATORS, and particularly, PLAYERS. Questions from OBSERVERS should be directed to CONTROLLER.

Identification of personnel:

Controller ID tags - pink

Observer ID tags - white

Personnel (Player) ID tags - green

Evaluator ID tags - blue

Personnel will be assigned as CONTROLLERS at all functional areas to monitor and control the exercise. In addition, they will accompany radiological monitoring teams, plant health physics personnel and maintenance repair/rescue teams.

In order for the drill or exercise to run smoothly, the following topics must be understood.

MESSAGE FORMS (including operating data) will be the mechanisms used to initiate, orchestrate, modify and complete the events comprising the overall scenario. The controller will use the message forms to initiate scenario events and trigger responses from the involved personnel.

Each controller will have the time-related plant and radiological parameters of the exercise scenario. This information will be issued upon request to the appropriate exercise participants.

The controllers will not provide information to the exercise participants regarding scenario development or resolution of problem areas encountered. The exercise participants are expected to obtain information through their organizations and exercise their judgment in determining response actions and resolving problems.

The Turkey Point Training Control Room Simulator will be utilized to permit the Control Room Crew to respond to the emergency situation. During the exercise period, the Simulator Telephone System and Plant Page System will be connected to the actual plant systems to allow for as realistic exercise play as possible.



2.3 GUIDELINES (Continued)

A. General Information (Continued)

PLANT/MONITORING DATA will be provided through simulated ERDADS. This data will be directly from the simulator providing the players with a real time data capture. This will be accomplished by utilizing Personal Computers and modems in each applicable facility.

Some drill players may insist that certain parts of the scenario are unrealistic. The controllers have the authority, with the approval from the Lead Controller, to clarify any questions regarding scenario content. In some cases, it may be necessary to exercise "controller's prerogative" of countermanding participant actions to preserve the continuity and objectives of the exercise. The player must, however accept the controller's word as final and proceed. Inappropriate actions can either delay or speed up the entire exercise and impact other groups.

Note that the scenario events are hypothetical. Any portions of the scenario depicting plant system operational transients are simulated events. NO control room actions, or reactions involving operation of plant systems, or affecting generating capability shall be initiated. All exercise scenario messages shall be understood as simulated events only.

Postulated accident conditions may result in a simulated radiological release which could necessitate the consideration of protective actions for the general public.

All listed onsite emergency response facilities will be staffed and will perform their prescribed functions as appropriate to the development of the exercise scenario.

Participation by FPL onsite personnel directly involved in responding to an emergency should be carried out to the extent necessary to meet the scope and objectives including the deployment of radiological monitoring teams, emergency repair and damage control teams, and other emergency workers.

All actions are to be played out, as much as possible, in accordance with emergency plan and procedures as if it were a real emergency. Actions should be identified to the controller whether played out or simulated.

RADIOS - For exercise play, plant radios will be used by both Controllers and Players. "NUC OPS DRILL" is the designated channel for exercise players. "DRILL MANAGEMENT" is the designated channel for exercise controllers. Actual plant channels SHALL NOT be used for exercise play.

2.3 GUIDELINES (Continued)

A. General Information (Continued)

ACTUAL AND SIMULATED EVENTS during the emergency exercise, certain events and activities may be simulated rather than utilize the actual employment of resources. As little simulation as practical will be performed.

Simulation - involve identification and utilization of requirements and procedures short of actual development.

Actual - movement of resources and/or physical implementation for this exercise.

PROVISIONS FOR AN ACTUAL EMERGENCY Drill participants, controller/evaluators, and observers should not take any actions which would preclude maintaining emergency readiness of the organization and community. If an actual emergency occurs during the exercise requiring a group to terminate its participation in the exercise, they should notify the Lead Controller. All messages concerning actual emergency events should be preceded with "THIS IS AN ACTUAL EMERGENCY".

COMMUNICATIONS between all exercise participants shall occur in accordance with the procedures of applicable emergency response plans. All communications, including initial telephone conversations, radio transmittals, and loudspeakers announcement should begin and end with "THIS IS A DRILL, REPEAT. THIS IS A DRILL."

COMPLIANCE WITH ALL LAWS. Intentional violation of laws is not permitted during an exercise. Exercise players, controllers/evaluators, and visitors should comply with all Federal, State and Local legal restrictions. Specifically, all local traffic laws such as speed limits, should be observed.

AVOID PROPERTY ENDANGERMENT. Exercise players, controllers/evaluators, and visitors should avoid endangering property (public or private), members of the general public or the environment.

MINIMIZE PUBLIC INCONVENIENCE. It is not the intent to inconvenience the public during the conduct of an exercise. Also all communications, particularly in the public relations area, should be prefaced with "THIS IS A DRILL."

CLOSEOUT OF EXERCISE will be initiated at the appropriate point in the exercise scenario. The Lead Controller will initiate termination of the exercise. The Lead Controller will notify offsite points of contact to advise them that the exercise is being terminated.

2.3 GUIDELINES (Continued)

A. General Information (Continued)

DEBRIEFING AND CRITIQUE will occur for all drills/exercises. All Controllers and Players shall meet and conduct a critique in each facility immediately following drill termination. Controllers will then meet at a later time (to be announced) in a designated area to compile Controller notes and discuss critique items.

RADIOLOGICAL CONTROLS all normal radiological controls will be observed during the drill. No one is permitted to deviate from normal procedures, guidelines and controls whether they are a player, controller, observer or evaluator. If emergency dosimetry is issued as part of the drill, players shall continue to obtain normal dosimetry from the Radiologically Controlled Area (RCA) Control Point prior to entering the RCA. The main RCA Control Point shall be utilized for access and egress except for personnel who are normally authorized to use the old RCA control point in the Turbine Building (ie: Operations, Chemistry, Health Physics and Security).

2.3 GUIDELINES (Continued)

B. Controllers Information

The Controllers are personnel selected to deliver Exercise Messages to designated players at specific times and places during the exercise. They will inject or deliver additional messages, as may be required, to initiate appropriate player response to keep the exercise action moving according to the scenario and to ensure the demonstration of all exercise objectives. The Controller will be briefed on the instructions contained in this Exercise Package.

As Controllers, they are assigned to observe the exercise and to judge the effectiveness of selected organizations, personnel, functions, and activities in response to the simulated emergency situation. Selection of Controllers is based on their expertise and qualifications to evaluate an assigned activity or area. They will record their observations using an evaluation form and provide recommendations on corrective actions to the Lead Exercise Controller prior to the scheduled critique. They will evaluate exercise performance on the basis of standards or requirements contained in the Turkey Point Radiological Emergency Plan, EOP's and the associated Implementing Procedures. They will take steps, whenever possible, to collect data on the time-and-motion aspects of the activities observed for post-exercise use in designating and implementing system improvements. A Lead Controller is assigned to each emergency response facility. The Lead facility Controller is responsible for all Controller, Evaluator and Observer activities for that facility and, as appropriate, its associated teams. Controllers for teams or sub-areas of a facility report to the Lead Controller of that facility/functional area.

Each Controller should be familiar with the following:

- ◆ The basic objectives of the exercise.
- ◆ The assumptions and precautions being taken.
- ◆ The exercise scenario, including the initiating events and the expected course of action to be taken.
- ◆ The various locations that will be involved and the specific items to be observed at those locations.
- ◆ The evaluation checklists provided herein.



2.3 GUIDELINES (Continued)

B. Controllers Information (Continued)

Precautions and Limitations

This section provides guidance for all exercise Controllers and Evaluators for the conduct of this exercise. Prior to initiation of the exercise, a briefing will be held to review the entire exercise process with all the exercise Controllers.

1. Should, at any time during the course of the conduct of this exercise, an actual emergency situation arise, all activities and communications related to the exercise will be suspended. It will be the responsibility of any exercise Controller that becomes aware of an actual emergency to suspend exercise response in his/her immediate area and to inform the Lead Exercise Controller of the situation. Upon notification of an actual emergency, the Lead Exercise Controller may notify all other Controllers to suspend all exercise activities. The Lead Exercise Controller will make a determination at that point whether to continue, place a temporary hold on, or terminate the exercise.
2. Should, at any time during the course of this exercise, a Controller witness an exercise participant undertake any action which would, in the opinion of the Controller, place either an individual or component in an unsafe condition, the Controller is responsible for intervening in the individual's actions and terminating the unsafe activity immediately. Upon termination of the activity, the Controller is responsible for contacting the Lead Exercise Controller and informing him of the situation. The Lead Exercise Controller will make a determination at that point whether to continue, place a temporary hold on, or terminate the exercise.
3. Manipulation of any plant operating system, valves, breakers, or controls in response to this exercise are only to be simulated. There is to be no alteration of any plant operating equipment, systems, or circuits during the response to this exercise.
4. No pressurization of fire hoses, discharging of fire extinguishers, or initiation of any fire suppression systems will be required for the Exercise.
5. All repair activities associated with the scenario will be simulated, with extreme caution emphasized around operating equipment. Some mock equipment may be prepositioned in the plant to permit actual repair activities to take place.

2.3 GUIDELINES (Continued)

B. Controllers Information (Continued)

Precautions and Limitations

6. All telephone communication, radio transmissions, and public address announcements related to the exercise must begin and end with the statement, "This is a drill." Should a Controller witness an exercise participant not observing this practice, it is the Controller's responsibility to remind the individual of the need to follow this procedure.
7. Any motor vehicle response to this exercise, whether it be ambulance, fire fighting equipment, police/security vehicles or emergency radiation teams, should observe all normal motor vehicle operating laws including posted speed limits, stop lights/signs, one way streets, etc.
8. Should any onsite security actions be required in response to this scenario exercise participants are to cooperate as directed by the Security Force, and security representatives are to be prudent and tolerant in their actions.
9. Players are to inject as much realism into the exercise as is consistent with its safe performance; however, caution must be used to prevent over-reaction.
10. Care must be taken to prevent any non-participating individuals who may observe scenario activities from believing that an actual emergency exists. Any Controller who is aware of an individual or group of individuals in the immediate vicinity who may have become alarmed or confused about the situation, should approach that individual or group and explain the nature of the actions and their intent.
11. If you are entering normal nuclear station radiation areas, observe all rules and procedures; no one (including Observer/Controllers) is exempt from normal station radiological practices and procedures.

NOTE: Do not enter High Radiation Areas or contaminated areas in the plant; Follow ALARA Principles.



2.3 GUIDELINES (Continued)

C. Observer Information

1. Observers should not participate in the scenario nor interfere in the actions taken by the Players, Controllers or Evaluators. Questions should be directed to Controllers, not Participants.
2. The event times and scenario are confidential and should be kept so during the Exercise. Do not discuss these with the participants.
3. Identification badges/hats/arm-bands/etc. are to be worn visibly by the Observers. Identification devices should be returned at the end of the exercise or critique. Identify yourself to the Exercise Controllers.
4. Observers should enter emergency facilities via their main entrance and check in with security personnel.



2.3 GUIDELINES (Continued)

D. Player Information

The success of the Exercise is largely dependent on player performance. Appropriate reaction to simulated emergency conditions and demonstrated competence in the Emergency Plan and Implementing Procedures are the key criteria by which the players are evaluated. It is imperative, therefore, that all player actions and activities are witnessed by a Controller. Those actions that are to be simulated must be brought to the attention of the Controller to ensure that credit is awarded. Observation of response actions taken is mandatory for credit to be given for demonstration of an objective. Players are requested to observe the following guidelines:

1. Maintain a professional attitude throughout the Exercise; this is especially true late in the Exercise or when activity is limited.
2. Be courteous and professional at all times.
3. Identify yourself by name and function to the Controller.
4. Comply with all instructions provided by the appropriate Controller.
5. Elements of Exercise play will be introduced through use of controlled Exercise messages and information generated by Players as a result of the particular emergency activity performed. Therefore, be responsible for initiating actions in accordance with instructions and your responsibilities.
6. Communications should be concise and formal; always include "This is a drill."
7. Do not use radio communications in site areas where such use may cause Plant Transients and Engineering Safety Feature Actuations from radio frequency interference.
8. Use and demonstrate knowledge of the Emergency Plans and Implementing Procedures.
9. Use all resources and equipment available as you would in an actual emergency.
10. Keep a list of items which you believe will improve the plan and/or procedures; provide this to your Controller at the end of the Exercise.

2.3 GUIDELINES (Continued)

D. Player Information (Continued)

11. Controllers serve an active role in the exercise by providing messages or instructions to the participants. They may also serve to initiate certain actions to assure continuity of the events described in the exercise scenario. They also serve as EVALUATORS.
12. Evaluators will be noting all actions, both good and bad. They will be the main source of input to the FPL critique.
13. Play out all actions as much as possible in accordance with the Emergency Plan and Implementing Procedures as if it were a real emergency.
14. Identify your actions to the Controller. State whether you are going to play them out or simulate them. It is recommended that you play out your actions as much as possible to convincingly demonstrate the proper emergency response.
15. Speak out loud, identifying your key actions and decisions to the Controllers and Evaluators. This may seem artificial, but it will assist in the evaluation process and is to your benefit.
16. Any messages transmitted over communication lines or radios shall be preceded and followed by the statement "This is a Drill".
17. You should play as if radiation levels are actually present, in accordance with the information you have received. Unless otherwise specified, this will require normal radiological control measures, including the wearing of protective clothing.
18. Non-participants are exempt from acting on radiation levels specified for the emergency exercise. However, normal radiological control practices shall be followed throughout the course of the exercise.
19. Only selected parameters and readings will be provided. This selected information will be sufficient to make decisions in accordance with FPL plans and procedures.
20. DO NOT BECOME OVERLY CONCERNED WITH THE MECHANICS OF THE REACTOR OR THE CAUSE OF THE ACCIDENT. THIS EXERCISE IS DESIGNED TO TEST FPL PLANS AND PROCEDURES AND IS NOT CONCERNED WITH ESTABLISHING THE PROBABILITY, FEASIBILITY OR DETAILED MECHANICS OF THE SIMULATED ACCIDENT.

2.3 GUIDELINES (Continued)

D. Player Information (Continued)

21. There will be one or more Controllers at each important location. Controllers will provide information and clarification on which actions are to be simulated or are outside the scope of this exercise in order to keep the exercise progressing in accordance with the scenario. Controllers will also observe all aspects of the exercise to prepare an in-house evaluation of plans, procedures and training.
22. Do not take actions that would result in actual alterations of valve and switch positions in response to scenario simulations. Any event or operation outside the scenario that results in an actual or potential danger to plant operation or safety will take precedence over exercise activity.
23. Any motor vehicle response to this exercise, whether it be ambulance, fire fighting equipment, police security vehicles or Emergency Radiation Teams, will observe all normal motor vehicle operating laws, including posted speed limits, stop lights/signs, one-way streets, etc.
24. Should any onsite security actions be required in response to this exercise, Exercise Participants are to cooperate as directed by the Security Force; Security representatives are to be prudent and tolerant in their actions.
25. While Exercise Participants are to inject as much realism into the Exercise as possible, the safety of the plant and personnel shall not be jeopardized.

3.0 SCENARIO



**FLORIDA POWER AND LIGHT COMPANY
TURKEY POINT NUCLEAR PLANT
1993 EMERGENCY PREPAREDNESS
EVALUATED EXERCISE
DECEMBER 15, 1993**

3.0 SCENARIO

This section contains the following information:

Section 3.1 NARRATIVE SUMMARY - Describes in brief activities and events which occur during the scenario.

Section 3.2 SCENARIO TIMELINE - Provides a relationship between scenario events, real time and scenario time.



3.1 NARRATIVE SUMMARY



**FLORIDA POWER AND LIGHT COMPANY
TURKEY POINT NUCLEAR PLANT
1993 EMERGENCY PREPAREDNESS
EVALUATED EXERCISE
DECEMBER 15, 1993**

3.1 NARRATIVE SUMMARY

CONFIDENTIAL (Until 12-16-93)

3.1.1 Initial Conditions

Unit 3 is operating at 100% power. The core is in the Middle of Life with Boron concentration of 600 ppm, 210 Effective Full Power Days (EFPD).

Unit 4 is in Mode 5 and has been off line for 20 days in a maintenance outage.

The following items are of interest:

1. Unit 3 has been experiencing an ongoing unidentified Reactor Coolant System (RCS) leakage of 0.5 gallons per minute (gpm) for several days. Due to the leakage, a special power entry team has entered the Unit 3 Containment to perform a visual inspection for the source of the leakage.
2. 3C Charging Pump is out of service (OOS) for gearbox replacement. It is anticipated to be restored to service within 5 days.
3. 3A Emergency Diesel Generator (EDG) is OOS for crank bearing replacement. The EDG is anticipated to be restored to service in 48 hours.
4. 3C Auxiliary Feedwater (AFW) Pump is out of service for governor modification and repair. Expected to be ready for testing at 8:00 p.m. tonight.
5. The State of Florida Hot Ring Down (HRD) telephone is out of service in the Control Room - Simulator. State of Florida notifications from the Control Room - Simulator are to be made via commercial telephone lines.
6. To contact the Unit 3 Simulator Control Room, dial 505 and the normal Control Room extension (eg: 505-6492 for the NPS).

3.2 SCENARIO TIMELINE

Note: Times in *Italics* are Approximate
FPL/PTN

3.2-0

CONFIDENTIAL (Until 12-16-93)
93-EE/Rev11/12-09-93

3.1 NARRATIVE SUMMARY (Continued)

3.1.1 Initial Conditions (Continued)

System Operations: Demand on the System is high with anticipated peak of 11,500 MW_e. Service area conditions are at near critical with scheduled and unscheduled outages in the entire system. St Lucie Unit 1 is off line for refueling (expected return December 28); Fort Lauderdale Units 1 and 2 are off line for forced outages (expected return February 10); unexpected shutdowns have occurred at both Martin and Cutler Plants and neither unit is expected to return to service for at least 5 days.

Meteorological Conditions: Current temperature is 78° F, conditions are fair and warm with an anticipated high in the mid to upper eighties. Winds are weak from the east southeast at 2 to 3 miles per hour, becoming predominately easterly by evening. Probability of precipitation is 10% through Thursday. A high pressure system stationed over the lower, southeast United States has brought mild winds, and clear skies to the area. Conditions are stable and expected to continue for the next 72 to 96 hours.

3.1.2 Scenario Narrative

The scenario begins with Unit 3 experiencing an ongoing unidentified Reactor Coolant System (RCS) leakage of 0.5 gallons per minute (gpm). Due to the leakage, a special power entry team has entered the Unit 3 Containment to perform a visual inspection for the source of the leakage.

One member of the power entry team falls in the containment and is injured and contaminated. The injured person has sustained a serious cut to the arm and neck. The First Aid Team and the Onsite Medical Response personnel will be activated, but the injuries will be sufficient to require transport off-site prior to decontamination resulting in an Unusual Event declaration.

The RCS leak increases to 5 gpm. A shutdown is commenced and System requests a slow load reduction because of critical grid conditions due to the unexpected outages at several plants.

At approximately 75-80% reactor power, the RCS leak increases to 70-80 gpm. An Alert Emergency should be declared due to the leak.



3.1 NARRATIVE SUMMARY (Continued)

3.1.2 Scenario Narrative (Continued)

At approximately 55% reactor power, the H8 Rod Control Cluster Assembly (RCCA) sticks in position and will not move in or out. Instrument and Calibration (I&C) should be dispatched to troubleshoot the stuck RCCA.

The inside isolation check valve on the Instrument Air header in the Unit 3 Containment ruptures, resulting in a loss of instrument air to the containment and low pressure outside the containment until the ruptured line is isolated.

At the point of turbine and reactor trip in the shutdown, the RCS leak increases to 210 gpm. The operators manually trip the reactor. When the reactor is tripped, two additional RCCAs mechanically bind in the center core region. Safety Injection (SI) is started.

When Emergency Containment Cooling (ECC) System is started, an electrical fault in the 3C ECC causes the 3C Motor Control Center (MCC) supply breaker to trip, deenergizing the 3C MCC.

Motor Operated Valve (MOV) 1405, 3C Steam Generator (S/G) AFW steam supply fails as-is due to a jammed stem and a bad motor.

A Site Area Emergency should be declared due to the RCS leakage.

The Control Room Operators carry out Emergency Operating Procedures to stabilize the unit, and Emergency Response Teams are dispatched to repair equipment malfunctions. Shortly after the trip, MOV-750, Residual Heat Removal (RHR) suction valve jams and trips its breaker due to a bound-up stem nut.

A vibration alarm comes in on the operating Reactor Coolant Pump (RCP). When the RCP is tripped, the impeller disintegrates, causing debris to be carried into the reactor vessel. The impeller debris causes mechanical damage and flow blockage resulting in high Core Exit Thermocouples (CET) and fuel damage to several bundles. RCS and containment radiation levels increase.

The S/G in the loop with the failed RCP steam ruptures inside the Unit 3 Containment. Containment pressure quickly increases to greater than 20 pounds per square inch (psig).

3.1 NARRATIVE SUMMARY (Continued)

3.1.2 Scenario Narrative (Continued)

A General Emergency should be declared based upon the RCS leak and containment pressure. Protective Action Recommendations (PAR) should be generated based upon plant conditions.

The previously ruptured Instrument Air header in the Unit 3 Containment fails outside the containment downstream of the outside isolation valve. This results in a release path through the ruptured 2" air line to the environment.

The Control Room crew will carry out the EOPs and ERTs will repair malfunctioning equipment. After Containment pressure bleeds down through the leak the uncontrolled release reduces to nearly zero. The radioactive plume will continue to be tracked and PARs updated based on field monitoring results.

Plant cooldown to Cold Shutdown will be initiated.

Exercise play will be terminated when exercise objectives have been evaluated.

**FLORIDA POWER AND LIGHT COMPANY
TURKEY POINT NUCLEAR PLANT
1993 EMERGENCY PREPAREDNESS
EVALUATED EXERCISE
DECEMBER 15, 1993**

3.2 SCENARIO TIMELINE

<u>TIME</u>	<u>EVENT #</u>	<u>EVENT</u>
Initial Conditions		Unit 3 is online operating at 100% power in the middle of core life. The Unit has been online for 190 days and at 100% power for 180 days. Load conditions on the system are in a critical status due to several unscheduled outages in the area. There are no load threatening periodics scheduled for the next 48 hours. Unit 3 has been experiencing a 0.5 gpm unidentified leakage of reactor coolant for the last 72 hours. A special team will enter Unit 3 Containment in an attempt to locate the source of the leak. The following equipment is out of service (OOS): <ul style="list-style-type: none"> - Unit 4 is in Mode 5 in a maintenance outage. - 3C Charging Pump is OOS for gearbox replacement - 3A Emergency Diesel Generator (EDG) is OOS for crank bearing replacement. - 3C Auxiliary Feed Water (AFW) Pump is OOS for governor modification and repair.
0700-0730		Shift personnel (Control Room and Field Operators, Health Physics (HP) Radiation Protection Monitors (RPMs), Chemistry Technicians, etc.) on station
0730-0745	1	Start Exercise. Shift briefing accomplished in the Simulator and Operations Crew establishes steady-state operation. The team that entered the Unit 3 Containment to investigate the Reactor Coolant System (RCS) leak exits carrying one of the members who has been seriously injured by a fall in the Containment.
0800	1A	Security and Emergency Medical personnel are dispatched to the Unit 3 Personnel Access Hatch to respond to the injured person.
0800-0815	1B	The injured person is determined to be contaminated and injured severely enough to require off-site assistance. Off-site medical facility (Mercy Hospital) is informed, an ambulance is ordered and the patient is prepared for transport.

Note: Times in *Italics* are Approximate
FPL/PTN

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3.2 SCENARIO TIMELINE (Continued)

Evaluated Exercise, December 15, 1993

<u>TIME</u>	<u>EVENT #</u>	<u>EVENT</u>
0830	1C	The injured person should be transported to the off-site treatment facility. Due to the nature and severity of the injuries, the patient could not be fully decontaminated prior to transport.
	1D	The Nuclear Plant Supervisor (NPS) should assume the position of Emergency Coordinator (EC), declare a Notification of Unusual Event (NUE) and make necessary notifications in accordance with Emergency Plan Implementing Procedure (EPIP) 20101, <i>Duties of the Emergency Coordinator</i> due to the transport of a contaminated injured individual.
0845	2	The RCS leak increases to 5 gpm. Shutdown is commenced in accordance with General Operating Procedure (GOP) 3-GOP-103, <i>Power Operation to Hot Standby</i> and Off-Normal Operating Procedure (ONOP) 3-ONOP-100, <i>Fast Load Reduction</i> . The EC should update notifications and classification as a result of the RCS leakage. System Dispatcher request a 1 hour shutdown with most of it in the second 1/2 hour.
0900-0915	3	At 75-80% Reactor power, the RCS leak increases to 70-80 gpm. An Alert should be declared in accordance with EPIP 20101, <i>Duties of the Emergency Coordinator</i> due to the RCS leakage.
0930	4	At approximately 55% Reactor power, the H8 Rod Cluster Control Assembly (RCCA) will stick in its current position and cannot be moved in or out.
0945		The Technical Support Center (TSC) and Operations Support Center (OSC) should be activated by this time.
1000-1015	5	Instrument air check valve #3-40-336 ruptures inside the Unit 3 Containment losing its cap and internals. Loss of instrument air in the Unit 3 Containment.

Note: Times in *Italics* are Approximate.

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3.2 SCENARIO TIMELINE (Continued)

Evaluated Exercise, December 15, 1993

<u>TIME</u>	<u>EVENT #</u>	<u>EVENT</u>
1015-1030	6	At the point of reactor shutdown/turbine trip, the leak increases to 210 gpm. Reactor trip and Safety Injection (SI).
	4A	On the trip, two additional Rod Cluster Control Assemblies (RCCA) in the center core region jam and do not insert.
	7	On the Emergency Containment Cooling (ECC) system start, the 3C Motor Control Center (MCC) supply breaker #30306 trips on a fault in the 3C ECC and cannot be closed.
	8	Motor Operated Valve (MOV)-1405, 3C Steam Generator (SG) Auxiliary Feed Water (AFW) steam supply valve fails as is due to a failed valve motor.
		The EC should declare a Site Area Emergency (SAE) in accordance with EPIP 20101, <i>Duties of the Emergency Coordinator</i> based upon the RCS leakage.
		Owner Controlled Area (OCA) evacuation should be implemented (simulated).
		The Emergency Operations Facility (EOF) should be activated with initial staffing.
1040		Initial actions of Emergency Operating Procedure (EOP) 3-EOP-E-0, <i>Reactor Trip or Safety Injection</i> , should be completed.
1050		Operators should transition to procedure 3-EOP-E-1, <i>Loss of Reactor or Secondary Coolant</i> .
	9	During step 17 of procedure 3-EOP-E-1, MOV 750, Residual Heat Removal (RHR) suction valve breaker #30615 trips and will not stay closed.
		Operators should commence cool-down and depressurization.
1100		The FPL Corporate, State and County emergency response personnel should be allowed access to the EOF.
1115		The EOF and Emergency News Center (ENC) should be operational.

Note: Times in *Italics* are Approximate

FPL/PTN

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3.2 SCENARIO TIMELINE (Continued)

Evaluated Exercise, December 15, 1993

<u>TIME</u>	<u>EVENT #</u>	<u>EVENT</u>
1125	10	A high vibration alarm comes in on one of the operating Reactor Coolant Pumps (RCP).
	10A	When tripped in accordance with 3-ONOP-041.1, <i>RCP Off-Normal Operation</i> , the impeller of the affected RCP begins to break up. Debris from the disintegrating impeller is swept down into the reactor Cold Leg.
1130	11	Debris from the failed RCP impeller has been transported into the Reactor Vessel and has caused flow channel blockages and impact damage to several fuel bundles. Blocked flow in the central core region causes Core Exit Thermocouples (CET) to increase. CETs in the area of the jammed RCCAs increase to over 1,000 °F, exacerbating fuel damage. RCS and Containment radiation levels begin to increase as gas gap activity is released from the damaged fuel pins.
	12	The affected S/G faults into the Unit 3 Containment. Containment pressure increases quickly to >20 psig.
	12A	A General Emergency should be declared as a result of high containment pressure. Initial Protective Action Recommendations (PAR) should be issued at this time.
1145	13	The cyclic pressure changes experienced by the instrument air header exposed on the rupture of the in-containment check valve causes a weak thread-root to crack on a pipe nipple outside the containment. As Containment pressure increases, the nipple fails and the pipe elbow connected to it separates. The broken pipe nipple outside the Containment and open check valve body inside the Containment provide a 2" unisolable and unfiltered release path to the environment. Containment pressure begins to bleed down through the broken instrument air supply line.

Note: Times in *Italics* are Approximate

FPL/PTN

CONFIDENTIAL (Until 12-16-93)

93-EE/Rev11/12-09-93



3.2 SCENARIO TIMELINE (Continued)
Evaluated Exercise, December 15, 1993

<u>TIME</u>	<u>EVENT #</u>	<u>EVENT</u>
<i>1215</i>		The following Emergency Response Teams (ERT) should be dispatched in accordance with EOPs and EIPs: -Evaluate the leakage from the containment and release to the environment. -Chemistry team to align Post Accident Sampling System (PASS) for online monitoring and sample the Unit 3 Containment for activity. -Investigate and repair 30615 Breaker (MOV-750). -Investigate and repair 3C MCC.
<i>1300</i>		As Containment pressure decreases, leakage and the release to the environment decreases to nearly zero.
<i>1315</i>		Control Room-Simulator Crew reestablishes forced circulation RCS cooling in accordance with EOPs and continue cooldown to Cold Shutdown.
<i>1400</i>		Identification of backshift personnel and logistical needs for continued operation of Emergency Response Facilities (ERF) should be considered at this time.
<i>1500</i>	14	The Evaluated Exercise is terminated.

Note: Times in *Italics* are Approximate
FPL/PTN

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93-EE/Rev11/12-09-93



CONFIDENTIAL (Until 12-16-93)

4.0 MESSAGES

FPL/PTN

4.0-0

CONFIDENTIAL (Until 12-16-93)
93-EE/Rev01/12-08-93

**FLORIDA POWER AND LIGHT COMPANY
TURKEY POINT NUCLEAR PLANT
1993 EMERGENCY PREPAREDNESS
EVALUATED EXERCISE
DECEMBER 15, 1993**

4.0 MESSAGES

This section contains the following information:

- Section 4.1 DRILL MESSAGES AND CONTROLLER INFORMATION** - This section contains messages which are used to control the scenario.
- Section 4.2 EXERCISE MEDICAL EMERGENCY MINI-DRILL** - This section contains messages which are used to control the medical emergency scenario.

CONFIDENTIAL (Until 12-16-93)

4.1 DRILL MESSAGES AND CONTROLLER INFORMATION



CONFIDENTIAL (Until 12-16-93)

EXERCISE MESSAGE

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

To: TSC Offsite Team Leader
OSC HP Supervisor
OSC Offsite Field Team Members

From: TSC & OSC Lead Controllers

Time: ERF Activation

Message:

For the purposes of the Exercise, the "PLANT MANAGEMENT" talk group will be utilized for Offsite Field Team radio communications.

CONFIDENTIAL (Until 12-16-93)

CONTROLLER INFORMATION

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

Controller Notes:

The Lead TSC and OSC Controllers should ensure that the players have radios with the "PLANT MANAGEMENT" talk group. The mobile radios in the HP Field Team kits have this channel already programmed.

Expected Player Actions:

None



EXERCISE MESSAGE

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

To: Nuclear Regulatory Commission Operations Center (NRCOC)
From: Lead Exercise Controller
Time: 07:00

Message: Turkey Point Nuclear Plant will be conducting a practice emergency preparedness exercise until approximately 3:00 P.M. The ENS will be utilized for the Exercise.

Initial emergency classification for the drill will be reported to the NRCOC via FTS-2000 ENS telephone. Communications will be maintained after initial notification as directed by the NRCOC at the time of notification

The Emergency Response Data System (ERDS) will not be activated for the Exercise.

The NRC Site Residents will be participating in the Exercise.

CONFIDENTIAL (Until 12-16-93)

CONTROLLER INFORMATION

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

Controller Notes:

The Lead Exercise Controller should ensure that the NRC is notified prior to commencement of the evaluated exercise.

Expected Player Actions:

None

EXERCISE MESSAGE
Turkey Point Nuclear Plant
December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

To:	Plant Discipline Supervisors
From:	OSC Discipline Controllers
Time:	Morning Meetings Day of Exercise

Message: The plant initial conditions for the Emergency Preparedness Exercise follow. This information is for your review and familiarization prior to playing in the Exercise.

Unit 3 is operating at 100% power. The core is in the Middle of Life with Boron concentration of 600 ppm, 210 Effective Full Power Days (EFPD).

Unit 4 is in Mode 5 and has been off line for 20 days in a maintenance outage.

The following items are of interest:

1. Unit 3 has been experiencing an ongoing unidentified Reactor Coolant System (RCS) leakage of 0.5 gallons per minute (gpm) for several days. Due to the leakage, a special power entry team has entered the Unit 3 Containment to perform a visual inspection for the source of the leakage.
2. 3C Charging Pump is out of service (OOS) for gearbox replacement. It is anticipated to be restored to service within 5 days.
3. 3A Emergency Diesel Generator (EDG) is OOS for crank bearing replacement. The EDG is anticipated to be restored to service in 48 hours.
4. 3C Auxiliary Feedwater (AFW) Pump is out of service for governor modification and repair. Expected to be ready for testing at 8:00 p.m. tonight.
5. The State of Florida Hot Ring Down (HRD) telephone is out of service in the Control Room - Simulator. State of Florida notifications from the Control Room - Simulator are to be made via commercial telephone lines.
6. To contact the Unit 3 Simulator Control Room, dial 505 and the normal Control Room extension (eg: 505-6492 for the NPS).

System Operations: Demand on the System is high with anticipated peak of 11,500 MW_e. Service area conditions are at near critical with scheduled and unscheduled outages in the entire system. St Lucie Unit 1 is off line for refueling (expected return December 28); Fort Lauderdale Units 1 and 2 are off line for forced outages (expected return February 10); unexpected shutdowns have occurred at both Martin and Cutler Plants and neither unit is expected to return to service for at least 5 days.

Meteorological Conditions: Current temperature is 78° F, conditions are fair and warm with an anticipated high in the mid to upper eighties. Winds are weak from the east southeast at 2 to 3 miles per hour, becoming predominately easterly by evening. Probability of precipitation is 10% through Thursday. A high pressure system stationed over the lower, southeast United States has brought mild winds, and clear skies to the area. Conditions are stable and expected to continue for the next 72 to 96 hours.



CONTROLLER INFORMATION

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

Controller Notes:

The OSC Lead Controller should ensure that the supervisors of all disciplines receive a copy of the initial conditions and are familiarized with them at the commencement of the Exercise.

Expected Player Actions:

Review and become familiar with the scenario initial conditions.

EXERCISE MESSAGE

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

To: Nuclear Watch Engineer (NWE)

From: Simulator Controller

Time: Start of Exercise

Message: Designate the Fire Brigade Leader and two Plant Operators as Fire Brigade Members.

The Health Physics Shift Supervisor will make Health Physics Fire Team assignments and notify you.

CONTROLLER INFORMATION

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

Controller Notes:

Fire Brigade Members must be assigned as part of normal shift routine.

Expected Player Actions:

1. Fire Brigade members assigned.



EXERCISE MESSAGE

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

To: OSC Health Physics Supervisor

From: Local Facility Controller

Time: Upon Facility Activation

Message: For purposes of the Exercise, the first Emergency Response Team being dispatched to an area requiring Protective Clothing (PC) or requiring PCs as a precaution will *actually* dress out in PCs to demonstrate this activity. Thereafter, ERT PC usage may be simulated for the remainder of the Exercise.

For purposes of the Exercise, the first Emergency Response Team being dispatched to an area requiring Self-Contained Breathing Apparatus (SCBA) or requiring SCBAs as a precaution will *actually* don SCBAs to demonstrate this activity. Thereafter, ERT SCBA usage may be simulated for the remainder of the Exercise.

CONTROLLER INFORMATION

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

Controller Notes:

Ensure that at least one ERT dresses out to demonstrate this function for the Exercise. If there has been an adequate demonstration, PC usage for subsequent teams may be simulated. If the simulation is inadequate or improper, request an additional team be dressed out in order to meet the minimum PC objectives for the Exercise.

Ensure that at least one ERT dons SCBAs to demonstrate this function for the Exercise. If there has been an adequate demonstration, SCBA usage for subsequent teams may be simulated. If the simulation is inadequate or improper, request an additional team to don SCBAs in order to meet the minimum SCBA objectives for the Exercise.

Expected Player Actions:

1. Utilize PC dress out for a demonstration ERT as required.
2. Utilize SCBAs for a demonstration ERT as required.

CONFIDENTIAL (Until 12-16-93)

EXERCISE MESSAGE

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

To: HPSS
From: Master Radiological Controller
Time: Start of Drill

Message: Designate two Health Physics players as Fire Brigade Members and notify the NWE-Simulator (505-6491) of these assignments.

Bob Merrill is on the Power Entry Team. Assign a second RPM to be a Power Entry Team member and another RPM to establish the Control Point at the Unit 3 Containment Access. Report the individuals assigned to the NPS.

CONTROLLER INFORMATION

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

Controller Notes:

Fire Brigade Members must be assigned as part of normal shift routine. Have the Leader notify the Simulator Crew of these assignments.

Two RPMs (in addition to Bob Merrill) must be assigned to the simulated Containment Power Entry Team as Control Point and an additional team member.

Expected Player Actions:

1. Fire Brigade members assigned.
2. NWE-Simulator notified.
3. Power Entry Team HP members assigned.
4. NPS-Simulator notified.

EXERCISE MESSAGE

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

To: Juno Beach Personnel

From: Local Controller

Time: Start of Drill

Message: To call back into the Control Room - Simulator, call 246-6108 which will directly ring into the Control Room - Simulator.

If this extension is busy or is not answered, you may call the plant operator (246-1300 and dial '0') or 246-6129 and request to be transferred to the Control Room - Simulator by dialing 505 + the desired Control Room extension.

CONTROLLER INFORMATION

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

Controller Notes:

An outside extension has been established to call to the phone on the wall at the NPS Desk in the Control Room - Simulator. If this line is busy, players will have to call into the site and be transferred over to the simulator.

This should not be done once the onsite facilities are activated.

Expected Player Actions:

1. If necessary, contact the Control Room - Simulator by calling the direct extension or by calling into a site extension and get transferred over the simulator by using 505 + Control Room Extension.

EXERCISE MESSAGE

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

To: Control Room Communicator and TSC Communicators
From: Control Room and TSC Controllers
Time: Start of Drill

Message: Simulated Contact of ECO in Juno Beach until EOF is activated

Contact NDDO and any other Juno Beach personnel
at the simulation of Juno Beach offices until EOF is
activated at the following numbers:

NDDO K. Beaty

Office: 552-4136
Cellular: 407-285-2864
Beeper: FPL-2009

ECO J. Geiger

Office: 552-4116
Cellular: 407-371-4290
Beeper: FPL-2004



CONTROLLER INFORMATION

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

Controller Notes:

EOF will be activated on a simulated real time basis from a pre-staging area in the General Office (GO). Any Juno Beach personnel should be contacted in the simulated Juno office until EOF activation.

Expected Player Actions:

1. Contact ECO, NDDO and any other Juno personnel in the simulation of Juno Beach offices until EOF activation.



EXERCISE MESSAGE

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

To: Nuclear Plant Supervisor (In Simulator)
From: Simulator Controller
Time: Start of Exercise (Approximately 07:30)

Message: The Simulator Page System is connected to the Plant Page for the Exercise Period. Therefore, any required announcements may be made from the Simulator. All announcements shall be preceded and ended by "This is a Drill".

All plant alarms and the page boost may be initiated from the Simulator during the exercise period.

To call a plant extension simply dial the four digit extension (no prefix necessary) if the extension is not duplicated in the simulator. If the extension is duplicated in the simulator, simply dial the pound sign (#) and the extension to call the plant. For example, to call the ANPS in the plant from the Simulator, dial #6492. Personnel in the plant may dial the simulator directly by dialing 505 + the extension. These functions are only available during drills.

To send or receive facsimiles at the Simulator, use the machine in the Simulator Computer Room, 246-6765.

To make offsite calls, dial 8 or 9 (as appropriate) plus the offsite number.



CONTROLLER INFORMATION

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

Controller Notes:

The NPS in the Control Room will have the necessary information.

Show the NPS and the Shift Communicator the location of the facsimile (FAX) machine.

Expected Player Actions:

1. The Simulator NPS Shift Communicator are aware of the location of the FAX machine in the Simulator.



EXERCISE MESSAGE

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

To: NPS, Control Room - Simulator, TSC, and EOF Communicators
From: Control Room - Simulator, TSC, and EOF Controllers
Time: Start of Exercise

Message: The FTS-2000 Emergency Notification System (ENS) is operable in the Simulator and all facilities. The NRCOC has been notified of the Exercise, and will receive the initial event classification report. Continuous communication will not be maintained, and subsequent NRCOC notifications will be simulated.

Notify your Controller when NRCOC notifications are required.

Precede all notifications by "This is a Drill".

CONTROLLER INFORMATION

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

Controller Notes:

The NRCOC only wants to be notified on the initial event classification. This notification should be accomplished by the Simulator Crew using the FTS-2000.

Ensure all notification are preceded by "This is a Drill".

Subsequent notifications should be made to you. Collect the Event Notification Worksheet for documentation.

Expected Player Actions:

1. Contact the NRCOC on initial event notification.
2. Contact Controller for required notifications.

CONFIDENTIAL (Until 12-16-93)

EXERCISE MESSAGE

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

To: TSC and EOF Communicators

From: Local Facility Controller

Time: Upon Facility Activation

Message: The Control Room - Simulator Facsimile number is 246-6765.

CONTROLLER INFORMATION

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

Controller Notes:

Ensure the facilities have this line available for the drill. If there are problems, contact the Master Operations Controller to ensure the machine is operational.

Expected Player Actions:

1. Use facsimile equipment as required.



CONFIDENTIAL (Until 12-16-93)

EXERCISE MESSAGE

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

To: Security

From: Security Controllers in CAS, SAS, and Shift Specialist

Time: Approximately 07:30

Message: Contact the following at the corresponding phone number :

1. Control Room - Simulator -- 505-6492



CONTROLLER INFORMATION

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

Controller Notes:

Due to the use of the simulator, the Security Force needs to have the staged numbers.

Also, if Security is not going to notify the Control Room - Simulator, do not provide them with this information.

Do not let these calls be made to any other numbers.

Expected Player Actions:

1. Contact the Simulator - Control Room at the appropriate number to inform them of the Security matters.

CONFIDENTIAL (Until 12-16-93)

EXERCISE MESSAGE

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

To: Security

From: Security Lead Controller

Time: 07:30

Message: Assign a Security Officer to the simulated Power Entry Team at the Unit 3 Containment Access to perform access control on the entry inspection for the unidentified leak.

CONTROLLER INFORMATION

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

Controller Notes:

Provide this message to establish the security access control portion of the simulated entry of a team into the Unit 3 Containment.

Expected Player Actions:

1. Assign Security Officer to the simulated entry.
2. Be aware of simulated team in Containment.
3. Carry out normal procedures.

CONFIDENTIAL (Until 12-16-93)

EXERCISE MESSAGE

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

To: Control Room -Simulator

From: Medical Controller

Time: 07:45 Event 1

Message: Pass the following message:

"This is a Drill"

"There is an injured man at the Unit 3 Containment Personnel
Access Hatch, we need medical assistance."

"This is a Drill"



CONTROLLER INFORMATION

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

Controller Notes:

Shortly after the simulated team entered the Unit 3 containment, one member of the team fell down a flight of stairs. The team is simulated to have exited the containment carrying the injured individual. The injured person has a large laceration on the left forearm and blood is running down the right side of his neck.

Indicating lights on the Isolation Panel will show opening and closure of the Unit 3 Personnel Access Hatch.

The other players simulating additional entry team members contact the Control Room using the Page or telephone to perform the notification.

A stand-in will be provided with moulage to simulate the contaminated/injured individual. Any other simulated entry team member(s) may be released to the plant for other duties after discussion and simulation regarding decontamination have taken place.

Expected Player Actions:

1. Seek and await first aid assistance.
2. Dispatch Medical, Security and HP personnel to the scene.



EXERCISE MESSAGE

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

To: Personnel Responding to the Simulated Medical Emergency

From: Local Controller

Time: 07:50 **Event 1A**

Message: The victim has fallen, has a gashed left forearm, cut on the right side of the neck and is complaining of a lot of pain. There is a lot of blood loss to the victim's PCs and around him. The victim is conscious but is confused and disoriented.



CONTROLLER INFORMATION

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

Controller Notes:

All additional information for the simulated medical emergency will be provided from Section 4.2, Exercise Medical Emergency Mini-Scenario.

It is imperative that the medical drill events initiate quickly due to timing needs of the scenario. This will require radio communications between the controllers and coordination with the Health Physics, Medical and Security players. Note the Simulator number listed below for Control Room notification.

When and if inquiry occurs about the results of the inspection, the source of the leakage was not identified.

Expected Player Actions:

1. Report the injury to the Control Room (Simulator) 505 + Control Room extension.
2. Perform medical evaluation.
3. Perform necessary Security practices.
4. Evaluate radiological conditions.

CONFIDENTIAL (Until 12-16-93)

EXERCISE MESSAGE

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

To: NPS-Simulator and Site Medical Personnel

From: Local Controllers

Time: 08:15

Message: To request offsite medical transportation call X-6129 **DO NOT CALL**
911.

CONTROLLER INFORMATION

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

Controller Notes:

The Master Operations Controller will simulate the 911 operator and notify the Metro-Dade Rescue Unit staged near site at the proper time interval for response.

Ensure that the call for medical transport does not go out on an actual 911 call.

Expected Player Actions:

Call X-6129 for simulation of 911 and request medical transport for the injured individual.



CONFIDENTIAL (Until 12-16-93)

EXERCISE MESSAGE

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

To: NPS

From: Simulator Controller

Time: 08:45 Event 1D

Message: (Contingency Message)

Conditions are in place for declaration of an Unusual Event based upon transport of a contaminated and injured person off-site for medical treatment.

CONTROLLER INFORMATION

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

Controller Notes:

This contingency message is provided to ensure exercise continuity. DO NOT deliver this message unless directed by the Lead Exercise Controller to ensure proper exercise progression.

Expected Player Actions:

1. Declaration of an Unusual Event and carry out Emergency Plan documentation, notification and activation responsibilities.

CONFIDENTIAL (Until 12-16-93)

EXERCISE MESSAGE

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

To: NPS

From: Simulator Controller

Time: 09:00 Event 2

Message: (Contingency Message)

Conditions are in place for declaration of an Unusual Event based upon unidentified RCS leakage greater than 1 gpm.



CONTROLLER INFORMATION

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

Controller Notes:

This contingency message is provided to ensure exercise continuity. DO NOT deliver this message unless directed by the Lead Exercise Controller to ensure proper exercise progression. This message is for the declaration of Unusual Event *if* the transport of the contaminated injured person does *not* occur prior to the RCS leak becoming greater than 1 gpm.

Expected Player Actions:

1. Declaration of an Unusual Event and carry out Emergency Plan documentation, notification and activation responsibilities.



EXERCISE MESSAGE

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

To: Unit 3 RCO
From: System Operations (Simulator Controller)
Time: 09:00 **Event 2**

Message: There have been unexpected outages at the Martin Plant and the Cutler Plant in addition to Turkey Point Unit 4 being down for repair

Arrangements have been made to provide adequate reserves from the Southern Company within one or two hours.

Request that you perform a one hour shutdown with most of the reduction in the last half hour in order to balance loads and bring on the Southern Company reserve.

CONTROLLER INFORMATION

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

Controller Notes:

This message is provided to attempt to pace the fast load reduction and prompt increase concern from plant management.

Expected Player Actions:

1. Receive report, notify plant management, and begin plant load reduction and shutdown.



CONFIDENTIAL (Until 12-16-93)

EXERCISE MESSAGE

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

To: TSC Supervisor and OSC Supervisor

From: Lead TSC and OSC Controllers

Time: 09:15

Message: The evacuation of areas outside the Protected Area, including the Satellite School and the Child Development Center will be simulated. No action is necessary regarding this simulation.



CONTROLLER INFORMATION

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

Controller Notes:

Ensure that players understand that no action will be performed in regard to these evacuations.

Expected Player Actions:

None



CONFIDENTIAL (Until 12-16-93)

EXERCISE MESSAGE

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

To: NPS

From: Simulator Controller

Time: 09:30 Event 3

Message: (Contingency Message)

Conditions are in place for declaration of an Alert Emergency based upon RCS Leakage greater than 50 gpm but within available charging pump capacity.



CONTROLLER INFORMATION

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

Controller Notes:

This contingency message is provided to ensure exercise continuity. DO NOT deliver this message unless directed by the Lead Exercise Controller to ensure proper exercise progression.

Expected Player Actions:

1. Declaration of an Alert Emergency and carry out Emergency Plan notification, activation and documentation responsibilities.

CONFIDENTIAL (Until 12-16-93)

EXERCISE MESSAGE

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

To: TSC, EOF and ENC Personnel
From: TSC, EOF and ENC Local Controllers
Time: 09:30 (Approximate)

Message: System Information, if required, may be obtained for the duration of the Exercise by calling 246-6129.

CONFIDENTIAL (Until 12-16-93)

CONTROLLER INFORMATION

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

Controller Notes:

Provide the players the preceding phone number in order to obtain simulated System Information during the Exercise.

Expected Player Actions:

Utilize the number provided when requesting System Information.



CONFIDENTIAL (Until 12-16-93)

EXERCISE MESSAGE

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

To: TSC Supervisor

From: TSC Lead Controller

Time: 10:00

Message: The Satellite School and Child Development Center evacuation is complete and all children have been accounted for.



CONTROLLER INFORMATION

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

Controller Notes:

Ensure the players receive this feedback on the simulated evacuation of the Satellite School and the Child Development Center.

Expected Player Actions:

None.



EXERCISE MESSAGE

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

To: Instrument & Calibration (I&C) Response Team

From: Local Controller

Time: 10:00 Event 4/4B

Message: **NOTE:** All activities are to be simulated and discussed. **DO NOT** open any Rod Control Cabinets.

The stuck Rod Control Cluster Assemblies (RCCA) do not move in response to troubleshooting in accordance with ONOP 28.1, *Reactor Control System Malfunction*. They appear to be mechanically bound.



CONTROLLER INFORMATION

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

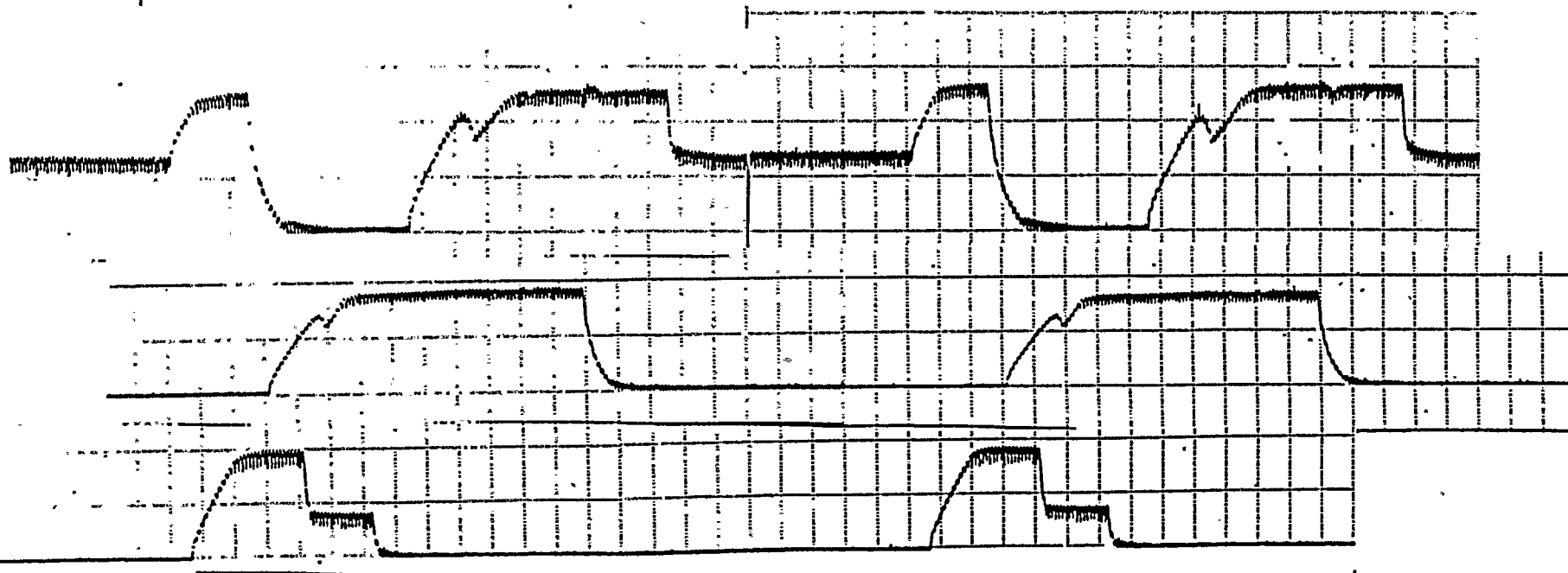
Controller Notes:

Due to the equipment in the Simulator Control Room, the I&C team will not be able to perform the steps detailed in ONOP 28.1. The simulation may be better performed in the actual Unit 3 Control room and Rod Control Room. At the completion of adequate demonstration of the simulated troubleshooting, the team should be given the preceding information. The attached traces of rod motion are provided if the ERT is able to pursue troubleshooting simulations to the point of obtaining this information.

Expected Player Actions:

1. Monitor indicators and annunciators.
2. Simulate troubleshooting and evaluation of the Rod Control System status as allowed by the NPS/EC.

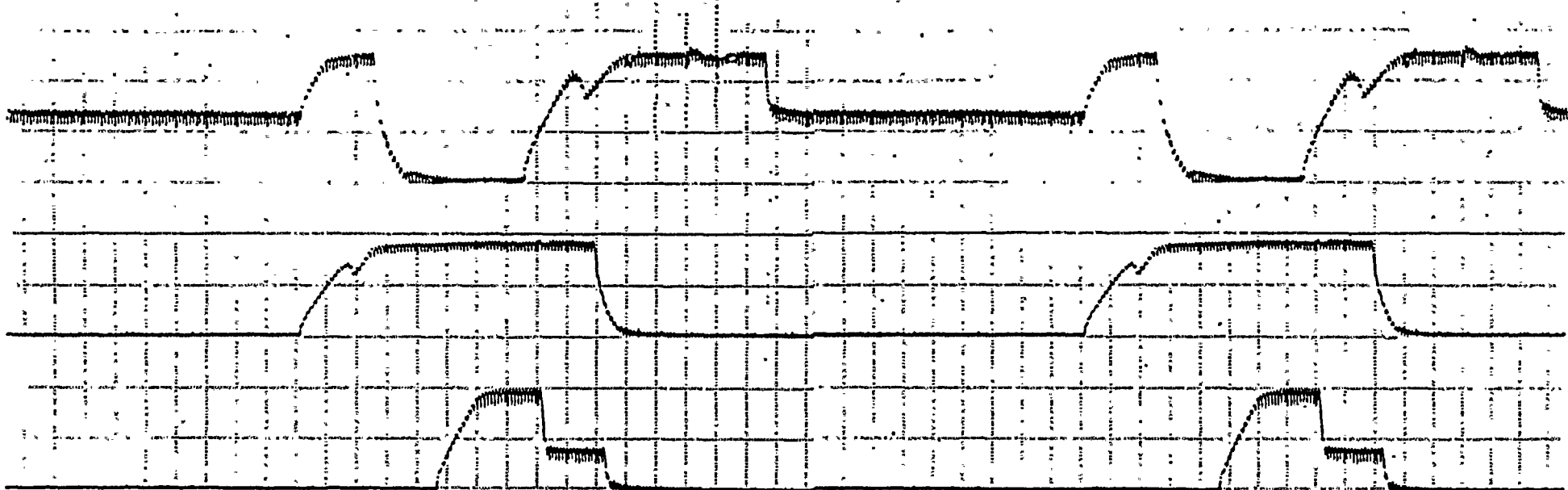
9:41-23 • 24 May 55 • TIME SCALE: 10.0 ms



INWARD Rod Motion

19:41:23 03 MAY 55 TIME SCALE 10.0 MIN 19:41:23 03 MAY 55 TIME SCALE 10.0

ROD



OUTWARD ROD MOTION





CONFIDENTIAL (Until 12-16-93)

EXERCISE MESSAGE

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

To: Control Room - Simulator Operators

From: Simulator Controller

Time: 10:15 **Event 5**

Message: The Simulator Booth Controller will perform any actions required on Units 1 & 2 for Air Compressor support.



CONTROLLER INFORMATION

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

Controller Notes:

Instrument Air pressure is lost to Unit 3 due to failure of the isolation check valve in the Unit 3 containment.

Direct Control Room - Simulator request for Unit 1/2 compressor support to the simulator Instructor Booth (IF).

Instrument Air is available from emergency supply from Unit 1/2 Service Air System.

Coordinate all operations with the Master Operations Controller.

Expected Player Actions:

1. Request compressor support from Units 1/2.
2. Investigate the low Instrument Air pressure.

EXERCISE MESSAGE

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL! THIS IS A DRILL! THIS IS A DRILL!

To: Turbine Operator (TO) investigating Unit 3 Loss of Instrument Air
From: Local Controller
Time: 10:30 **Event 5**

Message: Simulate the starting of the diesel Instrument Air compressors. Upon investigation of the failed Unit 3 Instrument Air system, there are no audible or visual leaks. Flow differentials across the orifices shows excessive flow into the Unit 3 Containment. Your Controller will provide you with simulated indications.



CONTROLLER INFORMATION

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL! THIS IS A DRILL! THIS IS A DRILL!

Controller Notes:

The TO should be allowed to play out the troubleshooting as much as possible. Evaluate troubleshooting methodology and planning.

All valve lineups are correct and equipment is operating properly. Contact the Simulator Booth Controller to determine actual Instrument Air pressure indicated and adjust the following accordingly (the following are based upon a Simulator indication of 80 psig).

Instrument Air Compressor Discharge (PI-3-1615):	85 psig
Instrument Air Dryer Pressures:	
Inlet (PI-3-6280):	85 psig
Inservice Outlet (PI-3-3423/3424):	83 psig
Instrument Air Filter Pressures (DPI-3-6282/6300):	2 psid
System Local Pressure Indication (PI-3-1444):	80 psig
Turbine Area Header (PI-3-1516):	80 psig
Unit 3 Containment Header (PI-3-1517):	30 psig
Control Room/Aux. Bldg. Header (PI-3-1518):	80 psig

The Instrument Air leak may be isolated by simulated closing of the Unit 3 Containment isolation valve and the remainder of the system returned to service. Coordinate the release with the Master Operations Controller and the Simulator.

Expected Player Actions:

1. Carry out troubleshooting.
2. Identify simulated failures



EXERCISE MESSAGE

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

To: Electrical Team Investigating Failed 3C MCC Supply Breaker #30306

From: Local Controller

Time: 10:30 **Event 7**

Message: Upon investigating the loss of the 3C Motor Control Center (MCC), you discover the 30306 Breaker is tripped with overcurrent trip button tripped. If reclosure is attempted, the breaker operates with effort and immediately trips.

CONTROLLER INFORMATION

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

Controller Notes:

The loss of the 3C MCC is due to a ground on the 3C Emergency Containment Cooler that damaged the breaker and caused a short in the output bussing in the 3C MCC.

The 3C ECC breaker, 30719, has failed to trip and the fault will not clear until the ECC is isolated.

Do not release this breaker until directed by the Master Operations Controller.

Expected Player Actions:

1. Visually inspect the failed 30306 breaker
2. ANPS should request I&C/Electrical Maintenance to investigate the 30306 breaker and supply cables.

CONFIDENTIAL (Until 12-16-93)

EXERCISE MESSAGE

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

To: ERT Investigating 3C MCC

From: Local Controller

Time: 10:40

Message: All breakers are in their normal positions.

CONTROLLER INFORMATION

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

Controller Notes:

The 3C MCC is deenergized due to a fault on the 3C ECC and failure of the 3C ECC breaker (30719) to trip. This caused the 3C Load Center feeder breaker 30306 to trip on overcurrent.

Breaker 30719 is "on". All other breakers are in normal positions. Allow the team to perform troubleshooting and ground isolation procedures.

Do not release the breaker until directed by the Master Operations Controller.

Coordinate simulated ground isolation with the Simulator Booth Controller to ensure continuity of actions with the simulator indications.

The following is a list of major equipment on the 3C MCC for Controller reference:

- MOV-3-536, PORV Isolation
- MOV-3-1426, 3B S/G Blowdown Isolation Valve
- 3A Post-Accident Hydrogen Monitor
- 3C Emergency Containment Cooler
- 3C Emergency Containment Filter
- MOV-3-1408, 3B S/G Feedwater Isolation Valve
- MOV-3-880A, 3A Containment Spray Pump Discharge Valve
- Various "A" Train ECCS MOV breakers ("B" Train still fully operable)

Expected Player Actions:

Perform troubleshooting and ground isolation simulations.

EXERCISE MESSAGE

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

To: ERT investigating loss of the 3C S/G Aux Steam Valve, MOV-1405

From: Local Controller

Time: 10:30 Event 8

Message: MOV 1405 is found failed in the closed position.

When you attempt to move the valve, it is frozen in position.

The valve motor is hot to the touch and does not run.



CONTROLLER INFORMATION

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

Controller Notes:

Packing and stem binding and galling has burned out the motor on MOV-1405. The motor is bound into the valve gearing, preventing declutching and manual operation. The stem is bound tight in the packing and will not move.

Do not release this valve until directed by the Master Operations Controller.

The thermal overload for the MOV breaker is tripped. The thermal overload may be reset, but will trip again.

Expected Player Actions:

1. Determine valve status
2. Report status.
3. Attempt to release motor and manually position valve, if directed.



CONFIDENTIAL (Until 12-16-93)

EXERCISE MESSAGE

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

To: Emergency Coordinator (EC)

From: TSC Controller

Time: 10:45 **Event 6**

Message: (Contingency Message)

Conditions are in place for declaration of a Site Area Emergency based on RCS leakage greater than 50 gpm and available charging pump capacity.



CONTROLLER INFORMATION

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

Controller Notes:

This contingency message is provided to ensure exercise continuity. DO NOT deliver this message unless directed by the Lead Exercise Controller to ensure proper exercise progression.

Expected Player Actions:

1. Declaration of a Site Area Emergency and carry out Emergency Plan notification, activation and documentation responsibilities.

EXERCISE MESSAGE

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

To: Control Room - Simulator and TSC Communicators

From: Local Controllers

Time: 10:45

Message: Ensure the following information is announced in addition to the Owner Controlled Area Evacuation announcement:

"Attention all personnel, attention all personnel. This is only a drill. Site Evacuation is NOT required. I repeat. This is only a drill. Site evacuation is NOT required."

CONTROLLER INFORMATION

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

Controller Notes:

Ensure this message is passed when the Owner Controlled Area Evacuation is announced to ensure that BOTH Nuclear and Fossil personnel are aware that this is only a drill.

Expected Player Actions:

1. Evacuation announcement is made as required.

CONFIDENTIAL (Until 12-16-93)

EXERCISE MESSAGE

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

To: Security Officers conducting accountability in the Nuclear Entrance Building

From: Security Controller

Time: 11:00

Message: The following person is unaccounted for:

Ron Miller



CONTROLLER INFORMATION

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

Controller Notes:

Provide Security Personnel this message approximately 20 minutes after the Site Evacuation. Contact the Master Operations Controller prior to delivery.

Expected Player Actions:

1. Notify Supervisors.
2. Initiate Search and Rescue as directed.

CONFIDENTIAL (Until 12-16-93)

EXERCISE MESSAGE

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

To: Team Investigating the failure of RHR Valve MOV-750

From: Local Controller

Time: 11:00 **Event 9**

Message: The supply breaker to the MOV-750 valve is tripped free on overcurrent and will not reclose.

CONTROLLER INFORMATION

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

Controller Notes:

There is a galled and jammed stem nut inside the valve operator. The valve cannot be moved either by motor or handwheel due to the binding and friction.

Check with the Master Operations Controller prior to releasing this valve.

Expected Player Actions:

1. Note breaker and valve conditions.
2. Report conditions to the Control Room - Simulator.
3. Attempt alternate and manual action, if directed.
4. Standby for further directions.



CONFIDENTIAL (Until 12-16-93)

EXERCISE MESSAGE

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

To: Team Sent to Line Up PAHMs

From: Local Controller

Time: 11:00

Message: None

CONTROLLER INFORMATION

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

Controller Notes:

The "A" Train of PAHMs will not be available due to the loss of the 3C MCC. Contact the Simulator Booth Controller to monitor the status of the restoration of the 3C MCC.

Have the Team walk down the locations of the PAHM system to be lined up ("B" Train) and have them explain their actions. Do not enter any high radiation areas for the walkdown.

PAHMs should be lined up within 1/2 hour of Safety Injection.

Ensure that operators do not manipulate any valves or other equipment.

Expected Player Actions:

1. Obtain brief and proceed to equipment.
2. Point out and verbally explain actions to the controller.
3. Report status of job to OSC.



CONFIDENTIAL (Until 12-16-93)

EXERCISE MESSAGE

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

To: Team Sent to Draw a PASS Sample

From: Local Controller

Time: 11:30

Message: Simulate performing the required actions.

Your Controller will provide you with equipment status and sample results information.



CONTROLLER INFORMATION

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

Controller Notes:

Have the Team walk down the locations of the PASS system to be lined up and have them verbally step through their actions. Do not enter any high radiation areas for the walkdown.

Contact the Master Radiological Controller for Radiological Conditions in the Auxiliary Building.

RCS Boron concentration should be obtained from the Simulator operator/controller. Use appropriate RCS sample results from section 7.1 for the time of the sample.

Expected Player Actions:

1. Obtain brief and proceed to equipment.
2. Point out and verbally explain actions to the controller.
3. Report status of job to OSC.

CONFIDENTIAL (Until 12-16-93)

EXERCISE MESSAGE

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

To: HP RPM surveying Unit 3 Containment

From: Local Controller

Time: 11:30 **Event 11**

Message: Unit 3 Containment surveys indicate increased radiation from the containment.



CONTROLLER INFORMATION

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

Controller Notes:

Provide appropriate survey results. Coordinate radiation information with the Master Radiological Controller.

Ensure RPM carries out appropriate survey practices.

Expected Player Actions:

1. Conducts surveys.
2. Reports results as appropriate.

CONFIDENTIAL (Until 12-16-93)

EXERCISE MESSAGE

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

To: Emergency Coordinator (EC)

From: TSC Controller

Time: 11:45 Event 12A

Message: (Contingency Message)

Conditions are in place for declaration of a General Emergency based on RCS leakage greater than 50 gpm and available charging pump capacity and containment pressure greater than 20 psig.

CONTROLLER INFORMATION

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

Controller Notes:

This contingency message is provided to ensure exercise continuity. DO NOT deliver this message unless directed by the Lead Exercise Controller to ensure proper exercise progression.

Expected Player Actions:

1. Declaration of a General Emergency and carry out Emergency Plan notification, activation and documentation responsibilities.

CONFIDENTIAL (Until 12-16-93)

EXERCISE MESSAGE

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

To: Any Players in the Turbine Building Area West of Unit 3 Containment

From: Local Controller

Time: 11:45 **Event 13**

Message: There is a small plume of steam coming from the area northwest of the Unit 3 Containment between the steam trestle and the feedwater platform on the 18' elevation.

CONTROLLER INFORMATION

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

Controller Notes:

Provide this message to any players in a position to see the steam coming from the failed Instrument Air line at this time.

Airborne radiation levels (open and closed window differential) also exist in the plume area at this time. Contact Master Radiological Controller to provide feedback to any personnel with portable radiation monitors.

Expected Player Actions:

1. Note the plume of steam.
2. Note the increased radiation levels.
3. Report status to Supervisor.



CONFIDENTIAL (Until 12-16-93)

EXERCISE MESSAGE

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

To: Emergency Control Officer

From: EOF Controller

Time: 13:15

Message: A representative group of FPL's Board of Directors will be meeting in the General Office Building in approximately 2 hours. They want a briefing on the emergency events.



CONFIDENTIAL (Until 12-16-93)

CONTROLLER INFORMATION

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

Controller Notes:

This message should be called into the EOF. Remember to use "This is a drill" with all messages.

Expected Player Actions:

1. ECO will gather briefing personnel and material.

EXERCISE MESSAGE

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

To: All Players

From: All Controllers

Time: 15:00

Message: The Emergency Preparedness Evaluated Exercise is Terminated.

Restore all facilities and equipment.

Facility Managers and Lead Controllers hold in-place critiques in all major facilities.



CONTROLLER INFORMATION

Turkey Point Nuclear Plant

December 15, 1993

THIS IS A DRILL!

THIS IS A DRILL!

THIS IS A DRILL!

Controller Notes:

Deliver this message at the direction of the Lead Exercise Controller/Master Operations Controller.

Coordinate restoration of facilities, collection of player records and performance of in-place critiques.

Master Operations Controller contact and notify the NRCOC of the termination of exercise play.

Expected Player Actions:

1. Restore facilities and equipment.
2. Collect and provide to the Controllers all logs, forms and checklists.
3. Perform in-place critique.



CONFIDENTIAL Until 12-16-93

4.2 EXERCISE MEDICAL EMERGENCY MINI-SCENARIO

FPL/PTN

4.2-0

CONFIDENTIAL (Until 12-16-93)

93-EE/Rev.05/12-08-93

**FLORIDA POWER AND LIGHT COMPANY
TURKEY POINT NUCLEAR PLANT
1993 EMERGENCY PREPAREDNESS
EVALUATED EXERCISE
DECEMBER 15, 1993**

4.2 EXERCISE MEDICAL EMERGENCY MINI-SCENARIO

-- NOTE --

This section contains data on the simulated contaminated injury including: onsite, transport and the participating offsite treatment facility (Mercy Hospital).

<u>CONTENTS</u>	<u>PAGE</u>
Exercise Medical Emergency Mini-Scenario Guide	4.2-1
Exercise Medical Mini-Scenario Messages	4.2-10

4.2 EXERCISE MEDICAL EMERGENCY MINI-SCENARIO (Continued)

Medical Scenario	Anticipated Actions
<p align="center"><u>GENERAL SCENARIO</u></p> <p>A special power entry team were simulated to have been inside the Unit 3 Containment performing a search for the ongoing unidentified RCS leakage into the Containment. The medical emergency victim is simulated to have slipped and fallen down one of the flights of stairs in the Containment. The victim has cut the right side of the neck and severely gashed the left forearm. The other team members helped the victim out of the Containment to just outside the Personnel Access Hatch. The victim is conscious and is in severe pain as a result of the injuries. The associated blood loss is a shock danger.</p>	<p><u>Medical Emergency Scene:</u> (Unit 3 Outside the Containment Personnel Access Hatch.)</p> <p>The Medical Controller at the scene should initiate the medical drill by having one of the assigned entry team members call in the injury from the Personnel Access Hatch. When Medical, Security and HP respond, they will find the simulated victim moulaged and staged at the hatch.</p>
<p align="center"><u>MEDICAL EMERGENCY INITIATION</u></p> <p>The victim is wearing Protective Clothing (PC)s (skullcap, coveralls, gloves and shoecovers) and an SCBA (SCBA was removed prior to exiting the Containment).</p> <p><u>Victim:</u></p> <p>Conscious Bleeding profusely from: 4" gash on inside of left forearm 2" gash on right side of neck below the ear</p>	<p><u>Security Officer:</u> Radio in the situation. Establish and maintain Containment vital access.</p> <p><u>CAS:</u> Report the situation to the Security Shift Specialist and the Nuclear Plant Supervisor (NPS) in the Unit 3 Control Room (PTN Plant Simulator).</p> <p><u>Unit 3 Control Room (PTN Plant Simulator):</u> NPS: Notify Medical and Health Physics.</p>

4.2 EXERCISE MEDICAL EMERGENCY MINI-SCENARIO (Continued)

Medical Scenario	Anticipated Actions
<p><u>Medical Team Arrival:</u></p> <p><u>Victim:</u></p> <p>Respiration: 24 Pulse: 110 B/P: 130/70 Skin: Warm & Diaphoretic Pupils: Equal, reactive ECG: Sinus Tachycardia</p> <p>Conscious but in extreme pain and not completely lucid. Copious bleeding from the left forearm and right side of the neck.</p>	<p><u>On-Scene Personnel:</u> Communications are established between Health Physics, Medical and Security. Medical is requested to respond to the scene. Vital signs and patient condition are assessed. Protective Clothing (PCs) is removed to facilitate treatment. Pressure dressings are applied to control bleeding.</p> <p><u>Medical:</u> Respond to the scene.</p> <p><u>U3 Control Room (CR)(Simulator):</u> Ensure that Health Physics (HP) responds.</p>
<p><u>Initial Radiological Conditions:</u> Initial radiological conditions at the medical emergency scene are given in messages. All further medical emergency radiological data will be provided from this scenario.</p> <p>Immediate Victim Area (per smear of 100 cm²): 1,000-1,500 cpm>Bkg Other Areas (per smear of 100 cm²): As Read/Bkg Radiation Levels: 3,000-5,000 cpm>Bkg Victim's PCs: 2,000-5,000 cpm>Bkg</p>	<p><u>Health Physics Technicians (HPTs):</u> Perform initial surveys to determine contamination levels of victims and area. Report findings to the Medical Team and to the U3 CR (Simulator). (Note: Surveys of Protective Clothing not normally performed prior to removal, data included if survey is performed.)</p>



4.2 EXERCISE MEDICAL EMERGENCY MINI-SCENARIO (Continued)

Medical Scenario		Anticipated Actions	
<u>Health Physics Technicians (HPTs) Respond:</u> After the initial quick assessment of radiological conditions, the following detailed radiological data should be ascertained by the HPTs:		<u>HPTs:</u> While Medical is performing initial treatment, HPTs should be performing detailed radiological surveys of the victim, other team members and the area. In general, radiation and contamination other than detailed is "As Read/Bkg". (Note: Surveys of Protective Clothing not normally performed prior to removal, data included if survey is performed.)	
<u>General Radiological Conditions:</u>			
Victim and Team's Direct Reading Dosimeters (DRDs):	10 mR		
Radiation Level:	As Read/Bkg		
Airborne Radioactivity:	As Read/Bkg		
Smearable in Immediate Vicinity (per 100 cm ² smear):	1,000-1,500 cpm>Bkg		
Smearable in Surrounding Areas (per 100 cm ² smear):	As Read/Bkg		
<u>Victim:</u>	<u>Entry Team:</u>		
PCs (general):	2,500 cpm>Bkg		
Left Sleeve:	3,000 cpm>Bkg		
Gloves:	3,000 cpm>Bkg		
Shoe Covers:	5,000 cpm>Bkg		
After PC Removal	After PC Removal		
Left Forearm:	2,500 cpm>Bkg	Face (outside mask):	500 cpm>Bkg
Right Ear & Neck:	1,000 cpm>Bkg	Hands:	500 cpm>Bkg
Hands:	1,000 cpm>Bkg	All Other Areas:	As Read/Bkg
All Other Areas:	As Read/Bkg		

4.2 EXERCISE MEDICAL EMERGENCY MINI-SCENARIO (Continued)

Medical Scenario	Anticipated Actions
<p><u>Initial Treatment:</u> During the initial patient treatment and preparation for transport:</p> <p><u>Victim:</u></p> <p>Respiration: 24 Pulse: 116 B/P: 128/74 Skin: Warm & Diaphoretic Pupils: Equal, responsive ECG: Sinus Tachycardia</p> <p>Patient is conscious, but still in pain and less lucid. Responsive to painful stimuli and is complaining about the left arm.</p>	<p><u>Medical:</u> As soon as the patient is stabilized and the initial radiological status is verified, the patient should be set up for movement with timely contamination control to the First Aid Room/Medical Facility. Bring the site ambulance into the Protected Area and transport the victim out to the Medical Facility.</p> <p><u>Security:</u> Expedite the ingress and egress of the site ambulance to the victim pick-up point in the Protected Area.</p> <p><u>HPTs:</u> Support the packaging and transport of the victim to the First Aid Room/Medical Facility. Provide contamination control with minimal interference during movements and followup decon and monitoring. Provide decon and monitoring of the other contaminated entry team members.</p>

4.2 EXERCISE MEDICAL EMERGENCY MINI-SCENARIO (Continued)

Medical Scenario	Anticipated Actions
<p><u>Secondary Treatment:</u> (Site Medical in the First Aid Room/Medical Facility) Medical evaluation of patient condition prior to transport to the offsite medical treatment facility (Mercy Hospital).</p> <p><u>Victim:</u></p> <p>Respiration: 24 Pulse: 124 B/P: 118/56 Skin: Pale, Cool & Diaphoretic Pupils: Equal, Responsive</p> <p>Patient is losing consciousness, shivering and going pale. Forearm laceration is approximately 10 cm in length, ragged and deep (to the bone). There is serious venous bleeding and indications of minor arterial bleeding. There is apparent muscle and tendon damage. Bleeding is reduced by immobilization and pressure bandages. The laceration on the right side of the neck is ragged, approximately 4 cm in length. There is moderate venous bleeding and possible muscle/tendon damage.</p>	<p><u>Medical:</u> Perform evaluation and prepare for transport to Mercy Hospital. Call Metro-Dade Rescue for immediate transport. Stabilize the patient and begin decontamination efforts. Notify Mercy Hospital, security and the CR of the impending transport.</p> <p><u>Security:</u> Prepare to expedite the ingress and egress of the Metro-Dade Rescue Unit.</p> <p><u>HPTs:</u> Continue to monitor and assist in the decontamination efforts. Prepare to provide coverage in transport.</p>

4.2 EXERCISE MEDICAL EMERGENCY MINI-SCENARIO (Continued)

Medical Scenario	Anticipated Actions
<p><u>Secondary Treatment:</u> (Prior to offsite Metro-Dade Rescue Unit transport)</p> <p><u>Victim:</u></p> <p>Ear and Neck: 500 cpm>Bkg Hands: 500 cpm>Bkg Left Forearm: 1,500 cpm>Bkg All Other Areas: As Read/Bkg</p>	<p><u>HPTs:</u> Any decontamination efforts performed (eg: irrigation, wet wipes, etc.) prior to transport will reduce the contamination on the victim to the numbers indicated, but no lower.</p>
<p><u>Patient Condition During Metro-Dade Rescue Transport:</u></p> <p><u>Victim:</u></p> <p>Respiration: 28 Pulse: 120 B/P: 120/66 Skin: Cool and Diaphoretic Pupils: Equal, responsive ECG: Sinus Tachycardia</p> <p>Patient is semi-conscious and disoriented. Responds to painful stimuli, but is unresponsive to verbal inquiry. (These conditions will remain constant throughout the transport to Mercy Hospital.)</p>	<p><u>HPTs:</u> Attending paramedics wear protective clothing and dosimetry. An HPT accompanies the victim for radiological control assistance. Paramedics treat the patient enroute and update the hospital by radio.</p> <p><u>Security:</u> Assists in the arrival and departure of the Metro-Dade Rescue Unit. Notifies the Control Room of patient departure.</p> <p><u>Control Room:</u> Notifies Mercy Hospital of transport and radiological condition of patient. Declare a Notification of Unusual Event (if not already declared upon plant conditions).</p>

4.2 EXERCISE MEDICAL EMERGENCY MINI-SCENARIO (Continued)

Medical Scenario	Anticipated Actions
<p><u>Arrival at Mercy Hospital:</u></p> <p><u>Victim:</u></p> <p>Respiration: 20 Pulse: 112 B/P: 120/78 Skin: Warm and Dry Pupils: Equal, responsive ECG: Sinus Tachycardia</p> <p>Patient is semi-conscious and disoriented. Responds to painful stimuli, but is unresponsive to verbal inquiry.</p>	<p><u>At the Radiological Emergency Area (REA) Entrance:</u></p> <p>The Rescue Unit arrives. The hospital medical team begins immediate triage. Paramedics report pertinent information. The HPT reports radiological status, dons protective clothing provided and accompanies the team and patient into the treatment room.</p>



4.2 EXERCISE MEDICAL EMERGENCY MINI-SCENARIO (Continued)

Medical Scenario	Anticipated Actions
<p><u>In the REA:</u> Initial medical treatment:</p> <p><u>Victim:</u></p> <p>Respiration: 20 Pulse: 100 B/P: 120/80 Skin: Warm and Dry Pupils: Equal, responsive ECG: Normal Sinus Rhythm X-ray: No Fractures CT Scan: Significant Bleeding pH: 7.44 PO2: 120 PCO2: 35 O2 Sat.: 99% Bicarb: 23</p>	<p><u>In the REA:</u> Patient's remaining clothing is removed. Appropriate medical and nursing care is initiated. As determined by the Physician, radiological surveys are performed and samples are collected. All surveys should be correctly documented and all samples correctly labeled. Priorities are established for decontamination. Appropriate techniques are utilized for decontamination. Post-decon surveys are performed and documented. the HPT makes recommendations and maintains control of waste. Area levels are kept ALARA.</p>

4.2 EXERCISE MEDICAL EMERGENCY MINI-SCENARIO (Continued)

Medical Scenario	Anticipated Actions
<p><u>In the REA:</u> Contamination levels and decontamination results:</p> <p><u>Patient:</u> Right Side of Neck: 500 cpm>Bkg Hands: 500 cpm>Bkg Left Forearm: 1,500 cpm>Bkg</p> <p><u>After First Decon:</u> Right Side of Neck: 500 cpm>Bkg Hands: 100 cpm>Bkg Left Forearm: 1,000 cpm>Bkg</p> <p><u>After Second Decon:</u> Right Side of Neck: 100 cpm>Bkg Hands: As Read/Bkg Left Forearm: 500 cpm>Bkg</p> <p><u>After Third Decon:</u> Right Side of Neck: As Read/Bkg Hands: As Read/Bkg Left Forearm: As Read/Bkg</p> <p><u>Exit Surveys:</u> Patient: As Read/Bkg (all areas) Gurneys: As Read/Bkg (all areas) Staff: As Read/Bkg (after removal of protective clothing)</p>	<p><u>In the REA:</u> The readings in cpm are to be given to the HPT as surveys are properly taken after each decontamination process. Nasal smears, if taken, are to all read: As Read/Bkg during the entire treatment process.</p> <p>The Physician, in consultation with the HPT determines when decontamination has been satisfactorily completed. At this point, the patient is transferred from the REA while maintaining control of contamination. An HPT (in the buffer zone) performs the exit surveys on the patient and gurneys.</p> <p>The HPT assists the medical team with the removal of protective clothing. Proper step-off-pad procedures are utilized. Complete body frisks are performed. Dosimetry is collected and documented. HPT personnel assume responsibility for decontamination and clean-up in the REA.</p>



Name (Last, First, M.I.): ENTRY TEAM		TLD No:	RWP No.:	Stay Time:	Event Number:
Company/Department(Craft):		Supv's. Name (Last, First):			
Work Evolution/Location:					
Contamination First Detected: <input type="checkbox"/> Work Area Exit <input type="checkbox"/> Other			Inst. Type: HPI Number:		Calibration Due Date:
Initial Survey By:		TLD Number:	Date:	Time:	
HPSS Notified: (Required immediately for hot particle contamination).			Date:	Time:	
Probable Cause Investigation					
Detailed Description of the event (include the following: Location and type of work being performed, compliance with the RWP requirements and verbal instructions from HP personnel, radiological conditions and postings in the area, adequacy of contamination surveys, Health Physics coverage (continuous, intermittent, none) and any other information related to the event:					
Probable Cause for Personnel Contamination: (Based on investigation above)					
<input type="checkbox"/> ¹ PC Failure (describe): _____ <input type="checkbox"/> ² PC's Inadequate <input type="checkbox"/> ⁴ PC's Not Properly Worn <input type="checkbox"/> ⁶ Improper Equipment Control <input type="checkbox"/> ⁸ Procedure Violation <input type="checkbox"/> ³ Improper Undressing <input type="checkbox"/> ⁵ RWP/HP Violation <input type="checkbox"/> ⁷ Improper Posting <input type="checkbox"/> ⁹ Unanticipated Change in Radiological Conditions (describe): _____ <input type="checkbox"/> ¹⁰ Improper HP Instructions (describe): _____ <input type="checkbox"/> ¹¹ Poor HP Practice (describe): _____ <input type="checkbox"/> ¹² Other, (If "Unknown", OR "Clean Area Contamination", Condition Report shall be initiated.) Specify : _____ 					



Name (Last, First, M.I.):

ENTRY TEAM

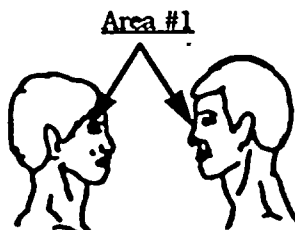
TLD No:

Event Number:

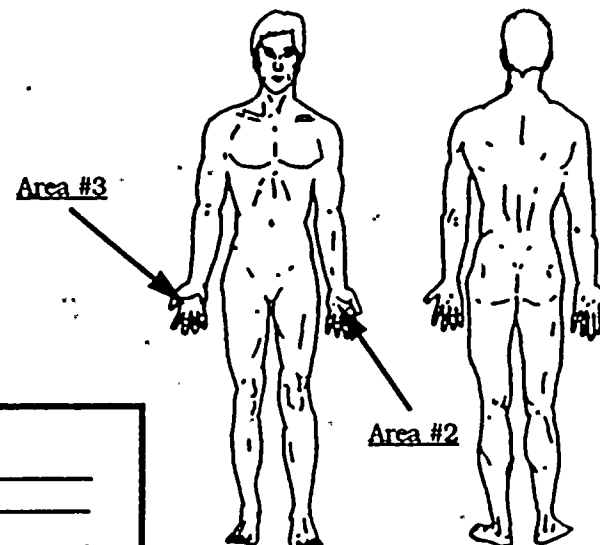
Skin Contamination*	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8
Initial Level (dpm / Probe Area)	25000	10000	10000					
Initial Level x Stay Time (dpm x Hrs.) **								
Level after first decon (dpm / Probe Area)	As Read	As Read	As Read					
Level after second decon (dpm / Probe Area)								
Level after final decon (dpm / Probe Area)								
Clothing: Note Article(s)								
Initial Level (dpm / Probe Area)								
Initial Level x Stay Time (dpm x Hrs.) **								
Disposition of Clothing								

Does scan indicate a hot particle? ☐ Yes ☐ No
 (If Contamination is a hot particle, Form HP-12 shall be completed.)

** If scan indicates a hot particle & activity time is >25,000 dpm-hr. then a dose assessment is required. If scan does not indicate a hot particle & skin contamination activity time >300,000 dpm-hr. then a dose assessment is required and Form HP-12 is required.



Area #1



Area #3

Area #2

*Indicate on the applicable picture(s) the exact location of each area specified above.

Nasal Smears Taken ☐ Yes ☐ No

Nostril

Right

Left

Initial dpm

Final dpm

Whole Body Count ☐ Yes ☐ No

Comments / Results

Attach Radionuclide Spectral Analysis if >1% MPOB.
 Notify HP Admin. Support Group.

I have been decontaminated & am satisfied that I am free of skin contamination.

Employee Signature

Date/Time

Employee Supervisor's Signature

Date/Time

Name (Last, First, M.I.): ENTRY TEAM				TLD No: _____		Event Number: _____	
SKIN DOSE CALCULATION SECTION				<input type="checkbox"/> N/A			
Contamination stay time (ST): _____ hr				Density thickness used: _____ mg/cm ²			
Affected area (AA): _____ cm ²				If "Hot Particle", then AA is 1 cm			
ACTIVITY _____ ccpm or _____ μ Ci HP-210 <input type="checkbox"/> Gamma Analysis <input type="checkbox"/> RO-2 <input type="checkbox"/>				Summary of Assumptions: _____ _____ _____			
DOSE FACTOR (DF)				DOSE CALCULATION			
NUCLIDE	FRACTION	DF	DF x FRACTION	HP-210 Probe:			
				If contamination is <u>not</u> a hot particle, then:			
				D (mrem) = $1.24E-3 \times$ _____ ccpm \times _____ ST / _____ AA = _____ mrem			
				If contamination is a hot particle, then:			
				D (mrem) = $1.86E-2 \times$ _____ ccpm \times _____ ST = _____ mrem			
				RO-2 D (mrem) = 250 \times _____ Open Window \times _____ ST / _____ AA = _____ mrem			
				Gamma Analysis:			
				D (mrem) = 1000 \times _____ μ Ci \times _____ DF \times _____ ST / _____ AA = _____ mrem			
				<input type="checkbox"/> Skin dose or <input type="checkbox"/> Extremity dose: <input type="checkbox"/> Upper <input type="checkbox"/> Right <input type="checkbox"/> Left <input type="checkbox"/> Lower <input type="checkbox"/> Right <input type="checkbox"/> Left			
Total (DF x Fraction)=DF= _____ $\frac{\text{rad/hr}}{\mu\text{Ci/cm}^2}$				Remarks: _____			
SIGNATURE SECTION							
Skin Dose Calculation Completed by: _____				Date/ Time _____			
HPSS Review: _____				Date/ Time _____			
Reviewed by: (HP Supv. or Designee) _____				Date/ Time _____			
Entered in computer by: _____				Date/ Time _____			

Name (Last, First, M.I.): VICTIM	TLD No:	RWP No.:	Stay Time:	Event Number:
Company/Department(Craft):	Supv's. Name (Last, First):			
Work Evolution/Location:				
Contamination First Detected: <input type="checkbox"/> Work Area Exit <input type="checkbox"/> Other		Inst. Type: HPI Number:		Calibration Due Date:
Initial Survey By:	TLD Number:	Date:	Time:	
HPSS Notified: (Required immediately for hot particle contamination).		Date:	Time:	
Probable Cause Investigation				
Detailed Description of the event (include the following: Location and type of work being performed, compliance with the RWP requirements and verbal instructions from HP personnel, radiological conditions and postings in the area, adequacy of contamination surveys, Health Physics coverage (continuous, intermittent, none) and any other information related to the event:				
Probable Cause for Personnel Contamination: (Based on investigation above)				
<input type="checkbox"/> ¹ PC Failure (describe):				
<input type="checkbox"/> ² PC's Inadequate <input type="checkbox"/> ⁴ PC's Not Properly Worn <input type="checkbox"/> ⁶ Improper Equipment Control <input type="checkbox"/> ⁸ Procedure Violation				
<input type="checkbox"/> ³ Improper Undressing <input type="checkbox"/> ⁵ RWP/HP Violation <input type="checkbox"/> ⁷ Improper Posting				
<input type="checkbox"/> ⁹ Unanticipated Change in Radiological Conditions (describe):				
<input type="checkbox"/> ¹⁰ Improper HP Instructions (describe):				
<input type="checkbox"/> ¹¹ Poor HP Practice (describe):				
<input type="checkbox"/> ¹² Other, (If "Unknown", OR "Clean Area Contamination", Condition Report shall be initiated.) Specify :				

Name (Last, First, M.I.):

VICTIM

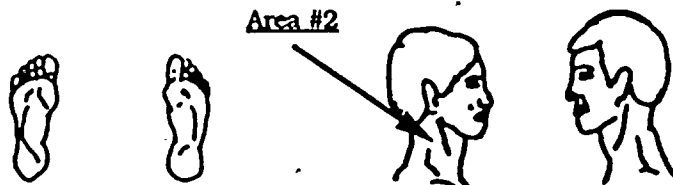
TLD No:

Event Number:

Skin Contamination*	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8
Initial Level (dpm / Probe Area)	25000	10000	10000	10000				
Initial Level x Stay Time (dpm x Hrs.) **								
Level after first decon (dpm / Probe Area)	10000	5000	1000	1000				
Level after second decon (dpm / Probe Area)	5000	1000	As Read	As Read				
Level after final decon (dpm / Probe Area)	As Read	As Read						
Clothing: Note Article(s)								
Initial Level (dpm / Probe Area)								
Initial Level x Stay Time (dpm x Hrs.) **								
Disposition of Clothing								

Does scan indicate a hot particle? ☐ Yes ☐ No
 (If Contamination is a hot particle, Form HP-12 shall be completed.)

** If scan indicates a hot particle & activity time is >25,000 dpm-hr. then a dose assessment is required. If scan does not indicate a hot particle & skin contamination activity time >300,000 dpm-hr. then a dose assessment is required and Form HP-12 is required.



*Indicate on the applicable picture(s) the exact location of each area specified above.

Nasal Smears Taken ☐ Yes ☐ No

Nostril

Right

Left

Initial dpm

Final dpm

Whole Body Count ☐ Yes ☐ No

Comments / Results _____

Attach Radionuclide Spectral Analysis if >1% MPOB.
 Notify HP Admin. Support Group.

I have been decontaminated & am satisfied that I am free of skin contamination.

Employee Signature

Date/Time

Employee Supervisor's Signature

Date/Time



Name (Last, First, M.I.): VICTIM				TLD No: _____		Event Number: _____	
SKIN DOSE CALCULATION SECTION				<input type="checkbox"/> N/A			
Contamination stay time (ST): _____ hr				Density thickness used: _____ mg/cm ²			
Affected area (AA): _____ cm ²				If "Hot Particle", then AA is 1 cm			
ACTIVITY _____ ccpm or _____ μ Ci HP-210 <input type="checkbox"/> Gamma Analysis <input type="checkbox"/> RO-2 <input type="checkbox"/>				Summary of Assumptions: _____ _____ _____			
DOSE FACTOR (DF)				DOSE CALCULATION			
NUCLIDE	FRACTION	DF	DF x FRACTION	HP-210 Probe:			
				If contamination is <u>not</u> a hot particle, then:			
				$D \text{ (mrem)} = 1.24E-3 \times \text{_____ ccpm} \times \text{_____ ST} / \text{_____ AA} = \text{_____ mrem}$			
				If contamination is a hot particle, then:			
				$D \text{ (mrem)} = 1.86E-2 \times \text{_____ ccpm} \times \text{_____ ST} = \text{_____ mrem}$			
				RO-2 $D \text{ (mrem)} = 250 \times \text{_____ Open Window} \times \text{_____ ST} / \text{_____ AA} = \text{_____ mrem}$			
				Gamma Analysis:			
				$D \text{ (mrem)} = 1000 \times \text{_____ } \mu\text{Ci} \times \text{_____ DF} \times \text{_____ ST} / \text{_____ AA} = \text{_____ mrem}$			
				<input type="checkbox"/> Skin dose or <input type="checkbox"/> Extremity dose: <input type="checkbox"/> Upper <input type="checkbox"/> Right <input type="checkbox"/> Left <input type="checkbox"/> Lower <input type="checkbox"/> Right <input type="checkbox"/> Left			
Total (DF x Fraction)=DF=_____ $\frac{\text{rad/hr}}{\mu\text{Ci/cm}^2}$				Remarks: _____			
SIGNATURE SECTION							
Skin Dose Calculation Completed by: _____				Date/ Time _____			
HPSS Review: _____				Date/ Time _____			
Reviewed by: (HP Supv. or Designee) _____				Date/ Time _____			
Entered in computer by: _____				Date/ Time _____			

EXERCISE MEDICAL CONTROLLER INSTRUCTION

FROM: Med. Controller TO: Entry Team/Initial Responders

MESSAGE NO.: M - 1 TIME: 0745 (Approx.) EVENT 1A

LOCATION: Unit 3 Personnel Access Hatch

INSTRUCTION:

Provide the following information to the Entry Team Member(s) or other initial responders as vital signs are taken during initial response to and evaluation of the victim.



EXERCISE MEDICAL MESSAGE FORM

THIS IS A DRILL!

TO: Entry Team Member(s)/Other Initial Responders

MESSAGE NO.: M - 1 TIME: 0745 (Approx.)

LOCATION: Unit 3 Personnel Access Hatch

MESSAGE:

Vital Signs on initial evaluation:

Victim:

Resp: 24

Pulse: 110

B/P: 130/70

Skin: Warm & Damp

Pupils: Equal, reactive

ECG: Sinus Tachycardia

Conscious, but in extreme pain and not completely lucid. Copious bleeding from the left forearm and right side of the neck.

EXERCISE MEDICAL CONTROLLER INSTRUCTION

FROM: Med. Controller TO: HPT(s)

MESSAGE NO.: M - 2 TIME: 0745 (Approx.) EVENT 1A

LOCATION: Unit 3 Personnel Access Hatch

INSTRUCTION:

Provide the following information only to the HPT as it is earned by radiological surveys taken during preparation for movement.

EXERCISE MEDICAL MESSAGE FORM

THIS IS A DRILL!

TO: HPT

MESSAGE NO.: M - 2 TIME: 0745 (Approx.)

LOCATION: Unit 3 Personnel Access Hatch

MESSAGE:

Results of radiological measurements taken during the preparation for movement to the site First Aid Room/Medical Facility:

General Information:

Team Member's DRDs:	10 mr
Radiation Level:	As Read
Airborne Radioactivity:	As Read
Smearable Contamination in immediate vicinity, (per 100 cm ² smear):	1000 to 1500 cpm>Bkg
Smearable Contamination in surrounding areas, (per 100 cm ² smear):	As Read

Victim:

PCs (general):	2500 cpm>Bkg
Left Sleeve:	3000 cpm>Bkg
Gloves:	3000 cpm>Bkg
Shoe Covers:	5000 cpm>Bkg

Team:

PCs (general):	3000 cpm>Bkg
Gloves:	3500 cpm>Bkg
Shoe Covers:	5000 cpm>Bkg

AFTER PC REMOVAL:

Left Forearm:	2500 cpm>Bkg	Face(outside masks):	500 cpm>Bkg
Right Ear & Neck:	1000 cpm>Bkg	Hands:	500 cpm>Bkg
Hands:	1000 cpm>Bkg	All Other Areas:	As Read/Bkg
All Other Areas:	As Read/Bkg		

EXERCISE MEDICAL CONTROLLER INSTRUCTION

FROM: Med. Controller TO: Medical Team

MESSAGE NO.: M - 3 TIME: 0800(Approx.)

LOCATION: Unit 3 Personnel Access Hatch

INSTRUCTION:

Provide the following information to the Medical Team as vital signs are taken during preparation for movement.

EXERCISE MEDICAL MESSAGE FORM

THIS IS A DRILL!

TO: Medical Team

MESSAGE NO.: M - 3 TIME: 0800 (Approx.)

LOCATION: Unit 3 Personnel Access Hatch

MESSAGE:

Vital Signs on preparation for movement to the site First Aid Room/Medical Facility:

Victim:

Resp: 24

Pulse: 116

B/P: 128/74

Skin: Warm & Diaphoretic

Pupils: Equal, responsive

ECG: Sinus Tachycardia

Patient is conscious, but still in pain and less lucid. Responsive to painful stimuli and complaining of pain in the left arm.

EXERCISE MEDICAL CONTROLLER INSTRUCTION

FROM: Med. Controller TO: Medical Team

MESSAGE NO.: M - 4 TIME: 0800 (Approx.) EVENT 1B

LOCATION: Site First Aid Room/Medical Facility

INSTRUCTION:

Provide the following information to the Site Medical Representative when examination/evaluation of the victim is performed.



EXERCISE MEDICAL MESSAGE FORM

THIS IS A DRILL!

TO: Medical Team

MESSAGE NO.: M - 4 TIME: 0800 (Approx.)

LOCATION: Site First Aid Room/Medical Facility

MESSAGE:

When the patient is examined and evaluated by Site Medical Representative:

Vital Signs on initial evaluation:

Victim:

Resp: 24

Pulse: 124

B/P: 118/56

Skin: Pale, Cool & Diaphoretic

Pupils: Equal, responsive

ECG: Sinus Tachycardia

Patient is losing consciousness, shivering and going pale. Forearm laceration is approximately 10 cm in length, ragged and deep (to the bone). There is serious venous bleeding and indications of minor arterial bleeding. There is apparent muscle and tendon damage. Bleeding is reduced by immobilization and pressure bandages. The laceration on the right side of the neck is ragged, approximately 4 cm in length and exposing the bone. There is moderate venous bleeding and possible muscle/tendon damage.

EXERCISE MEDICAL CONTROLLER INSTRUCTION

FROM: Med. Controller TO: HPT/Medical Teams

MESSAGE NO.: M - 5 TIME: 0805 (Approx) EVENT 1B

LOCATION: Site First Aid Room/Medical Facility

INSTRUCTION:

Provide the following information to the HPT if decontamination and subsequent resurvey is performed.

Contamination levels will remain as before until decontamination activities are performed. After initial decontamination, the following numbers will remain unchanged until arrival at the offsite treatment center.

EXERCISE MEDICAL MESSAGE FORM

THIS IS A DRILL!

TO: HPT/Medical Team

MESSAGE NO.: M - 5 TIME: 0805 (Approx.)

LOCATION: Site First Aid Room/Medical Facility

MESSAGE:

Initial decontamination efforts yield the following results:

Victim:

Ear and Neck:	500 cpm>Bkg
Hands:	500 cpm>Bkg
Left Forearm:	1500 cpm>Bkg
All Other Areas:	As Read/Bkg

CONTINGENCY EXERCISE MEDICAL CONTROLLER INSTRUCTION

FROM: Med. Controller

TO: Site Medical Representative

MESSAGE NO.: M - A TIME: 0815 EVENT 1C

LOCATION: Site First Aid Room/Medical Facility

INSTRUCTION:

CONTINGENCY MESSAGE

If the Site Medical Representative has not contacted Mercy Hospital or ordered the transport of the victim by Metro-Dade Rescue Unit by this time, deliver the following message (*with* Master Operational Controller consent).

Note:

Due to the high level of subjectivity involved in a medical diagnosis and the lack of subtlety inherent in the simulation of medical symptoms, it may be necessary for the continuity of the medical scenario to intervene at this time. This should not be interpreted as a lack of performance on the part of the medical representatives, but instead a need of the scenario.



EXERCISE MEDICAL CONTINGENCY MESSAGE FORM

THIS IS A DRILL!

TO: Site Medical Representative

MESSAGE NO.: M - A TIME: 0815

LOCATION: Site First Aid Room/Medical Facility

MESSAGE:

Due to needs of the medical scenario, contact Mercy Hospital and request Metro-Dade Rescue Unit transport of the victim at this time.



EXERCISE MEDICAL CONTROLLER INSTRUCTION

FROM: Med. Controller

TO: Rescue Unit Paramedics

MESSAGE NO.: M - 6

TIME: 0830 (Approx.)

EVENT 1C

LOCATION: Site First Aid Room/Medical Facility

INSTRUCTION:

Provide the following information to the Rescue Unit paramedics upon examination after loading into the rescue unit.

The patient's condition will remain constant while enroute in the Rescue Unit. Supply the following statistics to the attending paramedics as often as they perform the diagnostics.



EXERCISE MEDICAL MESSAGE FORM

THIS IS A DRILL!

TO: Rescue Unit Paramedics

MESSAGE NO.: M - 6 TIME: 0830 (Approx.)

LOCATION: Metro-Dade Rescue Unit

MESSAGE:

Patient status at site Rescue Unit loading:

Victim:

Resp: 28

Pulse: 120

B/P: 120/66

Skin: Cool & Diaphoretic

Pupils: Equal, responsive

ECG: Sinus Tachycardia

Patient is semi-conscious and disoriented. Responds to painful stimuli, but is unresponsive to verbal inquiry. Forearm laceration is approximately 10 cm in length and deep (to the bone). There is arterial bleeding, muscle and tendon damage. Bleeding is controlled by pressure bandage. The laceration on the right side of the neck is approximately 4 cm in length. There is moderate venous bleeding and possible muscle/tendon damage.

EXERCISE MEDICAL CONTROLLER INSTRUCTION

FROM: Med. Controller TO: Mercy Medical Team

MESSAGE NO.: M - 7 TIME: 0900 (Approx.)

LOCATION: Mercy Hospital

INSTRUCTION:

Provide the following information to the Mercy Medical Team as initial examinations are performed upon arrival.

EXERCISE MEDICAL MESSAGE FORM

THIS IS A DRILL!

TO: Mercy Medical Team

MESSAGE NO.: M - 7 TIME: 0900 (Approx.)

LOCATION: Mercy Hospital

MESSAGE:

Patient status upon arrival at the Hospital:

Victim:

Resp: 20

Pulse: 112

B/P: 120/78

Skin: Warm & Dry

Pupils: Equal, responsive

ECG: Sinus Tachycardia

Patient is semi-conscious and disoriented. Responds to painful stimuli, but is unresponsive to verbal inquiry. Forearm laceration is approximately 10 cm in length and deep (to the bone). There is arterial bleeding, muscle and tendon damage. Bleeding is controlled by pressure bandage. The laceration on the right side of the neck is approximately 4 cm in length. There is moderate venous bleeding and possible muscle/tendon damage.



EXERCISE MEDICAL CONTROLLER INSTRUCTION

FROM: Med. Controller

TO: Mercy Medical Team

MESSAGE NO.: M - 8

TIME: 0930 (Approx.)

LOCATION: In the REA

INSTRUCTION:

Provide the following information to the Mercy Medical Team as initial treatment is performed in the REA.

EXERCISE MEDICAL MESSAGE FORM

THIS IS A DRILL!

TO: Mercy Medical Team

MESSAGE NO.: M - 8 TIME: 0930 (Approx.)

LOCATION: In the REA

MESSAGE:

Patient status upon treatment in the REA:

Victim:

Resp: 20
Pulse: 100
B/P: 120/80
Skin: Warm & Dry
Pupils: Equal, responsive
ECG: Normal Sinus Rhythm
X-ray: No Fractures
CT Scan: Significant Bleeding

pH: 7.44
PO₂: 120
PCO₂: 35
O₂ Sat: 99%
Bicarb: 23

EXERCISE MEDICAL CONTROLLER INSTRUCTION

FROM: Med. Controller

TO: HPT

MESSAGE NO.: M - 9

TIME: 0930 (Approx.)

LOCATION: In the REA

INSTRUCTION:

Provide the following radiological information to the HPT as the initial patient surveys are performed in the REA.



EXERCISE MEDICAL MESSAGE FORM

THIS IS A DRILL!

TO: HPT

MESSAGE NO.: M - 9 TIME: 0930 (Approx.)

LOCATION: In the REA

MESSAGE:

Initial radiological survey results:

Victim:

Right Side of Neck:	500 cpm>Bkg
Hands:	500 cpm>Bkg
Left Forearm:	1500 cpm>Bkg
All Other Areas:	As Read/Bkg

EXERCISE MEDICAL CONTROLLER INSTRUCTION

FROM: Med. Controller TO: HPT

MESSAGE NO.: M - 10 TIME: 0945 (Approx.)

LOCATION: In the REA

INSTRUCTION:

Provide the following radiological information to the HPT as the survey is performed after the initial decontamination.

EXERCISE MEDICAL MESSAGE FORM

THIS IS A DRILL!

TO: HPT

MESSAGE NO.: M - 10 TIME: 0945 (Approx.)

LOCATION: In the REA

MESSAGE:

Post-Decon radiological survey results:

Victim:

Right Side of Neck:	500 cpm>Bkg
Hands:	100 cpm>Bkg
Left Forearm:	1000 cpm>Bkg
All Other Areas:	As Read/Bkg



EXERCISE MEDICAL CONTROLLER INSTRUCTION

FROM: Med. Controller TO: HPT

MESSAGE NO.: M - 11 TIME: 1000 (Approx.)

LOCATION: In the REA

INSTRUCTION:

Provide the following radiological information to the HPT as the survey is performed after the second decontamination.



EXERCISE MEDICAL MESSAGE FORM

THIS IS A DRILL!

TO: HPT

MESSAGE NO.: M - 11 TIME: 1000 (Approx.)

LOCATION: In the REA

MESSAGE:

Post-Decon radiological survey results:

Victim:

Right Side of Neck:	100 cpm>Bkg
Hands:	As Read/Bkg
Left Forearm:	500 cpm>Bkg
All Other Areas:	As Read/Bkg

EXERCISE MEDICAL CONTROLLER INSTRUCTION

FROM: Med. Controller TO: HPT

MESSAGE NO.: M - 12 TIME: 1015 (Approx.)

LOCATION: In the REA

INSTRUCTION:

Provide the following radiological information to the HPT as the survey is performed after the third decontamination.



EXERCISE MEDICAL MESSAGE FORM

THIS IS A DRILL!

TO: HPT

MESSAGE NO.: M - 12 TIME: 1015 (Approx.)

LOCATION: In the REA

MESSAGE:

Post-Décon radiological survey results:

Victim:

Right Side of Neck:	As Read/Bkg
Hands:	As Read/Bkg
Left Forearm:	As Read/Bkg
All Other Areas:	As Read/Bkg



EXERCISE MEDICAL CONTROLLER INSTRUCTION

FROM: Med. Controller TO: HPT

MESSAGE NO.: M - 13 TIME: 1030 (Approx)

LOCATION: At the REA exit

INSTRUCTION:

Provide the following information to the HPT after the transfer of the patient and the Medical Team has exited the REA, removed protective clothing and been whole-body frisked.

EXERCISE MEDICAL MESSAGE FORM

THIS IS A DRILL!

TO: HPT

MESSAGE NO.: M - 13 TIME: 1030 (Approx)

LOCATION: At the REA exit

MESSAGE:

After the transfer of the patients, proper exit and removal of protective clothing by Medical Team personnel-survey/status is:

Patient: All Areas: As Read/Bkg

Gurneys: All Areas: As Read/Bkg

Medical Team Members: All Areas: As Read/Bkg

EXERCISE MEDICAL CONTROLLER INSTRUCTION

FROM: Med. Controller TO: Medical Team

MESSAGE NO.: M - 14 TIME: 1045 (Approx.)

LOCATION: At the REA exit

INSTRUCTION:

After the Medical Team has satisfactorily demonstrated their performance, the patient has been radiologically released and the team has successfully exited the REA, provide the following Drill termination message.

EXERCISE MEDICAL MESSAGE FORM

THIS IS A DRILL!

TO: Medical Team

MESSAGE NO.: M - 14 TIME: 1045 (Approx.)

LOCATION: At the REA exit

MESSAGE:

The Radiological Medical Emergency Drill is terminated. An in-place critique and discussion will take place with the Controllers.



5.0 PLANT PARAMETERS



**FLORIDA POWER AND LIGHT COMPANY
TURKEY POINT NUCLEAR PLANT
1993 EMERGENCY PREPAREDNESS
EVALUATED EXERCISE
DECEMBER 15, 1993**

5.0 PLANT PARAMETERS

5.1 DATA PRESENTATION

The data presented in this section was captured on a practice/validation run of the transient used in the Evaluated Exercise. Data sheets enclosed are lineprinter output of those parameters necessary for accident mitigation with some hand-trending of radiological data. Plant parameter data enclosed (with the exception of meteorological and radiological data) is representative of the sequence of transients and plant performance.

Turkey Point will be running the exercise from the Simulator located in the Turkey Point Training Building. For the actual Exercise performance, live ERDADS output from the Simulator with scripted rad and meteorological data from summaries enclosed elsewhere in this scenario package will be utilized.

A corrected and polished set of plant parameter data with the scripted data inserted will be produced prior to Exercise performance. This data will be used only if the Simulator fails. In all other cases, the Simulator and the simulated ERDADS will be driving the play of the Exercise.



		07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15	09:30
PARAMETERS STATUS										
RCS T HOT	F	599	599	599	599	599	599	599	588	578
RCS PRESSURE	PSIG	2252	2252	2252	2252	2252	2252	2265	2229	2239
PRZ LEVEL	%	52	52	52	52	52	52	52	42	42
CHARGING FLOW	GPM	31	31	31	31	31	34	35	111	40
CORE EXIT AVE TEMP	F	616	616	616	616	616	616	615	600	587
SUBCOOLING MARGIN	F	54	54	54	54	54	54	56	64	75
REACTOR VESSEL LEVEL	%	100	100	100	100	100	100	100	100	100
LHSI (RHR) FLOW	GPM	0	0	0	0	0	0	0	0	0
HHSI HEADER FLOW	GPM	0	0	0	0	0	0	0	0	0
CTMT TEMP	F	114	114	114	114	114	114	116	123	141
CTMT PRESSURE	PSIG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.8
CTMT SUMP LEVEL	INCH	11	11	11	11	11	13	16	27	38
CTMT HYDROGEN CONC	%	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
S/G LEVEL (WR) A	%	55	55	55	55	55	55	55	56	56
S/G LEVEL (WR) B	%	55	55	55	55	55	55	55	56	57
S/G LEVEL (WR) C	%	55	55	55	55	55	55	55	56	56
S/G PRESS A	PSIG	833	833	833	833	833	833	842	851	880
S/G PRESS B	PSIG	833	833	833	833	833	833	842	851	880
S/G PRESS C	PSIG	833	833	833	833	833	833	842	851	880
CHRRM	R/HR	1	1	1	1	1	1	1	1	1
RWST LEVEL	GAL	3.28E+05	3.28E+05	3.28E+05	3.28E+05	3.28E+05	3.28E+05	3.28E+05	3.28E+05	3.28E+05

EQUIPMENT STATUS**HEAT SINK**

A STM DUMP		CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED
B STM DUMP		CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED
C STM DUMP		CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED
PRZ PORV 455C		CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED
PRZ PORV 456		CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED
PRZ SAFETY A	%	0	0	0	0	0	0	0	0	0
PRZ SAFETY B	%	0	0	0	0	0	0	0	0	0
PRZ SAFETY C	%	0	0	0	0	0	0	0	0	0

CIRCULATION

A RCP	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
B RCP	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
C RCP	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON

		07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15	09:30
SAFEGUARDS										
3A HHSI PP		OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
3B HHSI PP		OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
4A HHSI PP		OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
4B HHSI PP		OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
A RHR PP		OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
B RHR PP		OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
A CHG PP		ON	ON	ON	ON	ON	ON	ON	ON	ON
B CHG PP		OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON
C CHG PP		OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
A ECC		OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
B ECC		OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
C ECC		OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
A CTMT SPRAY		OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
B CTMT SPRAY		OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
A CCW PP		OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
B CCW PP		OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
C CCW PP		ON	ON	ON	ON	ON	ON	ON	ON	ON
FEEDWATER										
A FWP		ON	ON	ON	ON	ON	ON	ON	ON	ON
B FWP		ON	ON	ON	ON	ON	ON	ON	ON	ON
AFW A		0	0	0	0	0	0	0	0	0
AFW B		0	0	0	0	0	0	0	0	0
AFW C		0	0	0	0	0	0	0	0	0
CST	(GAL)	2.22E+05	2.22E+05	2.22E+05	2.22E+05	2.22E+05	2.22E+05	2.22E+05	2.22E+05	2.22E+05
ELECTRICAL POWER										
3A 4KV	VOLTS	4221	4221	4221	4221	4221	4221	4223	4217	4218
3B 4KV	VOLTS	4223	4223	4223	4223	4223	4223	4224	4218	4224
3C 4KV	VOLTS	4249	4249	4249	4249	4249	4249	4250	4255	4286
3D 4KV	VOLTS	4206	4206	4206	4206	4206	4206	4207	4200	4209
EDG 3A	VOLTS	0	0	0	0	0	0	0	0	0
	AMPS	0	0	0	0	0	0	0	0	0
EDG 3B	VOLTS	0	0	0	0	0	0	0	0	0
	AMPS	0	0	0	0	0	0	0	0	0



		07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15	09:30
AIR EJECTOR SPING										
LOW RANGE GAS	uci/cc	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07
MID RANGE GAS	uci/cc	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02
HIGH RANGE GAS	uci/cc	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00
SPING AREA RAD	MR/HR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STEAM LINE MONITOR										
DAM-1 MONITOR	uci/cc	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00
SPENT FUEL PIT SPING										
LOW RANGE GAS	uci/cc	3.80E-07	3.80E-07	3.80E-07	3.80E-07	3.80E-07	3.80E-07	3.80E-07	3.80E-07	3.80E-07
MID RANGE GAS	uci/cc	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02
HIGH RANGE GAS	uci/cc	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00
SPING AREA RAD	MR/HR	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
CONTAINMENT										
CNTMT TEMP	DEG	113.6	113.6	113.6	113.6	113.6	113.8	114.4	118.2	131.3
CNTMT PRESS	PSIG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.8
A CHRRMS	R/HR	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
B CHRRMS	R/HR	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
METEOROLOGICAL DATA										
*10M TWR WIND DIR	DEG	120	115	120	125	120	110	115	120	125
*10M TWR WIND SPD	MPH	3	2	4	3	2	3	4	4	3
*60M TWR TEMP A	DEG F	75.0	75.0	76.0	76.0	76.0	77.0	77.0	78.0	78.0
*60M TWR TEMP B	DEG F	75.0	75.0	76.0	76.0	76.0	77.0	77.0	78.0	78.0
60M TWR A DELTA T	DEG F	-1.00	-1.20	-1.10	-0.76	-0.65	-0.54	-1.00	-0.60	-0.60
60M TWR B DELTA T	DEG F	-1.00	-1.20	-1.10	-0.76	-0.65	-0.54	-1.00	-0.60	-0.60
60M TWR/10M DIR	DEG	120.0	115.0	120.0	125.0	120.0	110.0	115.0	120.0	125.0
60M TWR/60M DIR	DEG	120.0	115.0	120.0	125.0	120.0	110.0	115.0	120.0	125.0
60M TWR/10M SPD	MPH	3.0	2.0	4.0	3.0	2.0	3.0	4.0	4.0	3.0
60M TWR/60M SPD	MPH	3.0	2.0	4.0	3.0	2.0	3.0	4.0	4.0	3.0
*THESE ARE PRIMARY DATA SOURCES										
PLANT VENT SPING										
PLANT VENT FLOW	CFM	0	0	0	0	0	0	0	0	0
LOW RANGE GAS	uci/cc	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07
MID RANGE GAS	uci/cc	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02
HIGH RANGE GAS	uci/cc	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00
SPING AREA RAD	MR/HR	1	1	1	1	1	1	1	1	1

		07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15	09:30
PROCESS RAD MONITORS										
CNTMT PART	uci/cc	3.39E-06	3.40E-06	3.42E-06	3.43E-06	3.44E-06	3.56E-06	3.68E-06	5.51E-06	3.99E-06
CNTMT GAS	uci/cc	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.44E-03	1.41E-03
PLANT VENT	CPM	7.68E+02	7.68E+02	7.68E+02	7.68E+02	7.68E+02	7.68E+02	7.68E+02	7.68E+02	7.68E+02
SJAE	CPM	4.30E+02	4.30E+02	4.30E+02	4.30E+02	4.30E+02	4.30E+02	4.30E+02	4.30E+02	4.30E+02
CCW HDR A	CPM	4.90E+02	4.90E+02	4.90E+02	4.90E+02	4.90E+02	4.90E+02	4.90E+02	4.90E+02	4.90E+02
CCW HDR B	CPM	2.82E+02	2.82E+02	2.82E+02	2.82E+02	2.82E+02	2.82E+02	2.82E+02	2.82E+02	2.82E+02
S/G BLOWDOWN	CPM	3.10E+02	3.10E+02	3.10E+02	3.10E+02	3.10E+02	3.10E+02	3.10E+02	3.10E+02	3.10E+02
RCS LETDOWN	MR/HR	9.10E+01	9.10E+01	9.10E+01	9.10E+01	9.10E+01	9.10E+01	9.10E+01	9.10E+01	9.10E+01
AREA RADIATION MONITORS										
RD1401	MR/HR	21.4	21.4	21.5	21.5	21.5	22.0	22.4	28.7	35.0
RD1402	MR/HR	64	64	64	64	64	65	65	71	78
RD1403	MR/HR	43	43	43	43	43	44	44	50	57
RD1407	MR/HR	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
RD1409	MR/HR	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53
RD1410	MR/HR	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51
RD1412	MR/HR	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
RD1413	MR/HR	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35
RD1415	MR/HR	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
RD1419	MR/HR	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
RD1421	MR/HR	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
RD1423	MR/HR	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5



		09:45	10:00	10:15	10:30	10:45	11:00	11:15	11:30	11:45
PARAMETERS STATUS										
RCS T HOT	F	568	556	552	538	543	501	469	435	333
RCS PRESSURE	PSIG	2242	2239	2275	1661	1793	1344	1411	1160	1295
PRZ LEVEL	%	34	26	25	0	0	0	20	16	57
CHARGING FLOW	GPM	51	51	55	116	115	116	118	118	108
CORE EXIT AVE TEMP	F	574	558	554	538	543	499	473	429	318
SUBCOOLING MARGIN	F	85	97	99	65	70	75	111	127	236
REACTOR VESSEL LEVEL	%	100	100	100	100	100	100	100	100	100
LHSI (RHR) FLOW	GPM	0	0	0	0	0	0	0	0	0
HHSI HEADER FLOW	GPM	0	0	0	2	2	235	177	404	295
CTMT TEMP	F	145	148	150	166	166	166	166	229	253
CTMT PRESSURE	PSIG	1.0	1.1	1.1	2.6	3.3	3.4	3.3	16.2	26.3
CTMT SUMP LEVEL	INCH	40	44	47	53	60	66	73	81	107
CTMT HYDROGEN CONC	%	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
S/G LEVEL (WR) A	%	58	61	66	72	70	71	74	75	76
S/G LEVEL (WR) B	%	59	62	66	72	70	70	66	77	13
S/G LEVEL (WR) C	%	58	61	65	72	71	71	73	73	75
S/G PRESS A	PSIG	891	926	959	900	945	632	468	327	246
S/G PRESS B	PSIG	891	926	959	900	945	632	468	21	26
S/G PRESS C	PSIG	891	926	959	900	945	632	468	334	335
CHRRM	R/HR	1	1	1	1	1	1	1	309	600
RWST LEVEL	GAL	3.28E+05	3.28E+05	3.28E+05	3.28E+05	3.27E+05	3.25E+05	3.23E+05	3.20E+05	3.16E+05

EQUIPMENT STATUS

HEAT SINK										
A STM DUMP		CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED
B STM DUMP		CLOSED	CLOSED	OPEN	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED
C STM DUMP		CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED
PRZ PORV 455C		CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED
PRZ PORV 456		CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED
PRZ SAFETY A	%	0	0	0	0	0	0	0	0	0
PRZ SAFETY B	%	0	0	0	0	0	0	0	0	0
PRZ SAFETY C	%	0	0	0	0	0	0	0	0	0

CIRCULATION

A RCP	ON	ON	ON	ON	ON	ON	OFF	OFF	OFF
B RCP	ON	ON	ON	ON	ON	ON	ON	OFF	OFF
C RCP	ON	ON	ON	ON	ON	ON	OFF	OFF	OFF



		09:45	10:00	10:15	10:30	10:45	11:00	11:15	11:30	11:45
SAFEGUARDS										
3A HHSI PP		OFF	OFF	OFF	ON	ON	ON	ON	ON	ON
3B HHSI PP		OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
4A HHSI PP		OFF	OFF	OFF	ON	ON	ON	ON	ON	ON
4B HHSI PP		OFF	OFF	OFF	ON	ON	ON	OFF	OFF	OFF
A RHR PP		OFF	OFF	OFF	ON	OFF	ON	ON	ON	OFF
B RHR PP		OFF	OFF	OFF	ON	OFF	ON	ON	ON	OFF
A CHG PP		ON	ON	ON	ON	ON	ON	ON	ON	ON
B CHG PP		ON	ON	ON	ON	ON	ON	ON	ON	ON
C CHG PP		OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
A ECC		OFF	OFF	OFF	ON	ON	ON	ON	ON	ON
B ECC		OFF	OFF	OFF	ON	ON	ON	ON	ON	ON
C ECC		OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
A CTMT SPRAY		OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
B CTMT SPRAY		OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
A CCW PP		OFF	OFF	OFF	ON	ON	ON	ON	ON	ON
B CCW PP		OFF	OFF	OFF	ON	ON	ON	ON	ON	ON
C CCW PP		ON	ON	ON	ON	ON	ON	ON	ON	ON
FEEDWATER										
A FWP		ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF
B FWP		OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
AFW A		0	0	0	134	4	107	23	24	21
AFW B		0	0	0	134	7	123	259	0	0
AFW C		0	0	0	134	7	137	6	26	21
CST	(GAL)	2.22E+05	2.22E+05	2.22E+05	2.18E+05	2.17E+05	2.11E+05	2.07E+05	2.03E+05	2.02E+05
ELECTRICAL POWER										
3A 4KV	VOLTS	4214	4215	4207	4224	4224	4222	4249	4249	4260
3B 4KV	VOLTS	4230	4225	4214	4206	4206	4203	4232	4257	4259
3C 4KV	VOLTS	4287	4287	4283	4279	4279	4279	4280	4281	4281
3D 4KV	VOLTS	4218	4214	4203	4194	4194	4190	4220	4244	4247
EDG 3A	VOLTS	0	0	0	0	0	0	0	0	0
	AMPS	0	0	0	0	0	0	0	0	0
EDG 3B	VOLTS	0	0	0	4159	0	4159	4159	4159	4159
	AMPS	0	0	0	0	0	0	0	0	0



		09:45	10:00	10:15	10:30	10:45	11:00	11:15	11:30	11:45
AIR EJECTOR SPING										
LOW RANGE GAS	ucl/cc	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07
MID RANGE GAS	ucl/cc	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02
HIGH RANGE GAS	ucl/cc	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00
SPING AREA RAD	MR/HR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.3
STEAM LINE MONITOR										
DAM-1 MONITOR	ucl/cc	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00
SPENT FUEL PIT SPING										
LOW RANGE GAS	ucl/cc	3.80E-07	3.80E-07	3.80E-07	3.80E-07	3.80E-07	3.80E-07	3.80E-07	3.80E-07	3.80E-07
MID RANGE GAS	ucl/cc	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02
HIGH RANGE GAS	ucl/cc	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00
SPING AREA RAD	MR/HR	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
CONTAINMENT										
CNTMT TEMP	DEG	136.6	140.1	142.32	153.2	158.9	161.2	161.9	205.9	240.3
CNTMT PRESS	PSIG	1.0	1.1	1.2	2.7	3.3	3.4	3.3	16.5	26.2
A CHRRMS	R/HR	1.0	1.0	1.0	1.0	1.0	1.0	1.0	308.7	600.0
B CHRRMS	R/HR	1.0	1.0	1.0	1.0	1.0	1.0	1.0	308.7	600.0
METEOROLOGICAL DATA										
*10M TWR WIND DIR	DEG	110	125	120	110	115	115	115	120	120
*10M TWR WIND SPD	MPH	2	4	3	4	2	3	3	2	3
*60M TWR TEMP A	DEG F	78.0	77.0	78.0	78.0	79.0	79.0	78.0	79.0	79.0
*60M TWR TEMP B	DEG F	78.0	77.0	78.0	78.0	79.0	79.0	78.0	79.0	79.0
60M TWR A DELTA T	DEG F	-0.81	-0.91	-0.80	-1.00	-1.00	-0.95	-0.81	-0.87	-1.00
60M TWR B DELTA T	DEG F	-0.81	-0.91	-0.80	-1.00	-1.00	-0.95	-0.81	-0.87	-1.00
60M TWR/10M DIR	DEG	110.0	125.0	120.0	110.0	115.0	115.0	115.0	120.0	120.0
60M TWR/60M DIR	DEG	110.0	125.0	120.0	110.0	115.0	115.0	115.0	120.0	120.0
60M TWR/10M SPD	MPH	2.0	4.0	3.0	4.0	2.0	3.0	3.0	2.0	3.0
60M TWR/60M SPD	MPH	2.0	4.0	3.0	4.0	2.0	3.0	3.0	2.0	3.0
*THESE ARE PRIMARY DATA SOURCES										
PLANT VENT SPING										
PLANT VENT FLOW	CFM	0	0	0	0	0	0	0	0	0
LOW RANGE GAS	ucl/cc	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07
MID RANGE GAS	ucl/cc	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02
HIGH RANGE GAS	ucl/cc	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00
SPING AREA RAD	MR/HR	1	1	1	1	1	1	1	1	1

PROCESS RAD MONITORS

		09:45	10:00	10:15	10:30	10:45	11:00	11:15	11:30	11:45
CNTMT PART	uci/cc	5.82E-07	7.64E-08	3.40E-08	3.40E-08	3.40E-08	3.40E-08	3.40E-08	3.40E-08	3.40E-08
CNTMT GAS	uci/cc	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03
PLANT VENT	CPM	7.68E+02	7.68E+02	7.68E+02	7.68E+02	7.68E+02	7.68E+02	7.68E+02	7.68E+02	7.68E+02
SJAE	CPM	4.30E+02	4.30E+02	4.30E+02	4.30E+02	4.30E+02	4.30E+02	4.30E+02	4.30E+02	4.30E+02
CCW HDR A	CPM	4.90E+02	4.90E+02	4.90E+02	4.90E+02	4.90E+02	4.90E+02	4.90E+02	4.90E+02	4.90E+02
CCW HDR B	CPM	2.82E+02	2.82E+02	2.82E+02	2.82E+02	2.82E+02	2.82E+02	2.82E+02	2.82E+02	2.82E+02
S/G BLOWDOWN	CPM	3.10E+02	3.10E+02	3.10E+02	3.10E+02	3.10E+02	3.10E+02	3.10E+02	3.10E+02	3.10E+02
RCS LETDOWN	MR/HR	9.10E+01	9.10E+01	9.10E+01	9.10E+01	9.10E+01	9.10E+01	9.10E+01	9.10E+01	9.10E+01

AREA RADIATION MONITORS

RD1401	MR/HR	41.3	47.6	65.3	83.0	100.6	118.3	136.0	308727.2	599952.5
RD1402	MR/HR	84	90	108	126	143	161	179	308727	599952
RD1403	MR/HR	63	69	87	105	122	140	158	308727	599952
RD1407	MR/HR	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
RD1409	MR/HR	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53
RD1410	MR/HR	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51
RD1412	MR/HR	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
RD1413	MR/HR	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35
RD1415	MR/HR	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
RD1419	MR/HR	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
RD1421	MR/HR	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.7
RD1423	MR/HR	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5



		12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45	14:00
PARAMETERS STATUS										
RCS T HOT	F	315	336	364	380	383	396	386	376	366
RCS PRESSURE	PSIG	989	1413	1490	1488	1558	1525	1475	1425	1375
PRZ LEVEL	%	86	100	100	100	100	100	100	100	100
CHARGING FLOW	GPM	118	118	118	118	118	117	117	118	118
CORE EXIT AVE TEMP	F	339	355	373	386	389	402	375	350	325
SUBCOOLING MARGIN	F	225	248	231	215	210	194	178	162	146
REACTOR VESSEL LEVEL	%	100	100	100	100	100	100	100	100	100
LHSI (RHR) FLOW	GPM	0	0	0	0	0	0	0	0	0
HHSI HEADER FLOW	GPM	0	140	0	4	0	0	0	0	0
CTMT TEMP	F	235	213	198	188	183	180	177	174	171
CTMT PRESSURE	PSIG	18.1	9.8	4.3	1.5	0.1	0.0	0.0	0.0	0.0
CTMT SUMP LEVEL	INCH	125	139	152	162	174	189	204	219	234
CTMT HYDROGEN CONC	%	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
S/G LEVEL (WR) A	%	77	78	78	78	77	75	75	75	75
S/G LEVEL (WR) B	%	3	2	2	2	1	1	1	1	1
S/G LEVEL (WR) C	%	75	75	75	75	75	75	75	75	75
S/G PRESS A	PSIG	180	122	117	139	166	157	148	139	130
S/G PRESS B	PSIG	18	10	4	1	0	0	0	0	0
S/G PRESS C	PSIG	331	326	320	315	311	306	301	296	291
CHRRM	R/HR	804	1002	1173	1315	1438	1540	1625	1697	1756
RWST LEVEL	GAL	3.14E+05	3.09E+05	3.06E+05	3.04E+05	3.01E+05	2.99E+05	2.99E+05	3.28E+05	3.28E+05

EQUIPMENT STATUS**HEAT SINK**

A STM DUMP		CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED
B STM DUMP		CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED
C STM DUMP		CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED
PRZ PORV 455C		CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED
PRZ PORV 456		CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED
PRZ SAFETY A	%	0	0	0	0	0	0	0	0	0
PRZ SAFETY B	%	0	0	0	0	0	0	0	0	0
PRZ SAFETY C	%	0	0	0	0	0	0	0	0	0

CIRCULATION

A RCP	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
B RCP	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
C RCP	OFF	OFF	OFF	OFF	OFF	ON	ON	ON	ON	ON

		12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45	14:00
SAFEGUARDS										
3A HHSI PP		OFF	ON	ON	ON	ON	ON	ON	ON	ON
3B HHSI PP		OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
4A HHSI PP		OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
4B HHSI PP		OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
A RHR PP		OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
B RHR PP		OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
A CHG PP		ON	ON	ON	ON	ON	ON	ON	ON	ON
B CHG PP		ON	ON	ON	ON	ON	ON	ON	ON	ON
C CHG PP		OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
A ECC		ON	ON	ON	ON	ON	ON	ON	ON	ON
B ECC		ON	ON	ON	ON	ON	ON	ON	ON	ON
C ECC		OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
A CTMT SPRAY		OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
B CTMT SPRAY		OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
A CCW PP		ON	ON	ON	ON	ON	ON	ON	ON	ON
B CCW PP		ON	ON	ON	ON	ON	ON	ON	ON	ON
C CCW PP		ON	ON	ON	ON	ON	ON	ON	ON	ON
FEEDWATER										
A FWP		OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
B FWP		OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
AFW A		47	39	38	6	7	7	7	7	7
AFW B		0	0	0	0	0	0	0	0	0
AFW C		11	8	8	9	12	13	13	13	13
CST	(GAL)	2.01E+05	2.01E+05	2.00E+05	2.00E+05	2.00E+05	1.99E+05	1.98E+05	1.97E+05	1.96E+05
ELECTRICAL POWER										
3A 4KV	VOLTS	4262	4260	4261	4261	4261	4261	4261	4261	4261
3B 4KV	VOLTS	4259	4259	4260	4260	4232	4233	4233	4233	4233
3C 4KV	VOLTS	4281	4281	4281	4281	4280	4280	4280	4280	4280
3D 4KV	VOLTS	4247	4248	4248	4249	4221	4221	4221	4221	4221
EDG 3A	VOLTS	0	0	0	0	0	0	0	0	0
	AMPS	0	0	0	0	0	0	0	0	0
EDG 3B	VOLTS	4159	4159	4159	4159	4159	4159	4159	4159	4159
	AMPS	0	0	0	0	0	0	0	0	0



		12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45	14:00
AIR EJECTOR SPING										
LOW RANGE GAS	ucl/cc	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07
MID RANGE GAS	ucl/cc	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02
HIGH RANGE GAS	ucl/cc	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00
SPING AREA RAD	MR/HR	20.5	25.6	30.0	33.7	36.8	39.4	41.7	43.7	45.4
STEAM LINE MONITOR										
DAM-1 MONITOR	ucl/cc	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00
SPENT FUEL PIT SPING										
LOW RANGE GAS	ucl/cc	3.80E-07	3.80E-07	3.80E-07	3.80E-07	3.80E-07	3.80E-07	3.80E-07	3.80E-07	3.80E-07
MID RANGE GAS	ucl/cc	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02
HIGH RANGE GAS	ucl/cc	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00
SPING AREA RAD	MR/HR	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
CONTAINMENT										
CNTMT TEMP	DEG	229.7	212.3	196.9	187.1	180.7	177.1	173.5	169.9	166.3
CNTMT PRESS	PSIG	18.1	9.8	4.2	1.5	0.1	0.0	0.0	0.0	0.0
A CHRRMS	R/HR	803.6	1002.1	1173.0	1314.6	1437.7	1540.0	1625.4	1696.6	1756.3
B CHRRMS	R/HR	803.6	1002.1	1173.0	1314.6	1437.7	1540.0	1625.4	1696.6	1756.3
METEOROLOGICAL DATA										
*10M TWR WIND DIR	DEG	110	115	115	115	120	120	110	115	120
*10M TWR WIND SPD	MPH	4	3	2	3	4	3	2	3	4
*60M TWR TEMP A	DEG F	80.0	80.0	80.0	79.0	80.0	80.0	81.0	80.0	81.0
*60M TWR TEMP B	DEG F	80.0	80.0	80.0	79.0	80.0	80.0	81.0	80.0	81.0
60M TWR A DELTA T	DEG F	-0.95	-0.98	-0.91	-1.20	-1.00	-0.95	-0.98	-0.93	-0.82
60M TWR B DELTA T	DEG F	-0.95	-0.98	-0.91	-1.20	-1.00	-0.95	-0.98	-0.93	-0.82
60M TWR/10M DIR	DEG	110.0	115.0	115.0	115.0	120.0	120.0	110.0	115.0	120.0
60M TWR/60M DIR	DEG	110.0	115.0	115.0	115.0	120.0	120.0	110.0	115.0	120.0
60M TWR/10M SPD	MPH	4.0	3.0	2.0	3.0	4.0	3.0	2.0	3.0	4.0
60M TWR/60M SPD	MPH	4.0	3.0	2.0	3.0	4.0	3.0	2.0	3.0	4.0
*THESE ARE PRIMARY DATA SOURCES										
PLANT VENT SPING										
PLANT VENT FLOW	CFM	0	0	0	0	0	0	0	0	0
LOW RANGE GAS	ucl/cc	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07
MID RANGE GAS	ucl/cc	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02
HIGH RANGE GAS	ucl/cc	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00
SPING AREA RAD	MR/HR	1	1	1	1	1	1	1	1	1



		12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45	14:00
PROCESS RAD MONITORS										
CNTMT PART	uci/cc	3.40E-08	3.40E-08	3.40E-08	3.40E-08	3.40E-08	3.40E-08	3.40E-08	3.40E-08	3.40E-08
CNTMT GAS	uci/cc	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03
PLANT VENT	CPM	7.68E+02	7.68E+02	7.68E+02	7.68E+02	7.68E+02	7.68E+02	7.68E+02	7.68E+02	7.68E+02
SJAE	CPM	4.30E+02	4.30E+02	4.30E+02	4.30E+02	4.30E+02	4.30E+02	4.30E+02	4.30E+02	4.30E+02
CCW HDR A	CPM	4.90E+02	4.90E+02	4.90E+02	4.90E+02	4.90E+02	4.90E+02	4.90E+02	4.90E+02	4.90E+02
CCW HDR B	CPM	2.82E+02	2.82E+02	2.82E+02	2.82E+02	2.82E+02	2.82E+02	2.82E+02	2.82E+02	2.82E+02
S/G BLOWDOWN	CPM	3.10E+02	3.10E+02	3.10E+02	3.10E+02	3.10E+02	3.10E+02	3.10E+02	3.10E+02	3.10E+02
RCS LETDOWN	MR/HR	9.10E+01	9.10E+01	9.10E+01	9.10E+01	9.10E+01	9.10E+01	9.10E+01	9.10E+01	9.10E+01
AREA RADIATION MONITORS										
RD1401	MR/HR	803556.0	1002124.9	1172997.9	1314613.9	1437717.9	1540042.9	1625351.2	1696647.6	1756346.6
RD1402	MR/HR	803556	1002125	1172998	1314614	1437718	1540043	1625351	1696648	1756347
RD1403	MR/HR	803556	1002125	1172998	1314614	1437718	1540043	1625351	1696648	1756347
RD1407	MR/HR	5.00	5.00	5.90	6.60	7.20	7.70	8.20	8.50	8.80
RD1409	MR/HR	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53
RD1410	MR/HR	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51
RD1412	MR/HR	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
RD1413	MR/HR	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35
RD1415	MR/HR	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
RD1419	MR/HR	1.00	1.30	1.50	1.60	1.80	1.90	2.00	2.10	2.20
RD1421	MR/HR	3.7	4.5	5.3	6.0	6.5	7.0	7.4	7.7	8.0
RD1423	MR/HR	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5

		14:15	14:30	14:45	15:00
PARAMETERS STATUS					
RCS T HOT	F	356	346	336	326
RCS PRESSURE	PSIG	1325	1275	1225	1175
PRZ LEVEL	%	100	100	100	100
CHARGING FLOW	GPM	118	118	118	118
CORE EXIT AVE TEMP	F	300	275	250	225
SUBCOOLING MARGIN	F	130	114	98	82
REACTOR VESSEL LEVEL	%	100	100	100	100
LHSI (RHR) FLOW	GPM	0	0	0	0
HHSI HEADER FLOW	GPM	0	0	0	0
CTMT TEMP	F	168	165	162	159
CTMT PRESSURE	PSIG	0.0	0.0	0.0	0.0
CTMT SUMP LEVEL	INCH	249	264	279	294
CTMT HYDROGEN CONC	%	0.00E+00	0.00E+00	0.00E+00	0.00E+00
S/G LEVEL (WR) A	%	75	75	75	75
S/G LEVEL (WR) B	%	1	1	1	1
S/G LEVEL (WR) C	%	75	75	75	75
S/G PRESS A	PSIG	121	112	103	94
S/G PRESS B	PSIG	0	0	0	0
S/G PRESS C	PSIG	286	281	276	271
CHRRM	R/HR	1806	1848	1884	1913
RWST LEVEL	GAL	3.28E+05	3.28E+05	3.28E+05	3.28E+05

EQUIPMENT STATUS

HEAT SINK					
A STM DUMP		CLOSED	CLOSED	CLOSED	CLOSED
B STM DUMP		CLOSED	CLOSED	CLOSED	CLOSED
C STM DUMP		CLOSED	CLOSED	CLOSED	CLOSED
PRZ PORV 455C		CLOSED	CLOSED	CLOSED	CLOSED
PRZ PORV 456		CLOSED	CLOSED	CLOSED	CLOSED
PRZ SAFETY A	%	0	0	0	0
PRZ SAFETY B	%	0	0	0	0
PRZ SAFETY C	%	0	0	0	0

CIRCULATION

A RCP	OFF	OFF	OFF	OFF
B RCP	OFF	OFF	OFF	OFF
C RCP	ON	ON	ON	ON

		14:15	14:30	14:45	15:00
SAFEGUARDS					
3A HHSI PP		ON	ON	ON	ON
3B HHSI PP		OFF	OFF	OFF	OFF
4A HHSI PP		OFF	OFF	OFF	OFF
4B HHSI PP		OFF	OFF	OFF	OFF
A RHR PP		OFF	OFF	OFF	OFF
B RHR PP		OFF	OFF	OFF	OFF
A CHG PP		ON	ON	ON	ON
B CHG PP		ON	ON	ON	ON
C CHG PP		OFF	OFF	OFF	OFF
A ECC		ON	ON	ON	ON
B ECC		ON	ON	ON	ON
C ECC		OFF	OFF	OFF	OFF
A CTMT SPRAY		OFF	OFF	OFF	OFF
B CTMT SPRAY		OFF	OFF	OFF	OFF
A CCW PP		ON	ON	ON	ON
B CCW PP		ON	ON	ON	ON
C CCW PP		ON	ON	ON	ON
FEEDWATER					
A FWP		OFF	OFF	OFF	OFF
B FWP		OFF	OFF	OFF	OFF
AFW A		7	7	7	7
AFW B		0	0	0	0
AFW C		13	13	13	13
CST	(GAL)	1.95E+05	1.94E+05	1.93E+05	1.92E+05
ELECTRICAL POWER					
3A 4KV	VOLTS	4261	4261	4261	4261
3B 4KV	VOLTS	4233	4233	4233	4233
3C 4KV	VOLTS	4280	4280	4280	4280
3D 4KV	VOLTS	4221	4221	4221	4221
EDG 3A	VOLTS	0	0	0	0
	AMPS	0	0	0	0
EDG 3B	VOLTS	4159	4159	4159	4159
	AMPS	0	0	0	0



		14:15	14:30	14:45	15:00
AIR EJECTOR SPING					
LOW RANGE GAS	uci/cc	3.70E-07	3.70E-07	3.70E-07	3.70E-07
MID RANGE GAS	uci/cc	2.50E-02	2.50E-02	2.50E-02	2.50E-02
HIGH RANGE GAS	uci/cc	1.00E+00	1.00E+00	1.00E+00	1.00E+00
SPING AREA RAD	MR/HR	46.8	48.1	49.1	50.0
STEAM LINE MONITOR					
DAM-1 MONITOR	uci/cc	1.00E+00	1.00E+00	1.00E+00	1.00E+00
SPENT FUEL PIT SPING					
LOW RANGE GAS	uci/cc	3.80E-07	3.80E-07	3.80E-07	3.80E-07
MID RANGE GAS	uci/cc	2.50E-02	2.50E-02	2.50E-02	2.50E-02
HIGH RANGE GAS	uci/cc	1.00E+00	1.00E+00	1.00E+00	1.00E+00
SPING AREA RAD	MR/HR	0.1	0.1	0.1	0.1
CONTAINMENT					
CNTMT TEMP	DEG	162.7	159.1	155.5	151.9
CNTMT PRESS	PSIG	0.0	0.0	0.0	0.0
A CHRRMS	R/HR	1806.4	1848.3	1883.7	1913.3
B CHRRMS	R/HR	1806.4	1848.3	1883.7	1913.3
METEOROLOGICAL DATA					
*10M TWR WIND DIR	DEG	120	110	115	115
*10M TWR WIND SPD	MPH	2	3	2	3
*60M TWR TEMP A	DEG F	80.0	80.0	81.0	81.0
*60M TWR TEMP B	DEG F	80.0	80.0	81.0	81.0
60M TWR A DELTA T	DEG F	-0.83	-0.92	-0.82	-0.85
60M TWR B DELTA T	DEG F	-0.83	-0.92	-0.82	-0.85
60M TWR/10M DIR	DEG	120.0	110.0	115.0	115.0
60M TWR/60M DIR	DEG	120.0	110.0	115.0	115.0
60M TWR/10M SPD	MPH	2.0	3.0	2.0	3.0
60M TWR/60M SPD	MPH	2.0	3.0	2.0	3.0
*THESE ARE PRIMARY DATA SOURCES					
PLANT VENT SPING					
PLANT VENT FLOW	CFM	0	0	0	0
LOW RANGE GAS	uci/cc	3.70E-07	3.70E-07	3.70E-07	3.70E-07
MID RANGE GAS	uci/cc	2.50E-02	2.50E-02	2.50E-02	2.50E-02
HIGH RANGE GAS	uci/cc	1.00E+00	1.00E+00	1.00E+00	1.00E+00
SPING AREA RAD	MR/HR	1	1	1	1

PROCESS RAD MONITORS

		14:15	14:30	14:45	15:00
CNTMT PART	uci/cc	3.40E-08	3.40E-08	3.40E-08	3.40E-08
CNTMT GAS	uci/cc	1.41E-03	1.41E-03	1.41E-03	1.41E-03
PLANT VENT	CPM	7.68E+02	7.68E+02	7.68E+02	7.68E+02
SJAE	CPM	4.30E+02	4.30E+02	4.30E+02	4.30E+02
CCW HDR A	CPM	4.90E+02	4.90E+02	4.90E+02	4.90E+02
CCW HDR B	CPM	2.82E+02	2.82E+02	2.82E+02	2.82E+02
S/G BLOWDOWN	CPM	3.10E+02	3.10E+02	3.10E+02	3.10E+02
RCS LETDOWN	MR/HR	9.10E+01	9.10E+01	9.10E+01	9.10E+01

AREA RADIATION MONITORS

RD1401	MR/HR	1806385.9	1848329.1	1883717.1	1913252.9
RD1402	MR/HR	1806386	1848329	1883717	1913253
RD1403	MR/HR	1806386	1848329	1883717	1913253
RD1407	MR/HR	9.10	9.30	9.40	9.60
RD1409	MR/HR	0.53	0.53	0.53	0.53
RD1410	MR/HR	0.51	0.51	0.51	0.51
RD1412	MR/HR	0.20	0.20	0.20	0.20
RD1413	MR/HR	0.35	0.35	0.35	0.35
RD1415	MR/HR	0.15	0.15	0.15	0.15
RD1419	MR/HR	2.30	2.30	2.40	2.40
RD1421	MR/HR	8.2	8.4	8.5	8.7
RD1423	MR/HR	1.5	1.5	1.5	1.5



6.0 METEOROLOGICAL PARAMETERS

**FLORIDA POWER AND LIGHT COMPANY
TURKEY POINT NUCLEAR PLANT
1993 EMERGENCY PREPAREDNESS
EVALUATED EXERCISE
DECEMBER 15, 1993**

6.0 METEOROLOGICAL PARAMETERS

This Scenario Section Contains the Following Information:

- Section 6.1 METEOROLOGICAL FORECAST DATA** - A simulated weather forecast for the time period affected by the postulated scenario events.
- Section 6.2 METEOROLOGICAL DATA SUMMARY** - The postulated meteorological conditions for the scenario in summary.



6.1 METEOROLOGICAL FORECAST DATA

**FLORIDA POWER AND LIGHT COMPANY
TURKEY POINT NUCLEAR PLANT
1993 EMERGENCY PREPAREDNESS
EVALUATED EXERCISE
DECEMBER 15, 1993**

6.1 METEOROLOGICAL FORECAST DATA

U.S. WEATHER SERVICE FORECAST DATA

December 15, 1993

0700 Forecast from the National Weather Service Station at Miami International Airport for the Biscayne Bay and vicinity:

-A high pressure system stationed over the lower, southeast United States has brought cool temperatures, mild winds, and clear skies to the area. A stationary cold front over the Bermuda Banks may begin moving westward in the afternoon if affected by an offshore unstable upper air mass in the Carolinas. Conditions are stable and expected to continue for the next 7 to 10 hours.

-Present conditions are fair and warm, temperature 78° F with an anticipated high in the mid to upper eighties. Winds are weak from the east southeast at 2 to 3 miles per hour, becoming predominately easterly by evening. Probability of precipitation is 10% through evening.

-Marine conditions are: moderate seas, 2 to 4 feet; winds from the east southeast at 3 to 4 knots; visibility 20 miles; water temperature 76° F in Biscayne Bay and 74° F offshore.



6.2 METEOROLOGICAL DATA SUMMARY



	Time	7:30	7:45	8:00	8:15	8:30	8:45	9:00	9:15
South Dade Tower									
Wind Speed (mph)		2	3	4	4	3	2	3	4
Wind Direction (from-degrees)		120	120	118	119	122	123	121	119
Temperature (degrees F)		75	75	76	76	76	77	77	78
Delta Temperature		-1.00	-1.20	-1.10	-0.76	-0.65	-0.54	-1.00	-0.60

Turkey Point Tower

Wind Speed (mph)	3	2	4	3	2	3	4	4
Wind Direction (from-degrees)	120	115	120	125	120	110	115	120
Sigma Theta (degrees)	8.0	8.6	8.0	8.2	9.0	8.8	8.3	9.1



	Time	9:30	9:45	10:00	10:15	10:30	10:45	11:00	11:15
South Dade Tower									
Wind Speed (mph)		2	2	3	4	4	2	3	4
Wind Direction (from-degrees)		117	119	121	123	122	120	118	117
Temperature (degrees F)		78	78	77	78	78	79	79	78
Delta Temperature		-0.60	-0.81	-0.91	-0.80	-1.00	-1.00	-0.95	-0.81
Turkey Point Tower									
Wind Speed (mph)		3	2	4	3	4	2	3	3
Wind Direction (from-degrees)		125	110	125	120	110	115	115	115
Sigma Theta (degrees)		9.0	8.8	8.5	9.3	9.0	9.1	8.9	8.9



	Time	11:30	11:45	12:00	12:15	12:30	12:45	13:00	13:15
South Dade Tower									
Wind Speed (mph)		4	3	4	3	4	3	2	3
Wind Direction (from-degrees)		119	120	122	121	120	118	119	121
Temperature (degrees F)		79	79	80	80	80	79	80	80
Delta Temperature		-0.87	-1.00	-0.95	-0.98	-0.91	-1.20	-1.00	-0.95
Turkey Point Tower									
Wind Speed (mph)		2	3	4	3	2	3	4	3
Wind Direction (from-degrees)		120	120	110	115	115	115	120	120
Sigma Theta (degrees)		9.0	9.1	9.0	9.0	8.9	9.0	8.1	9.2



Time	13:30	13:45	14:00	14:15	14:30	14:45	15:00
South Dade Tower							
Wind Speed (mph)	3	3	4	2	2	3	4
Wind Direction (from-degrees)	120	119	122	121	120	121	118
Temperature (degrees F)	81	80	81	80	80	81	81
Delta Temperature	-0.98	-0.93	-0.82	-0.83	-0.92	-0.82	-0.85

Turkey Point Tower

Wind Speed (mph)	2	3	4	2	3	2	3
Wind Direction (from-degrees)	110	115	120	120	110	115	115
Sigma Theta (degrees)	9.1	9.0	9.2	9.1	9.0	8.9	9.0

7.0 RADIOLOGICAL DATA

7.1 REACTOR COOLANT SYSTEM RADIOLOGICAL DATA



		Time	07:45	08:00	08:15	08:30	08:45	09:00	09:15	09:30	09:45	10:00
Primary Chemistry Parameter												
	Units											
pH			6.7	6.7	6.7	6.7	6.7	6.7	6.6	6.6	6.5	6.5
Boron	ppm		600	600	600	600	600	650	700	750	800	850
Cl	ppb		1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Fl	ppb		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
O2	ppb		0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
H2	cc/kg		40	40	40	40	40	40	40	40	40	40

Primary Chemistry Parameter	Time	10:15	10:30	10:45	11:00	11:15	11:30	11:45	12:00	12:15	12:30
	Units										
pH		6.4	6.2	6.2	6.2	6.2	5.8	5.8	5.9	6.0	6.0
Boron	ppm	900	1250	1250	1250	1250	1250	1250	1100	1050	1000
Cl	ppb	1.2	1.2	1.2	1.2	1.2	1.3	1.5	1.5	1.4	1.3
Fl	ppb	1.0	1.0	1.0	1.0	1.0	2.0	5.0	4.0	3.0	3.0
O2	ppb	0.6	0.6	0.6	0.6	0.6	1.5	2.0	1.6	1.4	1.4
H2	cc/kg	40	40	40	40	40	60	70	60	50	40

Time		12:45	13:00	13:15	13:30	13:45	14:00	14:15	14:30	14:45	15:00
Primary Chemistry Parameter	Units										
pH		6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Boron	ppm	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Cl	ppb	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
Fl	ppb	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
O2	ppb	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
H2	cc/kg	40	40	40	40	40	40	40	40	40	40

ISOTOPE	07:30	10:30	10:45	11:00	11:15	11:30	11:45	12:00	12:15	12:30
Ar-41	1.33E-03	1.10E-03	1.00E-03	9.11E-04	8.28E-04	5.12E+01	4.01E+01	3.15E+01	2.49E+01	1.97E+01
Kr-85m	1.26E-01	1.16E-01	1.12E-01	1.08E-01	1.03E-01	1.34E+02	1.11E+02	9.20E+01	7.68E+01	6.45E+01
Kr-85	3.35E-05	3.35E-05	3.35E-05	3.35E-05	3.35E-05	7.48E+00	6.45E+00	5.57E+00	4.84E+00	4.22E+00
Kr-87	2.10E-02	1.60E-02	1.39E-02	1.22E-02	1.06E-02	1.38E+02	1.04E+02	7.83E+01	5.93E+01	4.52E+01
Kr-88	3.12E-02	2.76E-02	2.59E-02	2.44E-02	2.29E-02	3.83E+00	3.11E+00	2.52E+00	2.06E+00	1.69E+00
Xe-131m	8.37E-05	8.36E-05	8.35E-05	8.35E-05	8.34E-05	6.54E+00	5.64E+00	4.86E+00	4.22E+00	3.68E+00
Xe-133m	1.66E-04	1.65E-04	1.65E-04	1.64E-04	1.64E-04	2.68E+01	2.30E+01	1.98E+01	1.72E+01	1.49E+01
Xe-133	1.99E-02	1.98E-02	1.98E-02	1.98E-02	1.98E-02	1.04E+03	1.67E+03	1.44E+03	1.25E+03	1.09E+03
Xe-135	2.27E-02	2.19E-02	2.14E-02	2.10E-02	2.06E-02	2.14E+02	1.81E+02	1.53E+02	1.31E+02	1.12E+02
I-131	1.51E-01	1.51E-01	1.51E-01	1.50E-01	1.50E-01	1.01E+03	8.67E+02	7.48E+02	6.49E+02	5.66E+02
I-132	9.65E-02	8.29E-02	7.69E-02	7.13E-02	6.81E-02	6.46E+02	5.16E+02	4.13E+02	3.33E+02	2.69E+02
I-133	1.09E-02	1.07E-02	1.06E-02	1.05E-02	1.05E-02	1.56E+03	1.34E+03	1.14E+03	9.86E+02	8.53E+02
I-134	1.30E-01	8.77E-02	7.20E-02	5.91E-02	4.86E-02	6.09E+02	4.31E+02	3.05E+02	2.18E+02	1.56E+02
I-135	1.40E-01	1.33E-01	1.29E-01	1.26E-01	1.23E-01	1.10E+03	9.25E+02	7.78E+02	6.58E+02	5.59E+02
Cr-51	1.86E-05	1.86E-05	1.86E-05	1.86E-05	1.86E-05	7.36E-07	6.34E-07	5.47E-07	4.75E-07	4.15E-07
Mn-54	4.26E-06	4.26E-06	4.26E-06	4.26E-06	4.26E-06	1.63E-07	1.40E-07	1.21E-07	1.05E-07	9.18E-08
Fe-55	9.77E-06	9.77E-06	9.77E-06	9.77E-06	9.77E-06	3.86E-07	3.33E-07	2.88E-07	2.50E-07	2.18E-07
Fe-59	2.53E-06	2.53E-06	2.53E-06	2.53E-06	2.53E-06	1.00E-07	8.63E-08	7.45E-08	6.47E-08	5.65E-08
Co-58	3.77E-04	3.77E-04	3.77E-04	3.77E-04	3.77E-04	1.65E-06	1.42E-06	1.23E-06	1.07E-06	9.32E-07
Co-60	1.40E-05	1.40E-05	1.40E-05	1.40E-05	1.40E-05	5.45E-07	4.70E-07	4.05E-07	3.52E-07	3.07E-07
Rb-88	2.68E-03	8.33E-04	4.65E-04	2.59E-04	1.45E-04	2.91E+01	1.40E+01	6.74E+00	3.26E+00	1.59E+00
Sr-89	3.65E-05	3.65E-05	3.65E-05	3.65E-05	3.65E-05	6.00E+02	5.18E+02	4.47E+02	3.88E+02	3.39E+02
Sr-90	3.37E-06	3.37E-06	3.37E-06	3.37E-06	3.37E-06	4.19E+01	3.61E+01	3.12E+01	2.71E+01	2.36E+01
Y-90	1.89E-06	1.88E-06	1.87E-06	1.87E-06	1.86E-06	4.34E+01	3.73E+01	3.21E+01	2.78E+01	2.42E+01
Sr-91	5.33E-05	5.14E-05	5.05E-05	4.96E-05	4.87E-05	6.74E+02	5.71E+02	4.84E+02	4.13E+02	3.54E+02
Y-91m	1.51E-05	9.98E-06	8.12E-06	6.60E-06	5.37E-06	1.51E+02	1.06E+02	7.44E+01	5.26E+01	3.73E+01
Y-91	5.83E-09	5.83E-09	5.83E-09	5.83E-09	5.83E-09	7.82E+02	6.74E+02	5.82E+02	5.05E+02	4.41E+02
Zr-95	7.27E-05	7.27E-05	7.27E-05	7.27E-05	7.27E-05	1.09E+03	9.37E+02	8.09E+02	7.03E+02	6.13E+02
Nb-95	7.27E-04	7.27E-04	7.27E-04	7.26E-04	7.26E-04	1.10E+03	9.44E+02	8.15E+02	7.08E+02	6.18E+02
Mo-99	7.74E-04	7.70E-04	7.68E-04	7.66E-04	7.64E-04	1.17E+03	1.00E+03	8.64E+02	7.49E+02	6.52E+02
Te-99m	6.83E-04	6.45E-04	6.27E-04	6.09E-04	5.92E-04	8.83E+02	7.40E+02	6.21E+02	5.24E+02	4.45E+02
Ru-103	5.33E-06	5.33E-06	5.33E-06	5.33E-06	5.33E-06	1.06E+03	9.15E+02	7.90E+02	6.86E+02	5.98E+02
Ru-106	1.19E-03	1.19E-03	1.19E-03	1.19E-03	1.19E-03	3.00E+02	2.58E+02	2.23E+02	1.94E+02	1.69E+02
Sb-129	1.61E-06	1.49E-06	1.43E-06	1.38E-06	1.32E-06	1.76E+02	1.46E+02	1.21E+02	1.01E+02	8.48E+01
Te-129m	2.59E-06	2.59E-06	2.59E-06	2.59E-06	2.59E-06	5.56E+01	4.79E+01	4.14E+01	3.59E+01	3.14E+01
Te-129	1.54E-05	1.13E-05	9.67E-06	8.28E-06	7.09E-06	9.86E+01	7.28E+01	5.38E+01	4.00E+01	2.99E+01
Sb-131	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.09E+01	4.10E+01	2.37E+01	1.38E+01	8.08E+00
Te-131m	6.29E-06	6.22E-06	6.18E-06	6.15E-06	6.11E-06	9.49E+01	8.13E+01	6.98E+01	6.03E+01	5.23E+01
Te-131	4.44E-05	1.92E-05	1.26E-05	8.30E-06	5.46E-06	6.91E+01	3.92E+01	2.22E+01	1.27E+01	7.29E+00
Te-132	6.84E-04	6.81E-04	6.79E-04	6.78E-04	6.76E-04	1.02E+03	8.74E+02	7.53E+02	6.53E+02	5.69E+02
Te-133m	6.66E-06	4.66E-06	3.78E-06	3.13E-06	2.59E-06	1.81E+02	1.29E+02	9.25E+01	6.66E+01	4.81E+01
Cs-134	3.64E-04	3.64E-04	3.64E-04	3.64E-04	3.64E-04	1.03E+02	8.86E+01	7.65E+01	6.65E+01	5.80E+01
Te-134	6.66E-06	4.11E-06	3.23E-06	2.53E-06	1.99E-06	2.94E+02	1.99E+02	1.35E+02	9.21E+01	6.31E+01
Cs-135	3.55E-08	3.55E-08	3.55E-08	3.55E-08	3.55E-08	1.63E-04	1.40E-04	1.21E-04	1.05E-04	9.18E-05
Cs-136	1.47E-03	1.47E-03	1.47E-03	1.47E-03	1.47E-03	3.42E+01	2.94E+01	2.54E+01	2.21E+01	1.92E+01
Cs-137	4.96E-05	4.96E-05	4.96E-05	4.96E-05	4.96E-05	5.62E+01	4.84E+01	4.18E+01	3.63E+01	3.17E+01
Cs-138	2.61E-04	1.37E-04	9.90E-05	7.17E-05	5.19E-05	2.20E+02	1.37E+02	8.58E+01	5.40E+01	3.41E+01
Ba-140	7.97E-05	7.96E-05	7.96E-05	7.95E-05	7.95E-05	1.20E+03	1.03E+03	8.89E+02	7.72E+02	6.73E+02
La-140	7.97E-03	7.90E-03	7.87E-03	7.83E-03	7.80E-03	1.17E+03	1.01E+03	8.66E+02	7.49E+02	6.51E+02
La-142	1.78E-04	1.42E-04	1.27E-04	1.13E-04	1.01E-04	7.81E+02	6.02E+02	4.65E+02	3.61E+02	2.81E+02
Ce-143	6.29E-05	6.22E-05	6.19E-05	6.16E-05	6.13E-05	9.51E+02	8.16E+02	7.01E+02	6.06E+02	5.26E+02
Pr-143	6.29E-05	6.28E-05	6.28E-05	6.28E-05	6.27E-05	9.57E+02	8.24E+02	7.11E+02	6.18E+02	5.39E+02
Ce-144	4.13E-05	4.13E-05	4.13E-05	4.13E-05	4.13E-05	7.71E+02	6.65E+02	5.74E+02	4.98E+02	4.35E+02
Pr-144	1.38E-05	4.13E-06	2.26E-06	1.24E-06	6.80E-07	4.06E+01	1.92E+01	9.08E+00	4.32E+00	2.07E+00
Np-239	8.42E-04	8.37E-04	8.34E-04	8.32E-04	8.29E-04	1.35E+04	1.16E+04	9.98E+03	8.65E+03	7.52E+03
NG TOT.	2.22E-01	2.03E-01	1.94E-01	1.86E-01	1.78E-01	2.52E+03	2.14E+03	1.83E+03	1.57E+03	1.35E+03
I2 TOT.	5.28E-01	4.65E-01	4.40E-01	4.17E-01	3.98E-01	4.92E+03	4.07E+03	3.39E+03	2.84E+03	2.40E+03
PART. TOT.	1.88E-02	1.67E-02	1.62E-02	1.58E-02	1.56E-02	2.98E+04	2.53E+04	2.15E+04	1.85E+04	1.60E+04
TOTAL	7.70E-01	6.85E-01	6.50E-01	6.19E-01	5.92E-01	3.72E+04	3.15E+04	2.67E+04	2.29E+04	1.97E+04
I-131 DEQ	1.71E-01	1.69E-01	1.68E-01	1.67E-01	1.67E-01	1.56E+03	1.33E+03	1.14E+03	9.87E+02	8.56E+02



ISOTOPE	12:45	13:00	13:15	13:30	13:45	14:00	14:15	14:30	14:45	15:00
Ar-41	1.57E+01	1.26E+01	1.02E+01	8.22E+00	6.69E+00	5.47E+00	4.50E+00	3.71E+00	3.39E+00	2.82E+00
Kr-85m	5.43E+01	4.61E+01	3.92E+01	3.36E+01	2.89E+01	2.50E+01	2.17E+01	1.90E+01	1.73E+01	1.52E+01
Kr-85	3.70E+00	3.26E+00	2.89E+00	2.57E+00	2.30E+00	2.07E+00	1.87E+00	1.70E+00	1.55E+00	1.42E+00
Kr-87	3.45E+01	2.66E+01	2.05E+01	1.59E+01	1.24E+01	9.76E+00	7.69E+00	6.10E+00	5.56E+00	4.45E+00
Kr-88	1.39E+00	1.15E+00	9.61E-01	8.04E-01	6.76E-01	5.72E-01	4.86E-01	4.15E-01	3.79E-01	3.26E-01
Xe-131m	3.23E+00	2.84E+00	2.52E+00	2.24E+00	2.00E+00	1.80E+00	1.63E+00	1.48E+00	1.35E+00	1.23E+00
Xe-133m	1.31E+01	1.15E+01	1.01E+01	8.99E+00	8.03E+00	7.20E+00	6.49E+00	5.87E+00	5.36E+00	4.90E+00
Xe-133	9.53E+02	8.39E+02	7.42E+02	6.60E+02	5.90E+02	5.30E+02	4.78E+02	4.34E+02	3.96E+02	3.62E+02
Xe-135	9.63E+01	8.33E+01	7.24E+01	6.32E+01	5.55E+01	4.90E+01	4.35E+01	3.88E+01	3.54E+01	3.18E+01
I-131	4.96E+02	4.37E+02	3.86E+02	3.44E+02	3.07E+02	2.76E+02	2.49E+02	2.26E+02	2.07E+02	1.89E+02
I-132	2.19E+02	1.79E+02	1.47E+02	1.21E+02	1.01E+02	8.39E+01	7.04E+01	5.93E+01	5.41E+01	4.59E+01
I-133	7.42E+02	6.48E+02	5.70E+02	5.03E+02	4.46E+02	3.98E+02	3.57E+02	3.22E+02	2.94E+02	2.67E+02
I-134	1.13E+02	8.14E+01	5.93E+01	4.33E+01	3.18E+01	2.35E+01	1.75E+01	1.30E+01	1.19E+01	8.95E+00
I-135	4.78E+02	4.10E+02	3.54E+02	3.07E+02	2.68E+02	2.34E+02	2.06E+02	1.83E+02	1.67E+02	1.49E+02
Cr-51	3.64E-07	3.20E-07	2.84E-07	2.53E-07	2.26E-07	2.03E-07	1.84E-07	1.67E-07	1.52E-07	1.39E-07
Mn-54	8.05E-08	7.10E-08	6.29E-08	5.60E-08	5.01E-08	4.51E-08	4.07E-08	3.70E-08	3.38E-08	3.09E-08
Fe-55	1.91E-07	1.68E-07	1.49E-07	1.33E-07	1.19E-07	1.07E-07	9.67E-08	8.79E-08	8.02E-08	7.35E-08
Fe-59	4.95E-08	4.36E-08	3.86E-08	3.44E-08	3.08E-08	2.77E-08	2.50E-08	2.27E-08	2.07E-08	1.90E-08
Co-58	8.17E-07	7.20E-07	6.38E-07	5.68E-07	5.08E-07	4.57E-07	4.13E-07	3.75E-07	3.43E-07	3.14E-07
Co-60	2.70E-07	2.38E-07	2.10E-07	1.87E-07	1.68E-07	1.51E-07	1.36E-07	1.24E-07	1.13E-07	1.04E-07
Rb-88	7.77E-01	3.82E-01	1.89E-01	9.36E-02	4.67E-02	2.34E-02	1.18E-02	5.99E-03	5.46E-03	2.79E-03
Sr-89	2.97E+02	2.62E+02	2.32E+02	2.06E+02	1.85E+02	1.66E+02	1.50E+02	1.36E+02	1.25E+02	1.14E+02
Sr-90	2.07E+01	1.83E+01	1.62E+01	1.44E+01	1.29E+01	1.16E+01	1.05E+01	9.53E+00	8.69E+00	7.97E+00
Y-90	2.12E+01	1.86E+01	1.64E+01	1.46E+01	1.30E+01	1.17E+01	1.05E+01	9.55E+00	8.71E+00	7.96E+00
Sr-91	3.05E+02	2.64E+02	2.30E+02	2.01E+02	1.77E+02	1.56E+02	1.39E+02	1.24E+02	1.13E+02	1.02E+02
Y-91m	2.66E+01	1.91E+01	1.37E+01	9.94E+00	7.24E+00	5.29E+00	3.89E+00	2.88E+00	2.62E+00	1.96E+00
Y-91	3.86E+02	3.41E+02	3.02E+02	2.69E+02	2.40E+02	2.16E+02	1.95E+02	1.78E+02	1.62E+02	1.48E+02
Zr-95	5.38E+02	4.74E+02	4.20E+02	3.74E+02	3.34E+02	3.01E+02	2.72E+02	2.47E+02	2.25E+02	2.07E+02
Nb-95	5.41E+02	4.77E+02	4.23E+02	3.76E+02	3.37E+02	3.03E+02	2.74E+02	2.49E+02	2.27E+02	2.08E+02
Mo-99	5.70E+02	5.01E+02	4.43E+02	3.93E+02	3.51E+02	3.15E+02	2.84E+02	2.57E+02	2.35E+02	2.15E+02
Tc-99m	3.79E+02	3.24E+02	2.79E+02	2.42E+02	2.10E+02	1.84E+02	1.61E+02	1.42E+02	1.30E+02	1.16E+02
Ru-103	5.25E+02	4.62E+02	4.09E+02	3.64E+02	3.26E+02	2.93E+02	2.65E+02	2.41E+02	2.20E+02	2.01E+02
Ru-106	1.48E+02	1.31E+02	1.16E+02	1.03E+02	9.23E+01	8.30E+01	7.50E+01	6.82E+01	6.22E+01	5.70E+01
Sb-129	7.15E+01	6.06E+01	5.16E+01	4.42E+01	3.80E+01	3.29E+01	2.86E+01	2.49E+01	2.28E+01	2.01E+01
Te-129m	2.75E+01	2.42E+01	2.15E+01	1.91E+01	1.71E+01	1.54E+01	1.39E+01	1.26E+01	1.15E+01	1.06E+01
Te-129	2.25E+01	1.70E+01	1.29E+01	9.80E+00	7.51E+00	5.79E+00	4.48E+00	3.48E+00	3.18E+00	2.50E+00
Sb-131	4.75E+00	2.81E+00	1.67E+00	9.96E-01	5.97E-01	3.60E-01	2.18E-01	1.33E-01	1.21E-01	7.46E-02
Te-131m	4.56E+01	4.00E+01	3.52E+01	3.12E+01	2.77E+01	2.48E+01	2.23E+01	2.01E+01	1.84E+01	1.67E+01
Te-131	4.20E+00	2.44E+00	1.42E+00	8.31E-01	4.89E-01	2.89E-01	1.72E-01	1.03E-01	9.38E-02	5.65E-02
Te-132	4.97E+02	4.38E+02	3.87E+02	3.44E+02	3.07E+02	2.75E+02	2.48E+02	2.25E+02	2.05E+02	1.88E+02
Te-133m	3.49E+01	2.55E+01	1.87E+01	1.38E+01	1.02E+01	7.59E+00	5.68E+00	4.27E+00	3.90E+00	2.96E+00
Cs-134	5.09E+01	4.48E+01	3.97E+01	3.54E+01	3.16E+01	2.85E+01	2.57E+01	2.34E+01	2.13E+01	1.95E+01
Te-134	4.35E+01	3.01E+01	2.09E+01	1.46E+01	1.03E+01	7.26E+00	5.16E+00	3.68E+00	3.36E+00	2.42E+00
Cs-135	8.05E-05	7.10E-05	6.29E-05	5.60E-05	5.01E-05	4.51E-05	4.08E-05	3.70E-05	3.38E-05	3.10E-05
Cs-136	1.69E+01	1.49E+01	1.32E+01	1.17E+01	1.05E+01	9.41E+00	8.51E+00	7.72E+00	7.05E+00	6.46E+00
Cs-137	2.78E+01	2.45E+01	2.17E+01	1.93E+01	1.73E+01	1.56E+01	1.41E+01	1.28E+01	1.17E+01	1.07E+01
Cs-138	2.17E+01	1.38E+01	8.87E+00	5.72E+00	3.71E+00	2.41E+00	1.58E+00	1.04E+00	9.49E-01	6.29E-01
Ba-140	5.90E+02	5.20E+02	4.60E+02	4.09E+02	3.66E+02	3.29E+02	2.98E+02	2.70E+02	2.47E+02	2.26E+02
La-140	5.68E+02	4.99E+02	4.40E+02	3.90E+02	3.47E+02	3.11E+02	2.80E+02	2.53E+02	2.31E+02	2.11E+02
La-142	2.20E+02	1.74E+02	1.37E+02	1.09E+02	8.75E+01	7.03E+01	5.68E+01	4.61E+01	4.21E+01	3.45E+01
Ce-143	4.58E+02	4.02E+02	3.54E+02	3.14E+02	2.79E+02	2.50E+02	2.25E+02	2.03E+02	1.85E+02	1.69E+02
Pr-143	4.72E+02	4.16E+02	3.68E+02	3.28E+02	2.93E+02	2.64E+02	2.38E+02	2.16E+02	1.97E+02	1.81E+02
Ce-144	3.81E+02	3.36E+02	2.98E+02	2.65E+02	2.37E+02	2.13E+02	1.93E+02	1.75E+02	1.60E+02	1.47E+02
Pr-144	9.93E-01	4.80E-01	2.33E-01	1.14E-01	5.57E-02	2.75E-02	1.36E-02	6.77E-03	6.18E-03	3.10E-03
Np-239	6.58E+03	5.78E+03	5.10E+03	4.53E+03	4.04E+03	3.63E+03	3.27E+03	2.96E+03	2.70E+03	2.47E+03
NG TOT.	1.18E+03	1.03E+03	9.01E+02	7.95E+02	7.06E+02	6.31E+02	5.66E+02	5.11E+02	4.66E+02	4.25E+02
I2 TOT.	2.05E+03	1.76E+03	1.52E+03	1.32E+03	1.15E+03	1.02E+03	9.01E+02	8.03E+02	7.33E+02	6.60E+02
PART. TOT.	1.39E+04	1.22E+04	1.07E+04	9.46E+03	8.42E+03	7.53E+03	6.78E+03	6.13E+03	5.59E+03	5.10E+03
TOTAL	1.71E+04	1.49E+04	1.31E+04	1.16E+04	1.03E+04	9.18E+03	8.24E+03	7.44E+03	6.79E+03	6.18E+03
I-131 DEQ	7.47E+02	6.55E+02	5.77E+02	5.11E+02	4.55E+02	4.07E+02	3.66E+02	3.31E+02	3.02E+02	2.76E+02



ISOTOPE	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15	09:30	09:45
Ar-41	1.75E-07	1.76E-07	1.77E-07	1.77E-07	1.78E-07	1.87E-07	1.96E-07	3.25E-07	4.54E-07	5.84E-07
Kr-85m	2.04E-05	2.05E-05	2.05E-05	2.06E-05	2.07E-05	2.15E-05	2.23E-05	3.46E-05	4.68E-05	5.90E-05
Kr-85	2.32E-06	2.32E-06	2.32E-06	2.32E-06	2.32E-06	2.32E-06	2.32E-06	2.32E-06	2.33E-06	2.33E-06
Kr-87	1.10E-05	1.10E-05	1.11E-05	1.11E-05	1.11E-05	1.12E-05	1.14E-05	1.34E-05	1.54E-05	1.75E-05
Kr-88	3.66E-05	3.66E-05	3.66E-05	3.66E-05	3.66E-05	3.68E-05	3.70E-05	4.01E-05	4.31E-05	4.61E-05
Xe-131m	5.16E-06	5.16E-06	5.16E-06	5.16E-06	5.16E-06	5.16E-06	5.16E-06	5.17E-06	5.18E-06	5.19E-06
Xe-133m	5.80E-07	5.80E-07	5.80E-07	5.80E-07	5.81E-07	5.82E-07	5.83E-07	5.99E-07	6.15E-07	6.31E-07
Xe-133	1.28E-03	1.28E-03	1.28E-03	1.28E-03	1.28E-03	1.28E-03	1.28E-03	1.28E-03	1.28E-03	1.28E-03
Xe-135	5.80E-05	5.80E-05	5.80E-05	5.81E-05	5.81E-05	5.82E-05	5.84E-05	6.06E-05	6.28E-05	6.50E-05
I-131	7.60E-06	7.70E-06	7.79E-06	7.89E-06	7.99E-06	8.96E-06	9.94E-06	2.46E-05	3.92E-05	5.39E-05
I-132	1.66E-06	1.72E-06	1.79E-06	1.85E-06	1.91E-06	2.54E-06	3.16E-06	1.25E-05	2.19E-05	3.12E-05
I-133	6.41E-06	6.41E-06	6.42E-06	6.43E-06	6.44E-06	6.51E-06	6.58E-06	7.63E-06	8.69E-06	9.75E-06
I-134	8.72E-07	9.56E-07	1.04E-06	1.12E-06	1.21E-06	2.05E-06	2.89E-06	1.55E-05	2.81E-05	4.07E-05
I-135	1.79E-06	1.88E-06	1.97E-06	2.06E-06	2.15E-06	3.06E-06	3.96E-06	1.75E-05	3.11E-05	4.47E-05
Cr-51	1.49E-08	1.49E-08	1.49E-08	1.49E-08	1.49E-08	1.50E-08	1.52E-08	1.70E-08	1.88E-08	2.06E-08
Mn-54	3.72E-09	3.72E-09	3.72E-09	3.73E-09	3.73E-09	3.76E-09	3.78E-09	4.20E-09	4.61E-09	5.02E-09
Fe-55	1.26E-08	1.26E-08	1.26E-08	1.26E-08	1.26E-08	1.27E-08	1.27E-08	1.37E-08	1.46E-08	1.56E-08
Fe-59	9.14E-09	9.15E-09	9.15E-09	9.15E-09	9.15E-09	9.17E-09	9.18E-09	9.43E-09	9.67E-09	9.92E-09
Co-58	1.29E-07	1.29E-07	1.29E-07	1.30E-07	1.30E-07	1.32E-07	1.35E-07	1.71E-07	2.08E-07	2.44E-07
Co-60	1.63E-08	1.63E-08	1.63E-08	1.63E-08	1.63E-08	1.64E-08	1.65E-08	1.79E-08	1.92E-08	2.06E-08
Rb-88	3.60E-08	3.78E-08	3.95E-08	4.12E-08	4.30E-08	6.03E-08	7.76E-08	3.38E-07	5.98E-07	8.57E-07
Sr-89	3.74E-09	3.76E-09	3.79E-09	3.81E-09	3.83E-09	4.07E-09	4.30E-09	7.84E-09	1.14E-08	1.49E-08
Sr-90	2.18E-12	4.36E-12	6.54E-12	8.72E-12	1.09E-11	3.27E-11	5.45E-11	3.81E-10	7.08E-10	1.04E-09
Y-90	1.22E-12	2.44E-12	3.67E-12	4.89E-12	6.11E-12	1.83E-11	3.06E-11	2.14E-10	3.97E-10	5.81E-10
Sr-91	2.03E-09	2.07E-09	2.10E-09	2.14E-09	2.17E-09	2.52E-09	2.86E-09	8.03E-09	1.32E-08	1.84E-08
Y-91m	1.32E-09	1.33E-09	1.34E-09	1.35E-09	1.36E-09	1.46E-09	1.56E-09	3.02E-09	4.49E-09	5.95E-09
Y-91	5.43E-10	5.43E-10	5.43E-10	5.43E-10	5.43E-10	5.43E-10	5.43E-10	5.44E-10	5.44E-10	5.45E-10
Zr-95	5.90E-10	6.37E-10	6.84E-10	7.31E-10	7.78E-10	1.25E-09	1.72E-09	8.77E-09	1.58E-08	2.29E-08
Nb-95	5.24E-10	9.95E-10	1.46E-09	1.93E-09	2.40E-09	7.11E-09	1.18E-08	8.23E-08	1.53E-07	2.23E-07
Mo-99	6.86E-07	6.87E-07	6.87E-07	6.88E-07	6.88E-07	6.93E-07	6.98E-07	7.73E-07	8.48E-07	9.23E-07
Tc-99m	1.09E-06	1.09E-06	1.09E-06	1.09E-06	1.09E-06	1.09E-06	1.10E-06	1.16E-06	1.23E-06	1.30E-06
Ru-103	3.75E-10	3.78E-10	3.82E-10	3.85E-10	3.89E-10	4.23E-10	4.58E-10	9.75E-10	1.49E-09	2.01E-09
Ru-106	8.61E-10	1.63E-09	2.40E-09	3.17E-09	3.94E-09	1.16E-08	1.93E-08	1.35E-07	2.50E-07	3.66E-07
Sb-129	9.25E-11	9.35E-11	9.46E-11	9.56E-11	9.66E-11	1.07E-10	1.17E-10	2.74E-10	4.30E-10	5.86E-10
Te-129m	1.11E-08	1.11E-08	1.11E-08	1.11E-08	1.12E-08	1.12E-08	1.12E-08	1.14E-08	1.17E-08	1.19E-08
Te-129	2.57E-08	2.57E-08	2.57E-08	2.58E-08	2.58E-08	2.59E-08	2.60E-08	2.75E-08	2.90E-08	3.04E-08
Sb-131	2.57E-08	2.57E-08	2.57E-08	2.57E-08	2.57E-08	2.57E-08	2.57E-08	2.57E-08	2.57E-08	2.57E-08
Te-131m	1.31E-08	1.32E-08	1.32E-08	1.32E-08	1.32E-08	1.32E-08	1.32E-08	1.39E-08	1.45E-08	1.51E-08
Te-131	2.20E-08	2.21E-08	2.21E-08	2.21E-08	2.21E-08	2.24E-08	2.27E-08	2.70E-08	3.13E-08	3.56E-08
Te-132	1.75E-07	1.75E-07	1.76E-07	1.76E-07	1.76E-07	1.81E-07	1.85E-07	2.52E-07	3.18E-07	3.84E-07
Te-133m	1.74E-07	1.74E-07	1.74E-07	1.74E-07	1.74E-07	1.74E-07	1.74E-07	1.75E-07	1.76E-07	1.76E-07
Cs-134	2.26E-07	2.26E-07	2.26E-07	2.27E-07	2.27E-07	2.29E-07	2.32E-07	2.67E-07	3.02E-07	3.38E-07
Te-134	2.26E-07	2.26E-07	2.26E-07	2.26E-07	2.26E-07	2.26E-07	2.26E-07	2.26E-07	2.27E-07	2.28E-07
Cs-135	2.26E-07	2.26E-07	2.26E-07	2.26E-07	2.26E-07	2.26E-07	2.26E-07	2.26E-07	2.26E-07	2.26E-07
Cs-136	9.81E-08	9.90E-08	1.00E-07	1.01E-07	1.02E-07	1.11E-07	1.21E-07	2.63E-07	4.06E-07	5.49E-07
Cs-137	1.51E-07	1.51E-07	1.52E-07	1.52E-07	1.52E-07	1.52E-07	1.52E-07	1.57E-07	1.62E-07	1.67E-07
Cs-138	1.69E-10	3.37E-10	5.06E-10	6.74E-10	8.43E-10	2.53E-09	4.21E-09	2.95E-08	5.48E-08	8.01E-08
Ba-140	1.77E-09	1.82E-09	1.87E-09	1.92E-09	1.97E-09	2.49E-09	3.00E-09	1.07E-08	1.85E-08	2.62E-08
La-140	7.13E-09	1.23E-08	1.74E-08	2.26E-08	2.77E-08	7.93E-08	1.31E-07	9.04E-07	1.68E-06	2.45E-06
La-142	1.54E-09	1.66E-09	1.77E-09	1.89E-09	2.00E-09	3.15E-09	4.30E-09	2.16E-08	3.88E-08	5.61E-08
Ce-143	4.07E-11	8.13E-11	1.22E-10	1.63E-10	2.03E-10	6.10E-10	1.02E-09	7.12E-09	1.32E-08	1.93E-08
Pr-143	4.12E-10	4.53E-10	4.93E-10	5.34E-10	5.75E-10	9.82E-10	1.39E-09	7.49E-09	1.36E-08	1.97E-08
Ce-144	3.98E-10	4.25E-10	4.52E-10	4.78E-10	5.05E-10	7.72E-10	1.04E-09	5.05E-09	9.05E-09	1.31E-08
Pr-144	8.95E-10	9.04E-10	9.12E-10	9.21E-10	9.30E-10	1.02E-09	1.11E-09	2.44E-09	3.78E-09	5.11E-09
Np-239	1.43E-09	1.97E-09	2.52E-09	3.06E-09	3.61E-09	9.05E-09	1.45E-08	9.62E-08	1.78E-07	2.60E-07
NG TOT.	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.44E-03	1.46E-03	1.48E-03
I2 TOT.	1.83E-05	1.87E-05	1.90E-05	1.94E-05	1.97E-05	2.31E-05	2.65E-05	7.78E-05	1.29E-04	1.80E-04
PART. TOT.	3.39E-06	3.40E-06	3.42E-06	3.43E-06	3.44E-06	3.56E-06	3.68E-06	5.51E-06	7.34E-06	9.16E-06
TOTAL	1.43E-03	1.43E-03	1.43E-03	1.43E-03	1.43E-03	1.44E-03	1.44E-03	1.52E-03	1.59E-03	1.67E-03
I-131 DEQ.	9.56E-06	9.67E-06	9.78E-06	9.89E-06	1.00E-05	1.11E-05	1.22E-05	2.88E-05	4.55E-05	6.21E-05

ISOTOPE	10:00	10:15	10:30	10:45	11:00	11:15	11:30	11:45	12:00	12:15
Ar-41	7.13E-07	1.07E-06	1.44E-06	1.80E-06	2.16E-06	2.52E-06	2.26E-02	4.06E-02	5.02E-02	5.76E-02
Kr-85m	7.12E-05	1.05E-04	1.40E-04	1.74E-04	2.08E-04	2.42E-04	5.90E-02	1.12E-01	1.47E-01	1.78E-01
Kr-85	2.33E-06	2.34E-06	2.35E-06	2.36E-06	2.37E-06	2.38E-06	3.30E-03	6.53E-03	8.87E-03	1.12E-02
Kr-87	1.95E-05	2.52E-05	3.09E-05	3.66E-05	4.23E-05	4.80E-05	6.10E-02	1.05E-01	1.25E-01	1.37E-01
Kr-88	4.91E-05	5.76E-05	6.61E-05	7.46E-05	8.30E-05	9.15E-05	1.72E-03	3.17E-03	4.04E-03	4.79E-03
Xe-131m	5.20E-06	5.22E-06	5.24E-06	5.26E-06	5.29E-06	5.31E-06	2.89E-03	5.71E-03	7.76E-03	9.79E-03
Xe-133m	6.47E-07	6.92E-07	7.37E-07	7.83E-07	8.28E-07	8.73E-07	1.18E-02	2.33E-02	2.78E-02	3.16E-02
Xe-133	1.28E-03	1.29E-03	1.29E-03	1.30E-03	1.31E-03	1.31E-03	8.57E-01	1.69E+00	2.30E+00	2.90E+00
Xe-135	6.72E-05	7.33E-05	7.95E-05	8.57E-05	9.18E-05	9.80E-05	9.44E-02	1.83E-01	2.44E-01	3.03E-01
I-131	6.85E-05	1.10E-04	1.51E-04	1.92E-04	2.33E-04	2.74E-04	6.73E-02	1.33E-01	1.81E-01	2.28E-01
I-132	4.06E-05	6.68E-05	9.30E-05	1.19E-04	1.45E-04	1.72E-04	4.32E-02	7.92E-02	1.00E-01	1.17E-01
I-133	1.08E-05	1.38E-05	1.67E-05	1.97E-05	2.26E-05	2.56E-05	1.04E-01	2.05E-01	2.77E-01	3.47E-01
I-134	5.33E-05	8.86E-05	1.24E-04	1.59E-04	1.95E-04	2.30E-04	4.07E-02	6.61E-02	7.79E-02	7.67E-02
I-135	5.83E-05	9.63E-05	1.34E-04	1.72E-04	2.10E-04	2.48E-04	7.36E-02	1.42E-01	1.88E-01	2.32E-01
Cr-51	2.24E-08	2.75E-08	3.25E-08	3.76E-08	4.27E-08	4.77E-08	1.49E-08	1.49E-08	1.49E-08	1.49E-08
Mn-54	5.44E-09	6.59E-09	7.75E-09	8.91E-09	1.01E-08	1.12E-08	3.72E-09	3.72E-09	3.73E-09	3.73E-09
Fe-55	1.65E-08	1.92E-08	2.18E-08	2.45E-08	2.71E-08	2.98E-08	1.26E-08	1.26E-08	1.26E-08	1.26E-08
Fe-59	1.02E-08	1.09E-08	1.15E-08	1.22E-08	1.29E-08	1.36E-08	9.14E-09	9.14E-09	9.14E-09	9.14E-09
Co-58	2.81E-07	3.83E-07	4.86E-07	5.88E-07	6.90E-07	7.93E-07	1.29E-07	1.29E-07	1.29E-07	1.29E-07
Co-60	2.19E-08	2.57E-08	2.95E-08	3.34E-08	3.72E-08	4.10E-08	1.63E-08	1.63E-08	1.63E-08	1.63E-08
Rb-88	1.12E-06	1.85E-06	2.57E-06	3.30E-06	4.03E-06	4.76E-06	9.73E-04	1.07E-03	8.15E-04	5.75E-04
Sr-89	1.85E-08	2.84E-08	3.83E-08	4.82E-08	5.81E-08	6.80E-08	2.01E-02	3.97E-02	5.40E-02	6.83E-02
Sr-90	1.36E-09	2.28E-09	3.19E-09	4.11E-09	5.02E-09	5.94E-09	1.40E-03	2.77E-03	3.77E-03	4.77E-03
Y-90	7.64E-10	1.28E-09	1.79E-09	2.30E-09	2.82E-09	3.33E-09	1.45E-03	2.86E-03	3.88E-03	4.90E-03
Sr-91	2.35E-08	3.80E-08	5.25E-08	6.70E-08	8.14E-08	9.59E-08	2.25E-02	4.38E-02	5.86E-02	7.28E-02
Y-91m	7.42E-09	1.15E-08	1.56E-08	1.97E-08	2.38E-08	2.79E-08	5.05E-03	8.13E-03	9.00E-03	9.25E-03
Y-91	5.45E-10	5.47E-10	5.48E-10	5.50E-10	5.52E-10	5.53E-10	2.61E-02	5.17E-02	7.04E-02	8.89E-02
Zr-95	2.99E-08	4.97E-08	6.94E-08	8.92E-08	1.09E-07	1.29E-07	3.63E-02	7.19E-02	9.79E-02	1.24E-01
Nb-95	2.94E-07	4.91E-07	6.89E-07	8.86E-07	1.08E-06	1.28E-06	3.66E-02	7.25E-02	9.86E-02	1.25E-01
Mo-99	9.99E-07	1.21E-06	1.42E-06	1.63E-06	1.84E-06	2.05E-06	3.90E-02	7.70E-02	1.05E-01	1.32E-01
Tc-99m	1.36E-06	1.55E-06	1.73E-06	1.92E-06	2.10E-06	2.29E-06	2.95E-02	5.68E-02	7.51E-02	9.23E-02
Ru-103	2.53E-09	3.97E-09	5.42E-09	6.87E-09	8.32E-09	9.76E-09	3.55E-02	7.02E-02	9.55E-02	1.21E-01
Ru-106	4.81E-07	8.04E-07	1.13E-06	1.45E-06	1.77E-06	2.10E-06	1.00E-02	1.98E-02	2.70E-02	3.41E-02
Sb-129	7.42E-10	1.18E-09	1.62E-09	2.05E-09	2.49E-09	2.93E-09	5.88E-03	1.12E-02	1.46E-02	1.78E-02
Te-129m	1.22E-08	1.29E-08	1.36E-08	1.43E-08	1.50E-08	1.57E-08	1.86E-03	3.68E-03	5.00E-03	6.33E-03
Te-129	3.19E-08	3.61E-08	4.03E-08	4.45E-08	4.87E-08	5.29E-08	3.29E-03	5.59E-03	6.51E-03	7.05E-03
Sb-131	2.57E-08	2.57E-08	2.57E-08	2.57E-08	2.57E-08	2.57E-08	2.37E-03	3.14E-03	2.87E-03	2.43E-03
Te-131m	1.57E-08	1.74E-08	1.91E-08	2.08E-08	2.25E-08	2.42E-08	3.17E-03	6.24E-03	8.44E-03	1.06E-02
Te-131	3.99E-08	5.20E-08	6.41E-08	7.61E-08	8.82E-08	1.00E-07	2.31E-03	3.01E-03	2.69E-03	2.24E-03
Te-132	4.51E-07	6.36E-07	8.22E-07	1.01E-06	1.19E-06	1.38E-06	3.40E-02	6.71E-02	9.11E-02	1.15E-01
Te-133m	1.77E-07	1.79E-07	1.81E-07	1.82E-07	1.84E-07	1.86E-07	6.06E-03	9.94E-03	1.12E-02	1.17E-02
Cs-134	3.73E-07	4.72E-07	5.71E-07	6.69E-07	7.68E-07	8.67E-07	3.44E-03	6.80E-03	9.25E-03	1.17E-02
Te-134	2.28E-07	2.30E-07	2.32E-07	2.34E-07	2.36E-07	2.37E-07	9.83E-03	1.53E-02	1.63E-02	1.62E-02
Cs-135	2.26E-07	2.26E-07	2.26E-07	2.26E-07	2.26E-07	2.26E-07	2.31E-07	2.36E-07	2.40E-07	2.44E-07
Cs-136	6.91E-07	1.09E-06	1.49E-06	1.89E-06	2.29E-06	2.69E-06	1.14E-03	2.26E-03	3.07E-03	3.88E-03
Cs-137	1.71E-07	1.85E-07	1.98E-07	2.12E-07	2.25E-07	2.39E-07	1.88E-03	3.72E-03	5.06E-03	6.40E-03
Cs-138	1.05E-07	1.76E-07	2.47E-07	3.18E-07	3.88E-07	4.59E-07	7.35E-03	1.05E-02	1.04E-02	9.51E-03
Ba-140	3.39E-08	5.56E-08	7.72E-08	9.89E-08	1.21E-07	1.42E-07	4.00E-02	7.91E-02	1.08E-01	1.36E-01
La-140	3.22E-06	5.39E-06	7.55E-06	9.72E-06	1.19E-05	1.40E-05	3.92E-02	7.73E-02	1.05E-01	1.32E-01
La-142	7.33E-08	1.22E-07	1.70E-07	2.18E-07	2.67E-07	3.15E-07	2.61E-02	4.61E-02	5.60E-02	6.32E-02
Ce-143	2.54E-08	4.25E-08	5.96E-08	7.67E-08	9.38E-08	1.11E-07	3.18E-02	6.26E-02	8.48E-02	1.07E-01
Pr-143	2.58E-08	4.29E-08	6.00E-08	7.70E-08	9.41E-08	1.11E-07	3.20E-02	6.33E-02	8.61E-02	1.09E-01
Ce-144	1.71E-08	2.83E-08	3.95E-08	5.07E-08	6.19E-08	7.31E-08	2.58E-02	5.10E-02	6.94E-02	8.78E-02
Pr-144	6.45E-09	1.02E-08	1.39E-08	1.77E-08	2.14E-08	2.51E-08	1.36E-03	1.47E-03	1.10E-03	7.61E-04
Np-239	3.41E-07	5.70E-07	7.99E-07	1.03E-06	1.26E-06	1.48E-06	4.51E-01	8.90E-01	1.21E+00	1.52E+00
NG TOT.	1.50E-03	1.56E-03	1.62E-03	1.68E-03	1.74E-03	1.80E-03	1.11E+00	2.17E+00	2.91E+00	3.63E+00
I2 TOT.	2.32E-04	3.75E-04	5.19E-04	6.62E-04	8.06E-04	9.49E-04	3.29E-01	6.25E-01	8.20E-01	1.00E+00
PART. TOT.	1.10E-05	1.61E-05	2.12E-05	2.63E-05	3.14E-05	3.66E-05	9.94E-01	1.94E+00	2.60E+00	3.26E+00
TOTAL	1.74E-03	1.95E-03	2.16E-03	2.37E-03	2.58E-03	2.79E-03	2.44E+00	4.74E+00	6.33E+00	7.89E+00
I-131 DEQ.	7.87E-05	1.25E-04	1.72E-04	2.18E-04	2.65E-04	3.11E-04	1.04E-01	2.05E-01	2.77E-01	3.48E-01

ISOTOPE	12:30	12:45	13:00	13:15	13:30	13:45	14:00	14:15	14:30
Ar-41	6.20E-02	6.39E-02	6.41E-02	6.30E-02	6.10E-02	5.83E-02	5.53E-02	5.20E-02	4.87E-02
Kr-85m	2.03E-01	2.21E-01	2.34E-01	2.43E-01	2.49E-01	2.52E-01	2.52E-01	2.51E-01	2.49E-01
Kr-85	1.33E-02	1.50E-02	1.66E-02	1.79E-02	1.91E-02	2.01E-02	2.09E-02	2.17E-02	2.23E-02
Kr-87	1.42E-01	1.40E-01	1.35E-01	1.27E-01	1.18E-01	1.08E-01	9.85E-02	8.90E-02	7.99E-02
Kr-88	5.33E-03	5.67E-03	5.88E-03	5.98E-03	5.98E-03	5.91E-03	5.79E-03	5.64E-03	5.46E-03
Xe-131m	1.16E-02	1.31E-02	1.45E-02	1.56E-02	1.66E-02	1.75E-02	1.82E-02	1.88E-02	1.94E-02
Xe-133m	3.48E-02	3.76E-02	4.09E-02	4.49E-02	4.88E-02	5.21E-02	5.49E-02	5.73E-02	5.93E-02
Xe-133	3.42E+00	3.87E+00	4.27E+00	4.61E+00	4.90E+00	5.14E+00	5.36E+00	5.54E+00	5.69E+00
Xe-135	3.52E-01	3.91E-01	4.24E-01	4.49E-01	4.69E-01	4.84E-01	4.95E-01	5.03E-01	5.08E-01
I-131	2.70E-01	3.06E-01	3.38E-01	3.65E-01	3.88E-01	4.07E-01	4.24E-01	4.39E-01	4.51E-01
I-132	1.29E-01	1.35E-01	1.38E-01	1.39E-01	1.37E-01	1.33E-01	1.29E-01	1.24E-01	1.18E-01
I-133	4.08E-01	4.58E-01	5.02E-01	5.38E-01	5.67E-01	5.92E-01	6.12E-01	6.28E-01	6.41E-01
I-134	7.47E-02	6.95E-02	6.30E-02	5.59E-02	4.89E-02	4.22E-02	3.61E-02	3.07E-02	2.60E-02
I-135	2.67E-01	2.95E-01	3.17E-01	3.34E-01	3.46E-01	3.55E-01	3.60E-01	3.63E-01	3.64E-01
Cr-51	1.49E-08	1.49E-08	1.49E-08	1.49E-08	1.49E-08	1.49E-08	1.49E-08	1.50E-08	1.50E-08
Mn-54	3.73E-09	3.74E-09	3.74E-09	3.74E-09	3.74E-09	3.75E-09	3.75E-09	3.75E-09	3.75E-09
Fe-55	1.26E-08	1.26E-08	1.26E-08	1.26E-08	1.26E-08	1.26E-08	1.26E-08	1.27E-08	1.27E-08
Fe-59	9.14E-09	9.14E-09	9.14E-09	9.14E-09	9.14E-09	9.14E-09	9.14E-09	9.14E-09	9.14E-09
Co-58	1.29E-07	1.29E-07	1.29E-07	1.29E-07	1.29E-07	1.29E-07	1.29E-07	1.29E-07	1.29E-07
Co-60	1.64E-08	1.64E-08	1.64E-08	1.64E-08	1.64E-08	1.64E-08	1.64E-08	1.64E-08	1.64E-08
Rb-88	3.80E-04	2.40E-04	1.48E-04	8.90E-05	5.28E-05	3.10E-05	1.80E-05	1.04E-05	5.97E-06
Sr-89	8.10E-02	9.17E-02	1.01E-01	1.09E-01	1.16E-01	1.22E-01	1.28E-01	1.32E-01	1.36E-01
Sr-90	5.65E-03	6.40E-03	7.07E-03	7.64E-03	8.13E-03	8.55E-03	8.91E-03	9.22E-03	9.50E-03
Y-90	5.78E-03	6.54E-03	7.20E-03	7.76E-03	8.23E-03	8.63E-03	8.98E-03	9.27E-03	9.52E-03
Sr-91	8.47E-02	9.42E-02	1.02E-01	1.08E-01	1.13E-01	1.17E-01	1.20E-01	1.22E-01	1.23E-01
Y-91m	8.92E-03	8.21E-03	7.38E-03	6.48E-03	5.61E-03	4.80E-03	4.07E-03	3.42E-03	2.87E-03
Y-91	1.05E-01	1.19E-01	1.32E-01	1.42E-01	1.51E-01	1.59E-01	1.66E-01	1.72E-01	1.77E-01
Zr-95	1.47E-01	1.66E-01	1.83E-01	1.98E-01	2.11E-01	2.22E-01	2.31E-01	2.39E-01	2.46E-01
Nb-95	1.48E-01	1.67E-01	1.85E-01	1.99E-01	2.12E-01	2.23E-01	2.33E-01	2.41E-01	2.48E-01
Mo-99	1.56E-01	1.76E-01	1.94E-01	2.09E-01	2.22E-01	2.33E-01	2.42E-01	2.50E-01	2.56E-01
Tc-99m	1.06E-01	1.17E-01	1.26E-01	1.32E-01	1.36E-01	1.39E-01	1.41E-01	1.42E-01	1.42E-01
Ru-103	1.43E-01	1.62E-01	1.79E-01	1.93E-01	2.06E-01	2.16E-01	2.25E-01	2.33E-01	2.40E-01
Ru-106	4.04E-02	4.58E-02	5.06E-02	5.47E-02	5.82E-02	6.12E-02	6.38E-02	6.60E-02	6.80E-02
Sb-129	2.03E-02	2.21E-02	2.34E-02	2.43E-02	2.49E-02	2.52E-02	2.52E-02	2.51E-02	2.49E-02
Te-129m	7.50E-03	8.49E-03	9.38E-03	1.01E-02	1.08E-02	1.13E-02	1.18E-02	1.22E-02	1.26E-02
Te-129	7.15E-03	6.93E-03	6.56E-03	6.07E-03	5.53E-03	4.98E-03	4.44E-03	3.94E-03	3.47E-03
Sb-131	1.93E-03	1.47E-03	1.09E-03	7.87E-04	5.62E-04	3.96E-04	2.77E-04	1.92E-04	1.33E-04
Te-131m	1.25E-02	1.41E-02	1.55E-02	1.66E-02	1.76E-02	1.84E-02	1.90E-02	1.96E-02	2.01E-02
Te-131	1.74E-03	1.30E-03	9.43E-04	6.70E-04	4.69E-04	3.24E-04	2.22E-04	1.51E-04	1.02E-04
Te-132	1.36E-01	1.54E-01	1.69E-01	1.83E-01	1.94E-01	2.03E-01	2.11E-01	2.18E-01	2.24E-01
Te-133m	1.15E-02	1.08E-02	9.85E-03	8.81E-03	7.76E-03	6.76E-03	5.83E-03	5.00E-03	4.26E-03
Cs-134	1.39E-02	1.57E-02	1.73E-02	1.87E-02	1.99E-02	2.10E-02	2.19E-02	2.26E-02	2.33E-02
Te-134	1.51E-02	1.34E-02	1.16E-02	9.87E-03	8.25E-03	6.81E-03	5.58E-03	4.53E-03	3.67E-03
Cs-135	2.48E-07	2.51E-07	2.53E-07	2.55E-07	2.57E-07	2.59E-07	2.60E-07	2.62E-07	2.63E-07
Cs-136	4.60E-03	5.21E-03	5.75E-03	6.21E-03	6.60E-03	6.94E-03	7.23E-03	7.48E-03	7.70E-03
Cs-137	7.58E-03	8.59E-03	9.48E-03	1.02E-02	1.09E-02	1.15E-02	1.20E-02	1.24E-02	1.27E-02
Cs-138	8.16E-03	6.69E-03	5.35E-03	4.19E-03	3.23E-03	2.46E-03	1.85E-03	1.39E-03	1.04E-03
Ba-140	1.61E-01	1.82E-01	2.01E-01	2.17E-01	2.31E-01	2.43E-01	2.53E-01	2.62E-01	2.69E-01
La-140	1.56E-01	1.75E-01	1.93E-01	2.08E-01	2.20E-01	2.30E-01	2.39E-01	2.46E-01	2.53E-01
La-142	6.68E-02	6.75E-02	6.64E-02	6.40E-02	6.08E-02	5.70E-02	5.30E-02	4.89E-02	4.49E-02
Ce-143	1.26E-01	1.42E-01	1.56E-01	1.67E-01	1.77E-01	1.85E-01	1.92E-01	1.98E-01	2.03E-01
Pr-143	1.29E-01	1.46E-01	1.61E-01	1.74E-01	1.85E-01	1.94E-01	2.02E-01	2.09E-01	2.16E-01
Ce-144	1.04E-01	1.18E-01	1.30E-01	1.41E-01	1.50E-01	1.57E-01	1.64E-01	1.70E-01	1.75E-01
Pr-144	4.94E-04	3.07E-04	1.86E-04	1.10E-04	6.41E-05	3.69E-05	2.11E-05	1.20E-05	6.75E-06
Np-239	1.80E+00	2.03E+00	2.24E+00	2.41E+00	2.56E+00	2.68E+00	2.78E+00	2.87E+00	2.95E+00
NG TOT.	4.25E+00	4.76E+00	5.20E+00	5.57E+00	5.88E+00	6.14E+00	6.36E+00	6.54E+00	6.69E+00
I2 TOT.	1.15E+00	1.26E+00	1.36E+00	1.43E+00	1.49E+00	1.53E+00	1.56E+00	1.58E+00	1.60E+00
PART. TOT.	3.82E+00	4.29E+00	4.70E+00	5.05E+00	5.34E+00	5.58E+00	5.79E+00	5.96E+00	6.11E+00
TOTAL	9.22E+00	1.03E+01	1.13E+01	1.21E+01	1.27E+01	1.33E+01	1.37E+01	1.41E+01	1.44E+01
I-131 DEQ	4.09E-01	4.61E-01	5.06E-01	5.44E-01	5.76E-01	6.03E-01	6.26E-01	6.45E-01	6.60E-01

CHANNEL	MONITOR DESCRIPTION	UNITS	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15
R-3-11	CONTAINMENT AIR PARTICULATE	uCi/cc	3.39E-06	3.40E-06	3.42E-06	3.43E-06	3.44E-06	3.56E-06	3.68E-06	5.51E-06
R-3-12	CONTAINMENT RADIOACTIVE GAS	uCi/cc	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.44E-03
R-14	PLANT VENT GAS	cpm	7.68E+02	7.68E+02	7.68E+02	7.68E+02	7.68E+02	7.68E+02	7.68E+02	7.68E+02
R-3-15	CONDENSER AIR EJECTOR	cpm	4.30E+02	4.30E+02	4.30E+02	4.30E+02	4.30E+02	4.30E+02	4.30E+02	4.30E+02
R-3-17A	COMPONENT COOLING LIQUID	cpm	4.90E+02	4.90E+02	4.90E+02	4.90E+02	4.90E+02	4.90E+02	4.90E+02	4.90E+02
R-3-17B	COMPONENT COOLING LIQUID	cpm	2.82E+02	2.82E+02	2.82E+02	2.82E+02	2.82E+02	2.82E+02	2.82E+02	2.82E+02
R-3-18	MONITOR TANK EFFLUENT	cpm	9.10E+03	9.10E+03	9.10E+03	9.10E+03	9.10E+03	9.10E+03	9.10E+03	9.10E+03
R-3-19	STEAM GENERATOR SAMPLE LINE	cpm	3.10E+02	3.10E+02	3.10E+02	3.10E+02	3.10E+02	3.10E+02	3.10E+02	3.10E+02
R-3-20	REACTOR COOLANT LETDOWN LINE	mR/hr	9.10E+01	9.10E+01	9.10E+01	9.10E+01	9.10E+01	9.10E+01	9.10E+01	9.10E+01

SPINGS

Condenser Air Ejector SPING

RAD6417LR-3 LOW RANGE GAS	uCi/cc	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07
RAD6417MR-3 MID RANGE GAS	uCi/cc	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02
RAD6417HR-3 HIGH RANGE GAS	uCi/cc	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00
RAD6417ARE-3 SPING AREA GAMMA	mR/hr	1.00E-02	1.00E-02	1.00E-02	1.00E-02	1.00E-02	1.00E-02	1.00E-02	1.00E-02	1.00E-02

Spent Fuel Pit SPING

RAD6418LR-3 LOW RANGE GAS	uCi/cc	3.80E-07	3.80E-07	3.80E-07	3.80E-07	3.80E-07	3.80E-07	3.80E-07	3.80E-07	3.80E-07
RAD6418MR-3 MID RANGE GAS	uCi/cc	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02
RAD6418HR-3 HIGH RANGE GAS	uCi/cc	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00
RAD6418ARE-3 SPING AREA GAMMA	mR/hr	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01

Plant Vent SPING

RAD6304LR-3 LOW RANGE GAS	uCi/cc	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07
RAD6304MR-3 MID RANGE GAS	uCi/cc	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02
RAD6304HR-3 HIGH RANGE GAS	uCi/cc	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00
RAD6304ARE-3 SPING AREA GAMMA	mR/hr	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00

Main Steam Line ACC Monitor (DAM - 1)	uCi/cc	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00
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OSH = Off Scale High
OOS = Out Of Service

CHANNEL	MONITOR DESCRIPTION	UNITS	09:30	09:45	10:00	10:15	10:30	10:45	11:00	11:15
R-3-11	CONTAINMENT AIR PARTICULATE	uCi/cc	3.99E-06	5.82E-07	7.64E-08	3.40E-08	3.40E-08	3.40E-08	3.40E-08	3.40E-08
R-3-12	CONTAINMENT RADIOACTIVE GAS	uCi/cc	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03
R-14	PLANT VENT GAS	cpm	7.68E+02	7.68E+02	7.68E+02	7.68E+02	7.68E+02	7.68E+02	7.68E+02	7.68E+02
R-3-15	CONDENSER AIR EJECTOR	cpm	4.30E+02	4.30E+02	4.30E+02	4.30E+02	4.30E+02	4.30E+02	4.30E+02	4.30E+02
R-3-17A	COMPONENT COOLING LIQUID	cpm	4.90E+02	4.90E+02	4.90E+02	4.90E+02	4.90E+02	4.90E+02	4.90E+02	4.90E+02
R-3-17B	COMPONENT COOLING LIQUID	cpm	2.82E+02	2.82E+02	2.82E+02	2.82E+02	2.82E+02	2.82E+02	2.82E+02	2.82E+02
R-3-18	MONITOR TANK EFFLUENT	cpm	9.10E+03	9.10E+03	9.10E+03	9.10E+03	9.10E+03	9.10E+03	9.10E+03	9.10E+03
R-3-19	STEAM GENERATOR SAMPLE LINE	cpm	3.10E+02	3.10E+02	3.10E+02	3.10E+02	3.10E+02	3.10E+02	3.10E+02	3.10E+02
R-3-20	REACTOR COOLANT LETDOWN LINE	mR/hr	9.10E+01	9.10E+01	9.10E+01	9.10E+01	9.10E+01	9.10E+01	9.10E+01	9.10E+01

SPINGS

Condenser Air Ejector SPING

RAD6417LR-3 LOW RANGE GAS	uCi/cc	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07
RAD6417MR-3 MID RANGE GAS	uCi/cc	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02
RAD6417HR-3 HIGH RANGE GAS	uCi/cc	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00
RAD6417ARE-3 SPING AREA GAMMA	mR/hr	1.00E-02	1.00E-02	1.00E-02	1.00E-02	1.00E-02	1.00E-02	1.00E-02	1.00E-02	1.00E-02

Spent Fuel Pit SPING

RAD6418LR-3 LOW RANGE GAS	uCi/cc	3.80E-07	3.80E-07	3.80E-07	3.80E-07	3.80E-07	3.80E-07	3.80E-07	3.80E-07	3.80E-07
RAD6418MR-3 MID RANGE GAS	uCi/cc	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02
RAD6418HR-3 HIGH RANGE GAS	uCi/cc	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00
RAD6418ARE-3 SPING AREA GAMMA	mR/hr	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01

Plant Vent SPING

RAD6304LR-3 LOW RANGE GAS	uCi/cc	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07
RAD6304MR-3 MID RANGE GAS	uCi/cc	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02
RAD6304HR-3 HIGH RANGE GAS	uCi/cc	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00
RAD6304ARE-3 SPING AREA GAMMA	mR/hr	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00

Main Steam Line ACC Monitor (DAM - 1)	uCi/cc	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00
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OSH = Off Scale High

OOS = Out Of Service

CHANNEL	MONITOR DESCRIPTION	UNITS	11:30	11:45	12:00	12:15	12:30	12:45	13:00	13:15
R-3-11	CONTAINMENT AIR PARTICULATE	uCi/cc	3.40E-08	3.40E-08	3.40E-08	3.40E-08	3.40E-08	3.40E-08	3.40E-08	3.40E-08
R-3-12	CONTAINMENT RADIOACTIVE GAS	uCi/cc	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03
R-14	PLANT VENT GAS	cpm	7.68E+02	7.68E+02	7.68E+02	7.68E+02	7.68E+02	7.68E+02	7.68E+02	7.68E+02
R-3-15	CONDENSER AIR EJECTOR	cpm	4.30E+02	4.30E+02	4.30E+02	4.30E+02	4.30E+02	4.30E+02	4.30E+02	4.30E+02
R-3-17A	COMPONENT COOLING LIQUID	cpm	4.90E+02	4.90E+02	4.90E+02	4.90E+02	4.90E+02	4.90E+02	4.90E+02	4.90E+02
R-3-17B	COMPONENT COOLING LIQUID	cpm	2.82E+02	2.82E+02	2.82E+02	2.82E+02	2.82E+02	2.82E+02	2.82E+02	2.82E+02
R-3-18	MONITOR TANK EFFLUENT	cpm	9.10E+03	9.10E+03	9.10E+03	9.10E+03	9.10E+03	9.10E+03	9.10E+03	9.10E+03
R-3-19	STEAM GENERATOR SAMPLE LINE	cpm	3.10E+02	3.10E+02	3.10E+02	3.10E+02	3.10E+02	3.10E+02	3.10E+02	3.10E+02
R-3-20	REACTOR COOLANT LETDOWN LINE	mR/hr	9.10E+01	9.10E+01	9.10E+01	9.10E+01	9.10E+01	9.10E+01	9.10E+01	9.10E+01

SPINGS

Condenser Air Ejector SPING

RAD6417LR-3 LOW RANGE GAS	uCi/cc	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07
RAD6417MR-3 MID RANGE GAS	uCi/cc	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02
RAD6417HR-3 HIGH RANGE GAS	uCi/cc	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00
RAD6417ARE-3 SPING AREA GAMMA	mR/hr	1.00E-02	1.53E+01	2.05E+01	2.56E+01	3.00E+01	3.37E+01	3.68E+01	3.94E+01	

Spent Fuel Pit SPING

RAD6418LR-3 LOW RANGE GAS	uCi/cc	3.80E-07	3.80E-07	3.80E-07	3.80E-07	3.80E-07	3.80E-07	3.80E-07	3.80E-07	3.80E-07
RAD6418MR-3 MID RANGE GAS	uCi/cc	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02
RAD6418HR-3 HIGH RANGE GAS	uCi/cc	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00
RAD6418ARE-3 SPING AREA GAMMA	mR/hr	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01

Plant Vent SPING

RAD6304LR-3 LOW RANGE GAS	uCi/cc	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07
RAD6304MR-3 MID RANGE GAS	uCi/cc	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02
RAD6304HR-3 HIGH RANGE GAS	uCi/cc	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00
RAD6304ARE-3 SPING AREA GAMMA	mR/hr	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00

Main Steam Line ACC Monitor (DAM - 1)	uCi/cc	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00
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OSH = Off Scale High
OOS = Out Of Service



CHANNEL	MONITOR DESCRIPTION	UNITS	13:30	13:45	14:00	14:15	14:30	14:45	15:00
R-3-11	CONTAINMENT AIR PARTICULATE	uCi/cc	3.40E-08	3.40E-08	3.40E-08	3.40E-08	3.40E-08	3.40E-08	3.40E-08
R-3-12	CONTAINMENT RADIOACTIVE GAS	uCi/cc	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03
R-14	PLANT VENT GAS	cpm	7.68E+02	7.68E+02	7.68E+02	7.68E+02	7.68E+02	7.68E+02	7.68E+02
R-3-15	CONDENSER AIR EJECTOR	cpm	4.30E+02	4.30E+02	4.30E+02	4.30E+02	4.30E+02	4.30E+02	4.30E+02
R-3-17A	COMPONENT COOLING LIQUID	cpm	4.90E+02	4.90E+02	4.90E+02	4.90E+02	4.90E+02	4.90E+02	4.90E+02
R-3-17B	COMPONENT COOLING LIQUID	cpm	2.82E+02	2.82E+02	2.82E+02	2.82E+02	2.82E+02	2.82E+02	2.82E+02
R-3-18	MONITOR TANK EFFLUENT	cpm	9.10E+03	9.10E+03	9.10E+03	9.10E+03	9.10E+03	9.10E+03	9.10E+03
R-3-19	STEAM GENERATOR SAMPLE LINE	cpm	3.10E+02	3.10E+02	3.10E+02	3.10E+02	3.10E+02	3.10E+02	3.10E+02
R-3-20	REACTOR COOLANT LETDOWN LINE	mR/hr	9.10E+01	9.10E+01	9.10E+01	9.10E+01	9.10E+01	9.10E+01	9.10E+01

SPINGS

Condenser Air Ejector SPING

RAD6417LR-3 LOW RANGE GAS	uCi/cc	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07
RAD6417MR-3 MID RANGE GAS	uCi/cc	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02
RAD6417HR-3 HIGH RANGE GAS	uCi/cc	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00
RAD6417ARE-3 SPING AREA GAMMA	mR/hr	4.17E+01	4.37E+01	4.54E+01	4.68E+01	4.81E+01	4.91E+01	5.00E+01	

Spent Fuel Pit SPING

RAD6418LR-3 LOW RANGE GAS	uCi/cc	3.80E-07	3.80E-07	3.80E-07	3.80E-07	3.80E-07	3.80E-07	3.80E-07	3.80E-07
RAD6418MR-3 MID RANGE GAS	uCi/cc	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02
RAD6418HR-3 HIGH RANGE GAS	uCi/cc	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00
RAD6418ARE-3 SPING AREA GAMMA	mR/hr	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01

Plant Vent SPING

RAD6304LR-3 LOW RANGE GAS	uCi/cc	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07	3.70E-07
RAD6304MR-3 MID RANGE GAS	uCi/cc	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02
RAD6304HR-3 HIGH RANGE GAS	uCi/cc	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00
RAD6304ARE-3 SPING AREA GAMMA	mR/hr	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00

Main Steam Line ACC Monitor (DAM - 1)	uCi/cc	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00
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OSH = Off Scale High

OOS = Out Of Service

PTN 1993 EVALUATED EXERCISE ARM DATA

Channel	Monitor Description	Scale	Units	07:30	07:45	08:00	08:15	08:30	08:45
R-1	Personnel Air Lock - Unit 3	1.00E+07	mR/hr	21.4	21.4	21.5	21.5	21.5	22.0
R-2	Fuel Manipulator Crane - Unit 3	1.00E+07	mR/hr	64.0	64.0	64.1	64.1	64.1	64.6
R-3	Incore Detector Seal Table - Unit 3	1.00E+07	mR/hr	43.0	43.0	43.1	43.1	43.1	43.6
R-4	Personnel Air Lock - Unit 4	1.00E+07	mR/hr	10	10	10	10	10	10
R-5	Fuel Manipulator Crane - Unit 4	1.00E+07	mR/hr	15	15	15	15	15	15
R-6	Incore Detector Seal Table - Unit 4	1.00E+07	mR/hr	15	15	15	15	15	15
R-7	Spent Fuel Pool Transfer Canal - Unit 3	1.00E+07	mR/hr	5	5	5	5	5	5
R-8	Spent Fuel Pool Transfer Canal - Unit 4	1.00E+07	mR/hr	12	12	12	12	12	12
R-9	Tank and Pump Room	1.00E+07	mR/hr	0.53	0.53	0.53	0.53	0.53	0.53
R-10	Chemical Storage Area	1.00E+07	mR/hr	0.51	0.51	0.51	0.51	0.51	0.51
R-11	Cask Wash Area - Unit 4	1.00E+07	mR/hr	0.52	0.52	0.52	0.52	0.52	0.52
R-12	Cask Wash Area - Unit 3	1.00E+07	mR/hr	0.2	0.2	0.2	0.2	0.2	0.2
R-13	Sample Room - Unit 3	1.00E+07	mR/hr	0.35	0.35	0.35	0.35	0.35	0.35
R-14	Sample Room - Unit 4	1.00E+07	mR/hr	0.35	0.35	0.35	0.35	0.35	0.35
R-15	North End of North/South Corridor	1.00E+07	mR/hr	0.15	0.15	0.15	0.15	0.15	0.15
R-16	South End of North/South Corridor	1.00E+07	mR/hr	0.35	0.35	0.35	0.35	0.35	0.35
R-17	East End of East/West Corridor	1.00E+07	mR/hr	0.51	0.51	0.51	0.51	0.51	0.51
R-18	West End of East/West Corridor	1.00E+07	mR/hr	0.22	0.22	0.22	0.22	0.22	0.22
R-19	Spent Fuel Pool Exhaust Fan - Unit 3	1.00E+07	mR/hr	0.96	0.96	0.96	0.96	0.96	0.96
R-20	Control Room	1.00E+07	mR/hr	0.15	0.15	0.15	0.15	0.15	0.15
R-21	Spent Fuel Pool - North Wall Unit 3	1.00E+07	mR/hr	2.5	2.5	2.5	2.5	2.5	2.5
R-22	Spent Fuel Pool - South Wall Unit 4	1.00E+07	mR/hr	2.8	2.8	2.8	2.8	2.8	2.8
R-23	New Fuel Room - Unit 3	1.00E+07	mR/hr	1.5	1.5	1.5	1.5	1.5	1.5
R-24	New Fuel Room - Unit 4	1.00E+07	mR/hr	1	1	1	1	1	1
RI-6311A	Cont Hi Range Rad Mon (CHRRM)-A	1.00E+07	R/hr	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00
RI-6311B	Cont Hi Range Rad Mon (CHRRM)-B	1.00E+07	R/hr	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00

OSH = Off Scale High

OOS = Out Of Service

() = If RHR Cooling is in service

PTN 1993 EVALUATED EXERCISE ARM DATA

Channel	Monitor Description	Scale	Units	09:00	09:15	09:30	09:45	10:00	10:15
R-1	Personnel Air Lock - Unit 3	1.00E+07	mR/hr	22.4	28.7	35.0	41.3	47.6	65.3
R-2	Fuel Manipulator Crane - Unit 3	1.00E+07	mR/hr	65.0	71.3	77.6	83.9	90.2	107.9
R-3	Incore Detector Seal Table - Unit 3	1.00E+07	mR/hr	44.0	50.3	56.6	62.9	69.2	86.9
R-4	Personnel Air Lock - Unit 4	1.00E+07	mR/hr	10	10	10	10	10	10
R-5	Fuel Manipulator Crane - Unit 4	1.00E+07	mR/hr	15	15	15	15	15	15
R-6	Incore Detector Seal Table - Unit 4	1.00E+07	mR/hr	15	15	15	15	15	15
R-7	Spent Fuel Pool Transfer Canal - Unit 3	1.00E+07	mR/hr	5	5	5	5	5	5
R-8	Spent Fuel Pool Transfer Canal - Unit 4	1.00E+07	mR/hr	12	12	12	12	12	12
R-9	Tank and Pump Room	1.00E+07	mR/hr	0.53	0.53	0.53	0.53	0.53	0.53
R-10	Chemical Storage Area	1.00E+07	mR/hr	0.51	0.51	0.51	0.51	0.51	0.51
R-11	Cask Wash Area - Unit 4	1.00E+07	mR/hr	0.52	0.52	0.52	0.52	0.52	0.52
R-12	Cask Wash Area - Unit 3	1.00E+07	mR/hr	0.2	0.2	0.2	0.2	0.2	0.2
R-13	Sample Room - Unit 3	1.00E+07	mR/hr	0.35	0.35	0.35	0.35	0.35	0.35
R-14	Sample Room - Unit 4	1.00E+07	mR/hr	0.35	0.35	0.35	0.35	0.35	0.35
R-15	North End of North/South Corridor	1.00E+07	mR/hr	0.15	0.15	0.15	0.15	0.15	0.15
R-16	South End of North/South Corridor	1.00E+07	mR/hr	0.35	0.35	0.35	0.35	0.35	0.35
R-17	East End of East/West Corridor	1.00E+07	mR/hr	0.51	0.51	0.51	0.51	0.51	0.51
R-18	West End of East/West Corridor	1.00E+07	mR/hr	0.22	0.22	0.22	0.22	0.22	0.22
R-19	Spent Fuel Pool Exhaust Fan - Unit 3	1.00E+07	mR/hr	0.96	0.96	0.96	0.96	0.96	0.96
R-20	Control Room	1.00E+07	mR/hr	0.15	0.15	0.15	0.15	0.15	0.15
R-21	Spent Fuel Pool - North Wall Unit 3	1.00E+07	mR/hr	2.5	2.5	2.5	2.5	2.5	2.5
R-22	Spent Fuel Pool - South Wall Unit 4	1.00E+07	mR/hr	2.8	2.8	2.8	2.8	2.8	2.8
R-23	New Fuel Room - Unit 3	1.00E+07	mR/hr	1.5	1.5	1.5	1.5	1.5	1.5
R-24	New Fuel Room - Unit 4	1.00E+07	mR/hr	1	1	1	1	1	1
RI-6311A	Cont Hi Range Rad Mon (CHRRM)-A	1.00E+07	R/hr	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00
RI-6311B	Cont Hi Range Rad Mon (CHRRM)-B	1.00E+07	R/hr	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00

OSH = Off Scale High

OOS = Out Of Service

() = If RHR Cooling is in service



PTN 1993 EVALUATED EXERCISE ARM DATA

Channel	Monitor Description	Scale	Units	10:30	10:45	11:00	11:15	11:30	11:45
R-1	Personnel Air Lock - Unit 3	1.00E+07	mR/hr	83.0	100.6	118.3	136.0	3.09E+05	6.00E+05
R-2	Fuel Manipulator Crane - Unit 3	1.00E+07	mR/hr	125.6	143.2	160.9	178.6	3.09E+05	6.00E+05
R-3	Incore Detector Seal Table - Unit 3	1.00E+07	mR/hr	104.6	122.2	139.9	157.6	3.09E+05	6.00E+05
R-4	Personnel Air Lock - Unit 4	1.00E+07	mR/hr	10	10	10	10	10	10
R-5	Fuel Manipulator Crane - Unit 4	1.00E+07	mR/hr	15	15	15	15	15	15
R-6	Incore Detector Seal Table - Unit 4	1.00E+07	mR/hr	15	15	15	15	15	15
R-7	Spent Fuel Pool Transfer Canal - Unit 3	1.00E+07	mR/hr	5	5	5	5	5	5
R-8	Spent Fuel Pool Transfer Canal - Unit 4	1.00E+07	mR/hr	12	12	12	12	12	12
R-9	Tank and Pump Room	1.00E+07	mR/hr	0.53	0.53	0.53	0.53	0.53	0.53
R-10	Chemical Storage Area	1.00E+07	mR/hr	0.51	0.51	0.51	0.51	0.51	0.51
R-11	Cask Wash Area - Unit 4	1.00E+07	mR/hr	0.52	0.52	0.52	0.52	0.52	0.52
R-12	Cask Wash Area - Unit 3	1.00E+07	mR/hr	0.2	0.2	0.2	0.2	0.2	0.2
R-13	Sample Room - Unit 3	1.00E+07	mR/hr	0.35	0.35	0.35	0.35	0.35	0.35
R-14	Sample Room - Unit 4	1.00E+07	mR/hr	0.35	0.35	0.35	0.35	0.35	0.35
R-15	North End of North/South Corridor	1.00E+07	mR/hr	0.15	0.15	0.15	0.15	0.15	0.15
R-16	South End of North/South Corridor	1.00E+07	mR/hr	0.35	0.35	0.35	0.35	0.35	0.35
R-17	East End of East/West Corridor	1.00E+07	mR/hr	0.51	0.51	0.51	0.51	0.51	0.51
R-18	West End of East/West Corridor	1.00E+07	mR/hr	0.22	0.22	0.22	0.22	0.22	0.22
R-19	Spent Fuel Pool Exhaust Fan - Unit 3	1.00E+07	mR/hr	0.96	0.96	0.96	0.96	0.96	0.96
R-20	Control Room	1.00E+07	mR/hr	0.15	0.15	0.15	0.15	0.15	0.15
R-21	Spent Fuel Pool - North Wall Unit 3	1.00E+07	mR/hr	2.5	2.5	2.5	2.5	2.5	2.7
R-22	Spent Fuel Pool - South Wall Unit 4	1.00E+07	mR/hr	2.8	2.8	2.8	2.8	2.8	2.8
R-23	New Fuel Room - Unit 3	1.00E+07	mR/hr	1.5	1.5	1.5	1.5	1.5	1.5
R-24	New Fuel Room - Unit 4	1.00E+07	mR/hr	1	1	1	1	1	1
RI-6311A	Cont Hi Range Rad Mon (CHRRM)-A	1.00E+07	R/hr	1.00E+00	1.00E+00	1.00E+00	1.00E+00	3.09E+02	6.00E+02
RI-6311B	Cont Hi Range Rad Mon (CHRRM)-B	1.00E+07	R/hr	1.00E+00	1.00E+00	1.00E+00	1.00E+00	3.09E+02	6.00E+02

OSH = Off Scale High

OOS = Out Of Service

() = If RHR Cooling is in service



PTN 1993 EVALUATED EXERCISE ARM DATA

Channel	Monitor Description	Scale	Units	12:00	12:15	12:30	12:45	13:00	13:15
R-1	Personnel Air Lock - Unit 3	1.00E+07	mR/hr	8.04E+05	1.00E+06	1.17E+06	1.31E+06	1.44E+06	1.54E+06
R-2	Fuel Manipulator Crane - Unit 3	1.00E+07	mR/hr	8.04E+05	1.00E+06	1.17E+06	1.31E+06	1.44E+06	1.54E+06
R-3	Incore Detector Seal Table - Unit 3	1.00E+07	mR/hr	8.04E+05	1.00E+06	1.17E+06	1.31E+06	1.44E+06	1.54E+06
R-4	Personnel Air Lock - Unit 4	1.00E+07	mR/hr	10	10	10	10	10	10
R-5	Fuel Manipulator Crane - Unit 4	1.00E+07	mR/hr	15	15	15	15	15	15
R-6	Incore Detector Seal Table - Unit 4	1.00E+07	mR/hr	15	15	15	15	15	15
R-7	Spent Fuel Pool Transfer Canal - Unit 3	1.00E+07	mR/hr	5	5	5.9	6.6	7.2	7.7
R-8	Spent Fuel Pool Transfer Canal - Unit 4	1.00E+07	mR/hr	12	12	12	12	12	12
R-9	Tank and Pump Room	1.00E+07	mR/hr	0.53	0.53	0.53	0.53	0.53	0.53
R-10	Chemical Storage Area	1.00E+07	mR/hr	0.51	0.51	0.51	0.51	0.51	0.51
R-11	Cask Wash Area - Unit 4	1.00E+07	mR/hr	0.52	0.52	0.52	0.52	0.52	0.52
R-12	Cask Wash Area - Unit 3	1.00E+07	mR/hr	0.2	0.2	0.2	0.2	0.2	0.2
R-13	Sample Room - Unit 3	1.00E+07	mR/hr	0.35	0.35	0.35	0.35	0.35	0.35
R-14	Sample Room - Unit 4	1.00E+07	mR/hr	0.35	0.35	0.35	0.35	0.35	0.35
R-15	North End of North/South Corridor	1.00E+07	mR/hr	0.15	0.15	0.15	0.15	0.15	0.15
R-16	South End of North/South Corridor	1.00E+07	mR/hr	0.35	0.35	0.35	0.35	0.35	0.35
R-17	East End of East/West Corridor	1.00E+07	mR/hr	0.51	0.51	0.51	0.51	0.51	0.51
R-18	West End of East/West Corridor	1.00E+07	mR/hr	0.22	0.22	0.22	0.22	0.22	0.22
R-19	Spent Fuel Pool Exhaust Fan - Unit 3	1.00E+07	mR/hr	1	1.3	1.5	1.6	1.8	1.9
R-20	Control Room	1.00E+07	mR/hr	0.15	0.15	0.15	0.15	0.15	0.15
R-21	Spent Fuel Pool - North Wall Unit 3	1.00E+07	mR/hr	3.7	4.5	5.3	6	6.5	7
R-22	Spent Fuel Pool - South Wall Unit 4	1.00E+07	mR/hr	2.8	2.8	2.8	2.8	2.8	2.8
R-23	New Fuel Room - Unit 3	1.00E+07	mR/hr	1.5	1.5	1.5	1.5	1.5	1.5
R-24	New Fuel Room - Unit 4	1.00E+07	mR/hr	1	1	1	1	1	1
RI-6311A	Cont Hi Range Rad Mon (CHRRM)-A	1.00E+07	R/hr	8.04E+02	1.00E+03	1.17E+03	1.31E+03	1.44E+03	1.54E+03
RI-6311B	Cont Hi Range Rad Mon (CHRRM)-B	1.00E+07	R/hr	8.04E+02	1.00E+03	1.17E+03	1.31E+03	1.44E+03	1.54E+03

OSH = Off Scale High

OOS = Out Of Service

() = If RHR Cooling is in service

PTN 1993 EVALUATED EXERCISE ARM DATA

Channel	Monitor Description	Scale	Units	13:30	13:45	14:00	14:15	14:30	14:45
R-1	Personnel Air Lock - Unit 3	1.00E+07	mR/hr	1.63E+06	1.70E+06	1.76E+06	1.81E+06	1.85E+06	1.88E+06
R-2	Fuel Manipulator Crane - Unit 3	1.00E+07	mR/hr	1.63E+06	1.70E+06	1.76E+06	1.81E+06	1.85E+06	1.88E+06
R-3	Incore Detector Seal Table - Unit 3	1.00E+07	mR/hr	1.63E+06	1.70E+06	1.76E+06	1.81E+06	1.85E+06	1.88E+06
R-4	Personnel Air Lock - Unit 4	1.00E+07	mR/hr	10	10	10	10	10	10
R-5	Fuel Manipulator Crane - Unit 4	1.00E+07	mR/hr	15	15	15	15	15	15
R-6	Incore Detector Seal Table - Unit 4	1.00E+07	mR/hr	15	15	15	15	15	15
R-7	Spent Fuel Pool Transfer Canal - Unit 3	1.00E+07	mR/hr	8.2	8.5	8.8	9.1	9.3	9.4
R-8	Spent Fuel Pool Transfer Canal - Unit 4	1.00E+07	mR/hr	12	12	12	12	12	12
R-9	Tank and Pump Room	1.00E+07	mR/hr	0.53	0.53	0.53	0.53	0.53	0.53
R-10	Chemical Storage Area	1.00E+07	mR/hr	0.51	0.51	0.51	0.51	0.51	0.51
R-11	Cask Wash Area - Unit 4	1.00E+07	mR/hr	0.52	0.52	0.52	0.52	0.52	0.52
R-12	Cask Wash Area - Unit 3	1.00E+07	mR/hr	0.2	0.2	0.2	0.2	0.2	0.2
R-13	Sample Room - Unit 3	1.00E+07	mR/hr	0.35	0.35	0.35	0.35	0.35	0.35
R-14	Sample Room - Unit 4	1.00E+07	mR/hr	0.35	0.35	0.35	0.35	0.35	0.35
R-15	North End of North/South Corridor	1.00E+07	mR/hr	0.15	0.15	0.15	0.15	0.15	0.15
R-16	South End of North/South Corridor	1.00E+07	mR/hr	0.35	0.35	0.35	0.35	0.35	0.35
R-17	East End of East/West Corridor	1.00E+07	mR/hr	0.51	0.51	0.51	0.51	0.51	0.51
R-18	West End of East/West Corridor	1.00E+07	mR/hr	0.22	0.22	0.22	0.22	0.22	0.22
R-19	Spent Fuel Pool Exhaust Fan - Unit 3	1.00E+07	mR/hr	2	2.1	2.2	2.3	2.3	2.4
R-20	Control Room	1.00E+07	mR/hr	0.15	0.15	0.15	0.15	0.15	0.15
R-21	Spent Fuel Pool - North Wall Unit 3	1.00E+07	mR/hr	7.4	7.7	8	8.2	8.4	8.5
R-22	Spent Fuel Pool - South Wall Unit 4	1.00E+07	mR/hr	2.8	2.8	2.8	2.8	2.8	2.8
R-23	New Fuel Room - Unit 3	1.00E+07	mR/hr	1.5	1.5	1.5	1.5	1.5	1.5
R-24	New Fuel Room - Unit 4	1.00E+07	mR/hr	1	1	1	1	1	1
RI-6311A	Cont Hi Range Rad Mon (CHRRM)-A	1.00E+07	R/hr	1.63E+03	1.70E+03	1.76E+03	1.81E+03	1.85E+03	1.88E+03
RI-6311B	Cont Hi Range Rad Mon (CHRRM)-B	1.00E+07	R/hr	1.63E+03	1.70E+03	1.76E+03	1.81E+03	1.85E+03	1.88E+03

OSH = Off Scale High

OOS = Out Of Service

() = If RHR Cooling is in service

PTN 1993 EVALUATED EXERCISE ARM DATA

Channel	Monitor Description	Scale	Units	15:00
R-1	Personnel Air Lock - Unit 3	1.00E+07	mR/hr	1.91E+06
R-2	Fuel Manipulator Crane - Unit 3	1.00E+07	mR/hr	1.91E+06
R-3	Incore Detector Seal Table - Unit 3	1.00E+07	mR/hr	1.91E+06
R-4	Personnel Air Lock - Unit 4	1.00E+07	mR/hr	10
R-5	Fuel Manipulator Crane - Unit 4	1.00E+07	mR/hr	15
R-6	Incore Detector Seal Table - Unit 4	1.00E+07	mR/hr	15
R-7	Spent Fuel Pool Transfer Canal - Unit 3	1.00E+07	mR/hr	9.6
R-8	Spent Fuel Pool Transfer Canal - Unit 4	1.00E+07	mR/hr	12
R-9	Tank and Pump Room	1.00E+07	mR/hr	0.53
R-10	Chemical Storage Area	1.00E+07	mR/hr	0.51
R-11	Cask Wash Area - Unit 4	1.00E+07	mR/hr	0.52
R-12	Cask Wash Area - Unit 3	1.00E+07	mR/hr	0.2
R-13	Sample Room - Unit 3	1.00E+07	mR/hr	0.35
R-14	Sample Room - Unit 4	1.00E+07	mR/hr	0.35
R-15	North End of North/South Corridor	1.00E+07	mR/hr	0.15
R-16	South End of North/South Corridor	1.00E+07	mR/hr	0.35
R-17	East End of East/West Corridor	1.00E+07	mR/hr	0.51
R-18	West End of East/West Corridor	1.00E+07	mR/hr	0.22
R-19	Spent Fuel Pool Exhaust Fan - Unit 3	1.00E+07	mR/hr	2.4
R-20	Control Room	1.00E+07	mR/hr	0.15
R-21	Spent Fuel Pool - North Wall Unit 3	1.00E+07	mR/hr	8.7
R-22	Spent Fuel Pool - South Wall Unit 4	1.00E+07	mR/hr	2.8
R-23	New Fuel Room - Unit 3	1.00E+07	mR/hr	1.5
R-24	New Fuel Room - Unit 4	1.00E+07	mR/hr	1
RI-6311A	Cont Hi Range Rad Mon (CHRRM)-A	1.00E+07	R/hr	1.91E+03
RI-6311B	Cont Hi Range Rad Mon (CHRRM)-B	1.00E+07	R/hr	1.91E+03

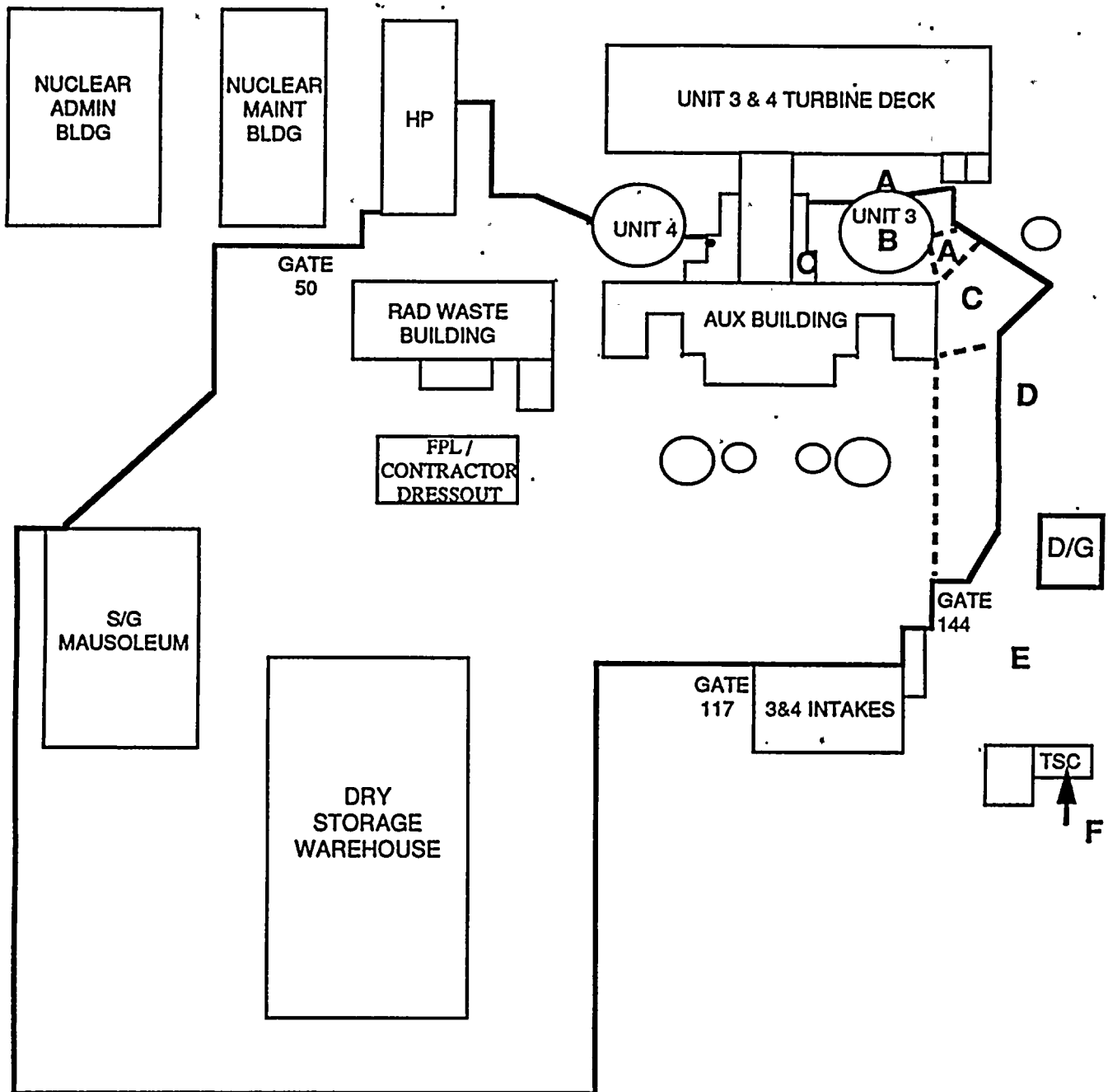
OSH = Off Scale High

OOS = Out Of Service

() = If RHR Cooling is in service



RADIATION CONTROLLED AREA



Back Yard

Sector	11:45 AM	12:00 PM	12:15 PM	12:30 PM	12:45 PM	1:00 PM	1:15 PM	1:30 PM	1:45 PM	2:00 PM	2:15 PM	2:30 PM	2:45 PM	3:00 PM	3:15 PM	3:30 PM
A (mR/Hr)	24.0	32.2	40.0	46.8	52.4	57.6	61.6	65.2	68.0	70.4	72.4	74.0	75.2	76.4	77.6	78.4
B (mR/Hr)	6.0	8.0	10.0	11.7	13.1	14.4	15.4	16.3	17.0	17.6	18.1	18.5	18.8	19.1	19.4	19.6
C (mR/Hr)	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
D (mR/Hr)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
E (mR/Hr)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
F (mR/Hr)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
F (cpm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



UNIT 3 TURBINE BUILDING
GROUND LEVEL (18' elev.)

B-3

C-3

START UP
TRANSFORMER

A-3

C-2

B-2

B-3

TRANSFORMER

C-3

AUXILIARY
TRANSFORMER

A-2

C-2

LOW PRESSURE
FEED WATER
HEATERS

B-1

A-1

B-1

C-1

CONDENSER
DISCHARGE
SUMP

"A"
CONDENSER

"B"
CONDENSER

GLAND STEAM
CONDENSER

AUX. FEED

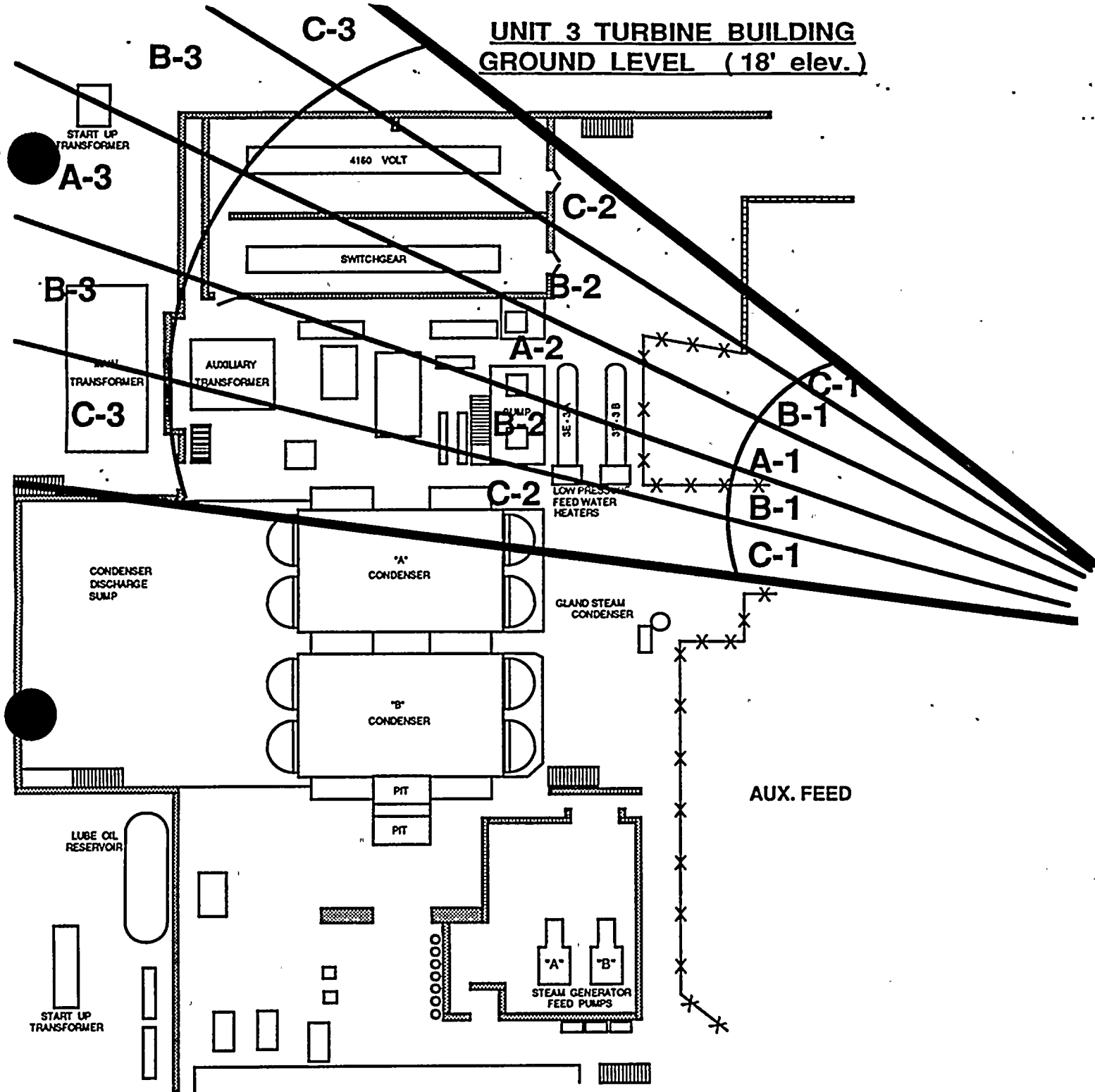
LUBE OIL
RESERVOIR

PIT

PIT

"A" "B"
STEAM GENERATOR
FEED PUMPS

START UP
TRANSFORMER





Turkey Point Evaluated Exercise - December 15, 1993

Unit #3 Turbine Deck - Ground Level

Air Sample Vol. = 1E5 cc

Filter Background = 12 cpm

Iodine Cartridge Background = 100 cpm

11:45 AM Sector	mR/Hr (C/W)	mR/Hr (O/W)	dpm/100cm2	Filter Counts cpm	Cart. Counts counts	Iodine uCi/cc	Gas mR/Hr
A-1	279.6	416.4	24282	629262	11016340	7.08E-04	1317.3
B-1	252.2	375.4	12141	314631	5508170	3.54E-04	658.7
C-1	33.4	47.0	2428	62926	1101634	7.08E-05	131.7
A-2	182.5	273.7	16188	419508	7344227	4.72E-04	878.2
B-2	164.2	246.3	8094	209754	3672113	2.36E-04	439.1
C-2	18.3	27.4	1619	41951	734423	4.72E-05	87.8
A-3	91.2	136.8	8094	139836	3672113	2.36E-04	439.1
B-3	82.1	123.2	4047	104877	1836057	1.18E-04	219.6
C-3	9.2	13.7	<1000	20975	367211	2.36E-05	43.9

12:00 PM Sector	mR/Hr (C/W)	mR/Hr (O/W)	dpm/100cm2	Filter Counts cpm	Cart. Counts counts	Iodine uCi/cc	Gas mR/Hr
A-1	281.6	418.4	48564	629262	11016340	7.08E-04	1646.6
B-1	254.3	377.4	24282	314631	5508170	3.54E-04	823.3
C-1	35.4	49.1	4856	62926	1101634	7.08E-05	164.7
A-2	182.5	273.7	32376	419508	7344227	4.72E-04	1097.7
B-2	164.2	246.3	16188	209754	3672113	2.36E-04	548.9
C-2	18.3	27.4	3238	41951	734423	4.72E-05	109.8
A-3	91.2	136.8	16188	139836	3672113	2.36E-04	548.9
B-3	82.1	123.2	8094	104877	1836057	1.18E-04	274.4
C-3	9.2	13.7	1619	20975	367211	2.36E-05	54.9

12:15 PM Sector	mR/Hr (C/W)	mR/Hr (O/W)	dpm/100cm2	Filter Counts cpm	Cart. Counts counts	Iodine uCi/cc	Gas mR/Hr
A-1	319.0	473.2	75996	688716	12057394	7.75E-04	1914.5
B-1	288.1	426.9	37998	344358	6028697	3.88E-04	957.3
C-1	40.9	56.3	7600	68872	1205739	7.75E-05	191.5
A-2	206.1	308.9	50664	459144	8038263	5.17E-04	1276.3
B-2	185.5	278.0	25332	229572	4019131	2.58E-04	638.2
C-2	20.7	31.0	5066	45914	803826	5.17E-05	127.6
A-3	103.1	154.5	25332	153048	4019131	2.58E-04	638.2
B-3	92.8	139.0	12666	114786	2009566	1.29E-04	319.1
C-3	10.4	15.5	2533	22957	401913	2.58E-05	63.8

Turkey Point Evaluated Exercise - December 15, 1993

Unit #3 Turbine Deck - Ground Level

Filter Background = 12 cpm

Air Sample Vol. = 1E5 cc

Iodine Cartridge Background = 100 cpm

12:30 PM Sector	mR/Hr (C/W)	mR/Hr (O/W)	dpm/100cm2	Filter Counts cpm	Cart. Counts counts	Iodine uCi/cc	Gas mR/Hr
A-1	299.1	442.5	101508	622428	10896700	7.00E-04	2110.0
B-1	270.4	399.4	50754	311214	5448350	3.50E-04	1055.0
C-1	40.4	54.8	10151	62243	1089670	7.00E-05	211.0
A-2	191.7	287.3	67672	414952	7264467	4.67E-04	1406.6
B-2	172.6	258.6	33836	207476	3632233	2.33E-04	703.3
C-2	19.3	28.8	6767	41495	726447	4.67E-05	140.7
A-3	95.9	143.7	33836	138317	3632233	2.33E-04	703.3
B-3	86.3	129.3	16918	103738	1816117	1.17E-04	351.7
C-3	9.6	14.4	3384	20748	363223	2.33E-05	70.3

12:45 PM Sector	mR/Hr (C/W)	mR/Hr (O/W)	dpm/100cm2	Filter Counts cpm	Cart. Counts counts	Iodine uCi/cc	Gas mR/Hr
A-1	242.9	358.1	121914	484902	8488852	5.46E-04	2231.3
B-1	219.9	323.6	60957	242451	4244426	2.73E-04	1115.6
C-1	36.1	47.6	12191	48490	848885	5.46E-05	223.1
A-2	153.3	230.1	81276	323268	5659235	3.64E-04	1487.5
B-2	138.0	207.1	40638	161634	2829617	1.82E-04	743.8
C-2	15.5	23.1	8128	32327	565923	3.64E-05	148.8
A-3	76.7	115.1	40638	107756	2829617	1.82E-04	743.8
B-3	69.0	103.6	20319	80817	1414809	9.09E-05	371.9
C-3	7.7	11.6	4064	16163	282962	1.82E-05	74.4

1:00 PM Sector	mR/Hr (C/W)	mR/Hr (O/W)	dpm/100cm2	Filter Counts cpm	Cart. Counts counts	Iodine uCi/cc	Gas mR/Hr
A-1	162.0	235.8	135030	304254	5325952	3.42E-04	2314.2
B-1	147.2	213.7	67515	152127	2662976	1.71E-04	1157.1
C-1	29.2	36.5	13503	30425	532595	3.42E-05	231.4
A-2	98.5	147.7	90020	202836	3550635	2.28E-04	1542.8
B-2	88.7	133.0	45010	101418	1775317	1.14E-04	771.4
C-2	10.0	14.9	9002	20284	355063	2.28E-05	154.3
A-3	49.3	73.9	45010	67612	1775317	1.14E-04	771.4
B-3	44.4	66.5	22505	50709	887659	5.71E-05	385.7
C-3	5.0	7.5	4501	10142	177532	1.14E-05	77.1



Turkey Point Evaluated Exercise - December 15, 1993

Unit #3 Turbine Deck - Ground Level

Filter Background = 12 cpm

Air Sample Vol. = .1E5 cc

Iodine Cartridge Background = 100 cpm

1:15 PM Sector	mR/Hr (C/W)	mR/Hr (O/W)	dpm/100cm2	Filter Counts cpm	Cart. Counts counts	Iodine uCi/cc	Gas mR/Hr
A-1	56.2	76.6	138648	82128	1436842	9.24E-05	624.3
B-1	52.1	70.5	69324	41064	718421	4.62E-05	312.1
C-1	19.5	21.5	13865	8213	143684	9.23E-06	62.4
A-2	27.4	41.0	92432	54752	957895	6.16E-05	416.2
B-2	24.6	36.9	46216	27376	478947	3.08E-05	208.1
C-2	2.9	4.2	9243	5475	95789	6.15E-06	41.6
A-3	13.7	20.5	46216	18251	478947	3.08E-05	208.1
B-3	12.3	18.4	23108	13688	239474	1.54E-05	104.0
C-3	1.4	2.1	4622	2738	47895	3.07E-06	20.8

1:30 PM Sector	mR/Hr (C/W)	mR/Hr (O/W)	dpm/100cm2	Filter Counts cpm	Cart. Counts counts	Iodine uCi/cc	Gas mR/Hr
A-1	16.3	16.3	138648	<12	100	<MDA	0.0
B-1	16.3	16.3	69324	<12	100	<MDA	0.0
C-1	16.3	16.3	13865	<12	100	<MDA	0.0
A-2	0.2	0.2	92432	<12	100	<MDA	0.0
B-2	0.2	0.2	46216	<12	100	<MDA	0.0
C-2	0.2	0.2	9243	<12	100	<MDA	0.0
A-3	<0.1	<0.1	46216	<12	100	<MDA	0.0
B-3	<0.1	<0.1	23108	<12	100	<MDA	0.0
C-3	<0.1	<0.1	4622	<12	100	<MDA	0.0

1:45 PM Sector	mR/Hr (C/W)	mR/Hr (O/W)	dpm/100cm2	Filter Counts cpm	Cart. Counts counts	Iodine uCi/cc	Gas mR/Hr
A-1	17.0	17.0	138648	<12	100	<MDA	0.0
B-1	17.0	17.0	69324	<12	100	<MDA	0.0
C-1	17.0	17.0	13865	<12	100	<MDA	0.0
A-2	0.2	0.2	92432	<12	100	<MDA	0.0
B-2	0.2	0.2	46216	<12	100	<MDA	0.0
C-2	0.2	0.2	9243	<12	100	<MDA	0.0
A-3	<0.1	<0.1	46216	<12	100	<MDA	0.0
B-3	<0.1	<0.1	23108	<12	100	<MDA	0.0
C-3	<0.1	<0.1	4622	<12	100	<MDA	0.0



Turkey Point Evaluated Exercise - December 15, 1993

Unit #3 Turbine Deck - Ground Level

Filter Background = 12 cpm

Air Sample Vol. = .1E5 cc

Iodine Cartridge Background = 100 cpm

2:00 PM Sector	mR/Hr (C/W)	mR/Hr (O/W)	dpm/100cm2	Filter Counts cpm	Cart. Counts counts	Iodine uCi/cc	Gas mR/Hr
A-1	17.6	17.6	138648	<12	100	<MDA	0.0
B-1	17.6	17.6	69324	<12	100	<MDA	0.0
C-1	17.6	17.6	13865	<12	100	<MDA	0.0
A-2	0.2	0.2	92432	<12	100	<MDA	0.0
B-2	0.2	0.2	46216	<12	100	<MDA	0.0
C-2	0.2	0.2	9243	<12	100	<MDA	0.0
A-3	<0.1	<0.1	46216	<12	100	<MDA	0.0
B-3	<0.1	<0.1	23108	<12	100	<MDA	0.0
C-3	<0.1	<0.1	4622	<12	100	<MDA	0.0

2:15 PM Sector	mR/Hr (C/W)	mR/Hr (O/W)	dpm/100cm2	Filter Counts cpm	Cart. Counts counts	Iodine uCi/cc	Gas mR/Hr
A-1	18.1	18.1	138648	<12	100	<MDA	0.0
B-1	18.1	18.1	69324	<12	100	<MDA	0.0
C-1	18.1	18.1	13865	<12	100	<MDA	0.0
A-2	0.2	0.2	92432	<12	100	<MDA	0.0
B-2	0.2	0.2	46216	<12	100	<MDA	0.0
C-2	0.2	0.2	9243	<12	100	<MDA	0.0
A-3	<0.1	<0.1	46216	<12	100	<MDA	0.0
B-3	<0.1	<0.1	23108	<12	100	<MDA	0.0
C-3	<0.1	<0.1	4622	<12	100	<MDA	0.0

2:30 PM Sector	mR/Hr (C/W)	mR/Hr (O/W)	dpm/100cm2	Filter Counts cpm	Cart. Counts counts	Iodine uCi/cc	Gas mR/Hr
A-1	18.5	18.5	138648	<12	100	<MDA	0.0
B-1	18.5	18.5	69324	<12	100	<MDA	0.0
C-1	18.5	18.5	13865	<12	100	<MDA	0.0
A-2	0.2	0.2	92432	<12	100	<MDA	0.0
B-2	0.2	0.2	46216	<12	100	<MDA	0.0
C-2	0.2	0.2	9243	<12	100	<MDA	0.0
A-3	<0.1	<0.1	46216	<12	100	<MDA	0.0
B-3	<0.1	<0.1	23108	<12	100	<MDA	0.0
C-3	<0.1	<0.1	4622	<12	100	<MDA	0.0

Turkey Point Evaluated Exercise - December 15, 1993

Unit #3 Turbine Deck - Ground Level

Filter Background = 12 cpm

Air Sample Vol. = .1E5 cc

Iodine Cartridge Background = 100 cpm

2:45 PM Sector	mR/Hr (C/W)	mR/Hr (O/W)	dpm/100cm2	Filter Counts cpm	Cart. Counts counts	Iodine uCi/cc	Gas mR/Hr
A-1	18.8	18.8	138648	<12	100	<MDA	0.0
B-1	18.8	18.8	69324	<12	100	<MDA	0.0
C-1	18.8	18.8	13865	<12	100	<MDA	0.0
A-2	0.2	0.2	92432	<12	100	<MDA	0.0
B-2	0.2	0.2	46216	<12	100	<MDA	0.0
C-2	0.2	0.2	9243	<12	100	<MDA	0.0
A-3	<0.1	<0.1	46216	<12	100	<MDA	0.0
B-3	<0.1	<0.1	23108	<12	100	<MDA	0.0
C-3	<0.1	<0.1	4622	<12	100	<MDA	0.0

3:00 PM Sector	mR/Hr (C/W)	mR/Hr (O/W)	dpm/100cm2	Filter Counts cpm	Cart. Counts counts	Iodine uCi/cc	Gas mR/Hr
A-1	19.1	19.1	138648	<12	100	<MDA	0.0
B-1	19.1	19.1	69324	<12	100	<MDA	0.0
C-1	19.1	19.1	13865	<12	100	<MDA	0.0
A-2	0.2	0.2	92432	<12	100	<MDA	0.0
B-2	0.2	0.2	46216	<12	100	<MDA	0.0
C-2	0.2	0.2	9243	<12	100	<MDA	0.0
A-3	<0.1	<0.1	46216	<12	100	<MDA	0.0
B-3	<0.1	<0.1	23108	<12	100	<MDA	0.0
C-3	<0.1	<0.1	4622	<12	100	<MDA	0.0

3:15 PM Sector	mR/Hr (C/W)	mR/Hr (O/W)	dpm/100cm2	Filter Counts cpm	Cart. Counts counts	Iodine uCi/cc	Gas mR/Hr
A-1	19.4	19.4	138648	<12	100	<MDA	0.0
B-1	19.4	19.4	69324	<12	100	<MDA	0.0
C-1	19.4	19.4	13865	<12	100	<MDA	0.0
A-2	0.2	0.2	92432	<12	100	<MDA	0.0
B-2	0.2	0.2	46216	<12	100	<MDA	0.0
C-2	0.2	0.2	9243	<12	100	<MDA	0.0
A-3	<0.1	<0.1	46216	<12	100	<MDA	0.0
B-3	<0.1	<0.1	23108	<12	100	<MDA	0.0
C-3	<0.1	<0.1	4622	<12	100	<MDA	0.0



Turkey Point Evaluated Exercise - December 15, 1993

Unit #3 Turbine Deck - Ground Level

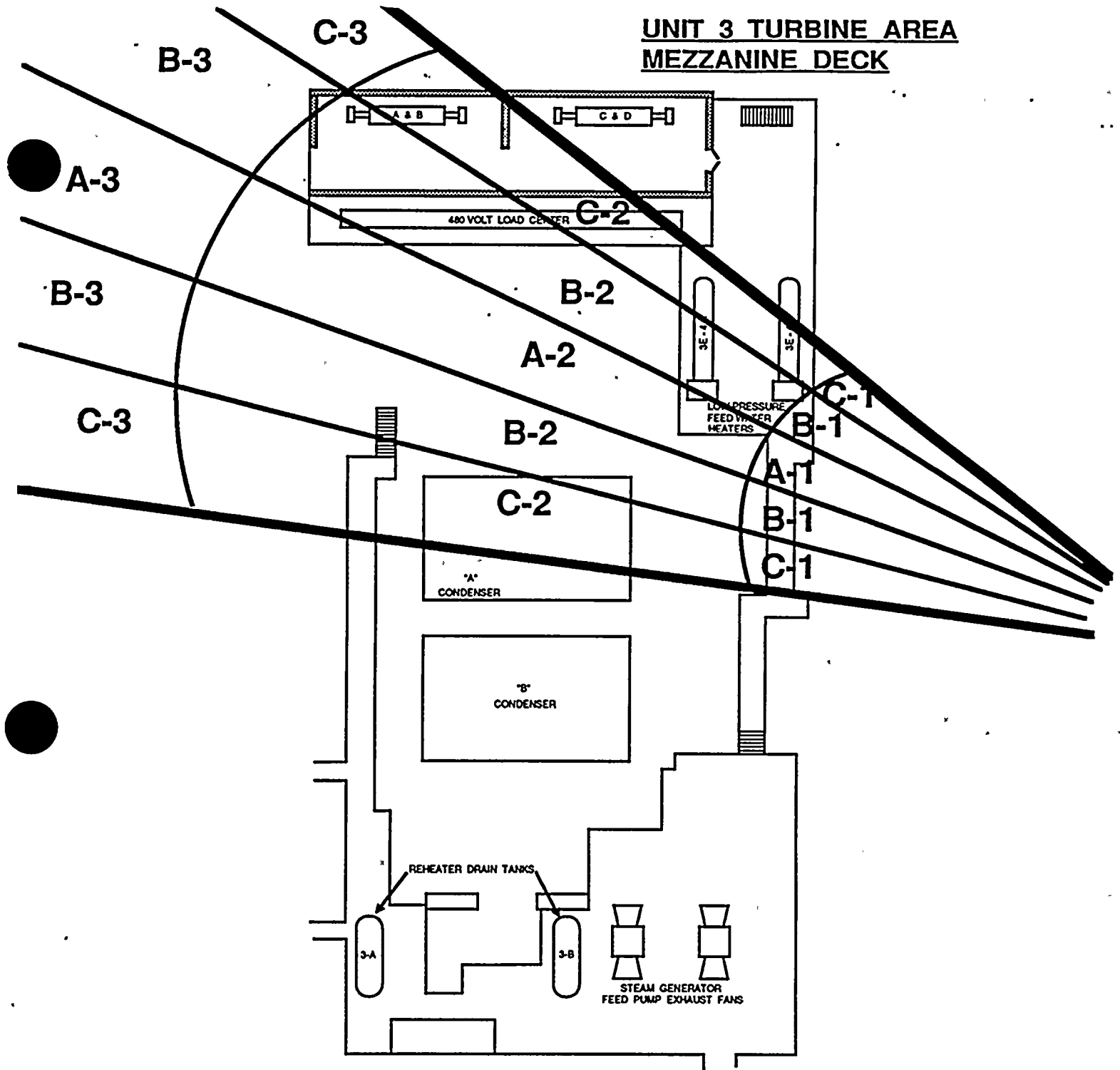
Filter Background = 12 cpm

Air Sample Vol. = .1E5 cc

Iodine Cartridge Background = 100 cpm

3:30 PM Sector	mR/Hr (C/W)	mR/Hr (O/W)	dpm/100cm2	Filter Counts cpm	Cart. Counts counts	Iodine uCi/cc	Gas mR/Hr
A-1	19.6	19.6	138648	<12	100	<MDA	0.0
B-1	19.6	19.6	69324	<12	100	<MDA	0.0
C-1	19.6	19.6	13865	<12	100	<MDA	0.0
A-2	0.2	0.2	92432	<12	100	<MDA	0.0
B-2	0.2	0.2	46216	<12	100	<MDA	0.0
C-2	0.2	0.2	9243	<12	100	<MDA	0.0
A-3	<0.1	<0.1	46216	<12	100	<MDA	0.0
B-3	<0.1	<0.1	23108	<12	100	<MDA	0.0
C-3	<0.1	<0.1	4622	<12	100	<MDA	0.0

UNIT 3 TURBINE AREA
MEZZANINE DECK



Turkey Point Evaluated Exercise - December 15, 1993

Unit #3 Turbine Deck - Mezz. Level

Filter Background = 12 cpm

Air Sample Vol. = .1E5 cc

Iodine Cartridge Background = 100 cpm

11:45 AM Sector	mR/Hr (C/W)	mR/Hr (O/W)	dpm/100cm2	Filter Counts cpm	Cart. Counts counts	Iodine uCi/cc	Gas mR/Hr
A-1	142.8	211.2	12141	314631	5507920	3.54E-04	658.7
B-1	129.1	190.7	6071	157316	2753960	1.77E-04	329.3
C-1	19.7	26.5	1214	31463	550792	3.54E-05	65.9
A-2	91.3	136.9	8094	209754	3671947	2.36E-04	439.1
B-2	82.1	123.2	4047	104877	1835973	1.18E-04	219.6
C-2	9.2	13.7	<1000	20975	367195	2.36E-05	43.9
A-3	45.6	68.4	4047	69918	1835973	1.18E-04	219.6
B-3	41.1	61.6	2024	52439	917987	5.90E-05	109.8
C-3	4.6	6.9	<1000	10488	183597	1.18E-05	22.0

12:00 PM Sector	mR/Hr (C/W)	mR/Hr (O/W)	dpm/100cm2	Filter Counts cpm	Cart. Counts counts	Iodine uCi/cc	Gas mR/Hr
A-1	144.8	213.2	24282	314631	5507920	3.54E-04	823.3
B-1	131.2	192.7	12141	157316	2753960	1.77E-04	411.7
C-1	21.7	28.6	2428	31463	550792	3.54E-05	82.3
A-2	91.3	136.9	16188	209754	3671947	2.36E-04	548.9
B-2	82.2	123.2	8094	104877	1835973	1.18E-04	274.4
C-2	9.2	13.8	1619	20975	367195	2.36E-05	54.9
A-3	45.6	68.4	8094	69918	1835973	1.18E-04	274.4
B-3	41.1	61.6	4047	52439	917987	5.90E-05	137.2
C-3	4.6	6.9	<1000	10488	183597	1.18E-05	27.4

12:15 PM Sector	mR/Hr (C/W)	mR/Hr (O/W)	dpm/100cm2	Filter Counts cpm	Cart. Counts counts	Iodine uCi/cc	Gas mR/Hr
A-1	164.5	241.6	37998	344358	6028447	3.88E-04	957.3
B-1	149.1	218.4	18999	172179	3014224	1.94E-04	478.6
C-1	25.5	33.2	3800	34436	602845	3.87E-05	95.7
A-2	103.1	154.5	25332	229572	4018965	2.58E-04	638.2
B-2	92.8	139.1	12666	114786	2009482	1.29E-04	319.1
C-2	10.4	15.5	2533	22957	401896	2.58E-05	63.8
A-3	51.6	77.3	12666	76524	2009482	1.29E-04	319.1
B-3	46.4	69.5	6333	57393	1004741	6.46E-05	159.5
C-3	5.2	7.8	1267	11479	200948	1.29E-05	31.9



Turkey Point Evaluated Exercise - December 15, 1993

Unit #3 Turbine Deck - Mezz. Level

Filter Background = 12 cpm

Air Sample Vol. = .1E5 cc

Iodine Cartridge Background = 100 cpm

12:30 PM Sector	mR/Hr (C/W)	mR/Hr (O/W)	dpm/100cm2	Filter Counts cpm	Cart. Counts counts	Iodine uCi/cc	Gas mR/Hr
A-1	155.4	227.1	50754	311214	5448100	3.50E-04	1055.0
B-1	141.0	205.6	25377	155607	2724050	1.75E-04	527.5
C-1	26.1	33.2	5075	31121	544810	3.50E-05	105.5
A-2	95.9	143.7	33836	207476	3632067	2.33E-04	703.3
B-2	86.3	129.4	16918	103738	1816033	1.17E-04	351.7
C-2	9.7	14.5	3384	20748	363207	2.33E-05	70.3
A-3	48.0	71.9	16918	69159	1816033	1.17E-04	351.7
B-3	43.2	64.7	8459	51869	908017	5.84E-05	175.8
C-3	4.8	7.2	1692	10374	181603	1.17E-05	35.2

12:45 PM Sector	mR/Hr (C/W)	mR/Hr (O/W)	dpm/100cm2	Filter Counts cpm	Cart. Counts counts	Iodine uCi/cc	Gas mR/Hr
A-1	128.0	185.6	60957	242451	4244176	2.73E-04	821.8
B-1	116.5	168.4	30479	121226	2122088	1.36E-04	410.9
C-1	24.6	30.4	6096	24245	424418	2.73E-05	82.2
A-2	76.7	115.1	40638	161634	2829451	1.82E-04	547.9
B-2	69.1	103.6	20319	80817	1414725	9.09E-05	273.9
C-2	7.8	11.6	4064	16163	282945	1.82E-05	54.8
A-3	38.4	57.6	20319	53878	1414725	9.09E-05	273.9
B-3	34.5	51.8	10160	40409	707363	4.55E-05	137.0
C-3	3.9	5.8	2032	8082	141473	9.09E-06	27.4

1:00 PM Sector	mR/Hr (C/W)	mR/Hr (O/W)	dpm/100cm2	Filter Counts cpm	Cart. Counts counts	Iodine uCi/cc	Gas mR/Hr
A-1	88.2	125.1	67515	152127	2662726	1.71E-04	515.6
B-1	80.8	114.0	33758	76064	1331363	8.56E-05	257.8
C-1	21.8	25.5	6752	15213	266273	1.71E-05	51.6
A-2	49.3	73.9	45010	101418	1775151	1.14E-04	343.7
B-2	44.4	66.6	22505	50709	887575	5.71E-05	171.9
C-2	5.1	7.5	4501	10142	177515	1.14E-05	34.4
A-3	24.7	37.0	22505	33806	887575	5.71E-05	171.9
B-3	22.2	33.3	11253	25355	443788	2.85E-05	85.9
C-3	2.5	3.8	2251	5071	88758	5.70E-06	17.2

Turkey Point Evaluated Exercise - December 15, 1993

Unit #3 Turbine Deck - Mezz. Level

Filter Background = 12 cpm

Air Sample Vol. = .1E5 cc

Iodine Cartridge Background = 100 cpm

1:15 PM Sector	mR/Hr (C/W)	mR/Hr (O/W)	dpm/100cm2	Filter Counts cpm	Cart. Counts counts	Iodine uCi/cc	Gas mR/Hr
A-1	35.8	46.0	69324	41064	718171	4.62E-05	139.1
B-1	33.8	42.9	34662	20532	359086	2.31E-05	69.5
C-1	17.4	18.5	6932	4106	71817	4.61E-06	13.9
A-2	13.8	20.6	46216	27376	478781	3.08E-05	92.7
B-2	12.4	18.5	23108	13688	239390	1.54E-05	46.4
C-2	1.5	2.2	4622	2738	47878	3.07E-06	9.3
A-3	6.9	10.3	23108	9125	239390	1.54E-05	46.4
B-3	6.2	9.3	11554	6844	119695	7.69E-06	23.2
C-3	0.8	1.1	2311	1369	23939	1.53E-06	4.6

1:30 PM Sector	mR/Hr (C/W)	mR/Hr (O/W)	dpm/100cm2	Filter Counts cpm	Cart. Counts counts	Iodine uCi/cc	Gas mR/Hr
A-1	16.3	16.3	69324	<12	100	<MDA	0.0
B-1	16.3	16.3	34662	<12	100	<MDA	0.0
C-1	16.3	16.3	6932	<12	100	<MDA	0.0
A-2	0.2	0.2	46216	<12	100	<MDA	0.0
B-2	0.2	0.2	23108	<12	100	<MDA	0.0
C-2	0.2	0.2	4622	<12	100	<MDA	0.0
A-3	<0.1	<0.1	23108	<12	100	<MDA	0.0
B-3	<0.1	<0.1	11554	<12	100	<MDA	0.0
C-3	<0.1	<0.1	2311	<12	100	<MDA	0.0

1:45 PM Sector	mR/Hr (C/W)	mR/Hr (O/W)	dpm/100cm2	Filter Counts cpm	Cart. Counts counts	Iodine uCi/cc	Gas mR/Hr
A-1	17.0	17.0	69324	<12	100	<MDA	0.0
B-1	17.0	17.0	34662	<12	100	<MDA	0.0
C-1	17.0	17.0	6932	<12	100	<MDA	0.0
A-2	0.2	0.2	46216	<12	100	<MDA	0.0
B-2	0.2	0.2	23108	<12	100	<MDA	0.0
C-2	0.2	0.2	4622	<12	100	<MDA	0.0
A-3	<0.1	<0.1	23108	<12	100	<MDA	0.0
B-3	<0.1	<0.1	11554	<12	100	<MDA	0.0
C-3	<0.1	<0.1	2311	<12	100	<MDA	0.0

Turkey Point Evaluated Exercise - December 15, 1993

Unit #3 Turbine Deck - Mezz. Level

Filter Background = 12 cpm

Air Sample Vol. = .1E5 cc

Iodine Cartridge Background = 100 cpm

2:00 PM Sector	mR/Hr (C/W)	mR/Hr (O/W)	dpm/100cm2	Filter Counts cpm	Cart. Counts counts	Iodine uCi/cc	Gas mR/Hr
A-1	17.6	17.6	69324	<12	100	<MDA	0.0
B-1	17.6	17.6	34662	<12	100	<MDA	0.0
C-1	17.6	17.6	6932	<12	100	<MDA	0.0
A-2	0.2	0.2	46216	<12	100	<MDA	0.0
B-2	0.2	0.2	23108	<12	100	<MDA	0.0
C-2	0.2	0.2	4622	<12	100	<MDA	0.0
A-3	<0.1	<0.1	23108	<12	100	<MDA	0.0
B-3	<0.1	<0.1	11554	<12	100	<MDA	0.0
C-3	<0.1	<0.1	2311	<12	100	<MDA	0.0

2:15 PM Sector	mR/Hr (C/W)	mR/Hr (O/W)	dpm/100cm2	Filter Counts cpm	Cart. Counts counts	Iodine uCi/cc	Gas mR/Hr
A-1	18.1	18.1	69324	<12	100	<MDA	0.0
B-1	18.1	18.1	34662	<12	100	<MDA	0.0
C-1	18.1	18.1	6932	<12	100	<MDA	0.0
A-2	0.2	0.2	46216	<12	100	<MDA	0.0
B-2	0.2	0.2	23108	<12	100	<MDA	0.0
C-2	0.2	0.2	4622	<12	100	<MDA	0.0
A-3	<0.1	<0.1	23108	<12	100	<MDA	0.0
B-3	<0.1	<0.1	11554	<12	100	<MDA	0.0
C-3	<0.1	<0.1	2311	<12	100	<MDA	0.0

2:30 PM Sector	mR/Hr (C/W)	mR/Hr (O/W)	dpm/100cm2	Filter Counts cpm	Cart. Counts counts	Iodine uCi/cc	Gas mR/Hr
A-1	18.5	18.5	69324	<12	100	<MDA	0.0
B-1	18.5	18.5	34662	<12	100	<MDA	0.0
C-1	18.5	18.5	6932	<12	100	<MDA	0.0
A-2	0.2	0.2	46216	<12	100	<MDA	0.0
B-2	0.2	0.2	23108	<12	100	<MDA	0.0
C-2	0.2	0.2	4622	<12	100	<MDA	0.0
A-3	<0.1	<0.1	23108	<12	100	<MDA	0.0
B-3	<0.1	<0.1	11554	<12	100	<MDA	0.0
C-3	<0.1	<0.1	2311	<12	100	<MDA	0.0

Turkey Point Evaluated Exercise - December 15, 1993

Unit #3 Turbine Deck - Mezz. Level

Filter Background = 12 cpm

Air Sample Vol. = .1E5 cc

Iodine Cartridge Background = 100 cpm

2:45 PM Sector	mR/Hr (C/W)	mR/Hr (O/W)	dpm/100cm2	Filter Counts cpm	Cart. Counts counts	Iodine uCi/cc	Gas mR/Hr
A-1	18.8	18.8	69324	<12	100	<MDA	0.0
B-1	18.8	18.8	34662	<12	100	<MDA	0.0
C-1	18.8	18.8	6932	<12	100	<MDA	0.0
A-2	0.2	0.2	46216	<12	100	<MDA	0.0
B-2	0.2	0.2	23108	<12	100	<MDA	0.0
C-2	0.2	0.2	4622	<12	100	<MDA	0.0
A-3	<0.1	<0.1	23108	<12	100	<MDA	0.0
B-3	<0.1	<0.1	11554	<12	100	<MDA	0.0
C-3	<0.1	<0.1	2311	<12	100	<MDA	0.0

3:00 PM Sector	mR/Hr (C/W)	mR/Hr (O/W)	dpm/100cm2	Filter Counts cpm	Cart. Counts counts	Iodine uCi/cc	Gas mR/Hr
A-1	19.1	19.1	69324	<12	100	<MDA	0.0
B-1	19.1	19.1	34662	<12	100	<MDA	0.0
C-1	19.1	19.1	6932	<12	100	<MDA	0.0
A-2	0.2	0.2	46216	<12	100	<MDA	0.0
B-2	0.2	0.2	23108	<12	100	<MDA	0.0
C-2	0.2	0.2	4622	<12	100	<MDA	0.0
A-3	<0.1	<0.1	23108	<12	100	<MDA	0.0
B-3	<0.1	<0.1	11554	<12	100	<MDA	0.0
C-3	<0.1	<0.1	2311	<12	100	<MDA	0.0

3:15 PM Sector	mR/Hr (C/W)	mR/Hr (O/W)	dpm/100cm2	Filter Counts cpm	Cart. Counts counts	Iodine uCi/cc	Gas mR/Hr
A-1	19.4	19.4	69324	<12	100	<MDA	0.0
B-1	19.4	19.4	34662	<12	100	<MDA	0.0
C-1	19.4	19.4	6932	<12	100	<MDA	0.0
A-2	0.2	0.2	46216	<12	100	<MDA	0.0
B-2	0.2	0.2	23108	<12	100	<MDA	0.0
C-2	0.2	0.2	4622	<12	100	<MDA	0.0
A-3	<0.1	<0.1	23108	<12	100	<MDA	0.0
B-3	<0.1	<0.1	11554	<12	100	<MDA	0.0
C-3	<0.1	<0.1	2311	<12	100	<MDA	0.0

Turkey Point Evaluated Exercise - December 15, 1993

Unit #3 Turbine Deck - Mezz. Level

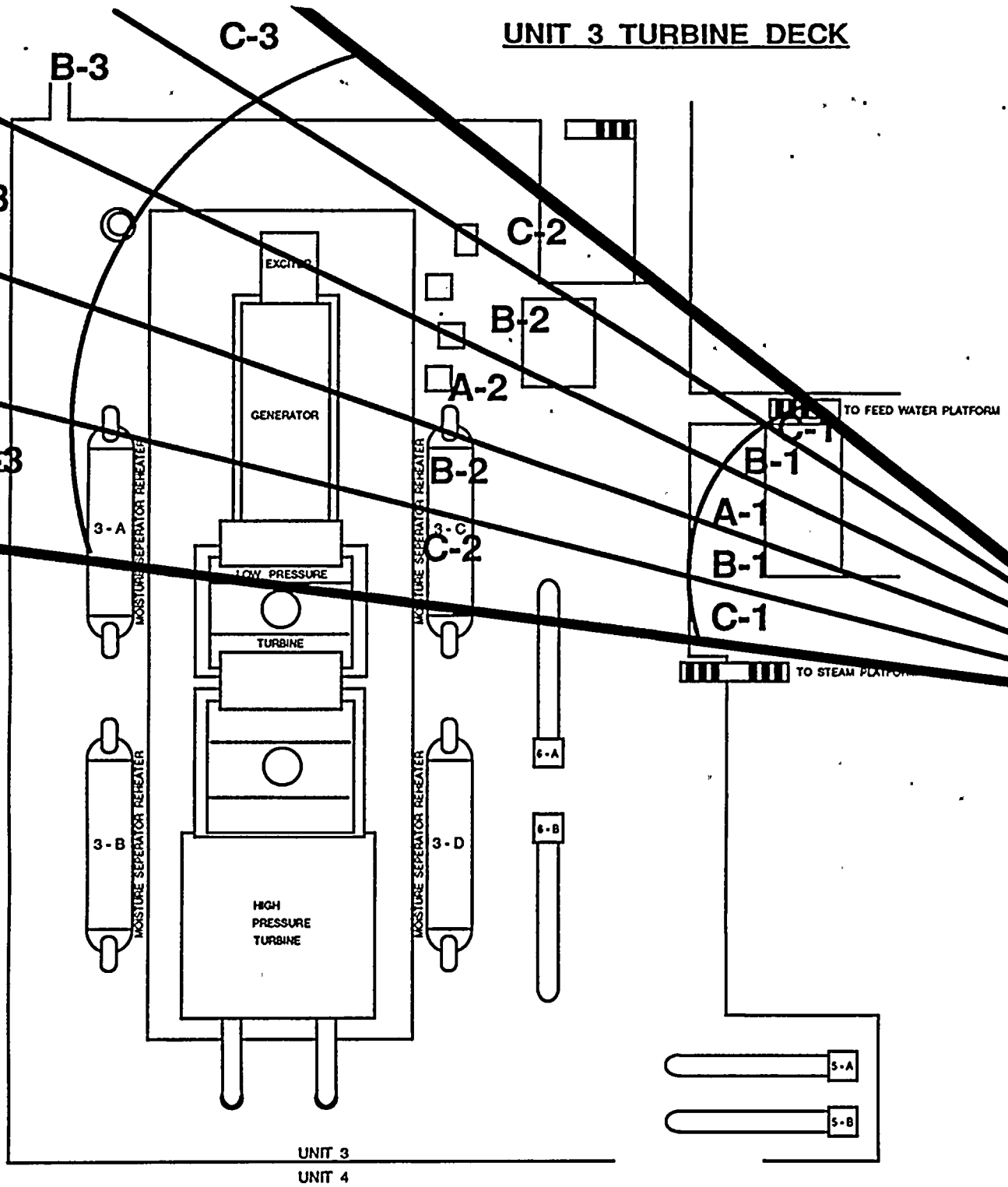
Filter Background = 12 cpm

Air Sample Vol. = 1E5 cc

Iodine Cartridge Background = 100 cpm

3:30 PM Sector	mR/Hr (C/W)	mR/Hr (O/W)	dpm/100cm2	Filter Counts cpm	Cart. Counts counts	Iodine uCi/cc	Gas mR/Hr
A-1	19.6	19.6	69324	<12	100	<MDA	0.0
B-1	19.6	19.6	34662	<12	100	<MDA	0.0
C-1	19.6	19.6	6932	<12	100	<MDA	0.0
A-2	0.2	0.2	46216	<12	100	<MDA	0.0
B-2	0.2	0.2	23108	<12	100	<MDA	0.0
C-2	0.2	0.2	4622	<12	100	<MDA	0.0
A-3	<0.1	<0.1	23108	<12	100	<MDA	0.0
B-3	<0.1	<0.1	11554	<12	100	<MDA	0.0
C-3	<0.1	<0.1	2311	<12	100	<MDA	0.0

UNIT 3 TURBINE DECK



Turkey Point Evaluated Exercise - December 15, 1993

Unit #3 Turbine Deck

Filter Background = 12 cpm

Air Sample Vol. = .1E5 cc

Iodine Cartridge Background = 100 cpm

11:45 AM Sector	mR/Hr (C/W)	mR/Hr (O/W)	dpm/100cm2	Filter Counts cpm	Cart. Counts counts	Iodine uCi/cc	Gas mR/Hr
A-1	33.4	47.0	2428	62926	1101184	7.08E-05	131.7
B-1	30.6	42.9	1214	31463	550592	3.54E-05	65.9
C-1	8.7	10.1	<1000	6293	110118	7.07E-06	13.2
A-2	18.3	27.4	1619	41951	734123	4.72E-05	87.8
B-2	16.5	24.7	<1000	20975	367061	2.36E-05	43.9
C-2	1.9	2.8	<1000	4195	73412	4.71E-06	8.8
A-3	9.2	13.7	<1000	13984	367061	2.36E-05	43.9
B-3	8.2	12.3	<1000	10488	183531	1.18E-05	22.0
C-3	0.9	1.4	<1000	2098	36706	2.35E-06	4.4

12:00 PM Sector	mR/Hr (C/W)	mR/Hr (O/W)	dpm/100cm2	Filter Counts cpm	Cart. Counts counts	Iodine uCi/cc	Gas mR/Hr
A-1	35.4	49.1	4856	62926	1101184	7.08E-05	164.7
B-1	32.7	45.0	2428	31463	550592	3.54E-05	82.3
C-1	10.8	12.1	<1000	6293	110118	7.07E-06	16.5
A-2	18.3	27.4	3238	41951	734123	4.72E-05	109.8
B-2	16.5	24.7	1619	20975	367061	2.36E-05	54.9
C-2	1.9	2.8	<1000	4195	73412	4.71E-06	11.0
A-3	9.2	13.7	1619	13984	367061	2.36E-05	54.9
B-3	8.2	12.4	<1000	10488	183531	1.18E-05	27.4
C-3	1.0	1.4	<1000	2098	36706	2.35E-06	5.5

12:15 PM Sector	mR/Hr (C/W)	mR/Hr (O/W)	dpm/100cm2	Filter Counts cpm	Cart. Counts counts	Iodine uCi/cc	Gas mR/Hr
A-1	40.9	56.3	7600	68872	1205289	7.75E-05	191.5
B-1	37.8	51.7	3800	34436	602645	3.87E-05	95.7
C-1	13.1	14.6	<1000	6887	120529	7.74E-06	19.1
A-2	20.7	31.0	5066	45914	803526	5.16E-05	127.6
B-2	18.6	27.9	2533	22957	401763	2.58E-05	63.8
C-2	2.2	3.2	<1000	4591	80353	5.16E-06	12.8
A-3	10.4	15.5	2533	15305	401763	2.58E-05	63.8
B-3	9.3	13.9	1267	11479	200882	1.29E-05	31.9
C-3	1.1	1.6	<1000	2296	40176	2.58E-06	6.4



Turkey Point Evaluated Exercise - December 15, 1993

Unit #3 Turbine Deck

Filter Background = 12 cpm

Air Sample Vol. = .1E5 cc

Iodine Cartridge Background = 100 cpm

12:30 PM Sector	mR/Hr (C/W)	mR/Hr (O/W)	dpm/100cm2	Filter Counts cpm	Cart. Counts counts	Iodine uCi/cc	Gas mR/Hr
A-1	40.4	54.8	10151	62243	1089220	7.00E-05	211.0
B-1	37.6	50.5	5075	31121	544610	3.50E-05	105.5
C-1	14.6	16.0	1015	6224	108922	7.00E-06	21.1
A-2	19.3	28.8	6767	41495	726147	4.67E-05	140.7
B-2	17.4	26.0	3384	20748	363073	2.33E-05	70.3
C-2	2.0	3.0	<1000	4150	72615	4.66E-06	14.1
A-3	9.6	14.4	3384	13832	363073	2.33E-05	70.3
B-3	8.7	13.0	1692	10374	181537	1.17E-05	35.2
C-3	1.0	1.5	<1000	2075	36307	2.33E-06	7.0

12:45 PM Sector	mR/Hr (C/W)	mR/Hr (O/W)	dpm/100cm2	Filter Counts cpm	Cart. Counts counts	Iodine uCi/cc	Gas mR/Hr
A-1	36.1	47.6	12191	48490	848435	5.45E-05	164.3
B-1	33.8	44.2	6096	24245	424218	2.73E-05	82.2
C-1	15.4	16.6	1219	4849	84844	5.45E-06	16.4
A-2	15.5	23.1	8128	32327	565623	3.64E-05	109.6
B-2	13.9	20.8	4064	16163	282812	1.82E-05	54.8
C-2	1.7	2.4	<1000	3233	56562	3.63E-06	11.0
A-3	7.7	11.6	4064	10776	282812	1.82E-05	54.8
B-3	7.0	10.4	2032	8082	141406	9.08E-06	27.4
C-3	0.8	1.2	<1000	1616	28281	1.81E-06	5.5

1:00 PM Sector	mR/Hr (C/W)	mR/Hr (O/W)	dpm/100cm2	Filter Counts cpm	Cart. Counts counts	Iodine uCi/cc	Gas mR/Hr
A-1	29.2	36.5	13503	30425	532145	3.42E-05	103.1
B-1	27.7	34.3	6752	15213	266073	1.71E-05	51.5
C-1	15.9	16.6	1350	3043	53215	3.41E-06	10.3
A-2	10.0	14.9	9002	20284	354763	2.28E-05	68.7
B-2	9.0	13.4	4501	10142	177382	1.14E-05	34.4
C-2	1.1	1.6	<1000	2028	35476	2.27E-06	6.9
A-3	5.0	7.5	4501	6761	177382	1.14E-05	34.4
B-3	4.5	6.7	2251	5071	88691	5.70E-06	17.2
C-3	0.6	0.8	<1000	1014	17738	1.13E-06	0.0



Turkey Point Evaluated Exercise - December 15, 1993

Unit #3 Turbine Deck

Filter Background = 12 cpm

Air Sample Vol. = .1E5 cc

Iodine Cartridge Background = 100 cpm

1:15 PM Sector	mR/Hr (C/W)	mR/Hr (O/W)	dpm/100cm2	Filter Counts cpm	Cart. Counts counts	Iodine uCi/cc	Gas mR/Hr
A-1	19.5	21.5	13865	8213	143234	9.20E-06	27.7
B-1	19.1	20.9	6932	4106	71617	4.60E-06	13.9
C-1	15.8	16.0	1386	821	14323	9.14E-07	0.0
A-2	2.9	4.2	9243	5475	95489	6.13E-06	18.5
B-2	2.6	3.8	4622	2738	47745	3.06E-06	9.2
C-2	0.4	0.6	<1000	548	9549	6.07E-07	0.0
A-3	1.4	2.1	4622	1825	47745	3.06E-06	9.2
B-3	1.3	1.9	2311	1369	23872	1.53E-06	4.6
C-3	0.2	0.3	<1000	274	4774	3.01E-07	0.0

1:30 PM Sector	mR/Hr (C/W)	mR/Hr (O/W)	dpm/100cm2	Filter Counts cpm	Cart. Counts counts	Iodine uCi/cc	Gas mR/Hr
A-1	16.3	16.3	13865	<12	100	<MDA	0.0
B-1	16.3	16.3	6932	<12	100	<MDA	0.0
C-1	16.3	16.3	1386	<12	100	<MDA	0.0
A-2	0.2	0.2	9243	<12	100	<MDA	0.0
B-2	0.2	0.2	4622	<12	100	<MDA	0.0
C-2	0.2	0.2	<1000	<12	100	<MDA	0.0
A-3	<0.1	<0.1	4622	<12	100	<MDA	0.0
B-3	<0.1	<0.1	2311	<12	100	<MDA	0.0
C-3	<0.1	<0.1	<1000	<12	100	<MDA	0.0

1:45 PM Sector	mR/Hr (C/W)	mR/Hr (O/W)	dpm/100cm2	Filter Counts cpm	Cart. Counts counts	Iodine uCi/cc	Gas mR/Hr
A-1	17.0	17.0	13865	<12	100	<MDA	0.0
B-1	17.0	17.0	6932	<12	100	<MDA	0.0
C-1	17.0	17.0	1386	<12	100	<MDA	0.0
A-2	0.2	0.2	9243	<12	100	<MDA	0.0
B-2	0.2	0.2	4622	<12	100	<MDA	0.0
C-2	0.2	0.2	<1000	<12	100	<MDA	0.0
A-3	<0.1	<0.1	4622	<12	100	<MDA	0.0
B-3	<0.1	<0.1	2311	<12	100	<MDA	0.0
C-3	<0.1	<0.1	<1000	<12	100	<MDA	0.0



Turkey Point Evaluated Exercise - December 15, 1993

Unit #3 Turbine Deck

Filter Background = 12 cpm

Air Sample Vol. = .1E5 cc

Iodine Cartridge Background = 100 cpm

2:00 PM Sector	mR/Hr (C/W)	mR/Hr (O/W)	dpm/100cm2	Filter Counts cpm	Cart. Counts counts	Iodine uCi/cc	Gas mR/Hr
A-1	17.6	17.6	13865	<12	100	<MDA	0.0
B-1	17.6	17.6	6932	<12	100	<MDA	0.0
C-1	17.6	17.6	1386	<12	100	<MDA	0.0
A-2	0.2	0.2	9243	<12	100	<MDA	0.0
B-2	0.2	0.2	4622	<12	100	<MDA	0.0
C-2	0.2	0.2	<1000	<12	100	<MDA	0.0
A-3	<0.1	<0.1	4622	<12	100	<MDA	0.0
B-3	<0.1	<0.1	2311	<12	100	<MDA	0.0
C-3	<0.1	<0.1	<1000	<12	100	<MDA	0.0

2:15 PM Sector	mR/Hr (C/W)	mR/Hr (O/W)	dpm/100cm2	Filter Counts cpm	Cart. Counts counts	Iodine uCi/cc	Gas mR/Hr
A-1	18.1	18.1	13865	<12	100	<MDA	0.0
B-1	18.1	18.1	6932	<12	100	<MDA	0.0
C-1	18.1	18.1	1386	<12	100	<MDA	0.0
A-2	0.2	0.2	9243	<12	100	<MDA	0.0
B-2	0.2	0.2	4622	<12	100	<MDA	0.0
C-2	0.2	0.2	<1000	<12	100	<MDA	0.0
A-3	<0.1	<0.1	4622	<12	100	<MDA	0.0
B-3	<0.1	<0.1	2311	<12	100	<MDA	0.0
C-3	<0.1	<0.1	<1000	<12	100	<MDA	0.0

2:30 PM Sector	mR/Hr (C/W)	mR/Hr (O/W)	dpm/100cm2	Filter Counts cpm	Cart. Counts counts	Iodine uCi/cc	Gas mR/Hr
A-1	18.5	18.5	13865	<12	100	<MDA	0.0
B-1	18.5	18.5	6932	<12	100	<MDA	0.0
C-1	18.5	18.5	1386	<12	100	<MDA	0.0
A-2	0.2	0.2	9243	<12	100	<MDA	0.0
B-2	0.2	0.2	4622	<12	100	<MDA	0.0
C-2	0.2	0.2	<1000	<12	100	<MDA	0.0
A-3	<0.1	<0.1	4622	<12	100	<MDA	0.0
B-3	<0.1	<0.1	2311	<12	100	<MDA	0.0
C-3	<0.1	<0.1	<1000	<12	100	<MDA	0.0

Turkey Point Evaluated Exercise - December 15, 1993

Unit #3 Turbine Deck

Filter Background = 12 cpm

Air Sample Vol. = 1E5 cc

Iodine Cartridge Background = 100 cpm

2:45 PM Sector	mR/Hr (C/W)	mR/Hr (O/W)	dpm/100cm2	Filter Counts cpm	Cart. Counts counts	Iodine uCi/cc	Gas mR/Hr
A-1	18.8	18.8	13865	<12	100	<MDA	0.0
B-1	18.8	18.8	6932	<12	100	<MDA	0.0
C-1	18.8	18.8	1386	<12	100	<MDA	0.0
A-2	0.2	0.2	9243	<12	100	<MDA	0.0
B-2	0.2	0.2	4622	<12	100	<MDA	0.0
C-2	0.2	0.2	<1000	<12	100	<MDA	0.0
A-3	<0.1	<0.1	4622	<12	100	<MDA	0.0
B-3	<0.1	<0.1	2311	<12	100	<MDA	0.0
C-3	<0.1	<0.1	<1000	<12	100	<MDA	0.0

3:00 PM Sector	mR/Hr (C/W)	mR/Hr (O/W)	dpm/100cm2	Filter Counts cpm	Cart. Counts counts	Iodine uCi/cc	Gas mR/Hr
A-1	19.1	19.1	13865	<12	100	<MDA	0.0
B-1	19.1	19.1	6932	<12	100	<MDA	0.0
C-1	19.1	19.1	1386	<12	100	<MDA	0.0
A-2	0.2	0.2	9243	<12	100	<MDA	0.0
B-2	0.2	0.2	4622	<12	100	<MDA	0.0
C-2	0.2	0.2	<1000	<12	100	<MDA	0.0
A-3	<0.1	<0.1	4622	<12	100	<MDA	0.0
B-3	<0.1	<0.1	2311	<12	100	<MDA	0.0
C-3	<0.1	<0.1	<1000	<12	100	<MDA	0.0

3:15 PM Sector	mR/Hr (C/W)	mR/Hr (O/W)	dpm/100cm2	Filter Counts cpm	Cart. Counts counts	Iodine uCi/cc	Gas mR/Hr
A-1	19.4	19.4	13865	<12	100	<MDA	0.0
B-1	19.4	19.4	6932	<12	100	<MDA	0.0
C-1	19.4	19.4	1386	<12	100	<MDA	0.0
A-2	0.2	0.2	9243	<12	100	<MDA	0.0
B-2	0.2	0.2	4622	<12	100	<MDA	0.0
C-2	0.2	0.2	<1000	<12	100	<MDA	0.0
A-3	<0.1	<0.1	4622	<12	100	<MDA	0.0
B-3	<0.1	<0.1	2311	<12	100	<MDA	0.0
C-3	<0.1	<0.1	<1000	<12	100	<MDA	0.0

Turkey Point Evaluated Exercise - December 15, 1993

Unit #3 Turbine Deck

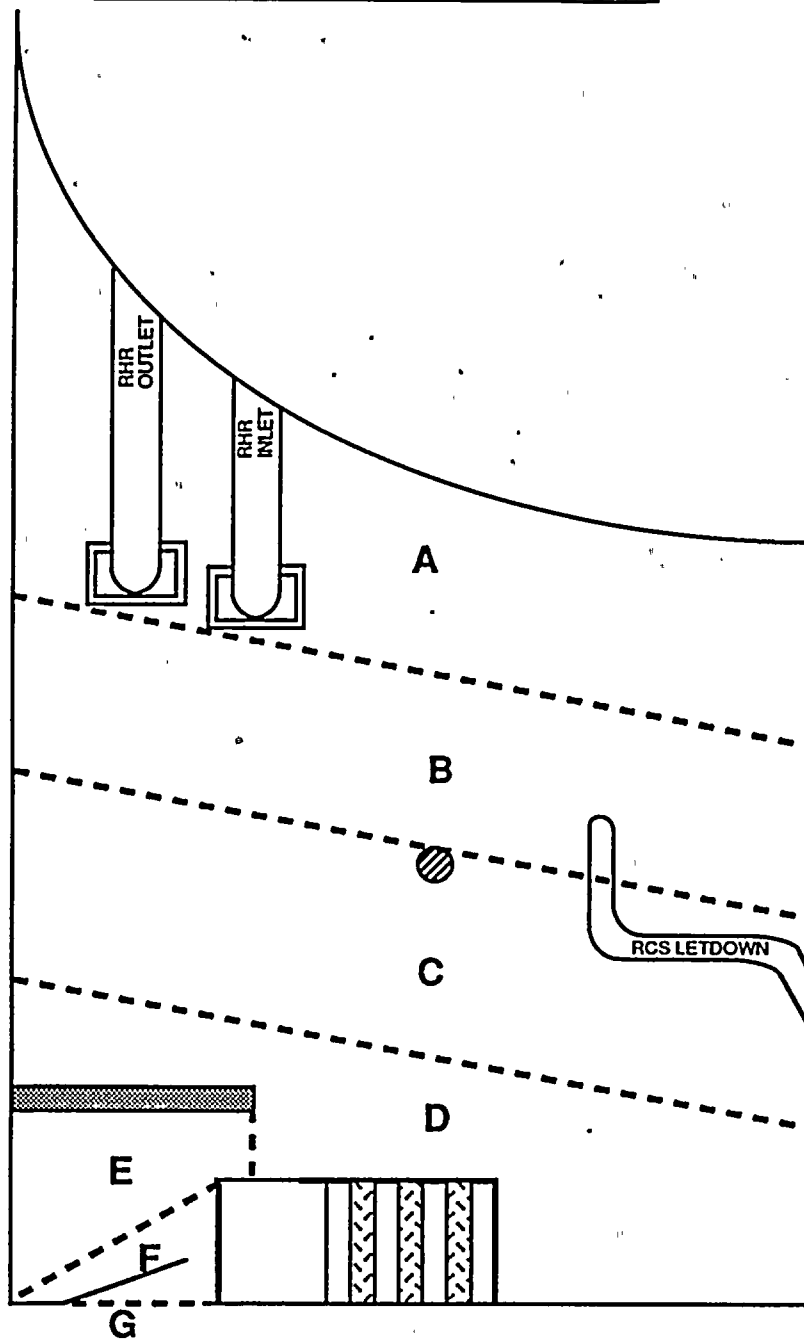
Filter Background = 12 cpm

Air Sample Vol. = .1E5 cc

Iodine Cartridge Background = 100 cpm

3:30 PM Sector	mR/Hr (C/W)	mR/Hr (O/W)	dpm/100cm2	Filter Counts cpm	Cart. Counts counts	Iodine uCi/cc	Gas mR/Hr
A-1	19.6	19.6	13865	<12	100	<MDA	0.0
B-1	19.6	19.6	6932	<12	100	<MDA	0.0
C-1	19.6	19.6	1386	<12	100	<MDA	0.0
A-2	0.2	0.2	9243	<12	100	<MDA	0.0
B-2	0.2	0.2	4622	<12	100	<MDA	0.0
C-2	0.2	0.2	<1000	<12	100	<MDA	0.0
A-3	<0.1	<0.1	4622	<12	100	<MDA	0.0
B-3	<0.1	<0.1	2311	<12	100	<MDA	0.0
C-3	<0.1	<0.1	<1000	<12	100	<MDA	0.0

UNIT 3 PIPE & VALVE ROOM



H

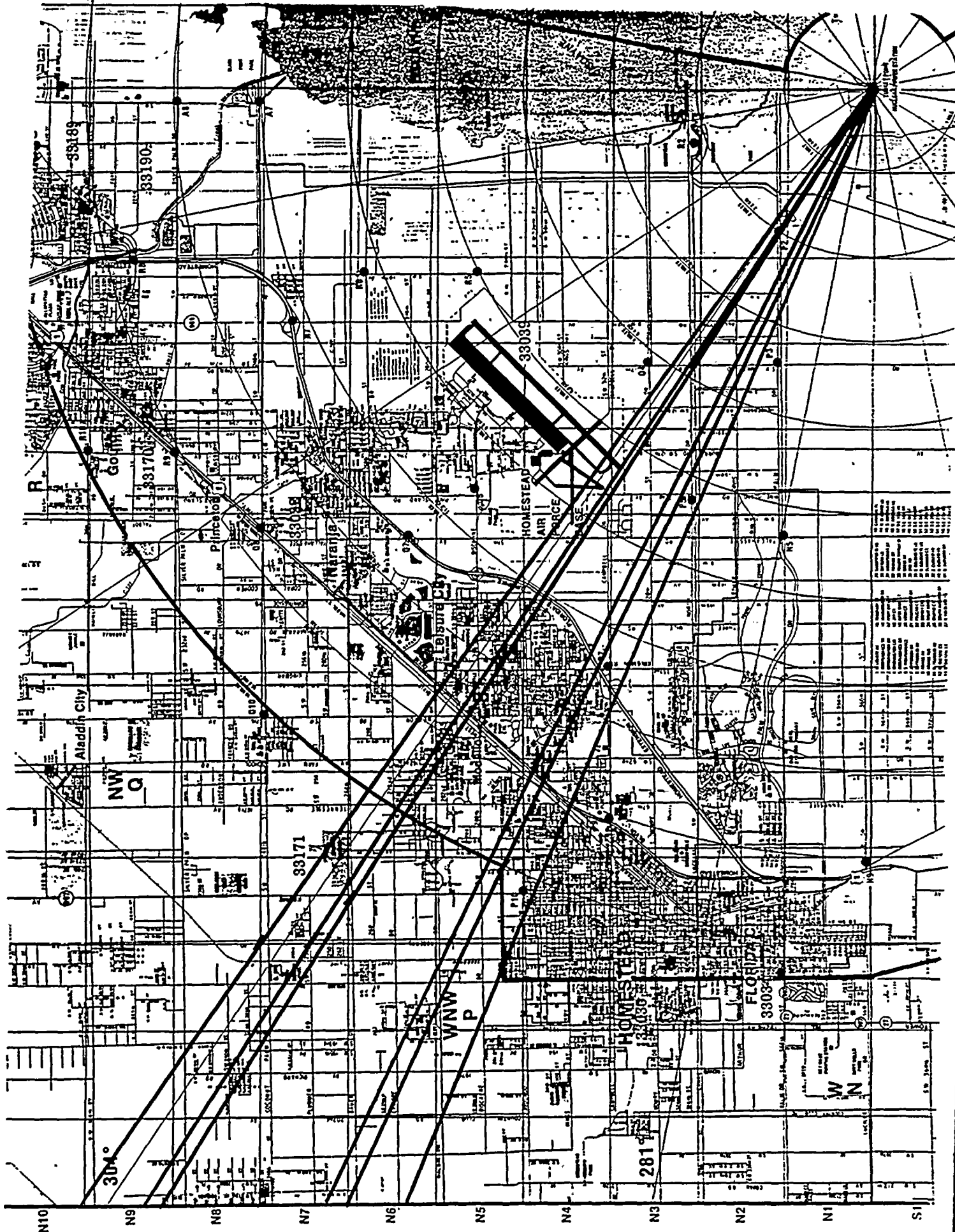


Turkey Point Evaluated - December 15, 1993

Pipe & Valve

	11:45 AM	12:00 PM	12:15 PM	12:30 PM	12:45 PM	1:00 PM	1:15 PM	1:30 PM	1:45 PM	2:00 PM	2:15 PM	2:30 PM	2:45 PM	3:00 PM	3:15 PM	3:30 PM
Sector	mR/Hr	mR/Hr	mR/Hr	mR/Hr	mR/Hr	mR/Hr	mR/Hr	mR/Hr	mR/Hr	mR/Hr	mR/Hr	mR/Hr	mR/Hr	mR/Hr	mR/Hr	mR/Hr
A	24.0	32.2	40.0	46.8	52.4	57.6	61.6	65.2	68.0	70.4	72.4	74.0	75.2	76.4	77.6	78.4
B	1.2	1.6	2.0	2.3	2.6	2.9	3.1	3.3	3.4	3.5	3.6	3.7	3.8	3.8	3.9	3.9
C	0.8	1.1	1.3	1.6	1.7	1.9	2.1	2.2	2.3	2.3	2.4	2.5	2.5	2.5	2.6	2.6
D	0.7	0.9	1.1	1.3	1.5	1.6	1.8	1.9	1.9	2.0	2.1	2.1	2.1	2.2	2.2	2.2
E	0.2	0.2	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6
F	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
G	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
H	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1







CONFIDENTIAL (Until 12-16-93)

**TURKEY POINT NUCLEAR PLANT
ONSITE PLUME DATA
12/15/93 EVALUATED EXERCISE**

TIME: 11:45

ESP-2 BKG	100	cpm
RO-2 BKG	0.01	mR/hr
ESP-2 EFF.	7	%
FRISKER EFF.	10	%
AIR SAMPLE VOL.	3.5	cubic feet

CENTERLINE

MILES FROM SOURCE		0.5	0.4	0.3	0.2	0.1
SECTOR		P	P	P	P	P
PREFILTER GROSS COUNTS	cpm	47	361	3507	10496	34959
CART. GROSS TOTAL CNTS. 1 MIN	counts	712	6219	61288	183665	611982
IODINE AIRBORNE CONC.	uCi/cc	7.95E-09	7.95E-08	7.95E-07	2.38E-06	7.95E-06
OPEN WINDOW @ HEAD HT.	mR/hr	1.1	11.4	28.4	34.1	113.5
CLOSED WINDOW @ HEAD HT.	mR/hr	0.8	7.6	18.9	22.7	75.7
GROUND DEPOSITION	uCi/cm2	3.78E-08	3.78E-07	9.46E-07	1.13E-06	3.78E-06
SMEARABLE CONTAMINATION	dpm/100cm2	8	168	840	1512	6719

HALF CENTERLINE

MILES FROM SOURCE		0.5	0.4	0.3	0.2
SECTOR		P	P	P	P
PREFILTER GROSS COUNTS	cpm	29	187	1759	5254
CART. GROSS TOTAL CNTS. 1 MIN	counts	406	3159	30694	91882
IODINE AIRBORNE CONC.	uCi/cc	3.97E-09	3.97E-08	3.97E-07	1.19E-06
OPEN WINDOW @ HEAD HT.	mR/hr	0.6	5.7	14.2	17.0
CLOSED WINDOW @ HEAD HT.	mR/hr	0.4	3.8	9.5	11.4
GROUND DEPOSITION	uCi/cm2	1.89E-08	1.89E-07	4.73E-07	5.67E-07
SMEARABLE CONTAMINATION	dpm/100cm2	4	84	420	756

TENTH CENTERLINE

MILES FROM SOURCE		0.5	0.4	0.3
SECTOR		P	P	P
PREFILTER GROSS COUNTS	cpm	15	47	361
CART. GROSS TOTAL CNTS. 1 MIN	counts	161	712	6219
IODINE AIRBORNE CONC.	uCi/cc	7.95E-10	7.95E-09	7.95E-08
OPEN WINDOW @ HEAD HT.	mR/hr	0.1	1.1	2.8
CLOSED WINDOW @ HEAD HT.	mR/hr	0.1	0.8	1.9
GROUND DEPOSITION	uCi/cm2	3.78E-09	3.78E-08	9.46E-08
SMEARABLE CONTAMINATION	dpm/100cm2	1	17	84

NOTES:

CART. GROSS TOTAL COUNTS IS TOTAL COUNTS + BACKGROUND ON IODINE CARTRIDGE @ 1 MIN. WITH 3.5 CUBIC FOOT (1.00E+05 cc) SAMPLE.
 BACKGROUND COUNT ON EBERLINE ESP-2 = 100 GROSS COUNTS, 1 MIN. COUNT, 100 CPM.
 AIR SAMPLE FLOW = 1.1 CFM FOR 5 MIN. = 3.5 CUBIC FEET (1.00E+05 cc)

CONFIDENTIAL (Until 12-16-93)
FPL/PTN

Onsite-1

93-EE/Rev.05/12-07-93



CONFIDENTIAL (Until 12-16-93)

**TURKEY POINT NUCLEAR PLANT
ONSITE PLUME DATA
12/15/93 EVALUATED EXERCISE**

TIME: 12:00

ESP-2 BKG	100	cpm
RO-2 BKG	0.01	mR/hr
ESP-2 EFF.	7	%
FRISKER EFF.	10	%
AIR SAMPLE VOL.	3.5	cubic feet

CENTERLINE

MILES FROM SOURCE		0.5	0.4	0.3	0.2	0.1
SECTOR		P	P	P	P	P
PREFILTER GROSS COUNTS	cpm	3507	7001	10496	17486	34959
CART. GROSS TOTAL CNTS. 1 MIN	counts	61288	122476	183665	306041	611982
IODINE AIRBORNE CONC.	uCi/cc	7.95E-07	1.59E-06	2.38E-06	3.97E-06	7.95E-06
OPEN WINDOW @ HEAD HT.	mR/hr	11.4	22.7	34.1	56.8	113.5
CLOSED WINDOW @ HEAD HT.	mR/hr	7.6	15.1	22.7	37.8	75.7
GROUND DEPOSITION	uCi/cm2	4.16E-07	1.13E-06	2.08E-06	3.03E-06	7.57E-06
SMEARABLE CONTAMINATION	dpm/100cm2	92	504	1848	4031	13437

HALF CENTERLINE

MILES FROM SOURCE		0.5	0.4	0.3	0.2
SECTOR		P	P	P	P
PREFILTER GROSS COUNTS	cpm	1759	3507	5254	8749
CART. GROSS TOTAL CNTS. 1 MIN	counts	30694	61288	91882	153071
IODINE AIRBORNE CONC.	uCi/cc	3.97E-07	7.95E-07	1.19E-06	1.99E-06
OPEN WINDOW @ HEAD HT.	mR/hr	5.7	11.4	17.0	28.4
CLOSED WINDOW @ HEAD HT.	mR/hr	3.8	7.6	11.4	18.9
GROUND DEPOSITION	uCi/cm2	2.08E-07	5.67E-07	1.04E-06	1.51E-06
SMEARABLE CONTAMINATION	dpm/100cm2	46	252	924	2016

TENTH CENTERLINE

MILES FROM SOURCE		0.5	0.4	0.3
SECTOR		P	P	P
PREFILTER GROSS COUNTS	cpm	361	711	1060
CART. GROSS TOTAL CNTS. 1 MIN	counts	6219	12338	18456
IODINE AIRBORNE CONC.	uCi/cc	7.95E-08	1.59E-07	2.38E-07
OPEN WINDOW @ HEAD HT.	mR/hr	1.1	2.3	3.4
CLOSED WINDOW @ HEAD HT.	mR/hr	0.8	1.5	2.3
GROUND DEPOSITION	uCi/cm2	4.16E-08	1.13E-07	2.08E-07
SMEARABLE CONTAMINATION	dpm/100cm2	9	50	185

NOTES:

CART. GROSS TOTAL COUNTS IS TOTAL COUNTS + BACKGROUND ON IODINE CARTRIDGE @ 1 MIN. WITH 3.5 CUBIC FOOT (1.00E+05 cc) SAMPLE.
BACKGROUND COUNT ON EBERLINE ESP-2 = 100 GROSS COUNTS, 1 MIN. COUNT, 100 CPM.
AIR SAMPLE FLOW = 1.1 CFM FOR 5 MIN. = 3.5 CUBIC FEET (1.00E+05 cc)

CONFIDENTIAL (Until 12-16-93)

FPL/PTN

Onsite-2

93-EE/Rev.05/12-07-93



CONFIDENTIAL (Until 12-16-93)

**TURKEY POINT NUCLEAR PLANT
ONSITE PLUME DATA
12/15/93 EVALUATED EXERCISE**

TIME: 12:15

ESP-2 BKG	100	cpm
RO-2 BKG	0.01	mR/hr
ESP-2 EFF.	7	%
FRISKER EFF.	10	%
AIR SAMPLE VOL.	3.5	cubic feet

CENTERLINE

MILES FROM SOURCE		0.5	0.4	0.3	0.2	0.1
SECTOR		P	P	P	P	P
PREFILTER GROSS COUNTS	cpm	3832	7652	11472	19111	38211
CART. GROSS TOTAL CNTS. 1 MIN	counts	66981	133861	200742	334503	668906
IODINE AIRBORNE CONC.	uCi/cc	8.69E-07	1.74E-06	2.61E-06	4.34E-06	8.69E-06
OPEN WINDOW @ HEAD HT.	mR/hr	12.7	25.4	38.0	63.4	126.8
CLOSED WINDOW @ HEAD HT.	mR/hr	8.5	16.9	25.4	42.3	84.5
GROUND DEPOSITION	uCi/cm2	8.39E-07	1.98E-06	3.35E-06	5.14E-06	1.18E-05
SMEARABLE CONTAMINATION	dpm/100cm2	186	879	2974	6846	20944

HALF CENTERLINE

MILES FROM SOURCE		0.5	0.4	0.3	0.2
SECTOR		P	P	P	P
PREFILTER GROSS COUNTS	cpm	1922	3832	5742	9562
CART. GROSS TOTAL CNTS. 1 MIN	counts	33540	66981	100421	167301
IODINE AIRBORNE CONC.	uCi/cc	4.34E-07	8.69E-07	1.30E-06	2.17E-06
OPEN WINDOW @ HEAD HT.	mR/hr	6.3	12.7	19.0	31.7
CLOSED WINDOW @ HEAD HT.	mR/hr	4.2	8.5	12.7	21.1
GROUND DEPOSITION	uCi/cm2	4.19E-07	9.90E-07	1.67E-06	2.57E-06
SMEARABLE CONTAMINATION	dpm/100cm2	93	440	1487	3423

TENTH CENTERLINE

MILES FROM SOURCE		0.5	0.4	0.3
SECTOR		P	P	P
PREFILTER GROSS COUNTS	cpm	394	776	1158
CART. GROSS TOTAL CNTS. 1 MIN	counts	6788	13476	20164
IODINE AIRBORNE CONC.	uCi/cc	8.69E-08	1.74E-07	2.61E-07
OPEN WINDOW @ HEAD HT.	mR/hr	1.3	2.5	3.8
CLOSED WINDOW @ HEAD HT.	mR/hr	0.9	1.7	2.5
GROUND DEPOSITION	uCi/cm2	8.39E-08	1.98E-07	3.35E-07
SMEARABLE CONTAMINATION	dpm/100cm2	19	88	297

NOTES:

CART. GROSS TOTAL COUNTS IS TOTAL COUNTS + BACKGROUND ON IODINE CARTRIDGE @ 1 MIN. WITH 3.5 CUBIC FOOT (1.00E+05 cc) SAMPLE.
BACKGROUND COUNT ON EBERLINE ESP-2 = 100 GROSS COUNTS, 1 MIN. COUNT, 100 CPM.
AIR SAMPLE FLOW = 1.1 CFM FOR 5 MIN. = 3.5 CUBIC FEET (1.00E+05 cc)

CONFIDENTIAL (Until 12-16-93)
FPL/PTN

Onsite-3

93-EE/Rev.05/12-07-93

CONFIDENTIAL (Until 12-16-93)

**TURKEY POINT NUCLEAR PLANT
ONSITE PLUME DATA
12/15/93 EVALUATED EXERCISE**

TIME: 12:30

ESP-2 BKG	100	cpm
RO-2 BKG	0.01	mR/hr
ESP-2 EFF.	7	%
FRISKER EFF.	10	%
AIR SAMPLE VOL.	3.5	cubic feet

CENTERLINE

MILES FROM SOURCE		0.5	0.4	0.3	0.2	0.1
SECTOR		P	P	P	P	P
PREFILTER GROSS COUNTS	cpm	3459	6906	10352	17246	34480
CART. GROSS TOTAL CNTS. 1 MIN	counts	60449	120798	181147	301845	603590
IODINE AIRBORNE CONC.	uCi/cc	7.84E-07	1.57E-06	2.35E-06	3.92E-06	7.84E-06
OPEN WINDOW @ HEAD HT.	mR/hr	11.7	23.4	35.0	58.4	116.8
CLOSED WINDOW @ HEAD HT.	mR/hr	7.8	15.6	23.4	38.9	77.9
GROUND DEPOSITION	uCi/cm2	1.23E-06	2.76E-06	4.52E-06	7.09E-06	1.57E-05
SMEARABLE CONTAMINATION	dpm/100cm2	273	1225	4011	9439	27858

HALF CENTERLINE

MILES FROM SOURCE		0.5	0.4	0.3	0.2
SECTOR		P	P	P	P
PREFILTER GROSS COUNTS	cpm	1735	3459	5182	8629
CART. GROSS TOTAL CNTS. 1 MIN	counts	30274	60449	90623	150972
IODINE AIRBORNE CONC.	uCi/cc	3.92E-07	7.84E-07	1.18E-06	1.96E-06
OPEN WINDOW @ HEAD HT.	mR/hr	5.8	11.7	17.5	29.2
CLOSED WINDOW @ HEAD HT.	mR/hr	3.9	7.8	11.7	19.5
GROUND DEPOSITION	uCi/cm2	6.14E-07	1.38E-06	2.26E-06	3.54E-06
SMEARABLE CONTAMINATION	dpm/100cm2	136	612	2005	4719

TENTH CENTERLINE

MILES FROM SOURCE		0.5	0.4	0.3
SECTOR		P	P	P
PREFILTER GROSS COUNTS	cpm	357	701	1046
CART. GROSS TOTAL CNTS. 1 MIN	counts	6135	12170	18205
IODINE AIRBORNE CONC.	uCi/cc	7.84E-08	1.57E-07	2.35E-07
OPEN WINDOW @ HEAD HT.	mR/hr	1.2	2.3	3.5
CLOSED WINDOW @ HEAD HT.	mR/hr	0.8	1.6	2.3
GROUND DEPOSITION	uCi/cm2	1.23E-07	2.76E-07	4.52E-07
SMEARABLE CONTAMINATION	dpm/100cm2	27	122	401

NOTES:

CART. GROSS TOTAL COUNTS IS TOTAL COUNTS + BACKGROUND ON IODINE CARTRIDGE @ 1 MIN. WITH 3.5 CUBIC FOOT (1.00E+05 cc) SAMPLE.
BACKGROUND COUNT ON EBERLINE ESP-2 = 100 GROSS COUNTS, 1 MIN. COUNT, 100 CPM.
AIR SAMPLE FLOW = 1.1 CFM FOR 5 MIN. = 3.5 CUBIC FEET (1.00E+05 cc)

CONFIDENTIAL (Until 12-16-93)
FPL/PTN

Onsite-4

93-EE/Rev.05/12-07-93



CONFIDENTIAL (Until 12-16-93)

**TURKEY POINT NUCLEAR PLANT
ONSITE PLUME DATA
12/15/93 EVALUATED EXERCISE**

TIME: 12:45

ESP-2 BKG	100	cpm
RO-2 BKG	0.01	mR/hr
ESP-2 EFF.	7	%
FRISKER EFF.	10	%
AIR SAMPLE VOL.	3.5	cubic feet

CENTERLINE

MILES FROM SOURCE		0.5	0.4	0.3	0.2	0.1
SECTOR		P	P	P	P	P
PREFILTER GROSS COUNTS	cpm	2693	5374	8055	13417	26822
CART. GROSS TOTAL CNTS, 1 MIN	counts	47040	93981	140921	234801	469503
IODINE AIRBORNE CONC.	uCi/cc	6.10E-07	1.22E-06	1.83E-06	3.05E-06	6.10E-06
OPEN WINDOW @ HEAD HT.	mR/hr	9.3	18.5	27.8	46.3	92.6
CLOSED WINDOW @ HEAD HT.	mR/hr	6.2	12.4	18.5	30.9	61.8
GROUND DEPOSITION	uCi/cm2	1.54E-06	3.38E-06	5.44E-06	8.63E-06	1.88E-05
SMEARABLE CONTAMINATION	dpm/100cm2	341	1499	4833	11495	33342

HALF CENTERLINE

MILES FROM SOURCE		0.5	0.4	0.3	0.2
SECTOR		P	P	P	P
PREFILTER GROSS COUNTS	cpm	1352	2693	4033	6714
CART. GROSS TOTAL CNTS, 1 MIN	counts	23570	47040	70510	117451
IODINE AIRBORNE CONC.	uCi/cc	3.05E-07	6.10E-07	9.14E-07	1.52E-06
OPEN WINDOW @ HEAD HT.	mR/hr	4.6	9.3	13.9	23.2
CLOSED WINDOW @ HEAD HT.	mR/hr	3.1	6.2	9.3	15.4
GROUND DEPOSITION	uCi/cm2	7.68E-07	1.69E-06	2.72E-06	4.32E-06
SMEARABLE CONTAMINATION	dpm/100cm2	171	750	2417	5748

TENTH CENTERLINE

MILES FROM SOURCE		0.5	0.4	0.3
SECTOR		P	P	P
PREFILTER GROSS COUNTS	cpm	280	548	816
CART. GROSS TOTAL CNTS, 1 MIN	counts	4794	9488	14182
IODINE AIRBORNE CONC.	uCi/cc	6.10E-08	1.22E-07	1.83E-07
OPEN WINDOW @ HEAD HT.	mR/hr	0.9	1.9	2.8
CLOSED WINDOW @ HEAD HT.	mR/hr	0.6	1.2	1.9
GROUND DEPOSITION	uCi/cm2	1.54E-07	3.38E-07	5.44E-07
SMEARABLE CONTAMINATION	dpm/100cm2	34	150	483

NOTES:

CART. GROSS TOTAL COUNTS IS TOTAL COUNTS + BACKGROUND ON IODINE CARTRIDGE @ 1 MIN. WITH 3.5 CUBIC FOOT (1.00E+05 cc) SAMPLE.
BACKGROUND COUNT ON EBERLINE ESP-2 = 100 GROSS COUNTS, 1 MIN. COUNT, 100 CPM.
AIR SAMPLE FLOW = 1.1 CFM FOR 5 MIN. = 3.5 CUBIC FEET (1.00E+05 cc)

CONFIDENTIAL (Until 12-16-93)
FPL/PTN

Onsite-5

93-EE/Rev.05/12-07-93

CONFIDENTIAL (Until 12-16-93)

**TURKEY POINT NUCLEAR PLANT
ONSITE PLUME DATA
12/15/93 EVALUATED EXERCISE**

TIME: 13:00

ESP-2 BKG	100	cpm
RO-2 BKG	0.01	mR/hr
ESP-2 EFF.	7	%
FRISKER EFF.	10	%
AIR SAMPLE VOL.	3.5	cubic feet

CENTERLINE

MILES FROM SOURCE		0.5	0.4	0.3	0.2	0.1
SECTOR		P	P	P	P	P
PREFILTER GROSS COUNTS	cpm	1691	3371	5050	8409	16806
CART. GROSS TOTAL CNTS, 1 MIN	counts	29504	58909	88313	147122	294144
IODINE AIRBORNE CONC.	uCi/cc	3.82E-07	7.64E-07	1.15E-06	1.91E-06	3.82E-06
OPEN WINDOW @ HEAD HT.	mR/hr	5.9	11.8	17.7	29.6	59.1
CLOSED WINDOW @ HEAD HT.	mR/hr	4.0	7.9	11.8	19.7	39.4
GROUND DEPOSITION	uCi/cm2	1.73E-06	3.77E-06	6.03E-06	9.62E-06	2.07E-05
SMEARABLE CONTAMINATION	dpm/100cm2	385	1674	5358	12808	36841

HALF CENTERLINE

MILES FROM SOURCE		0.5	0.4	0.3	0.2
SECTOR		P	P	P	P
PREFILTER GROSS COUNTS	cpm	852	1691	2531	4211
CART. GROSS TOTAL CNTS, 1 MIN	counts	14802	29504	44207	73611
IODINE AIRBORNE CONC.	uCi/cc	1.91E-07	3.82E-07	5.73E-07	9.55E-07
OPEN WINDOW @ HEAD HT.	mR/hr	3.0	5.9	8.9	14.8
CLOSED WINDOW @ HEAD HT.	mR/hr	2.0	4.0	5.9	9.9
GROUND DEPOSITION	uCi/cm2	8.67E-07	1.89E-06	3.02E-06	4.81E-06
SMEARABLE CONTAMINATION	dpm/100cm2	192	837	2679	6404

TENTH CENTERLINE

MILES FROM SOURCE		0.5	0.4	0.3
SECTOR		P	P	P
PREFILTER GROSS COUNTS	cpm	180	348	516
CART. GROSS TOTAL CNTS, 1 MIN	counts	3040	5981	8921
IODINE AIRBORNE CONC.	uCi/cc	3.82E-08	7.64E-08	1.15E-07
OPEN WINDOW @ HEAD HT.	mR/hr	0.6	1.2	1.8
CLOSED WINDOW @ HEAD HT.	mR/hr	0.4	0.8	1.2
GROUND DEPOSITION	uCi/cm2	1.73E-07	3.77E-07	6.03E-07
SMEARABLE CONTAMINATION	dpm/100cm2	38	167	536

NOTES:

CART. GROSS TOTAL COUNTS IS TOTAL COUNTS + BACKGROUND ON IODINE CARTRIDGE @ 1 MIN. WITH 3.5 CUBIC FOOT (1.00E+05 cc) SAMPLE.
BACKGROUND COUNT ON EBERLINE ESP-2 = 100 GROSS COUNTS, 1 MIN. COUNT, 100 CPM.
AIR SAMPLE FLOW = 1.1 CFM FOR 5 MIN. = 3.5 CUBIC FEET (1.00E+05 cc)

CONFIDENTIAL (Until 12-16-93)
FPL/PTN

Onsite-6

93-EE/Rev.05/12-07-93



CONFIDENTIAL (Until 12-16-93)

**TURKEY POINT NUCLEAR PLANT
ONSITE PLUME DATA
12/15/93 EVALUATED EXERCISE**

TIME: 13:15

ESP-2 BKG	100	cpm
RO-2 BKG	0.01	mR/hr
ESP-2 EFF.	7	%
FRISKER EFF.	10	%
AIR SAMPLE VOL.	3.5	cubic feet

CENTERLINE

MILES FROM SOURCE		0.5	0.4	0.3	0.2	0.1
SECTOR		P	P	P	P	P
PREFILTER GROSS COUNTS	cpm	464	917	1369	2274	4536
CART. GROSS TOTAL CNTS. 1 MIN	counts	8020	15940	23860	39700	79301
IODINE AIRBORNE CONC.	uCi/cc	1.03E-07	2.06E-07	3.09E-07	5.14E-07	1.03E-06
OPEN WINDOW @ HEAD HT.	mR/hr	1.6	3.3	4.9	8.1	16.2
CLOSED WINDOW @ HEAD HT.	mR/hr	1.1	2.2	3.3	5.4	10.8
GROUND DEPOSITION	uCi/cm2	1.79E-06	3.88E-06	6.20E-06	9.89E-06	2.13E-05
SMEARABLE CONTAMINATION	dpm/100cm2	397	1722	5502	13167	37800

HALF CENTERLINE

MILES FROM SOURCE		0.5	0.4	0.3	0.2
SECTOR		P	P	P	P
PREFILTER GROSS COUNTS	cpm	238	464	691	1143
CART. GROSS TOTAL CNTS. 1 MIN	counts	4060	8020	11980	19900
IODINE AIRBORNE CONC.	uCi/cc	5.14E-08	1.03E-07	1.54E-07	2.57E-07
OPEN WINDOW @ HEAD HT.	mR/hr	0.8	1.6	2.4	4.1
CLOSED WINDOW @ HEAD HT.	mR/hr	0.6	1.1	1.6	2.7
GROUND DEPOSITION	uCi/cm2	8.94E-07	1.94E-06	3.10E-06	4.94E-06
SMEARABLE CONTAMINATION	dpm/100cm2	198	861	2751	6584

TENTH CENTERLINE

MILES FROM SOURCE		0.5	0.4	0.3
SECTOR		P	P	P
PREFILTER GROSS COUNTS	cpm	57	102	148
CART. GROSS TOTAL CNTS. 1 MIN	counts	892	1684	2476
IODINE AIRBORNE CONC.	uCi/cc	1.03E-08	2.06E-08	3.09E-08
OPEN WINDOW @ HEAD HT.	mR/hr	0.2	0.3	0.5
CLOSED WINDOW @ HEAD HT.	mR/hr	0.1	0.2	0.3
GROUND DEPOSITION	uCi/cm2	1.79E-07	3.88E-07	6.20E-07
SMEARABLE CONTAMINATION	dpm/100cm2	40	172	550

NOTES:

CART. GROSS TOTAL COUNTS IS TOTAL COUNTS + BACKGROUND ON IODINE CARTRIDGE @ 1 MIN. WITH 3.5 CUBIC FOOT (1.00E+05 cc) SAMPLE.
BACKGROUND COUNT ON EBERLINE ESP-2 = 100 GROSS COUNTS, 1 MIN. COUNT, 100 CPM.
AIR SAMPLE FLOW = 1.1 CFM FOR 5 MIN. = 3.5 CUBIC FEET (1.00E+05 cc)

CONFIDENTIAL (Until 12-16-93)
FPL/PTN

Onsite-7

93-EE/Rev.05/12-07-93

CONFIDENTIAL (Until 12-16-93)

**TURKEY POINT NUCLEAR PLANT
ONSITE PLUME DATA
12/15/93 EVALUATED EXERCISE**

TIME: 13:30

ESP-2 BKG	100	cpm
RO-2 BKG	0.01	mR/hr
ESP-2 EFF.	7	%
FRISKER EFF.	10	%
AIR SAMPLE VOL.	3.5	cubic feet

CENTERLINE

MILES FROM SOURCE		0.5	0.4	0.3	0.2	0.1
SECTOR		P	P	P	P	P
PREFILTER GROSS COUNTS	cpm	12	12	12	12	12
CART. GROSS TOTAL CNTS. 1 MIN	counts	100	100	100	100	100
IODINE AIRBORNE CONC.	uCi/cc	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10
OPEN WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0	0.0
CLOSED WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0	0.0
GROUND DEPOSITION	uCi/cm2	1.79E-06	3.88E-06	6.20E-06	9.89E-06	2.13E-05
SMEARABLE CONTAMINATION	dpm/100cm2	397	1722	5502	13167	37800

HALF CENTERLINE

MILES FROM SOURCE		0.5	0.4	0.3	0.2
SECTOR		P	P	P	P
PREFILTER GROSS COUNTS	cpm	12	12	12	12
CART. GROSS TOTAL CNTS. 1 MIN	counts	100	100	100	100
IODINE AIRBORNE CONC.	uCi/cc	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10
OPEN WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0
CLOSED WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0
GROUND DEPOSITION	uCi/cm2	8.94E-07	1.94E-06	3.10E-06	4.94E-06
SMEARABLE CONTAMINATION	dpm/100cm2	198	861	2751	6584

TENTH CENTERLINE

MILES FROM SOURCE		0.5	0.4	0.3
SECTOR		P	P	P
PREFILTER GROSS COUNTS	cpm	12	12	12
CART. GROSS TOTAL CNTS. 1 MIN	counts	100	100	100
IODINE AIRBORNE CONC.	uCi/cc	<3.30E-10	<3.30E-10	<3.30E-10
OPEN WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0
CLOSED WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0
GROUND DEPOSITION	uCi/cm2	1.79E-07	3.88E-07	6.20E-07
SMEARABLE CONTAMINATION	dpm/100cm2	40	172	550

NOTES:

CART. GROSS TOTAL COUNTS IS TOTAL COUNTS + BACKGROUND ON IODINE CARTRIDGE @ 1 MIN. WITH 3.5 CUBIC FOOT (1.00E+05 cc) SAMPLE.
BACKGROUND COUNT ON EBERLINE ESP-2 = 100 GROSS COUNTS, 1 MIN. COUNT, 100 CPM.
AIR SAMPLE FLOW = 1.1 CFM FOR 5 MIN. = 3.5 CUBIC FEET (1.00E+05 cc)

CONFIDENTIAL (Until 12-16-93)
FPL/PTN

Onsite-8

93-EE/Rev.05/12-07-93

CONFIDENTIAL (Until 12-16-93)

**TURKEY POINT NUCLEAR PLANT
ONSITE PLUME DATA
12/15/93 EVALUATED EXERCISE**

TIME: 13:45

ESP-2 BKG	100	cpm
RO-2 BKG	0.01	mR/hr
ESP-2 EFF.	7	%
FRISKER EFF.	10	%
AIR SAMPLE VOL.	3.5	cubic feet

CENTERLINE

MILES FROM SOURCE		0.5	0.4	0.3	0.2	0.1
SECTOR		P	P	P	P	P
PREFILTER GROSS COUNTS	cpm	12	12	12	12	12
CART. GROSS TOTAL CNTS. 1 MIN	counts	100	100	100	100	100
IODINE AIRBORNE CONC.	uCi/cc	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10
OPEN WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0	0.0
CLOSED WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0	0.0
GROUND DEPOSITION	uCi/cm2	1.79E-06	3.88E-06	6.20E-06	9.89E-06	2.13E-05
SMEARABLE CONTAMINATION	dpm/100cm2	397	1722	5502	13167	37800

HALF CENTERLINE

MILES FROM SOURCE		0.5	0.4	0.3	0.2
SECTOR		P	P	P	P
PREFILTER GROSS COUNTS	cpm	12	12	12	12
CART. GROSS TOTAL CNTS. 1 MIN	counts	100	100	100	100
IODINE AIRBORNE CONC.	uCi/cc	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10
OPEN WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0
CLOSED WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0
GROUND DEPOSITION	uCi/cm2	8.94E-07	1.94E-06	3.10E-06	4.94E-06
SMEARABLE CONTAMINATION	dpm/100cm2	198	861	2751	6584

TENTH CENTERLINE

MILES FROM SOURCE		0.5	0.4	0.3
SECTOR		P	P	P
PREFILTER GROSS COUNTS	cpm	12	12	12
CART. GROSS TOTAL CNTS. 1 MIN	counts	100	100	100
IODINE AIRBORNE CONC.	uCi/cc	<3.30E-10	<3.30E-10	<3.30E-10
OPEN WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0
CLOSED WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0
GROUND DEPOSITION	uCi/cm2	1.79E-07	3.88E-07	6.20E-07
SMEARABLE CONTAMINATION	dpm/100cm2	40	172	550

NOTES:

CART. GROSS TOTAL COUNTS IS TOTAL COUNTS + BACKGROUND ON IODINE CARTRIDGE @ 1 MIN. WITH 3.5 CUBIC FOOT (1.00E+05 cc) SAMPLE.
BACKGROUND COUNT ON EBERLINE ESP-2 = 100 GROSS COUNTS, 1 MIN. COUNT, 100 CPM.
AIR SAMPLE FLOW = 1.1 CFM FOR 5 MIN. = 3.5 CUBIC FEET (1.00E+05 cc)

CONFIDENTIAL (Until 12-16-93)
FPL/PTN

Onsite-9

93-EE/Rev.05/12-07-93

CONFIDENTIAL (Until 12-16-93)

**TURKEY POINT NUCLEAR PLANT
ONSITE PLUME DATA
12/15/93 EVALUATED EXERCISE**

TIME: 14:00

ESP-2 BKG	100	cpm
RO-2 BKG	0.01	mR/hr
ESP-2 EFF.	7	%
FRISKER EFF.	10	%
AIR SAMPLE VOL	3.5	cubic feet

CENTERLINE

MILES FROM SOURCE		0.5	0.4	0.3	0.2	0.1
SECTOR		P	P	P	P	P
PREFILTER GROSS COUNTS	cpm	12	12	12	12	12
CART. GROSS TOTAL CNTS. 1 MIN	counts	100	100	100	100	100
IODINE AIRBORNE CONC.	uCi/cc	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10
OPEN WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0	0.0
CLOSED WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0	0.0
GROUND DEPOSITION	uCi/cm2	1.79E-06	3.88E-06	6.20E-06	9.89E-06	2.13E-05
SMEARABLE CONTAMINATION	dpm/100cm2	397	1722	5502	13167	37800

HALF CENTERLINE

MILES FROM SOURCE		0.5	0.4	0.3	0.2
SECTOR		P	P	P	P
PREFILTER GROSS COUNTS	cpm	12	12	12	12
CART. GROSS TOTAL CNTS. 1 MIN	counts	100	100	100	100
IODINE AIRBORNE CONC.	uCi/cc	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10
OPEN WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0
CLOSED WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0
GROUND DEPOSITION	uCi/cm2	8.94E-07	1.94E-06	3.10E-06	4.94E-06
SMEARABLE CONTAMINATION	dpm/100cm2	198	861	2751	6584

TENTH CENTERLINE

MILES FROM SOURCE		0.5	0.4	0.3
SECTOR		P	P	P
PREFILTER GROSS COUNTS	cpm	12	12	12
CART. GROSS TOTAL CNTS. 1 MIN	counts	100	100	100
IODINE AIRBORNE CONC.	uCi/cc	<3.30E-10	<3.30E-10	<3.30E-10
OPEN WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0
CLOSED WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0
GROUND DEPOSITION	uCi/cm2	1.79E-07	3.88E-07	6.20E-07
SMEARABLE CONTAMINATION	dpm/100cm2	40	172	550

NOTES:

CART. GROSS TOTAL COUNTS IS TOTAL COUNTS + BACKGROUND ON IODINE CARTRIDGE @ 1 MIN. WITH 3.5 CUBIC FOOT (1.00E+05 cc) SAMPLE.
BACKGROUND COUNT ON EBERLINE ESP-2 = 100 GROSS COUNTS, 1 MIN. COUNT, 100 CPM.
AIR SAMPLE FLOW = 1.1 CFM FOR 5 MIN. = 3.5 CUBIC FEET (1.00E+05 cc)

CONFIDENTIAL (Until 12-16-93)
FPL/PTN

Onsite-10

93-EE/Rev.05/12-07-93

CONFIDENTIAL (Until 12-16-93)

**TURKEY POINT NUCLEAR PLANT
ONSITE PLUME DATA
12/15/93 EVALUATED EXERCISE**

TIME: 14:15

ESP-2 BKG	100	cpm
RO-2 BKG	0.01	mR/hr
ESP-2 EFF.	7	%
FRISKER EFF.	10	%
AIR SAMPLE VOL.	3.5	cubic feet

CENTERLINE

MILES FROM SOURCE		0.5	0.4	0.3	0.2	0.1
SECTOR		P	P	P	P	P
PREFILTER GROSS COUNTS	cpm	12	12	12	12	12
CART. GROSS TOTAL CNTS. 1 MIN	counts	100	100	100	100	100
IODINE AIRBORNE CONC.	uCi/cc	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10
OPEN WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0	0.0
CLOSED WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0	0.0
GROUND DEPOSITION	uCi/cm2	1.79E-06	3.88E-06	6.20E-06	9.89E-06	2.13E-05
SMEARABLE CONTAMINATION	dpm/100cm2	397	1722	5502	13167	37800

HALF CENTERLINE

MILES FROM SOURCE		0.5	0.4	0.3	0.2
SECTOR		P	P	P	P
PREFILTER GROSS COUNTS	cpm	12	12	12	12
CART. GROSS TOTAL CNTS. 1 MIN	counts	100	100	100	100
IODINE AIRBORNE CONC.	uCi/cc	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10
OPEN WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0
CLOSED WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0
GROUND DEPOSITION	uCi/cm2	8.94E-07	1.94E-06	3.10E-06	4.94E-06
SMEARABLE CONTAMINATION	dpm/100cm2	198	861	2751	6584

TENTH CENTERLINE

MILES FROM SOURCE		0.5	0.4	0.3
SECTOR		P	P	P
PREFILTER GROSS COUNTS	cpm	12	12	12
CART. GROSS TOTAL CNTS. 1 MIN	counts	100	100	100
IODINE AIRBORNE CONC.	uCi/cc	<3.30E-10	<3.30E-10	<3.30E-10
OPEN WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0
CLOSED WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0
GROUND DEPOSITION	uCi/cm2	1.79E-07	3.88E-07	6.20E-07
SMEARABLE CONTAMINATION	dpm/100cm2	40	172	550

NOTES:

CART. GROSS TOTAL COUNTS IS TOTAL COUNTS + BACKGROUND ON IODINE CARTRIDGE @ 1 MIN. WITH 3.5 CUBIC FOOT (1.00E+05 cc) SAMPLE.
 BACKGROUND COUNT ON EBERLINE ESP-2 = 100 GROSS COUNTS, 1 MIN. COUNT, 100 CPM.
 AIR SAMPLE FLOW = 1.1 CFM FOR 5 MIN. = 3.5 CUBIC FEET (1.00E+05 cc)

CONFIDENTIAL (Until 12-16-93)
FPL/PTN

Onsite-11

93-EE/Rev.05/12-07-93



CONFIDENTIAL (Until 12-16-93)

**TURKEY POINT NUCLEAR PLANT
ONSITE PLUME DATA
12/15/93 EVALUATED EXERCISE**

TIME: 14:30

ESP-2 BKG	100	cpm
RO-2 BKG	0.01	mR/hr
ESP-2 EFF.	7	%
FRISKER EFF.	10	%
AIR SAMPLE VOL.	3.5	cubic feet

CENTERLINE

MILES FROM SOURCE		0.5	0.4	0.3	0.2	0.1
SECTOR		P	P	P	P	P
PREFILTER GROSS COUNTS	cpm	12	12	12	12	12
CART. GROSS TOTAL CNTS, 1 MIN	counts	100	100	100	100	100
IODINE AIRBORNE CONC.	uCi/cc	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10
OPEN WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0	0.0
CLOSED WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0	0.0
GROUND DEPOSITION	uCi/cm ²	1.79E-06	3.88E-06	6.20E-06	9.89E-06	2.13E-05
SMEARABLE CONTAMINATION	dpm/100cm ²	397	1722	5502	13167	37800

HALF CENTERLINE

MILES FROM SOURCE		0.5	0.4	0.3	0.2
SECTOR		P	P	P	P
PREFILTER GROSS COUNTS	cpm	12	12	12	12
CART. GROSS TOTAL CNTS, 1 MIN	counts	100	100	100	100
IODINE AIRBORNE CONC.	uCi/cc	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10
OPEN WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0
CLOSED WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0
GROUND DEPOSITION	uCi/cm ²	8.94E-07	1.94E-06	3.10E-06	4.94E-06
SMEARABLE CONTAMINATION	dpm/100cm ²	198	861	2751	6584

TENTH CENTERLINE

MILES FROM SOURCE		0.5	0.4	0.3
SECTOR		P	P	P
PREFILTER GROSS COUNTS	cpm	12	12	12
CART. GROSS TOTAL CNTS, 1 MIN	counts	100	100	100
IODINE AIRBORNE CONC.	uCi/cc	<3.30E-10	<3.30E-10	<3.30E-10
OPEN WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0
CLOSED WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0
GROUND DEPOSITION	uCi/cm ²	1.79E-07	3.88E-07	6.20E-07
SMEARABLE CONTAMINATION	dpm/100cm ²	40	172	550

NOTES:

CART. GROSS TOTAL COUNTS IS TOTAL COUNTS + BACKGROUND ON IODINE CARTRIDGE @ 1 MIN. WITH 3.5 CUBIC FOOT (1.00E+05 cc) SAMPLE.
BACKGROUND COUNT ON EBERLINE ESP-2 = 100 GROSS COUNTS, 1 MIN. COUNT, 100 CPM.
AIR SAMPLE FLOW = 1.1 CFM FOR 5 MIN. = 3.5 CUBIC FEET (1.00E+05 cc)

CONFIDENTIAL (Until 12-16-93)
FPL/PTN

Onsite-12

93-EE/Rev.05/12-07-93



CONFIDENTIAL (Until 12-16-93)

**TURKEY POINT NUCLEAR PLANT
ONSITE PLUME DATA
12/15/93 EVALUATED EXERCISE**

TIME: 14:45

ESP-2 BKG	100	cpm
RO-2 BKG	0.01	mR/hr
ESP-2 EFF.	7	%
FRISKER EFF.	10	%
AIR SAMPLE VOL.	3.5	cubic feet

CENTERLINE

MILES FROM SOURCE		0.5	0.4	0.3	0.2	0.1
SECTOR		P	P	P	P	P
PREFILTER GROSS COUNTS	cpm	12	12	12	12	12
CART. GROSS TOTAL CNTS. 1 MIN	counts	100	100	100	100	100
IODINE AIRBORNE CONC.	uCi/cc	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10
OPEN WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0	0.0
CLOSED WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0	0.0
GROUND DEPOSITION	uCi/cm2	1.79E-06	3.88E-06	6.20E-06	9.89E-06	2.13E-05
SMEARABLE CONTAMINATION	dpm/100cm2	397	1722	5502	13167	37800

HALF CENTERLINE

MILES FROM SOURCE		0.5	0.4	0.3	0.2
SECTOR		P	P	P	P
PREFILTER GROSS COUNTS	cpm	12	12	12	12
CART. GROSS TOTAL CNTS. 1 MIN	counts	100	100	100	100
IODINE AIRBORNE CONC.	uCi/cc	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10
OPEN WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0
CLOSED WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0
GROUND DEPOSITION	uCi/cm2	8.94E-07	1.94E-06	3.10E-06	4.94E-06
SMEARABLE CONTAMINATION	dpm/100cm2	198	861	2751	6584

TENTH CENTERLINE

MILES FROM SOURCE		0.5	0.4	0.3
SECTOR		P	P	P
PREFILTER GROSS COUNTS	cpm	12	12	12
CART. GROSS TOTAL CNTS. 1 MIN	counts	100	100	100
IODINE AIRBORNE CONC.	uCi/cc	<3.30E-10	<3.30E-10	<3.30E-10
OPEN WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0
CLOSED WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0
GROUND DEPOSITION	uCi/cm2	1.79E-07	3.88E-07	6.20E-07
SMEARABLE CONTAMINATION	dpm/100cm2	40	172	550

NOTES:

CART. GROSS TOTAL COUNTS IS TOTAL COUNTS + BACKGROUND ON IODINE CARTRIDGE @ 1 MIN. WITH 3.5 CUBIC FOOT (1.00E+05 cc) SAMPLE.
 BACKGROUND COUNT ON EBERLINE ESP-2 = 100 GROSS COUNTS, 1 MIN. COUNT, 100 CPM.
 AIR SAMPLE FLOW = 1.1 CFM FOR 5 MIN. = 3.5 CUBIC FEET (1.00E+05 cc)

CONFIDENTIAL (Until 12-16-93)
 FPL/PTN

Onsite-13

93-EE/Rev.05/12-07-93

CONFIDENTIAL (Until 12-16-93)

**TURKEY POINT NUCLEAR PLANT
ONSITE PLUME DATA
12/15/93 EVALUATED EXERCISE**

TIME: 15:00

ESP-2 BKG	100	cpm
RO-2 BKG	0.01	mR/hr
ESP-2 EFF.	7	%
FRISKER EFF.	10	%
AIR SAMPLE VOL.	3.5	cubic feet

CENTERLINE

MILES FROM SOURCE		0.5	0.4	0.3	0.2	0.1
SECTOR		P	P	P	P	P
PREFILTER GROSS COUNTS	cpm	12	12	12	12	12
CART. GROSS TOTAL CNTS. 1 MIN	counts	100	100	100	100	100
IODINE AIRBORNE CONC.	uCi/cc	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10
OPEN WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0	0.0
CLOSED WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0	0.0
GROUND DEPOSITION	uCi/cm2	1.79E-06	3.88E-06	6.20E-06	9.89E-06	2.13E-05
SMEARABLE CONTAMINATION	dpm/100cm2	397	1722	5502	13167	37800

HALF CENTERLINE

MILES FROM SOURCE		0.5	0.4	0.3	0.2
SECTOR		P	P	P	P
PREFILTER GROSS COUNTS	cpm	12	12	12	12
CART. GROSS TOTAL CNTS. 1 MIN	counts	100	100	100	100
IODINE AIRBORNE CONC.	uCi/cc	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10
OPEN WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0
CLOSED WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0
GROUND DEPOSITION	uCi/cm2	8.94E-07	1.94E-06	3.10E-06	4.94E-06
SMEARABLE CONTAMINATION	dpm/100cm2	198	861	2751	6584

TENTH CENTERLINE

MILES FROM SOURCE		0.5	0.4	0.3
SECTOR		P	P	P
PREFILTER GROSS COUNTS	cpm	12	12	12
CART. GROSS TOTAL CNTS. 1 MIN	counts	100	100	100
IODINE AIRBORNE CONC.	uCi/cc	<3.30E-10	<3.30E-10	<3.30E-10
OPEN WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0
CLOSED WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0
GROUND DEPOSITION	uCi/cm2	1.79E-07	3.88E-07	6.20E-07
SMEARABLE CONTAMINATION	dpm/100cm2	40	172	550

NOTES:

CART. GROSS TOTAL COUNTS IS TOTAL COUNTS + BACKGROUND ON IODINE CARTRIDGE @ 1 MIN. WITH 3.5 CUBIC FOOT (1.00E+05 cc) SAMPLE.
BACKGROUND COUNT ON EBERLINE ESP-2 = 100 GROSS COUNTS, 1 MIN. COUNT, 100 CPM.
AIR SAMPLE FLOW = 1.1 CFM FOR 5 MIN. = 3.5 CUBIC FEET (1.00E+05 cc)

CONFIDENTIAL (Until 12-16-93)
FPL/PTN

Onsite-14

93-EE/Rev.05/12-07-93



CONFIDENTIAL (Until 12-16-93)

**TURKEY POINT NUCLEAR PLANT
ONSITE PLUME DATA
12/15/93 EVALUATED EXERCISE**

TIME: 15:15

ESP-2 BKG	100	cpm
RO-2 BKG	0.01	mR/hr
ESP-2 EFF.	7	%
FRISKER EFF.	10	%
AIR SAMPLE VOL	3.5	cubic feet

CENTERLINE

MILES FROM SOURCE		0.5	0.4	0.3	0.2	0.1
SECTOR		P	P	P	P	P
PREFILTER GROSS COUNTS	cpm	12	12	12	12	12
CART. GROSS TOTAL CNTS. 1 MIN	counts	100	100	100	100	100
IODINE AIRBORNE CONC.	uCi/cc	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10
OPEN WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0	0.0
CLOSED WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0	0.0
GROUND DEPOSITION	uCi/cm2	1.79E-06	3.88E-06	6.20E-06	9.89E-06	2.13E-05
SMEARABLE CONTAMINATION	dpm/100cm2	397	1722	5502	13167	37800

HALF CENTERLINE

MILES FROM SOURCE		0.5	0.4	0.3	0.2
SECTOR		P	P	P	P
PREFILTER GROSS COUNTS	cpm	12	12	12	12
CART. GROSS TOTAL CNTS. 1 MIN	counts	100	100	100	100
IODINE AIRBORNE CONC.	uCi/cc	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10
OPEN WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0
CLOSED WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0
GROUND DEPOSITION	uCi/cm2	8.94E-07	1.94E-06	3.10E-06	4.94E-06
SMEARABLE CONTAMINATION	dpm/100cm2	198	861	2751	6584

TENTH CENTERLINE

MILES FROM SOURCE		0.5	0.4	0.3
SECTOR		P	P	P
PREFILTER GROSS COUNTS	cpm	12	12	12
CART. GROSS TOTAL CNTS. 1 MIN	counts	100	100	100
IODINE AIRBORNE CONC.	uCi/cc	<3.30E-10	<3.30E-10	<3.30E-10
OPEN WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0
CLOSED WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0
GROUND DEPOSITION	uCi/cm2	1.79E-07	3.88E-07	6.20E-07
SMEARABLE CONTAMINATION	dpm/100cm2	40	172	550

NOTES:

CART. GROSS TOTAL COUNTS IS TOTAL COUNTS + BACKGROUND ON IODINE CARTRIDGE @ 1 MIN. WITH 3.5 CUBIC FOOT (1.00E+05 cc) SAMPLE.
 BACKGROUND COUNT ON EBERLINE ESP-2 = 100 GROSS COUNTS, 1 MIN. COUNT, 100 CPM.
 AIR SAMPLE FLOW = 1.1 CFM FOR 5 MIN. = 3.5 CUBIC FEET (1.00E+05 cc)

CONFIDENTIAL (Until 12-16-93)
 FPL/PTN

Onsite-15

93-EE/Rev.05/12-07-93



CONFIDENTIAL (Until 12-16-93)

**TURKEY POINT NUCLEAR PLANT
ONSITE PLUME DATA
12/15/93 EVALUATED EXERCISE**

TIME: 15:30

ESP-2 BKG	100	cpm
RO-2 BKG	0.01	mR/hr
ESP-2 EFF.	7	%
FRISKER EFF.	10	%
AIR SAMPLE VOL.	3.5	cubic feet

CENTERLINE

MILES FROM SOURCE		0.5	0.4	0.3	0.2	0.1
SECTOR		P	P	P	P	P
PREFILTER GROSS COUNTS	cpm	12	12	12	12	12
CART. GROSS TOTAL CNTS. 1 MIN	counts	100	100	100	100	100
IODINE AIRBORNE CONC.	uCi/cc	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10
OPEN WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0	0.0
CLOSED WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0	0.0
GROUND DEPOSITION	uCi/cm2	1.79E-06	3.88E-06	6.20E-06	9.89E-06	2.13E-05
SMEARABLE CONTAMINATION	dpm/100cm2	397	1722	5502	13167	37800

HALF CENTERLINE

MILES FROM SOURCE		0.5	0.4	0.3	0.2
SECTOR		P	P	P	P
PREFILTER GROSS COUNTS	cpm	12	12	12	12
CART. GROSS TOTAL CNTS. 1 MIN	counts	100	100	100	100
IODINE AIRBORNE CONC.	uCi/cc	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10
OPEN WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0
CLOSED WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0
GROUND DEPOSITION	uCi/cm2	8.94E-07	1.94E-06	3.10E-06	4.94E-06
SMEARABLE CONTAMINATION	dpm/100cm2	198	861	2751	6584

TENTH CENTERLINE

MILES FROM SOURCE		0.5	0.4	0.3
SECTOR		P	P	P
PREFILTER GROSS COUNTS	cpm	12	12	12
CART. GROSS TOTAL CNTS. 1 MIN	counts	100	100	100
IODINE AIRBORNE CONC.	uCi/cc	<3.30E-10	<3.30E-10	<3.30E-10
OPEN WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0
CLOSED WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0
GROUND DEPOSITION	uCi/cm2	1.79E-07	3.88E-07	6.20E-07
SMEARABLE CONTAMINATION	dpm/100cm2	40	172	550

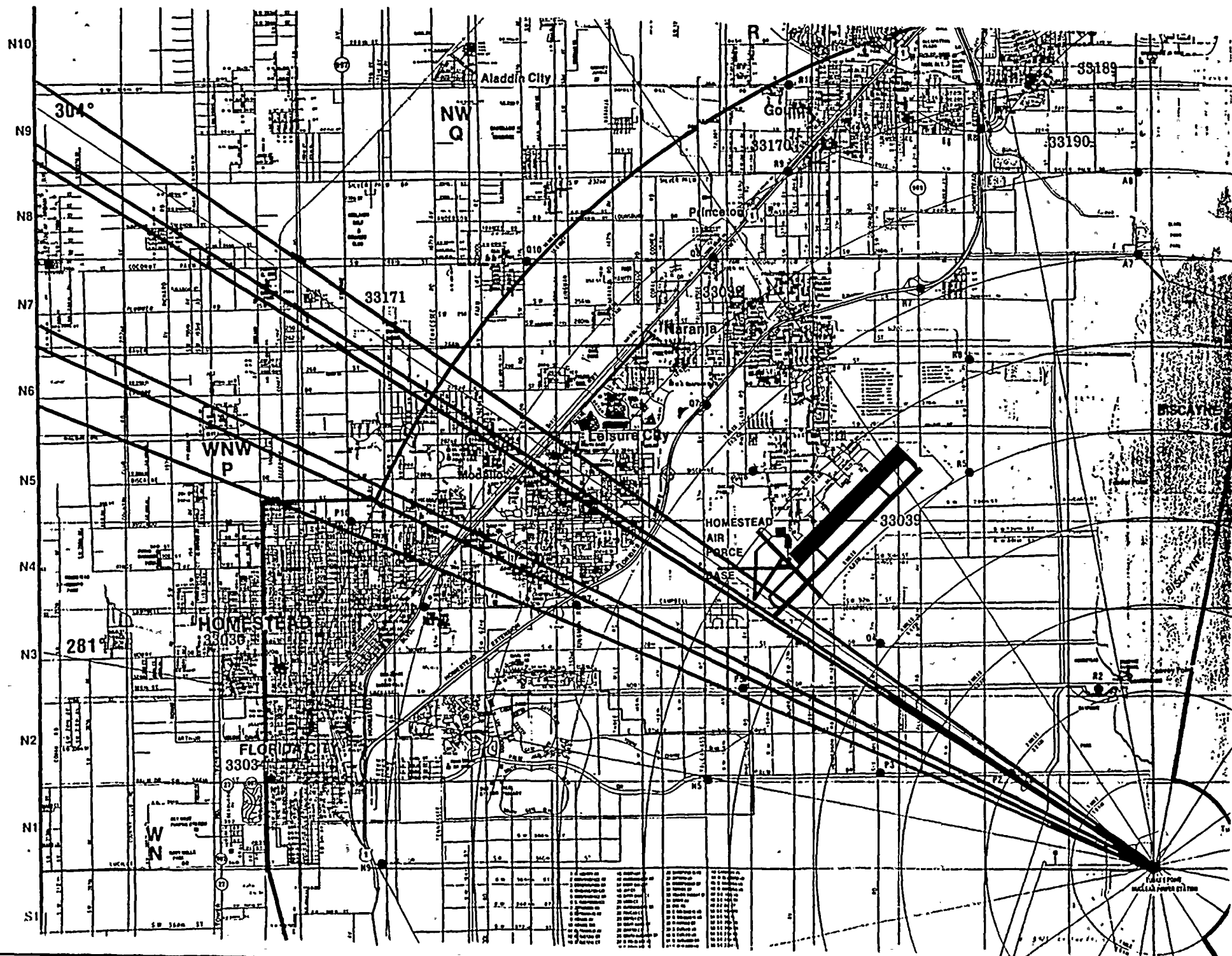
NOTES:

CART. GROSS TOTAL COUNTS IS TOTAL COUNTS + BACKGROUND ON IODINE CARTRIDGE @ 1 MIN. WITH 3.5 CUBIC FOOT (1.00E+05 cc) SAMPLE.
 BACKGROUND COUNT ON EBERLINE ESP-2 = 100 GROSS COUNTS, 1 MIN. COUNT, 100 CPM.
 AIR SAMPLE FLOW = 1.1 CFM FOR 5 MIN. = 3.5 CUBIC FEET (1.00E+05 cc)

CONFIDENTIAL (Until 12-16-93)
FPL/PTN

Onsite-16

93-EE/Rev.05/12-07-93



**TURKEY POINT NUCLEAR PLANT
12/15/93 EXERCISE PLUME DATA**

TIME: 12:00

ESP-2 BKG	100	cpm
RO-2 BKG	0.01	mR/hr
ESP-2 EFF.	7	%
FRISKER EFF.	10	%
AIR SAMPLE VOL.	3.5	cubic feet

CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	cpm	3507	2808	12	12	12	12	12	12	12	12	12
CART. GROSS TOTAL CNTS, 1 MIN	counts	61288	49051	100	100	100	100	100	100	100	100	100
IODINE AIRBORNE CONC.	uCi/cc	7.95E-07	6.36E-07	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10
OPEN WINDOW @ HEAD HT.	mR/hr	11.4	9.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CLOSED WINDOW @ HEAD HT.	mR/hr	7.6	6.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

HALF CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	cpm	1759	1410	12	12	12	12	12	12	12	12	12
CART. GROSS TOTAL CNTS, 1 MIN	counts	30694	24575	100	100	100	100	100	100	100	100	100
IODINE AIRBORNE CONC.	uCi/cc	3.97E-07	3.18E-07	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10
OPEN WINDOW @ HEAD HT.	mR/hr	5.7	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CLOSED WINDOW @ HEAD HT.	mR/hr	3.8	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TENTH CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	cpm	361	292	12	12	12	12	12	12	12	12	12
CART. GROSS TOTAL CNTS, 1 MIN	counts	6219	4995	100	100	100	100	100	100	100	100	100
IODINE AIRBORNE CONC.	uCi/cc	7.95E-08	6.36E-08	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10
OPEN WINDOW @ HEAD HT.	mR/hr	1.1	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CLOSED WINDOW @ HEAD HT.	mR/hr	0.8	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

NOTES:

CART. GROSS TOTAL COUNTS IS TOTAL COUNTS + BACKGROUND ON IODINE CARTRIDGE @ 5 MIN. WITH 35 CUBIC FOOT SAMPLE.
 BACKGROUND COUNT ON EBERLINE ESP-2 = 100 GROSS COUNTS, 1 MIN. COUNT, 100 CPM.
 AIR SAMPLE FLOW = 3.5 CFM FOR 1 MIN. = 3.5 CFM (1E+05 cc)



**TURKEY POINT NUCLEAR PLANT
12/15/93 EXERCISE PLUME DATA**

TIME: 12:15

ESP-2 BKG	100	cpm
RO-2 BKG	0.01	mR/hr
ESP-2 EFF.	7	%
FRISKER EFF.	10	%
AIR SAMPLE VOL.	3.5	cubic feet

CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	cpm	3832	3068	1242	12	12	12	12	12	12	12	12
CART. GROSS TOTAL CNTS, 1 MIN	counts	66981	53604	21638	100	100	100	100	100	100	100	100
IODINE AIRBORNE CONC.	uCi/cc	8.69E-07	6.95E-07	2.80E-07	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10
OPEN WINDOW @ HEAD HT.	mR/hr	12.7	10.2	4.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CLOSED WINDOW @ HEAD HT.	mR/hr	8.5	6.8	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

HALF CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	cpm	1922	1540	627	12	12	12	12	12	12	12	12
CART. GROSS TOTAL CNTS, 1 MIN	counts	33540	26852	10869	100	100	100	100	100	100	100	100
IODINE AIRBORNE CONC.	uCi/cc	4.34E-07	3.47E-07	1.40E-07	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10
OPEN WINDOW @ HEAD HT.	mR/hr	6.3	5.1	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CLOSED WINDOW @ HEAD HT.	mR/hr	4.2	3.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TENTH CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	cpm	394	318	135	12	12	12	12	12	12	12	12
CART. GROSS TOTAL CNTS, 1 MIN	counts	6788	5450	2254	100	100	100	100	100	100	100	100
IODINE AIRBORNE CONC.	uCi/cc	8.69E-08	6.95E-08	2.80E-08	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10
OPEN WINDOW @ HEAD HT.	mR/hr	1.3	1.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CLOSED WINDOW @ HEAD HT.	mR/hr	0.9	0.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

NOTES:

CART. GROSS TOTAL COUNTS IS TOTAL COUNTS + BACKGROUND ON IODINE CARTRIDGE @ 5 MIN. WITH 35 CUBIC FOOT SAMPLE.
 BACKGROUND COUNT ON EBERLINE ESP-2 = 100 GROSS COUNTS, 1 MIN. COUNT, 100 CPM.
 AIR SAMPLE FLOW = 3.5 CFM FOR 1 MIN. = 3.5 CFM (1E+05 cc)

CONFIDENTIAL (Until 12-16-93)

**TURKEY POINT NUCLEAR PLANT
12/15/93 EXERCISE PLUME DATA**

TIME: 12:30

ESP-2 BKG	100	cpm
RO-2 BKG	0.01	mR/hr
ESP-2 EFF.	7	%
FRISKER EFF.	10	%
AIR SAMPLE VOL.	3.5	cubic feet

CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	cpm	3459	2769	1357	795	12	12	12	12	12	12	12
CART. GROSS TOTAL CNTS. 1 MIN	counts	60449	48379	23642	13806	100	100	100	100	100	100	100
IODINE AIRBORNE CONC.	uCi/cc	7.84E-07	6.27E-07	3.06E-07	1.78E-07	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10
OPEN WINDOW @ HEAD HT.	mR/hr	11.7	9.4	4.6	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CLOSED WINDOW @ HEAD HT.	mR/hr	7.8	6.2	3.1	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0

HALF CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	cpm	1735	1391	684	403	12	12	12	12	12	12	12
CART. GROSS TOTAL CNTS. 1 MIN	counts	30274	24240	11871	6953	100	100	100	100	100	100	100
IODINE AIRBORNE CONC.	uCi/cc	3.92E-07	3.14E-07	1.53E-07	8.90E-08	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10
OPEN WINDOW @ HEAD HT.	mR/hr	5.8	4.7	2.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CLOSED WINDOW @ HEAD HT.	mR/hr	3.9	3.1	1.5	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TENTH CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	cpm	357	288	146	90	12	12	12	12	12	12	12
CART. GROSS TOTAL CNTS. 1 MIN	counts	6135	4928	2454	1471	100	100	100	100	100	100	100
IODINE AIRBORNE CONC.	uCi/cc	7.84E-08	6.27E-08	3.06E-08	1.78E-08	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10
OPEN WINDOW @ HEAD HT.	mR/hr	1.2	0.9	0.5	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CLOSED WINDOW @ HEAD HT.	mR/hr	0.8	0.6	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0

NOTES:

CART. GROSS TOTAL COUNTS IS TOTAL COUNTS + BACKGROUND ON IODINE CARTRIDGE @ 5 MIN. WITH 35 CUBIC FOOT SAMPLE.
 BACKGROUND COUNT ON EBERLINE ESP-2 = 100 GROSS COUNTS, 1 MIN. COUNT, 100 CPM.
 AIR SAMPLE FLOW = 3.5 CFM FOR 1 MIN. = 3.5 CFM (1E+05 cc)

CONFIDENTIAL (Until 12-16-93)
 FPL/PTN

PTNFT-3

93-EE/Rev.05/12-07-93



**TURKEY POINT NUCLEAR PLANT
12/15/93 EXERCISE PLUME DATA**

TIME: 12:45

ESP-2 BKG	100	cpm
RO-2 BKG	0.01	mR/hr
ESP-2 EFF.	7	%
FRISKER EFF.	10	%
AIR SAMPLE VOL.	3.5	cubic feet

CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	cpm	2693	2157	1225	868	571	12	12	12	12	12	12
CART. GROSS TOTAL CNTS. 1 MIN	counts	47040	37652	21343	15081	9890	100	100	100	100	100	100
IODINE AIRBORNE CONC.	uCi/cc	6.10E-07	4.88E-07	2.76E-07	1.95E-07	1.27E-07	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10
OPEN WINDOW @ HEAD HT.	mR/hr	9.3	7.4	4.2	2.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0
CLOSED WINDOW @ HEAD HT.	mR/hr	6.2	5.0	2.8	1.9	1.2	0.0	0.0	0.0	0.0	0.0	0.0

HALF CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	cpm	1352	1084	619	440	292	12	12	12	12	12	12
CART. GROSS TOTAL CNTS. 1 MIN	counts	23570	18876	10721	7591	4995	100	100	100	100	100	100
IODINE AIRBORNE CONC.	uCi/cc	3.05E-07	2.44E-07	1.38E-07	9.73E-08	6.36E-08	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10
OPEN WINDOW @ HEAD HT.	mR/hr	4.6	3.7	2.1	1.4	0.9	0.0	0.0	0.0	0.0	0.0	0.0
CLOSED WINDOW @ HEAD HT.	mR/hr	3.1	2.5	1.4	0.9	0.6	0.0	0.0	0.0	0.0	0.0	0.0

TENTH CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	cpm	280	226	133	98	68	12	12	12	12	12	12
CART. GROSS TOTAL CNTS. 1 MIN	counts	4794	3855	2224	1598	1079	100	100	100	100	100	100
IODINE AIRBORNE CONC.	uCi/cc	6.10E-08	4.88E-08	2.76E-08	1.95E-08	1.27E-08	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10
OPEN WINDOW @ HEAD HT.	mR/hr	0.9	0.8	0.4	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0
CLOSED WINDOW @ HEAD HT.	mR/hr	0.6	0.5	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0

NOTES:

CART. GROSS TOTAL COUNTS IS TOTAL COUNTS + BACKGROUND ON IODINE CARTRIDGE @ 5 MIN. WITH 35 CUBIC FOOT SAMPLE.
 BACKGROUND COUNT ON EBERLINE ESP-2 = 100 GROSS COUNTS, 1 MIN. COUNT, 100 CPM.
 AIR SAMPLE FLOW = 3.5 CFM FOR 1 MIN. = 3.5 CFM (1E+05 cc)



**TURKEY POINT NUCLEAR PLANT
12/15/93 EXERCISE PLUME DATA**

TIME: 13:00

ESP-2 BKG	100	cpm
RO-2 BKG	0.01	mR/hr
ESP-2 EFF.	7	%
FRISKER EFF.	10	%
AIR SAMPLE VOL.	3.5	cubic feet

CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	cpm	1691	1356	956	784	623	422	12	12	12	12	12
CART. GROSS TOTAL CNTS, 1 MIN	counts	29504	23624	16623	13618	10801	7279	100	100	100	100	100
IODINE AIRBORNE CONC.	uCi/cc	3.82E-07	3.06E-07	2.15E-07	1.76E-07	1.39E-07	9.32E-08	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10
OPEN WINDOW @ HEAD HT.	mR/hr	5.9	4.7	3.3	2.6	2.0	1.3	0.0	0.0	0.0	0.0	0.0
CLOSED WINDOW @ HEAD HT.	mR/hr	4.0	3.2	2.2	1.7	1.4	0.9	0.0	0.0	0.0	0.0	0.0

HALF CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	cpm	852	684	484	398	318	217	12	12	12	12	12
CART. GROSS TOTAL CNTS, 1 MIN	counts	14802	11862	8361	6859	5450	3690	100	100	100	100	100
IODINE AIRBORNE CONC.	uCi/cc	1.91E-07	1.53E-07	1.07E-07	8.78E-08	6.95E-08	4.66E-08	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10
OPEN WINDOW @ HEAD HT.	mR/hr	3.0	2.4	1.7	1.3	1.0	0.7	0.0	0.0	0.0	0.0	0.0
CLOSED WINDOW @ HEAD HT.	mR/hr	2.0	1.6	1.1	0.9	0.7	0.5	0.0	0.0	0.0	0.0	0.0

TENTH CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	cpm	180	146	106	89	73	53	12	12	12	12	12
CART. GROSS TOTAL CNTS, 1 MIN	counts	3040	2452	1752	1452	1170	818	100	100	100	100	100
IODINE AIRBORNE CONC.	uCi/cc	3.82E-08	3.06E-08	2.15E-08	1.76E-08	1.39E-08	9.32E-09	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10
OPEN WINDOW @ HEAD HT.	mR/hr	0.6	0.5	0.3	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0
CLOSED WINDOW @ HEAD HT.	mR/hr	0.4	0.3	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0

NOTES:

CART. GROSS TOTAL COUNTS IS TOTAL COUNTS + BACKGROUND ON IODINE CARTRIDGE @ 5 MIN. WITH 35 CUBIC FOOT SAMPLE.
 BACKGROUND COUNT ON EBERLINE ESP-2 = 100 GROSS COUNTS, 1 MIN. COUNT, 100 CPM.
 AIR SAMPLE FLOW = 3.5 CFM FOR 1 MIN. = 3.5 CFM (1E+05 cc)



**TURKEY POINT NUCLEAR PLANT
12/15/93 EXERCISE PLUME DATA**

TIME: 13:15

ESP-2 BKG	100	cpm
RO-2 BKG	0.01	mR/hr
ESP-2 EFF.	7	%
FRISKER EFF.	10	%
AIR SAMPLE VOL	3.5	cubic feet

CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	cpm	464	374	603	613	563	460	347	12	12	12	12
CART. GROSS TOTAL CNTS, 1 MIN	counts	8020	6436	10450	10615	9756	7947	5974	100	100	100	100
IODINE AIRBORNE CONC.	uCi/cc	1.03E-07	8.23E-08	1.34E-07	1.37E-07	1.25E-07	1.02E-07	7.63E-08	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10
OPEN WINDOW @ HEAD HT.	mR/hr	1.6	1.3	2.1	2.0	1.9	1.5	1.1	0.0	0.0	0.0	0.0
CLOSED WINDOW @ HEAD HT.	mR/hr	1.1	0.9	1.4	1.4	1.3	1.0	0.7	0.0	0.0	0.0	0.0

HALF CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	cpm	238	193	308	312	288	236	180	12	12	12	12
CART. GROSS TOTAL CNTS, 1 MIN	counts	4060	3268	5275	5357	4928	4024	3037	100	100	100	100
IODINE AIRBORNE CONC.	uCi/cc	5.14E-08	4.11E-08	6.72E-08	6.83E-08	6.27E-08	5.10E-08	3.81E-08	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10
OPEN WINDOW @ HEAD HT.	mR/hr	0.8	0.7	1.1	1.0	0.9	0.8	0.6	0.0	0.0	0.0	0.0
CLOSED WINDOW @ HEAD HT.	mR/hr	0.6	0.4	0.7	0.7	0.6	0.5	0.4	0.0	0.0	0.0	0.0

TENTH CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	cpm	57	48	71	72	67	57	46	12	12	12	12
CART. GROSS TOTAL CNTS, 1 MIN	counts	892	734	1135	1151	1066	885	687	100	100	100	100
IODINE AIRBORNE CONC.	uCi/cc	1.03E-08	8.23E-09	1.34E-08	1.37E-08	1.25E-08	1.02E-08	7.63E-09	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10
OPEN WINDOW @ HEAD HT.	mR/hr	0.2	0.1	0.2	0.2	0.2	0.2	0.1	0.0	0.0	0.0	0.0
CLOSED WINDOW @ HEAD HT.	mR/hr	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0

NOTES:

CART. GROSS TOTAL COUNTS IS TOTAL COUNTS + BACKGROUND ON IODINE CARTRIDGE @ 5 MIN. WITH 35 CUBIC FOOT SAMPLE.
 BACKGROUND COUNT ON EBERLINE ESP-2 = 100 GROSS COUNTS, 1 MIN. COUNT, 100 CPM.
 AIR SAMPLE FLOW = 3.5 CFM FOR 1 MIN. = 3.5 CFM (1E+05 cc)



**TURKEY POINT NUCLEAR PLANT
12/15/93 EXERCISE PLUME DATA**

TIME: 13:30

ESP-2 BKG	100	cpm
RO-2 BKG	0.01	mR/hr
ESP-2 EFF.	7	%
FRISKER EFF.	10	%
AIR SAMPLE VOL	3.5	cubic feet

CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	cpm	12	12	171	388	441	416	379	292	12	12	12
CART. GROSS TOTAL CNTS. 1 MIN	counts	100	100	2888	6687	7610	7181	6521	4995	100	100	100
IODINE AIRBORNE CONC.	uCi/cc	<3.30E-10	<3.30E-10	3.62E-08	8.55E-08	9.75E-08	9.20E-08	8.34E-08	6.36E-08	<3.30E-10	<3.30E-10	<3.30E-10
OPEN WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.6	1.3	1.5	1.4	1.2	0.9	0.0	0.0	0.0
CLOSED WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.4	0.9	1.0	0.9	0.8	0.6	0.0	0.0	0.0

HALF CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	cpm	12	12	92	200	226	214	195	152	12	12	12
CART. GROSS TOTAL CNTS. 1 MIN	counts	100	100	1494	3393	3855	3640	3310	2548	100	100	100
IODINE AIRBORNE CONC.	uCi/cc	<3.30E-10	<3.30E-10	1.81E-08	4.28E-08	4.88E-08	4.60E-08	4.17E-08	3.18E-08	<3.30E-10	<3.30E-10	<3.30E-10
OPEN WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.3	0.7	0.8	0.7	0.6	0.5	0.0	0.0	0.0
CLOSED WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.2	0.4	0.5	0.5	0.4	0.3	0.0	0.0	0.0

TENTH CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	cpm	12	12	28	50	55	52	49	40	12	12	12
CART. GROSS TOTAL CNTS. 1 MIN	counts	100	100	379	759	851	808	742	590	100	100	100
IODINE AIRBORNE CONC.	uCi/cc	<3.30E-10	<3.30E-10	3.62E-09	8.55E-09	9.75E-09	9.20E-09	8.34E-09	6.36E-09	<3.30E-10	<3.30E-10	<3.30E-10
OPEN WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.1	0.1	0.2	0.1	0.1	0.1	0.0	0.0	0.0
CLOSED WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0

NOTES:

CART. GROSS TOTAL COUNTS IS TOTAL COUNTS + BACKGROUND ON IODINE CARTRIDGE @ 5 MIN. WITH 35 CUBIC FOOT SAMPLE.
 BACKGROUND COUNT ON EBERLINE ESP-2 = 100 GROSS COUNTS, 1 MIN. COUNT, 100 CPM.
 AIR SAMPLE FLOW = 3.5 CFM FOR 1 MIN. = 3.5 CFM (1E+05 cc)



CONFIDENTIAL (Until 12-16-93)

**TURKEY POINT NUCLEAR PLANT
12/15/93 EXERCISE PLUME DATA**

TIME: 13:45

ESP-2 BKG	100	cpm
RO-2 BKG	0.01	mR/hr
ESP-2 EFF.	7	%
FRISKER EFF.	10	%
AIR SAMPLE VOL	3.5	cubic feet

CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	cpm	12	12	12	113	281	327	343	318	258	12	12
CART. GROSS TOTAL CNTS. 1 MIN	counts	100	100	100	1874	4805	5608	5894	5450	4408	100	100
IODINE AIRBORNE CONC.	uCi/cc	<3.30E-10	<3.30E-10	<3.30E-10	2.30E-08	6.11E-08	7.15E-08	7.52E-08	6.95E-08	5.59E-08	<3.30E-10	<3.30E-10
OPEN WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.4	1.0	1.1	1.1	1.0	0.8	0.0	0.0
CLOSED WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.2	0.6	0.7	0.8	0.7	0.5	0.0	0.0

HALF CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	cpm	12	12	12	63	146	169	177	165	135	12	12
CART. GROSS TOTAL CNTS. 1 MIN	counts	100	100	100	987	2452	2854	2997	2775	2254	100	100
IODINE AIRBORNE CONC.	uCi/cc	<3.30E-10	<3.30E-10	<3.30E-10	1.15E-08	3.06E-08	3.58E-08	3.76E-08	3.47E-08	2.80E-08	<3.30E-10	<3.30E-10
OPEN WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.2	0.5	0.6	0.6	0.5	0.4	0.0	0.0
CLOSED WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.1	0.3	0.4	0.4	0.3	0.3	0.0	0.0

TENTH CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	cpm	12	12	12	22	39	43	45	43	37	12	12
CART. GROSS TOTAL CNTS. 1 MIN	counts	100	100	100	277	570	651	679	635	531	100	100
IODINE AIRBORNE CONC.	uCi/cc	<3.30E-10	<3.30E-10	<3.30E-10	2.30E-09	6.11E-09	7.15E-09	7.52E-09	6.95E-09	5.59E-09	<3.30E-10	<3.30E-10
OPEN WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.0
CLOSED WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.0

NOTES:

CART. GROSS TOTAL COUNTS IS TOTAL COUNTS + BACKGROUND ON IODINE CARTRIDGE @ 5 MIN. WITH 35 CUBIC FOOT SAMPLE.
 BACKGROUND COUNT ON EBERLINE ESP-2 = 100 GROSS COUNTS, 1 MIN. COUNT, 100 CPM.
 AIR SAMPLE FLOW = 3.5 CFM FOR 1 MIN. = 3.5 CFM (1E+05 cc)

CONFIDENTIAL (Until 12-16-93)

FPL/PTN

PTNFT-8

93-EE/Rev.05/12-07-93

CONFIDENTIAL (Until 12-16-93)

**TURKEY POINT NUCLEAR PLANT
12/15/93 EXERCISE PLUME DATA**

TIME: 14:00

ESP-2 BKG	100	cpm
RO-2 BKG	0.01	mR/hr
ESP-2 EFF.	7	%
FRISKER EFF.	10	%
AIR SAMPLE VOL	3.5	cubic feet

CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	cpm	12	12	12	12	84	209	269	288	281	224	12
CART. GROSS TOTAL CNTS, 1 MIN	counts	100	100	100	100	1367	3550	4608	4928	4808	3820	100
IODINE AIRBORNE CONC.	uCi/cc	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	1.65E-08	4.48E-08	5.85E-08	6.27E-08	6.11E-08	4.83E-08	<3.30E-10
OPEN WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0	0.3	0.7	0.9	0.9	0.9	0.7	0.0
CLOSED WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0	0.2	0.5	0.6	0.6	0.6	0.5	0.0

HALF CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	cpm	12	12	12	12	48	111	141	150	146	118	12
CART. GROSS TOTAL CNTS, 1 MIN	counts	100	100	100	100	734	1825	2353	2514	2454	1960	100
IODINE AIRBORNE CONC.	uCi/cc	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	8.23E-09	2.24E-08	2.93E-08	3.14E-08	3.06E-08	2.42E-08	<3.30E-10
OPEN WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0	0.1	0.4	0.5	0.5	0.5	0.4	0.0
CLOSED WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.3	0.3	0.2	0.0

TENTH CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	cpm	12	12	12	12	19	32	38	40	39	33	12
CART. GROSS TOTAL CNTS, 1 MIN	counts	100	100	100	100	227	445	551	583	571	472	100
IODINE AIRBORNE CONC.	uCi/cc	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	1.65E-09	4.48E-09	5.85E-09	6.27E-09	6.11E-09	4.83E-09	<3.30E-10
OPEN WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0
CLOSED WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0

NOTES:

CART. GROSS TOTAL COUNTS IS TOTAL COUNTS + BACKGROUND ON IODINE CARTRIDGE @ 5 MIN. WITH 35 CUBIC FOOT SAMPLE.
 BACKGROUND COUNT ON EBERLINE ESP-2 = 100 GROSS COUNTS, 1 MIN. COUNT, 100 CPM.
 AIR SAMPLE FLOW = 3.5 CFM FOR 1 MIN. = 3.5 CFM (1E+05 cc)

CONFIDENTIAL (Until 12-16-93)

FPL/PTN

PTNFT-9

93-EE/Rev.05/12-07-93

TURKEY POINT NUCLEAR PLANT
12/15/93 EXERCISE PLUME DATA

TIME: 14:15

ESP-2 BKG	100	cpm
RO-2 BKG	0.01	mR/hr
ESP-2 EFF.	7	%
FRISKER EFF.	10	%
AIR SAMPLE VOL.	3.5	cubic feet

CENTERLINE

MILES FROM SOURCE	0.5	1	2	3	4	5	6	7	8	9	10
SECTOR	P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	12	12	12	12	12	65	173	226	255	244	202
CART. GROSS TOTAL CNTS, 1 MIN	100	100	100	100	100	1029	2923	3855	4349	4166	3429
IODINE AIRBORNE CONC.	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	1.21E-08	3.67E-08	4.88E-08	5.52E-08	5.28E-08	4.32E-08
OPEN WINDOW @ HEAD HT.	0.0	0.0	0.0	0.0	0.0	0.2	0.6	0.8	0.8	0.8	0.6
CLOSED WINDOW @ HEAD HT.	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.5	0.6	0.5	0.4

HALF CENTERLINE

MILES FROM SOURCE	0.5	1	2	3	4	5	6	7	8	9	10
SECTOR	P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	12	12	12	12	12	39	93	119	133	128	107
CART. GROSS TOTAL CNTS, 1 MIN	100	100	100	100	100	565	1511	1978	2224	2133	1764
IODINE AIRBORNE CONC.	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	6.03E-09	1.83E-08	2.44E-08	2.76E-08	2.64E-08	2.16E-08
OPEN WINDOW @ HEAD HT.	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.4	0.4	0.4	0.3
CLOSED WINDOW @ HEAD HT.	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.3	0.3	0.2

TENTH CENTERLINE

MILES FROM SOURCE	0.5	1	2	3	4	5	6	7	8	9	10
SECTOR	P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	12	12	12	12	12	17	28	33	36	35	31
CART. GROSS TOTAL CNTS, 1 MIN	100	100	100	100	100	193	382	476	525	507	433
IODINE AIRBORNE CONC.	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	1.21E-09	3.67E-09	4.88E-09	5.52E-09	5.28E-09	4.32E-09
OPEN WINDOW @ HEAD HT.	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1
CLOSED WINDOW @ HEAD HT.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1

NOTES:

CART. GROSS TOTAL COUNTS IS TOTAL COUNTS + BACKGROUND ON IODINE CARTRIDGE @ 5 MIN. WITH 35 CUBIC FOOT SAMPLE.
 BACKGROUND COUNT ON EBERLINE ESP-2 = 100 GROSS COUNTS, 1 MIN. COUNT, 100 CPM.
 AIR SAMPLE FLOW = 3.5 CFM FOR 1 MIN. = 3.5 CFM (1E+05 cc)



CONFIDENTIAL (Until 12-16-93)

**TURKEY POINT NUCLEAR PLANT
12/15/93 EXERCISE PLUME DATA**

TIME: 14:30

ESP-2 BKG	100	cpm
RO-2 BKG	0.01	mR/hr
ESP-2 EFF.	7	%
FRISKER EFF.	10	%
AIR SAMPLE VOL.	3.5	cubic feet

CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	cpm	12	12	12	12	12	12	55	146	201	222	220
CART. GROSS TOTAL CNTS, 1 MIN	counts	100	100	100	100	100	100	860	2452	3405	3769	3738
IODINE AIRBORNE CONC.	uCi/cc	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	9.87E-09	3.06E-08	4.29E-08	4.77E-08	4.73E-08
OPEN WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.5	0.7	0.7	0.7
CLOSED WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.4	0.5	0.5

HALF CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	cpm	12	12	12	12	12	12	34	79	106	117	116
CART. GROSS TOTAL CNTS, 1 MIN	counts	100	100	100	100	100	100	480	1276	1752	1935	1919
IODINE AIRBORNE CONC.	uCi/cc	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	4.94E-09	1.53E-08	2.15E-08	2.38E-08	2.36E-08
OPEN WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.4	0.4
CLOSED WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.2	0.2

TENTH CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	cpm	12	12	12	12	12	12	16	25	31	33	33
CART. GROSS TOTAL CNTS, 1 MIN	counts	100	100	100	100	100	100	176	335	430	467	464
IODINE AIRBORNE CONC.	uCi/cc	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	9.87E-10	3.06E-09	4.29E-09	4.77E-09	4.73E-09
OPEN WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1
CLOSED WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1

NOTES:

CART. GROSS TOTAL COUNTS IS TOTAL COUNTS + BACKGROUND ON IODINE CARTRIDGE @ 5 MIN. WITH 35 CUBIC FOOT SAMPLE.

BACKGROUND COUNT ON EBERLINE ESP-2 = 100 GROSS COUNTS, 1 MIN. COUNT, 100 CPM.

AIR SAMPLE FLOW = 3.5 CFM FOR 1 MIN. = 3.5 CFM (1E+05 cc)

CONFIDENTIAL (Until 12-16-93)

FPL/PTN

PTNFT-11

93-EE/Rev.05/12-07-93

CONFIDENTIAL (Until 12-16-93)

**TURKEY POINT NUCLEAR PLANT
12/15/93 EXERCISE PLUME DATA**

TIME: 14:45

ESP-2 BKG	100	cpm
RO-2 BKG	0.01	mR/hr
ESP-2 EFF.	7	%
FRISKER EFF.	10	%
AIR SAMPLE VOL.	3.5	cubic feet

CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	cpm	12	12	12	12	12	12	12	48	130	175	200
CART. GROSS TOTAL CNTS. 1 MIN	counts	100	100	100	100	100	100	100	734	2170	2954	3383
IODINE AIRBORNE CONC.	uCi/cc	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	8.23E-09	2.69E-08	3.71E-08	4.26E-08
OPEN WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.6	0.6
CLOSED WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.4	0.4

HALF CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	cpm	12	12	12	12	12	12	12	30	71	94	106
CART. GROSS TOTAL CNTS. 1 MIN	counts	100	100	100	100	100	100	100	417	1135	1527	1741
IODINE AIRBORNE CONC.	uCi/cc	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	4.11E-09	1.34E-08	1.85E-08	2.13E-08
OPEN WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.3
CLOSED WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2

TENTH CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	cpm	12	12	12	12	12	12	12	16	24	28	31
CART. GROSS TOTAL CNTS. 1 MIN	counts	100	100	100	100	100	100	100	163	307	385	428
IODINE AIRBORNE CONC.	uCi/cc	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	8.23E-10	2.69E-09	3.71E-09	4.26E-09
OPEN WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1
CLOSED WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1

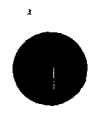
NOTES:

CART. GROSS TOTAL COUNTS IS TOTAL COUNTS + BACKGROUND ON IODINE CARTRIDGE @ 5 MIN. WITH 35 CUBIC FOOT SAMPLE.
 BACKGROUND COUNT ON EBERLINE ESP-2 = 100 GROSS COUNTS, 1 MIN. COUNT, 100 CPM.
 AIR SAMPLE FLOW = 3.5 CFM FOR 1 MIN. = 3.5 CFM (1E+05 cc)

CONFIDENTIAL (Until 12-16-93)
 FPL/PTN

PTNFT-12

93-EE/Rev.05/12-07-93



CONFIDENTIAL (Until 12-16-93)

**TURKEY POINT NUCLEAR PLANT
12/15/93 EXERCISE PLUME DATA**

TIME: 15:00

ESP-2 BKG	100	cpm
RO-2 BKG	0.01	mR/hr
ESP-2 EFF.	7	%
FRISKER EFF.	10	%
AIR SAMPLE VOL.	3.5	cubic feet

CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	cpm	12	12	12	12	12	12	12	12	44	114	158
CART. GROSS TOTAL CNTS. 1 MIN	counts	100	100	100	100	100	100	100	100	658	1888	2654
IODINE AIRBORNE CONC.	uCi/cc	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	7.24E-09	2.32E-08	3.32E-08
OPEN WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.5
CLOSED WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.3

HALF CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	cpm	12	12	12	12	12	12	12	12	28	63	85
CART. GROSS TOTAL CNTS. 1 MIN	counts	100	100	100	100	100	100	100	100	379	994	1377
IODINE AIRBORNE CONC.	uCi/cc	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	3.62E-09	1.16E-08	1.66E-08
OPEN WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.3
CLOSED WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2

TENTH CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	cpm	12	12	12	12	12	12	12	12	15	22	27
CART. GROSS TOTAL CNTS. 1 MIN	counts	100	100	100	100	100	100	100	100	156	279	355
IODINE AIRBORNE CONC.	uCi/cc	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	7.24E-10	2.32E-09	3.32E-09
OPEN WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
CLOSED WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

NOTES:

CART. GROSS TOTAL COUNTS IS TOTAL COUNTS + BACKGROUND ON IODINE CARTRIDGE @ 5 MIN. WITH 35 CUBIC FOOT SAMPLE.
 BACKGROUND COUNT ON EBERLINE ESP-2 = 100 GROSS COUNTS, 1 MIN. COUNT, 100 CPM.
 AIR SAMPLE FLOW = 3.5 CFM FOR 1 MIN. = 3.5 CFM (1E+05 cc)

CONFIDENTIAL (Until 12-16-93)

FPL/PTN

PTNFT-13

93-EE/Rev.05/12-07-93



CONFIDENTIAL (Until 12-16-93)

**TURKEY POINT NUCLEAR PLANT
12/15/93 EXERCISE PLUME DATA**

TIME: 15:15

ESP-2 BKG	100	cpm
RO-2 BKG	0.01	mR/hr
ESP-2 EFF.	7	%
FRISKER EFF.	10	%
AIR SAMPLE VOL.	3.5	cubic feet

CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	cpm	12	12	12	12	12	12	12	12	12	40	103
CART. GROSS TOTAL CNTS, 1 MIN	counts	100	100	100	100	100	100	100	100	100	582	1700
IODINE AIRBORNE CONC.	uCi/cc	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	6.25E-09	2.08E-08
OPEN WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3
CLOSED WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2

HALF CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	cpm	12	12	12	12	12	12	12	12	12	26	58
CART. GROSS TOTAL CNTS, 1 MIN	counts	100	100	100	100	100	100	100	100	100	341	800
IODINE AIRBORNE CONC.	uCi/cc	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	3.13E-09	1.04E-08
OPEN WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2
CLOSED WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1

TENTH CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	cpm	12	12	12	12	12	12	12	12	12	15	21
CART. GROSS TOTAL CNTS, 1 MIN	counts	100	100	100	100	100	100	100	100	100	148	260
IODINE AIRBORNE CONC.	uCi/cc	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	6.25E-10	2.08E-09
OPEN WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CLOSED WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

NOTES:

CART. GROSS TOTAL COUNTS IS TOTAL COUNTS + BACKGROUND ON IODINE CARTRIDGE @ 5 MIN. WITH 35 CUBIC FOOT SAMPLE.
 BACKGROUND COUNT ON EBERLINE ESP-2 = 100 GROSS COUNTS, 1 MIN. COUNT, 100 CPM.
 AIR SAMPLE FLOW = 3.5 CFM FOR 1 MIN. = 3.5 CFM (1E+05 cc)

CONFIDENTIAL (Until 12-16-93)
 FPL/PTN

PTNFT-14

93-EE/Rev.05/12-07-93

CONFIDENTIAL (Until 12-16-93)

**TURKEY POINT NUCLEAR PLANT
12/15/93 EXERCISE PLUME DATA**

ESP-2 BKG	100	cpm
RO-2 BKG	0.01	mR/hr
ESP-2 EFF.	7	%
FRISKER EFF.	10	%
AIR SAMPLE VOL	3.5	cubic feet

TIME: 15:30

CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	cpm	12	12	12	12	12	12	12	12	12	12	37
CART. GROSS TOTAL CNTS. 1 MIN	counts	100	100	100	100	100	100	100	100	100	100	531
IODINE AIRBORNE CONC.	uCi/cc	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	5.60E-09
OPEN WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
CLOSED WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1

HALF CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	cpm	12	12	12	12	12	12	12	12	12	12	24
CART. GROSS TOTAL CNTS. 1 MIN	counts	100	100	100	100	100	100	100	100	100	100	315
IODINE AIRBORNE CONC.	uCi/cc	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	2.80E-09
OPEN WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
CLOSED WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TENTH CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	cpm	12	12	12	12	12	12	12	12	12	12	14
CART. GROSS TOTAL CNTS. 1 MIN	counts	100	100	100	100	100	100	100	100	100	100	143
IODINE AIRBORNE CONC.	uCi/cc	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	5.60E-10
OPEN WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CLOSED WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

NOTES:

CART. GROSS TOTAL COUNTS IS TOTAL COUNTS + BACKGROUND ON IODINE CARTRIDGE @ 5 MIN. WITH 35 CUBIC FOOT SAMPLE.
 BACKGROUND COUNT ON EBERLINE ESP-2 = 100 GROSS COUNTS, 1 MIN. COUNT, 100 CPM.
 AIR SAMPLE FLOW = 3.5 CFM FOR 1 MIN. = 3.5 CFM (1E+05 cc)

CONFIDENTIAL (Until 12-16-93)
 FPL/PTN

PTNFT-15

93-EE/Rev.05/12-07-93



**TURKEY POINT NUCLEAR PLANT
12/15/93 EXERCISE PLUME DATA**

TIME: 15:45

ESP-2 BKG	100	cpm
RO-2 BKG	0.01	mR/hr
ESP-2 EFF.	7	%
FRISKER EFF.	10	%
AIR SAMPLE VOL	3.5	cubic feet

CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	cpm	12	12	12	12	12	12	12	12	12	12	12
CART. GROSS TOTAL CNTS. 1 MIN	counts	100	100	100	100	100	100	100	100	100	100	100
IODINE AIRBORNE CONC.	uCi/cc	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10
OPEN WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CLOSED WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

HALF CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	cpm	12	12	12	12	12	12	12	12	12	12	12
CART. GROSS TOTAL CNTS. 1 MIN	counts	100	100	100	100	100	100	100	100	100	100	100
IODINE AIRBORNE CONC.	uCi/cc	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10
OPEN WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CLOSED WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

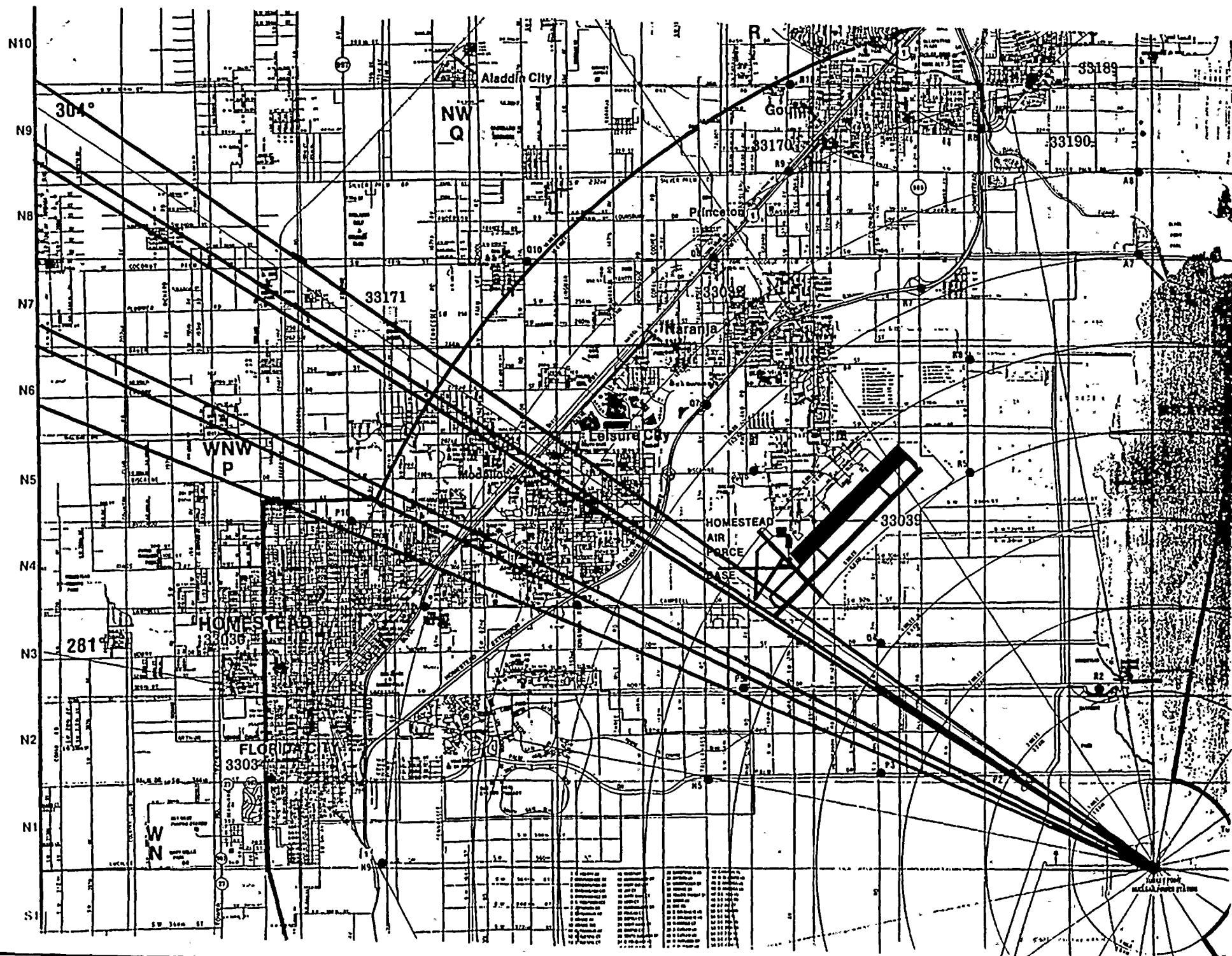
TENTH CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	cpm	12	12	12	12	12	12	12	12	12	12	12
CART. GROSS TOTAL CNTS. 1 MIN	counts	100	100	100	100	100	100	100	100	100	100	100
IODINE AIRBORNE CONC.	uCi/cc	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10	<3.30E-10
OPEN WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CLOSED WINDOW @ HEAD HT.	mR/hr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

NOTES:

CART. GROSS TOTAL COUNTS IS TOTAL COUNTS + BACKGROUND ON IODINE CARTRIDGE @ 5 MIN. WITH 35 CUBIC FOOT SAMPLE.
 BACKGROUND COUNT ON EBERLINE ESP-2 = 100 GROSS COUNTS, 1 MIN. COUNT, 100 CPM.
 - AIR SAMPLE FLOW = 3.5 CFM FOR 1 MIN. = 3.5 CFM (1E+05 cc)







CONFIDENTIAL (Until 12-16-93)

FLORIDA DHRS FIELD TEAM
12/15/93 EXERCISE PLUME DATA

TIME: 12:00

VICTOREEN 190/LUDLUM 2200 BKG TOT.	250	cts@5 min
VICTOREEN 450 B-E MDA	0.01	mR/hr
VICTOREEN 190 BKG	6	uR/hr
LUDLUM 2200 EFF.	5	%
VICTOREEN 450 B-E FRISK EFF. (BETA)	10	%
AIR SAMPLE VOL.	10	cubic feet

CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	gross cpm	9997	8000	12	12	12	12	12	12	12	12	12
CART. GROSS TOTAL COUNTS	counts	87662	70179	250	250	250	250	250	250	250	250	250
IODINE AIRBORNE CONC.	uCi/cc	7.95E-07	6.36E-07	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09
CLOSED WINDOW @ 1 METER	mR/hr	7.59	6.07	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
CLOSED WINDOW @ GROUND	mR/hr	7.61	6.07	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
OPEN WINDOW @ 1 METER	mR/hr	15.17	12.13	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
OPEN WINDOW @ GROUND	mR/hr	22.82	18.22	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
VICTOREEN 190 (uR/hr MODE)	uR/hr	7587	6067	6	6	6	6	6	6	6	6	6

HALF CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	gross cpm	5004	4006	12	12	12	12	12	12	12	12	12
CART. GROSS TOTAL COUNTS	counts	43956	35215	250	250	250	250	250	250	250	250	250
IODINE AIRBORNE CONC.	uCi/cc	3.97E-07	3.18E-07	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09
CLOSED WINDOW @ 1 METER	mR/hr	3.80	3.04	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
CLOSED WINDOW @ GROUND	mR/hr	3.81	3.04	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
OPEN WINDOW @ 1 METER	mR/hr	7.60	6.08	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
OPEN WINDOW @ GROUND	mR/hr	11.42	9.13	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
VICTOREEN 190 (uR/hr MODE)	uR/hr	3798	3038	6	6	6	6	6	6	6	6	6

TENTH CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	gross cpm	1010	811	12	12	12	12	12	12	12	12	12
CART. GROSS TOTAL COUNTS	counts	8991	7243	250	250	250	250	250	250	250	250	250
IODINE AIRBORNE CONC.	uCi/cc	7.95E-08	6.36E-08	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09
CLOSED WINDOW @ 1 METER	mR/hr	0.77	0.62	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
CLOSED WINDOW @ GROUND	mR/hr	0.77	0.62	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
OPEN WINDOW @ 1 METER	mR/hr	1.54	1.23	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
OPEN WINDOW @ GROUND	mR/hr	2.31	1.85	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
VICTOREEN 190 (uR/hr MODE)	uR/hr	768	616	6	6	6	6	6	6	6	6	6

NOTES:

CART. GROSS TOTAL COUNTS IS TOTAL COUNTS + BACKGROUND ON IODINE CARTRIDGE @ 5 MIN. WITH 10 CUBIC FOOT SAMPLE.

CLOSED WINDOW/OPEN WINDOW READINGS ARE VICTOREEN 450 B-E WITH BAKELITE BETA SHIELD

PREFILTER GROSS COUNTS IS CPM + BACKGROUND USING VIC 450 AND THIN-WINDOW "PANCAKE" PROBE ON 10 CUBIC FOOT SAMPLE.

IODINE AIRBORNE CONCENTRATION MDA IS 3.00E-09 uCi/cc

CONFIDENTIAL (Until 12-16-93)

FPU/PTN

DHRS-1

93-EE/Rev.05/12-07-93



CONFIDENTIAL (Until 12-16-93)

**FLORIDA DHRS FIELD TEAM
12/15/93 EXERCISE PLUME DATA**

TIME: 12:15

VICTOREEN 190/LUDLUM 2200 BKG TOT.	250	cts @ 5 min
VICTOREEN 450 B-E MDA	0.01	mR/hr
VICTOREEN 190 BKG	6	uR/hr
LUDLUM 2200 EFF.	5	%
VICTOREEN 450 B-E FRISK EFF. (BETA)	10	%
AIR SAMPLE VOL.	10	cubic feet

CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	gross cpm	10926	8743	3527	12	12	12	12	12	12	12	12
CART. GROSS TOTAL COUNTS	counts	95794	76685	31019	250	250	250	250	250	250	250	250
IODINE AIRBORNE CONC.	uCi/cc	8.69E-07	6.95E-07	2.80E-07	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09
CLOSED WINDOW @ 1 METER	mR/hr	8.48	6.78	2.74	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
CLOSED WINDOW @ GROUND	mR/hr	8.52	6.79	2.74	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
OPEN WINDOW @ 1 METER	mR/hr	16.97	13.56	5.47	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
OPEN WINDOW @ GROUND	mR/hr	25.56	20.38	8.21	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
VICTOREEN 190 (uR/hr MODE)	uR/hr	8485	6780	2735	6	6	6	6	6	6	6	6

HALF CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	gross cpm	5469	4378	1769	12	12	12	12	12	12	12	12
CART. GROSS TOTAL COUNTS	counts	48022	38467	15634	250	250	250	250	250	250	250	250
IODINE AIRBORNE CONC.	uCi/cc	4.34E-07	3.47E-07	1.40E-07	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09
CLOSED WINDOW @ 1 METER	mR/hr	4.25	3.40	1.37	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
CLOSED WINDOW @ GROUND	mR/hr	4.27	3.40	1.37	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
OPEN WINDOW @ 1 METER	mR/hr	8.49	6.79	2.75	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
OPEN WINDOW @ GROUND	mR/hr	12.80	10.21	4.12	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
VICTOREEN 190 (uR/hr MODE)	uR/hr	4247	3395	1373	6	6	6	6	6	6	6	6

TENTH CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	gross cpm	1103	885	363	12	12	12	12	12	12	12	12
CART. GROSS TOTAL COUNTS	counts	9804	7893	3327	250	250	250	250	250	250	250	250
IODINE AIRBORNE CONC.	uCi/cc	8.69E-08	6.95E-08	2.80E-08	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09
CLOSED WINDOW @ 1 METER	mR/hr	0.86	0.69	0.28	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
CLOSED WINDOW @ GROUND	mR/hr	0.86	0.69	0.28	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
OPEN WINDOW @ 1 METER	mR/hr	1.71	1.37	0.57	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
OPEN WINDOW @ GROUND	mR/hr	2.58	2.07	0.85	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
VICTOREEN 190 (uR/hr MODE)	uR/hr	857	687	283	6	6	6	6	6	6	6	6

NOTES:

CART. GROSS TOTAL COUNTS IS TOTAL COUNTS + BACKGROUND ON IODINE CARTRIDGE @ 5 MIN. WITH 10 CUBIC FOOT SAMPLE.

CLOSED WINDOW/OPEN WINDOW READINGS ARE VICTOREEN 450 B-E WITH BAKELITE BETA SHIELD

PREFILTER GROSS COUNTS IS CPM + BACKGROUND USING VIC 450 AND THIN-WINDOW "PANCAKE" PROBE ON 10 CUBIC FOOT SAMPLE.

IODINE AIRBORNE CONCENTRATION MDA IS 3.00E-09 uCi/cc

CONFIDENTIAL (Until 12-16-93)

FPU/PTN

DHRS-2

93-EE/Rev.05/12-07-93



CONFIDENTIAL (Until 12-16-93)

FLORIDA DHRS FIELD TEAM
12/15/93 EXERCISE PLUME DATA

TIME: 12:30

VICTOREEN 190/LUDLUM 2200 BKG TOT.	250	cts @ 5 min
VICTOREEN 450 B-E MDA	0.01	mR/hr
VICTOREEN 190 BKG	6	uR/hr
LUDLUM 2200 EFF.	5	%
VICTOREEN 450 B-E FRISK EFF. (BETA)	10	%
AIR SAMPLE VOL.	10	cubic feet

CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	gross cpm	9860	7890	3854	2249	12	12	12	12	12	12	12
CART. GROSS TOTAL COUNTS	counts	86463	69220	33881	19830	250	250	250	250	250	250	250
IODINE AIRBORNE CONC.	uCi/cc	7.84E-07	6.27E-07	3.06E-07	1.78E-07	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09
CLOSED WINDOW @ 1 METER	mR/hr	7.82	6.25	3.06	1.68	0.01	0.01	0.01	0.01	0.01	0.01	0.01
CLOSED WINDOW @ GROUND	mR/hr	7.86	6.26	3.06	1.68	0.01	0.01	0.01	0.01	0.01	0.01	0.01
OPEN WINDOW @ 1 METER	mR/hr	15.64	12.50	6.11	3.35	0.01	0.01	0.01	0.01	0.01	0.01	0.01
OPEN WINDOW @ GROUND	mR/hr	23.58	18.79	9.18	5.03	0.01	0.01	0.01	0.01	0.01	0.01	0.01
VICTOREEN 190 (uR/hr MODE)	uR/hr	7820	6248	3056	1676	6	6	6	6	6	6	6

HALF CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	gross cpm	4936	3951	1933	1130	12	12	12	12	12	12	12
CART. GROSS TOTAL COUNTS	counts	43356	34735	17068	10040	250	250	250	250	250	250	250
IODINE AIRBORNE CONC.	uCi/cc	3.92E-07	3.14E-07	1.53E-07	8.90E-08	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09
CLOSED WINDOW @ 1 METER	mR/hr	3.92	3.13	1.53	0.84	0.01	0.01	0.01	0.01	0.01	0.01	0.01
CLOSED WINDOW @ GROUND	mR/hr	3.94	3.14	1.54	0.84	0.01	0.01	0.01	0.01	0.01	0.01	0.01
OPEN WINDOW @ 1 METER	mR/hr	7.83	6.26	3.07	1.69	0.01	0.01	0.01	0.01	0.01	0.01	0.01
OPEN WINDOW @ GROUND	mR/hr	11.81	9.41	4.61	2.53	0.01	0.01	0.01	0.01	0.01	0.01	0.01
VICTOREEN 190 (uR/hr MODE)	uR/hr	3915	3129	1533	843	6	6	6	6	6	6	6

TENTH CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	gross cpm	997	800	396	236	12	12	12	12	12	12	12
CART. GROSS TOTAL COUNTS	counts	8871	7147	3613	2208	250	250	250	250	250	250	250
IODINE AIRBORNE CONC.	uCi/cc	7.84E-08	6.27E-08	3.06E-08	1.78E-08	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09
CLOSED WINDOW @ 1 METER	mR/hr	0.79	0.63	0.31	0.18	0.01	0.01	0.01	0.01	0.01	0.01	0.01
CLOSED WINDOW @ GROUND	mR/hr	0.80	0.64	0.32	0.18	0.01	0.01	0.01	0.01	0.01	0.01	0.01
OPEN WINDOW @ 1 METER	mR/hr	1.58	1.27	0.63	0.35	0.01	0.01	0.01	0.01	0.01	0.01	0.01
OPEN WINDOW @ GROUND	mR/hr	2.39	1.91	0.95	0.53	0.01	0.01	0.01	0.01	0.01	0.01	0.01
VICTOREEN 190 (uR/hr MODE)	uR/hr	791	634	315	177	6	6	6	6	6	6	6

NOTES:

CART. GROSS TOTAL COUNTS IS TOTAL COUNTS + BACKGROUND ON IODINE CARTRIDGE @ 5 MIN. WITH 10 CUBIC FOOT SAMPLE.
 CLOSED WINDOW/OPEN WINDOW READINGS ARE VICTOREEN 450 B-E WITH BAKELITE BETA SHIELD
 PREFILTER GROSS COUNTS IS CPM + BACKGROUND USING VIC 450 AND THIN-WINDOW "PANCAKE" PROBE ON 10 CUBIC FOOT SAMPLE.
 IODINE AIRBORNE CONCENTRATION MDA IS 3.00E-09 uCi/cc

CONFIDENTIAL (Until 12-16-93)
 FPL/PTN

DHRS-3

93-EE/Rev.05/12-07-93



CONFIDENTIAL (Until 12-16-93)

FLORIDA DHRS FIELD TEAM
12/15/93 EXERCISE PLUME DATA

TIME: 12:45

VICTOREEN 190/LUDLUM 2200 BKG TOT.	250	cts @ 5 min
VICTOREEN 450 B-E MDA	0.01	mR/hr
VICTOREEN 190 BKG	6	uR/hr
LUDLUM 2200 EFF.	5	%
VICTOREEN 450 B-E FRISK EFF. (BETA)	10	%
AIR SAMPLE VOL.	10	cubic feet

CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	gross cpm	7672	6140	3478	2457	1610	12	12	12	12	12	12
CART. GROSS TOTAL COUNTS	counts	67308	53896	30597	21652	14236	250	250	250	250	250	250
IODINE AIRBORNE CONC.	uCi/cc	6.10E-07	4.88E-07	2.76E-07	1.95E-07	1.27E-07	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09
CLOSED WINDOW @ 1 METER	mR/hr	6.21	4.96	2.82	1.87	1.22	0.01	0.01	0.01	0.01	0.01	0.01
CLOSED WINDOW @ GROUND	mR/hr	6.24	4.97	2.82	1.87	1.22	0.01	0.01	0.01	0.01	0.01	0.01
OPEN WINDOW @ 1 METER	mR/hr	12.41	9.92	5.63	3.74	2.44	0.01	0.01	0.01	0.01	0.01	0.01
OPEN WINDOW @ GROUND	mR/hr	18.73	14.92	8.47	5.62	3.67	0.01	0.01	0.01	0.01	0.01	0.01
VICTOREEN 190 (uR/hr MODE)	uR/hr	6207	4958	2817	1872	1221	6	6	6	6	6	6

HALF CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	gross cpm	3842	3076	1745	1234	811	12	12	12	12	12	12
CART. GROSS TOTAL COUNTS	counts	33779	27073	15423	10951	7243	250	250	250	250	250	250
IODINE AIRBORNE CONC.	uCi/cc	3.05E-07	2.44E-07	1.38E-07	9.73E-08	6.36E-08	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09
CLOSED WINDOW @ 1 METER	mR/hr	3.11	2.48	1.41	0.94	0.62	0.01	0.01	0.01	0.01	0.01	0.01
CLOSED WINDOW @ GROUND	mR/hr	3.13	2.49	1.42	0.94	0.62	0.01	0.01	0.01	0.01	0.01	0.01
OPEN WINDOW @ 1 METER	mR/hr	6.22	4.97	2.83	1.88	1.23	0.01	0.01	0.01	0.01	0.01	0.01
OPEN WINDOW @ GROUND	mR/hr	9.38	7.47	4.25	2.83	1.85	0.01	0.01	0.01	0.01	0.01	0.01
VICTOREEN 190 (uR/hr MODE)	uR/hr	3108	2484	1413	941	616	6	6	6	6	6	6

TENTH CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	gross cpm	778	625	359	256	172	12	12	12	12	12	12
CART. GROSS TOTAL COUNTS	counts	6958	5615	3285	2390	1649	250	250	250	250	250	250
IODINE AIRBORNE CONC.	uCi/cc	6.10E-08	4.88E-08	2.76E-08	1.95E-08	1.27E-08	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09
CLOSED WINDOW @ 1 METER	mR/hr	0.63	0.50	0.29	0.20	0.13	0.01	0.01	0.01	0.01	0.01	0.01
CLOSED WINDOW @ GROUND	mR/hr	0.63	0.51	0.29	0.20	0.13	0.01	0.01	0.01	0.01	0.01	0.01
OPEN WINDOW @ 1 METER	mR/hr	1.26	1.01	0.58	0.39	0.26	0.01	0.01	0.01	0.01	0.01	0.01
OPEN WINDOW @ GROUND	mR/hr	1.90	1.52	0.87	0.59	0.39	0.01	0.01	0.01	0.01	0.01	0.01
VICTOREEN 190 (uR/hr MODE)	uR/hr	630	505	291	196	131	6	6	6	6	6	6

NOTES:

CART. GROSS TOTAL COUNTS IS TOTAL COUNTS + BACKGROUND ON IODINE CARTRIDGE @ 5 MIN. WITH 10 CUBIC FOOT SAMPLE.

CLOSED WINDOW/OPEN WINDOW READINGS ARE VICTOREEN 450 B-E WITH BAKELITE BETA SHIELD

PREFILTER GROSS COUNTS IS CPM + BACKGROUND USING VIC 450 AND THIN-WINDOW "PANCAKE" PROBE ON 10 CUBIC FOOT SAMPLE.

IODINE AIRBORNE CONCENTRATION MDA IS 3.00E-09 uCi/cc

CONFIDENTIAL (Until 12-16-93)

FPU/PTN

DHRS-4

93-EE/Rev.05/12-07-93



CONFIDENTIAL (Until 12-16-93)

FLORIDA DHRS FIELD TEAM
12/15/93 EXERCISE PLUME DATA

TIME: 13:00

VICTOREEN 190/LUDLUM 2200 BKG TOT.	250	cts @ 5 min
VICTOREEN 450 B-E MDA	0.01	mR/hr
VICTOREEN 190 BKG	6	uR/hr
LUDLUM 2200 EFF.	5	%
VICTOREEN 450 B-E FRISK EFF. (BETA)	10	%
AIR SAMPLE VOL.	10	cubic feet

CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	gross cpm	4810	3851	2708	2218	1758	1184	12	12	12	12	12
CART. GROSS TOTAL COUNTS	counts	42258	33855	23854	19562	15537	10506	250	250	250	250	250
IODINE AIRBORNE CONC.	uCi/cc	3.82E-07	3.06E-07	2.15E-07	1.76E-07	1.39E-07	9.32E-08	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09
CLOSED WINDOW @ 1 METER	mR/hr	3.97	3.17	2.24	1.73	1.36	0.90	0.01	0.01	0.01	0.01	0.01
CLOSED WINDOW @ GROUND	mR/hr	4.00	3.18	2.24	1.73	1.37	0.90	0.01	0.01	0.01	0.01	0.01
OPEN WINDOW @ 1 METER	mR/hr	7.93	6.34	4.47	3.45	2.73	1.81	0.01	0.01	0.01	0.01	0.01
OPEN WINDOW @ GROUND	mR/hr	11.99	9.54	6.72	5.19	4.10	2.71	0.01	0.01	0.01	0.01	0.01
VICTOREEN 190 (uR/hr MODE)	uR/hr	3967	3168	2236	1725	1364	903	6	6	6	6	6

HALF CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	gross cpm	2411	1931	1360	1115	885	598	12	12	12	12	12
CART. GROSS TOTAL COUNTS	counts	21253	17053	12052	9906	7893	5378	250	250	250	250	250
IODINE AIRBORNE CONC.	uCi/cc	1.91E-07	1.53E-07	1.07E-07	8.78E-08	6.95E-08	4.66E-08	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09
CLOSED WINDOW @ 1 METER	mR/hr	1.99	1.59	1.12	0.87	0.69	0.46	0.01	0.01	0.01	0.01	0.01
CLOSED WINDOW @ GROUND	mR/hr	2.00	1.59	1.13	0.87	0.69	0.46	0.01	0.01	0.01	0.01	0.01
OPEN WINDOW @ 1 METER	mR/hr	3.98	3.18	2.25	1.74	1.37	0.91	0.01	0.01	0.01	0.01	0.01
OPEN WINDOW @ GROUND	mR/hr	6.01	4.78	3.38	2.61	2.06	1.37	0.01	0.01	0.01	0.01	0.01
VICTOREEN 190 (uR/hr MODE)	uR/hr	1988	1589	1123	868	687	457	6	6	6	6	6

TENTH CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	gross cpm	492	396	282	233	187	129	12	12	12	12	12
CART. GROSS TOTAL COUNTS	counts	4451	3611	2610	2181	1779	1276	250	250	250	250	250
IODINE AIRBORNE CONC.	uCi/cc	3.82E-08	3.06E-08	2.15E-08	1.76E-08	1.39E-08	9.32E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09
CLOSED WINDOW @ 1 METER	mR/hr	0.41	0.33	0.23	0.18	0.15	0.10	0.01	0.01	0.01	0.01	0.01
CLOSED WINDOW @ GROUND	mR/hr	0.41	0.33	0.23	0.18	0.15	0.10	0.01	0.01	0.01	0.01	0.01
OPEN WINDOW @ 1 METER	mR/hr	0.81	0.65	0.47	0.36	0.29	0.20	0.01	0.01	0.01	0.01	0.01
OPEN WINDOW @ GROUND	mR/hr	1.23	0.98	0.70	0.55	0.44	0.30	0.01	0.01	0.01	0.01	0.01
VICTOREEN 190 (uR/hr MODE)	uR/hr	406	328	233	182	145	99	6	6	6	6	6

NOTES:

CART. GROSS TOTAL COUNTS IS TOTAL COUNTS + BACKGROUND ON IODINE CARTRIDGE @ 5 MIN. WITH 10 CUBIC FOOT SAMPLE.

CLOSED WINDOW/OPEN WINDOW READINGS ARE VICTOREEN 450 B-E WITH BAKELITE BETA SHIELD

PREFILTER GROSS COUNTS IS CPM + BACKGROUND USING VIC 450 AND THIN-WINDOW "PANCAKE" PROBE ON 10 CUBIC FOOT SAMPLE.

IODINE AIRBORNE CONCENTRATION MDA IS 3.00E-09 uCi/cc

CONFIDENTIAL (Until 12-16-93)

FPL/PTN

DHRS-5

93-EE/Rev.05/12-07-93



CONFIDENTIAL (Until 12-16-93)

**FLORIDA DHRS FIELD TEAM
12/15/93 EXERCISE PLUME DATA**

TIME: 13:15

VICTOREEN 190/LUDLUM 2200 BKG TOT.	250	cts @ 5 min
VICTOREEN 450 B-E MDA	0.01	mR/hr
VICTOREEN 190 BKG	6	uR/hr
LUDLUM 2200 EFF.	5	%
VICTOREEN 450 B-E FRISK EFF. (BETA)	10	%
AIR SAMPLE VOL.	10	cubic feet

CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	gross cpm	1304	1046	1701	1728	1588	1293	971	12	12	12	12
CART. GROSS TOTAL COUNTS	counts	11564	9302	15036	15271	14044	11460	8642	250	250	250	250
IODINE AIRBORNE CONC.	uCi/cc	1.03E-07	8.23E-08	1.34E-07	1.37E-07	1.25E-07	1.02E-07	7.63E-08	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09
CLOSED WINDOW @ 1 METER	mR/hr	1.10	0.88	1.43	1.37	1.28	1.01	0.74	0.01	0.01	0.01	0.01
CLOSED WINDOW @ GROUND	mR/hr	1.12	0.88	1.43	1.37	1.26	1.01	0.74	0.01	0.01	0.01	0.01
OPEN WINDOW @ 1 METER	mR/hr	2.20	1.76	2.86	2.74	2.51	2.02	1.47	0.01	0.01	0.01	0.01
OPEN WINDOW @ GROUND	mR/hr	3.35	2.65	4.30	4.12	3.78	3.03	2.21	0.01	0.01	0.01	0.01
VICTOREEN 190 (uR/hr MODE)	uR/hr	1100	878	1431	1371	1257	1008	737	6	6	6	6

HALF CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	gross cpm	658	529	857	870	800	652	491	12	12	12	12
CART. GROSS TOTAL COUNTS	counts	5907	4776	7643	7760	7147	5855	4446	250	250	250	250
IODINE AIRBORNE CONC.	uCi/cc	5.14E-08	4.11E-08	6.72E-08	6.83E-08	6.27E-08	5.10E-08	3.81E-08	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09
CLOSED WINDOW @ 1 METER	mR/hr	0.58	0.44	0.72	0.69	0.63	0.51	0.37	0.01	0.01	0.01	0.01
CLOSED WINDOW @ GROUND	mR/hr	0.56	0.45	0.72	0.69	0.63	0.51	0.37	0.01	0.01	0.01	0.01
OPEN WINDOW @ 1 METER	mR/hr	1.11	0.89	1.44	1.38	1.27	1.02	0.75	0.01	0.01	0.01	0.01
OPEN WINDOW @ GROUND	mR/hr	1.69	1.34	2.17	2.08	1.90	1.53	1.12	0.01	0.01	0.01	0.01
VICTOREEN 190 (uR/hr MODE)	uR/hr	555	444	720	690	634	509	373	6	6	6	6

TENTH CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	gross cpm	141	115	181	184	170	140	108	12	12	12	12
CART. GROSS TOTAL COUNTS	counts	1381	1155	1729	1752	1629	1371	1089	250	250	250	250
IODINE AIRBORNE CONC.	uCi/cc	1.03E-08	8.23E-09	1.34E-08	1.37E-08	1.25E-08	1.02E-08	7.63E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09
CLOSED WINDOW @ 1 METER	mR/hr	0.12	0.10	0.15	0.15	0.13	0.11	0.08	0.01	0.01	0.01	0.01
CLOSED WINDOW @ GROUND	mR/hr	0.12	0.10	0.15	0.15	0.13	0.11	0.08	0.01	0.01	0.01	0.01
OPEN WINDOW @ 1 METER	mR/hr	0.24	0.19	0.30	0.29	0.27	0.22	0.17	0.01	0.01	0.01	0.01
OPEN WINDOW @ GROUND	mR/hr	0.36	0.29	0.46	0.44	0.40	0.33	0.25	0.01	0.01	0.01	0.01
VICTOREEN 190 (uR/hr MODE)	uR/hr	119	97	152	146	135	110	83	6	6	6	6

NOTES:

CART. GROSS TOTAL COUNTS IS TOTAL COUNTS + BACKGROUND ON IODINE CARTRIDGE @ 5 MIN. WITH 10 CUBIC FOOT SAMPLE.

CLOSED WINDOW/OPEN WINDOW READINGS ARE VICTOREEN 450 B-E WITH BAKELITE BETA SHIELD

PREFILTER GROSS COUNTS IS CPM + BACKGROUND USING VIC 450 AND THIN-WINDOW "PANCAKE" PROBE ON 10 CUBIC FOOT SAMPLE.

IODINE AIRBORNE CONCENTRATION MDA IS 3.00E-09 uCi/cc

CONFIDENTIAL (Until 12-16-93)

FPL/PTN

DHRS-6

93-EE/Rev.05/12-07-93

CONFIDENTIAL (Until 12-16-93)

FLORIDA DHRS FIELD TEAM
12/15/93 EXERCISE PLUME DATA

TIME: 13:30

VICTOREEN 190/LUDLUM 2200 BKG TOT.	250	cts @ 5 min
VICTOREEN 450 B-E MDA	0.01	mR/hr
VICTOREEN 190 BKG	6	uR/hr
LUDLUM 2200 EFF.	5	%
VICTOREEN 450 B-E FRISK EFF. (BETA)	10	%
AIR SAMPLE VOL.	10	cubic feet

CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	gross cpm	12	12	467	1087	1238	1167	1060	811	12	12	12
CART. GROSS TOTAL COUNTS	counts	250	250	4233	9659	10979	10366	9422	7243	250	250	250
IODINE AIRBORNE CONC.	uCi/cc	<3.00E-09	<3.00E-09	3.62E-08	8.55E-08	9.75E-08	9.20E-08	8.34E-08	6.36E-08	<3.00E-09	<3.00E-09	<3.00E-09
CLOSED WINDOW @ 1 METER	mR/hr	0.01	0.01	0.40	0.88	1.00	0.93	0.82	0.62	0.01	0.01	0.01
CLOSED WINDOW @ GROUND	mR/hr	0.02	0.01	0.40	0.88	1.00	0.93	0.82	0.62	0.01	0.01	0.01
OPEN WINDOW @ 1 METER	mR/hr	0.03	0.02	0.80	1.76	2.00	1.86	1.64	1.23	0.01	0.01	0.01
OPEN WINDOW @ GROUND	mR/hr	0.05	0.04	1.21	2.64	3.00	2.79	2.47	1.85	0.01	0.01	0.01
VICTOREEN 190 (uR/hr MODE)	uR/hr	13	11	400	878	999	930	822	616	6	6	6

HALF CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	gross cpm	12	12	239	549	625	590	536	411	12	12	12
CART. GROSS TOTAL COUNTS	counts	250	250	2241	4955	5615	5308	4836	3746	250	250	250
IODINE AIRBORNE CONC.	uCi/cc	<3.00E-09	<3.00E-09	1.81E-08	4.28E-08	4.88E-08	4.60E-08	4.17E-08	3.18E-08	<3.00E-09	<3.00E-09	<3.00E-09
CLOSED WINDOW @ 1 METER	mR/hr	0.01	0.01	0.21	0.44	0.50	0.47	0.42	0.31	0.01	0.01	0.01
CLOSED WINDOW @ GROUND	mR/hr	0.01	0.01	0.21	0.45	0.51	0.47	0.42	0.31	0.01	0.01	0.01
OPEN WINDOW @ 1 METER	mR/hr	0.02	0.02	0.41	0.89	1.01	0.94	0.83	0.63	0.01	0.01	0.01
OPEN WINDOW @ GROUND	mR/hr	0.04	0.03	0.62	1.34	1.52	1.41	1.25	0.94	0.01	0.01	0.01
VICTOREEN 190 (uR/hr MODE)	uR/hr	11	11	205	444	505	470	416	313	6	6	6

TENTH CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	gross cpm	12	12	57	119	135	128	117	92	12	12	12
CART. GROSS TOTAL COUNTS	counts	250	250	648	1191	1323	1262	1167	949	250	250	250
IODINE AIRBORNE CONC.	uCi/cc	<3.00E-09	<3.00E-09	3.62E-09	8.55E-09	9.75E-09	9.20E-09	8.34E-09	6.36E-09	<3.00E-09	<3.00E-09	<3.00E-09
CLOSED WINDOW @ 1 METER	mR/hr	0.01	0.01	0.05	0.10	0.11	0.10	0.09	0.07	0.01	0.01	0.01
CLOSED WINDOW @ GROUND	mR/hr	0.01	0.01	0.05	0.10	0.11	0.10	0.09	0.07	0.01	0.01	0.01
OPEN WINDOW @ 1 METER	mR/hr	0.02	0.02	0.10	0.19	0.22	0.20	0.18	0.14	0.01	0.01	0.01
OPEN WINDOW @ GROUND	mR/hr	0.03	0.03	0.15	0.29	0.33	0.31	0.27	0.21	0.01	0.01	0.01
VICTOREEN 190 (uR/hr MODE)	uR/hr	10	10	49	97	109	102	91	71	6	6	6

NOTES:

CART. GROSS TOTAL COUNTS IS TOTAL COUNTS + BACKGROUND ON IODINE CARTRIDGE @ 5 MIN. WITH 10 CUBIC FOOT SAMPLE.
 CLOSED WINDOW/OPEN WINDOW READINGS ARE VICTOREEN 450 B-E WITH BAKELITE BETA SHIELD
 PREFILTER GROSS COUNTS IS CPM + BACKGROUND USING VIC 450 AND THIN-WINDOW "PANCAKE" PROBE ON 10 CUBIC FOOT SAMPLE.
 IODINE AIRBORNE CONCENTRATION MDA IS 3.00E-09 uCi/cc

CONFIDENTIAL (Until 12-16-93)

FPL/PTN

DHRS-7

93-EE/Rev.05/12-07-93

CONFIDENTIAL (Until 12-16-93)

FLORIDA DHRS FIELD TEAM
12/15/93 EXERCISE PLUME DATA

TIME: 13:45

VICTOREEN 190/LUDLUM 2200 BKG TOT.	250	cts @ 5 min
VICTOREEN 450 B-E MDA	0.01	mR/hr
VICTOREEN 190 BKG	6	uR/hr
LUDLUM 2200 EFF.	5	%
VICTOREEN 450 B-E FRISK EFF. (BETA)	10	%
AIR SAMPLE VOL.	10	cubic feet

CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	gross cpm	12	12	12	302	780	911	957	885	715	12	12
CART. GROSS TOTAL COUNTS	counts	250	250	250	2784	6971	8118	8526	7893	6404	250	250
IODINE AIRBORNE CONC.	uCi/cc	<3.00E-09	<3.00E-09	<3.00E-09	2.30E-08	6.11E-08	7.15E-08	7.52E-08	6.95E-08	5.59E-08	<3.00E-09	<3.00E-09
CLOSED WINDOW @ 1 METER	mR/hr	0.01	0.01	0.01	0.25	0.64	0.74	0.76	0.69	0.54	0.01	0.01
CLOSED WINDOW @ GROUND	mR/hr	0.01	0.01	0.01	0.25	0.64	0.74	0.76	0.69	0.54	0.01	0.01
OPEN WINDOW @ 1 METER	mR/hr	0.01	0.01	0.02	0.50	1.28	1.48	1.52	1.37	1.08	0.01	0.01
OPEN WINDOW @ GROUND	mR/hr	0.01	0.01	0.03	0.75	1.93	2.22	2.28	2.06	1.62	0.01	0.01
VICTOREEN 190 (uR/hr MODE)	uR/hr	6	6	10	249	641	740	758	687	540	6	6

HALF CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	gross cpm	12	12	12	157	396	461	485	449	363	12	12
CART. GROSS TOTAL COUNTS	counts	250	250	250	1517	3611	4184	4388	4072	3327	250	250
IODINE AIRBORNE CONC.	uCi/cc	<3.00E-09	<3.00E-09	<3.00E-09	1.15E-08	3.06E-08	3.58E-08	3.76E-08	3.47E-08	2.80E-08	<3.00E-09	<3.00E-09
CLOSED WINDOW @ 1 METER	mR/hr	0.01	0.01	0.01	0.13	0.33	0.37	0.38	0.35	0.27	0.01	0.01
CLOSED WINDOW @ GROUND	mR/hr	0.01	0.01	0.01	0.13	0.33	0.38	0.38	0.35	0.28	0.01	0.01
OPEN WINDOW @ 1 METER	mR/hr	0.01	0.01	0.02	0.26	0.65	0.75	0.77	0.70	0.55	0.01	0.01
OPEN WINDOW @ GROUND	mR/hr	0.01	0.01	0.03	0.39	0.98	1.13	1.15	1.05	0.83	0.01	0.01
VICTOREEN 190 (uR/hr MODE)	uR/hr	6	6	10	129	326	375	384	348	275	6	6

TENTH CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	gross cpm	12	12	12	41	89	102	107	99	82	12	12
CART. GROSS TOTAL COUNTS	counts	250	250	250	250	922	1037	1078	1014	865	250	250
IODINE AIRBORNE CONC.	uCi/cc	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	6.11E-09	7.15E-09	7.52E-09	6.95E-09	5.59E-09	<3.00E-09	<3.00E-09
CLOSED WINDOW @ 1 METER	mR/hr	0.01	0.01	0.01	0.03	0.07	0.08	0.08	0.08	0.06	0.01	0.01
CLOSED WINDOW @ GROUND	mR/hr	0.01	0.01	0.01	0.03	0.07	0.08	0.08	0.08	0.06	0.01	0.01
OPEN WINDOW @ 1 METER	mR/hr	0.01	0.01	0.02	0.07	0.15	0.17	0.17	0.16	0.13	0.01	0.01
OPEN WINDOW @ GROUND	mR/hr	0.01	0.01	0.03	0.10	0.22	0.25	0.25	0.23	0.19	0.01	0.01
VICTOREEN 190 (uR/hr MODE)	uR/hr	6	6	10	34	73	83	85	78	63	6	6

NOTES:

CART. GROSS TOTAL COUNTS IS TOTAL COUNTS + BACKGROUND ON IODINE CARTRIDGE @ 5 MIN. WITH 10 CUBIC FOOT SAMPLE.
 CLOSED WINDOW/OPEN WINDOW READINGS ARE VICTOREEN 450 B-E WITH BAKELITE BETA SHIELD
 PREFILTER GROSS COUNTS IS CPM + BACKGROUND USING VIC 450 AND THIN-WINDOW "PANCAKE" PROBE ON 10 CUBIC FOOT SAMPLE.
 IODINE AIRBORNE CONCENTRATION MDA IS 3.00E-09 uCi/cc

CONFIDENTIAL (Until 12-16-93)

FPL/PTN

DHRS-8

93-EE/Rev.05/12-07-93



CONFIDENTIAL (Until 12-16-93)

FLORIDA DHRS FIELD TEAM
12/15/93 EXERCISE PLUME DATA

TIME: 14:00

VICTOREEN 190/LUDLUM 2200 BKG TOT.	250	cts @ 5 min
VICTOREEN 450 B-E MDA	0.01	mR/hr
VICTOREEN 190 BKG	6	uR/hr
LUDLUM 2200 EFF.	5	%
VICTOREEN 450 B-E FRISK EFF. (BETA)	10	%
AIR SAMPLE VOL.	10	cubic feet

CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	gross cpm	12	12	12	12	219	575	747	800	780	619	12
CART. GROSS TOTAL COUNTS	counts	250	250	250	250	2060	5179	6688	7147	6978	5565	250
IODINE AIRBORNE CONC.	uCi/cc	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	1.65E-08	4.48E-08	5.85E-08	6.27E-08	6.11E-08	4.83E-08	<3.00E-09
CLOSED WINDOW @ 1 METER	mR/hr	0.01	0.01	0.01	0.01	0.18	0.48	0.60	0.63	0.60	0.46	0.01
CLOSED WINDOW @ GROUND	mR/hr	0.01	0.01	0.01	0.01	0.18	0.48	0.60	0.63	0.60	0.46	0.01
OPEN WINDOW @ 1 METER	mR/hr	0.01	0.01	0.01	0.02	0.37	0.95	1.21	1.27	1.20	0.93	0.01
OPEN WINDOW @ GROUND	mR/hr	0.01	0.01	0.01	0.03	0.55	1.43	1.81	1.90	1.81	1.39	0.01
VICTOREEN 190 (uR/hr MODE)	uR/hr	6	6	6	10	183	476	603	634	602	464	6

HALF CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	gross cpm	12	12	12	12	115	294	380	406	396	316	12
CART. GROSS TOTAL COUNTS	counts	250	250	250	250	1155	2714	3469	3699	3813	2907	250
IODINE AIRBORNE CONC.	uCi/cc	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	8.23E-09	2.24E-08	2.93E-08	3.14E-08	3.06E-08	2.42E-08	<3.00E-09
CLOSED WINDOW @ 1 METER	mR/hr	0.01	0.01	0.01	0.01	0.10	0.24	0.31	0.32	0.31	0.24	0.01
CLOSED WINDOW @ GROUND	mR/hr	0.01	0.01	0.01	0.01	0.10	0.24	0.31	0.32	0.31	0.24	0.01
OPEN WINDOW @ 1 METER	mR/hr	0.01	0.01	0.01	0.02	0.19	0.49	0.61	0.64	0.61	0.47	0.01
OPEN WINDOW @ GROUND	mR/hr	0.01	0.01	0.01	0.03	0.29	0.73	0.92	0.97	0.92	0.71	0.01
VICTOREEN 190 (uR/hr MODE)	uR/hr	6	6	6	10	97	243	307	322	306	237	6

TENTH CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	gross cpm	12	12	12	12	33	68	86	91	89	73	12
CART. GROSS TOTAL COUNTS	counts	250	250	250	250	250	743	894	940	923	781	250
IODINE AIRBORNE CONC.	uCi/cc	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	4.48E-09	5.85E-09	6.27E-09	6.11E-09	4.83E-09	<3.00E-09
CLOSED WINDOW @ 1 METER	mR/hr	0.01	0.01	0.01	0.01	0.03	0.06	0.07	0.07	0.07	0.06	0.01
CLOSED WINDOW @ GROUND	mR/hr	0.01	0.01	0.01	0.01	0.03	0.06	0.07	0.07	0.07	0.06	0.01
OPEN WINDOW @ 1 METER	mR/hr	0.01	0.01	0.01	0.02	0.05	0.11	0.14	0.14	0.14	0.11	0.01
OPEN WINDOW @ GROUND	mR/hr	0.01	0.01	0.01	0.03	0.08	0.17	0.21	0.22	0.21	0.17	0.01
VICTOREEN 190 (uR/hr MODE)	uR/hr	6	6	6	10	27	57	69	72	69	55	6

NOTES:

CART. GROSS TOTAL COUNTS IS TOTAL COUNTS + BACKGROUND ON IODINE CARTRIDGE @ 5 MIN. WITH 10 CUBIC FOOT SAMPLE.
 CLOSED WINDOW/OPEN WINDOW READINGS ARE VICTOREEN 450 B-E WITH BAKELITE BETA SHIELD
 PREFILTER GROSS COUNTS IS CPM + BACKGROUND USING VIC 450 AND THIN-WINDOW "PANCAKE" PROBE ON 10 CUBIC FOOT SAMPLE.
 IODINE AIRBORNE CONCENTRATION MDA IS 3.00E-09 uCi/cc

CONFIDENTIAL (Until 12-16-93)

FPL/PTN

DHRS-9

93-EE/Rev.05/12-07-93



CONFIDENTIAL (Until 12-16-93)

FLORIDA DHRS FIELD TEAM
12/15/93 EXERCISE PLUME DATA

TIME: 14:15

VICTOREEN 190/LUDLUM 2200 BKG TOT.	250	cts @ 5 min
VICTOREEN 450 B-E MDA	0.01	mR/hr
VICTOREEN 190 BKG	6	uR/hr
LUDLUM 2200 EFF.	5	%
VICTOREEN 450 B-E FRISK EFF. (BETA)	10	%
AIR SAMPLE VOL.	10	cubic feet

CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	gross cpm	12	12	12	12	12	164	473	625	705	676	555
CART. GROSS TOTAL COUNTS	counts	250	250	250	250	250	1578	4283	5615	6319	6059	5005
IODINE AIRBORNE CONC.	uCi/cc	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	1.21E-08	3.67E-08	4.88E-08	5.52E-08	5.28E-08	4.32E-08
CLOSED WINDOW @ 1 METER	mR/hr	0.01	0.01	0.01	0.01	0.01	0.14	0.39	0.50	0.56	0.52	0.42
CLOSED WINDOW @ GROUND	mR/hr	0.01	0.01	0.01	0.01	0.01	0.14	0.39	0.51	0.56	0.52	0.42
OPEN WINDOW @ 1 METER	mR/hr	0.01	0.01	0.01	0.01	0.02	0.28	0.78	1.01	1.11	1.03	0.84
OPEN WINDOW @ GROUND	mR/hr	0.01	0.01	0.01	0.01	0.03	0.42	1.17	1.52	1.67	1.55	1.26
VICTOREEN 190 (uR/hr MODE)	uR/hr	6	6	6	6	10	138	389	505	555	517	419

HALF CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	gross cpm	12	12	12	12	12	88	242	318	359	344	284
CART. GROSS TOTAL COUNTS	counts	250	250	250	250	250	914	2266	2932	3285	3155	2628
IODINE AIRBORNE CONC.	uCi/cc	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	6.03E-09	1.83E-08	2.44E-08	2.76E-08	2.64E-08	2.16E-08
CLOSED WINDOW @ 1 METER	mR/hr	0.01	0.01	0.01	0.01	0.01	0.07	0.20	0.26	0.28	0.26	0.21
CLOSED WINDOW @ GROUND	mR/hr	0.01	0.01	0.01	0.01	0.01	0.07	0.20	0.26	0.28	0.26	0.21
OPEN WINDOW @ 1 METER	mR/hr	0.01	0.01	0.01	0.01	0.02	0.15	0.40	0.51	0.57	0.53	0.43
OPEN WINDOW @ GROUND	mR/hr	0.01	0.01	0.01	0.01	0.03	0.22	0.60	0.77	0.85	0.79	0.64
VICTOREEN 190 (uR/hr MODE)	uR/hr	6	6	6	6	10	74	199	257	283	264	214

TENTH CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	gross cpm	12	12	12	12	12	27	58	73	81	78	66
CART. GROSS TOTAL COUNTS	counts	250	250	250	250	250	250	653	786	857	831	728
IODINE AIRBORNE CONC.	uCi/cc	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	3.67E-09	4.88E-09	5.52E-09	5.28E-09	4.32E-09
CLOSED WINDOW @ 1 METER	mR/hr	0.01	0.01	0.01	0.01	0.01	0.02	0.05	0.06	0.06	0.06	0.05
CLOSED WINDOW @ GROUND	mR/hr	0.01	0.01	0.01	0.01	0.01	0.02	0.05	0.06	0.06	0.06	0.05
OPEN WINDOW @ 1 METER	mR/hr	0.01	0.01	0.01	0.01	0.02	0.05	0.10	0.12	0.13	0.12	0.10
OPEN WINDOW @ GROUND	mR/hr	0.01	0.01	0.01	0.01	0.03	0.07	0.14	0.18	0.19	0.18	0.15
VICTOREEN 190 (uR/hr MODE)	uR/hr	6	6	6	6	10	23	48	59	65	61	51

NOTES:

CART. GROSS TOTAL COUNTS IS TOTAL COUNTS + BACKGROUND ON IODINE CARTRIDGE @ 5 MIN. WITH 10 CUBIC FOOT SAMPLE.

CLOSED WINDOW/OPEN WINDOW READINGS ARE VICTOREEN 450 B-E WITH BAKELITE BETA SHIELD

PREFILTER GROSS COUNTS IS CPM + BACKGROUND USING VIC 450 AND THIN-WINDOW "PANCAKE" PROBE ON 10 CUBIC FOOT SAMPLE.

IODINE AIRBORNE CONCENTRATION MDA IS 3.00E-09 uCi/cc

CONFIDENTIAL (Until 12-16-93)

FPL/PTN

DHRS-10

93-EE/Rev.05/12-07-93

CONFIDENTIAL (Until 12-16-93)

FLORIDA DHRS FIELD TEAM
12/15/93 EXERCISE PLUME DATA

TIME: 14:30

VICTOREEN 190/LUDLUM 2200 BKG TOT.	250	cts @ 5 min
VICTOREEN 450 B-E MDA	0.01	mR/hr
VICTOREEN 190 BKG	6	uR/hr
LUDLUM 2200 EFF.	5	%
VICTOREEN 450 B-E FRISK EFF. (BETA)	10	%
AIR SAMPLE VOL.	10	cubic feet

CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	gross cpm	12	12	12	12	12	12	136	396	551	611	606
CART. GROSS TOTAL COUNTS	counts	250	250	250	250	250	250	1336	3611	4971	5492	5448
IODINE AIRBORNE CONC.	uCi/cc	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	9.87E-09	3.06E-08	4.29E-08	4.77E-08	4.73E-08
CLOSED WINDOW @ 1 METER	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.11	0.33	0.44	0.48	0.47
CLOSED WINDOW @ GROUND	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.11	0.33	0.44	0.48	0.47
OPEN WINDOW @ 1 METER	mR/hr	0.01	0.01	0.01	0.01	0.01	0.02	0.23	0.65	0.89	0.96	0.93
OPEN WINDOW @ GROUND	mR/hr	0.01	0.01	0.01	0.01	0.01	0.03	0.34	0.98	1.33	1.43	1.40
VICTOREEN 190 (uR/hr MODE)	uR/hr	6	6	6	6	6	10	114	326	443	478	467

HALF CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	gross cpm	12	12	12	12	12	12	74	204	282	311	309
CART. GROSS TOTAL COUNTS	counts	250	250	250	250	250	250	793	1930	2610	2871	2849
IODINE AIRBORNE CONC.	uCi/cc	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	4.94E-09	1.53E-08	2.15E-08	2.38E-08	2.36E-08
CLOSED WINDOW @ 1 METER	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.06	0.17	0.23	0.24	0.24
CLOSED WINDOW @ GROUND	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.06	0.17	0.23	0.24	0.24
OPEN WINDOW @ 1 METER	mR/hr	0.01	0.01	0.01	0.01	0.01	0.02	0.12	0.34	0.45	0.49	0.48
OPEN WINDOW @ GROUND	mR/hr	0.01	0.01	0.01	0.01	0.01	0.03	0.19	0.50	0.68	0.73	0.72
VICTOREEN 190 (uR/hr MODE)	uR/hr	6	6	6	6	6	10	62	168	226	244	238

TENTH CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	gross cpm	12	12	12	12	12	12	24	50	66	72	71
CART. GROSS TOTAL COUNTS	counts	250	250	250	250	250	250	250	586	722	774	770
IODINE AIRBORNE CONC.	uCi/cc	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	3.06E-09	4.29E-09	4.77E-09	4.73E-09
CLOSED WINDOW @ 1 METER	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.04	0.05	0.06	0.06
CLOSED WINDOW @ GROUND	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.04	0.05	0.06	0.06
OPEN WINDOW @ 1 METER	mR/hr	0.01	0.01	0.01	0.01	0.01	0.02	0.04	0.08	0.11	0.11	0.11
OPEN WINDOW @ GROUND	mR/hr	0.01	0.01	0.01	0.01	0.01	0.03	0.06	0.12	0.16	0.17	0.17
VICTOREEN 190 (uR/hr MODE)	uR/hr	6	6	6	6	6	10	20	42	53	57	56

NOTES:

CART. GROSS TOTAL COUNTS IS TOTAL COUNTS + BACKGROUND ON IODINE CARTRIDGE @ 5 MIN. WITH 10 CUBIC FOOT SAMPLE.

CLOSED WINDOW/OPEN WINDOW READINGS ARE VICTOREEN 450 B-E WITH BAKELITE BETA SHIELD

PREFILTER GROSS COUNTS IS CPM + BACKGROUND USING VIC 450 AND THIN-WINDOW "PANCAKE" PROBE ON 10 CUBIC FOOT SAMPLE.

IODINE AIRBORNE CONCENTRATION MDA IS 3.00E-09 uCi/cc

CONFIDENTIAL (Until 12-16-93)

FPL/PTN

DHRS-11

93-EE/Rev.05/12-07-93



CONFIDENTIAL (Until 12-16-93)

FLORIDA DHRS FIELD TEAM
12/15/93 EXERCISE PLUME DATA

TIME: 14:45

VICTOREEN 190/LUDLUM 2200 BKG TOT.	250	cts @ 5 min
VICTOREEN 450 B-E MDA	0.01	mR/hr
VICTOREEN 190 BKG	6	uR/hr
LUDLUM 2200 EFF.	5	%
VICTOREEN 450 B-E FRISK EFF. (BETA)	10	%
AIR SAMPLE VOL.	10	cubic feet

CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	gross cpm	12	12	12	12	12	12	12	115	350	478	548
CART. GROSS TOTAL COUNTS	counts	250	250	250	250	250	250	250	1155	3207	4327	4940
IODINE AIRBORNE CONC.	uCi/cc	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	8.23E-09	2.69E-08	3.71E-08	4.26E-08
CLOSED WINDOW @ 1 METER	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.10	0.29	0.38	0.43
CLOSED WINDOW @ GROUND	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.10	0.29	0.38	0.43
OPEN WINDOW @ 1 METER	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.19	0.57	0.76	0.86
OPEN WINDOW @ GROUND	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.03	0.29	0.86	1.14	1.29
VICTOREEN 190 (uR/hr MODE)	uR/hr	6	6	6	6	6	6	10	97	286	381	431

HALF CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	gross cpm	12	12	12	12	12	12	12	64	181	245	280
CART. GROSS TOTAL COUNTS	counts	250	250	250	250	250	250	250	703	1729	2289	2595
IODINE AIRBORNE CONC.	uCi/cc	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	4.11E-09	1.34E-08	1.85E-08	2.13E-08
CLOSED WINDOW @ 1 METER	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.05	0.15	0.20	0.22
CLOSED WINDOW @ GROUND	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.05	0.15	0.20	0.22
OPEN WINDOW @ 1 METER	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.11	0.30	0.39	0.44
OPEN WINDOW @ GROUND	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.03	0.16	0.44	0.59	0.66
VICTOREEN 190 (uR/hr MODE)	uR/hr	6	6	6	6	6	6	10	53	148	195	220

TENTH CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	gross cpm	12	12	12	12	12	12	12	22	46	59	66
CART. GROSS TOTAL COUNTS	counts	250	250	250	250	250	250	250	250	250	658	719
IODINE AIRBORNE CONC.	uCi/cc	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	3.71E-09	4.26E-09
CLOSED WINDOW @ 1 METER	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.04	0.05	0.05
CLOSED WINDOW @ GROUND	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.04	0.05	0.05
OPEN WINDOW @ 1 METER	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.04	0.08	0.09	0.10
OPEN WINDOW @ GROUND	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.03	0.06	0.11	0.14	0.16
VICTOREEN 190 (uR/hr MODE)	uR/hr	6	6	6	6	6	6	10	19	38	47	52

NOTES:

CART. GROSS TOTAL COUNTS IS TOTAL COUNTS + BACKGROUND ON IODINE CARTRIDGE @ 5 MIN. WITH 10 CUBIC FOOT SAMPLE.

CLOSED WINDOW/OPEN WINDOW READINGS ARE VICTOREEN 450 B-E WITH BAKELITE BETA SHIELD

PREFILTER GROSS COUNTS IS CPM + BACKGROUND USING VIC 450 AND THIN-WINDOW "PANCAKE" PROBE ON 10 CUBIC FOOT SAMPLE.

IODINE AIRBORNE CONCENTRATION MDA IS 3.00E-09 uCi/cc

CONFIDENTIAL (Until 12-16-93)

FPL/PTN

DHRS-12

93-EE/Rev.05/12-07-93

CONFIDENTIAL (Until 12-16-93)

FLORIDA DHRS FIELD TEAM
12/15/93 EXERCISE PLUME DATA

TIME: 15:00

VICTOREEN 190/LUDLUM 2200 BKG TOT.	250	cts @ 5 min
VICTOREEN 450 B-E MDA	0.01	mR/hr
VICTOREEN 190 BKG	6	uR/hr
LUDLUM 2200 EFF.	5	%
VICTOREEN 450 B-E FRISK EFF. (BETA)	10	%
AIR SAMPLE VOL.	10	cubic feet

CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	gross cpm	12	12	12	12	12	12	12	12	103	304	429
CART. GROSS TOTAL COUNTS	counts	250	250	250	250	250	250	250	250	1047	2804	3898
IODINE AIRBORNE CONC.	uCi/cc	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	7.24E-09	2.32E-08	3.32E-08
CLOSED WINDOW @ 1 METER	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.09	0.25	0.34
CLOSED WINDOW @ GROUND	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.09	0.25	0.34
OPEN WINDOW @ 1 METER	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.17	0.49	0.69
OPEN WINDOW @ GROUND	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.03	0.26	0.74	1.03
VICTOREEN 190 (uR/hr MODE)	uR/hr	6	6	6	6	6	6	6	10	88	247	344

HALF CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	gross cpm	12	12	12	12	12	12	12	12	57	158	220
CART. GROSS TOTAL COUNTS	counts	250	250	250	250	250	250	250	250	648	1527	2074
IODINE AIRBORNE CONC.	uCi/cc	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	3.62E-09	1.16E-08	1.66E-08
CLOSED WINDOW @ 1 METER	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.09	0.13	0.18
CLOSED WINDOW @ GROUND	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.05	0.13	0.18
OPEN WINDOW @ 1 METER	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.10	0.26	0.35
OPEN WINDOW @ GROUND	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.03	0.14	0.39	0.53
VICTOREEN 190 (uR/hr MODE)	uR/hr	6	6	6	6	6	6	6	10	48	128	177

TENTH CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	gross cpm	12	12	12	12	12	12	12	12	21	41	54
CART. GROSS TOTAL COUNTS	counts	250	250	250	250	250	250	250	250	250	250	615
IODINE AIRBORNE CONC.	uCi/cc	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	3.32E-09
CLOSED WINDOW @ 1 METER	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.03	0.04
CLOSED WINDOW @ GROUND	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.03	0.04
OPEN WINDOW @ 1 METER	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.04	0.07	0.09
OPEN WINDOW @ GROUND	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.03	0.05	0.10	0.13
VICTOREEN 190 (uR/hr MODE)	uR/hr	6	6	6	6	6	6	6	10	18	34	43

NOTES:

CART. GROSS TOTAL COUNTS IS TOTAL COUNTS + BACKGROUND ON IODINE CARTRIDGE @ 5 MIN. WITH 10 CUBIC FOOT SAMPLE.
CLOSED WINDOW/OPEN WINDOW READINGS ARE VICTOREEN 450 B-E WITH BAKELITE BETA SHIELD
PREFILTER GROSS COUNTS IS CPM + BACKGROUND USING VIC 450 AND THIN-WINDOW "PANCAKE" PROBE ON 10 CUBIC FOOT SAMPLE.
IODINE AIRBORNE CONCENTRATION MDA IS 3.00E-09 uCi/cc

CONFIDENTIAL (Until 12-16-93)
FPL/PTN

DHRS-13

93-EE/Rev.05/12-07-93



CONFIDENTIAL (Until 12-16-93)

FLORIDA DHRS FIELD TEAM
12/15/93 EXERCISE PLUME DATA

TIME: 15:15

VICTOREEN 190/LUDLUM 2200 BKG TOT.	250	cts @ 5 min
VICTOREEN 450 B-E MDA	0.01	mR/hr
VICTOREEN 190 BKG	6	uR/hr
LUDLUM 2200 EFF.	5	%
VICTOREEN 450 B-E FRISK EFF. (BETA)	10	%
AIR SAMPLE VOL.	10	cubic feet

CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	gross cpm	12	12	12	12	12	12	12	12	12	91	273
CART. GROSS TOTAL COUNTS	counts	250	250	250	250	250	250	250	250	250	938	2535
IODINE AIRBORNE CONC.	uCi/cc	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	6.25E-09	2.08E-08
CLOSED WINDOW @ 1 METER	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.07	0.22
CLOSED WINDOW @ GROUND	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.08	0.22
OPEN WINDOW @ 1 METER	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.15	0.45
OPEN WINDOW @ GROUND	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.03	0.23	0.67
VICTOREEN 190 (uR/hr MODE)	uR/hr	6	6	6	6	6	6	6	6	10	75	223

HALF CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	gross cpm	12	12	12	12	12	12	12	12	12	51	143
CART. GROSS TOTAL COUNTS	counts	250	250	250	250	250	250	250	250	250	594	1393
IODINE AIRBORNE CONC.	uCi/cc	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	3.13E-09	1.04E-08
CLOSED WINDOW @ 1 METER	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.04	0.12
CLOSED WINDOW @ GROUND	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.04	0.12
OPEN WINDOW @ 1 METER	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.08	0.23
OPEN WINDOW @ GROUND	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.03	0.13	0.35
VICTOREEN 190 (uR/hr MODE)	uR/hr	6	6	6	6	6	6	6	6	10	42	116

TENTH CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	gross cpm	12	12	12	12	12	12	12	12	12	20	38
CART. GROSS TOTAL COUNTS	counts	250	250	250	250	250	250	250	250	250	250	250
IODINE AIRBORNE CONC.	uCi/cc	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09
CLOSED WINDOW @ 1 METER	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.03
CLOSED WINDOW @ GROUND	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.03
OPEN WINDOW @ 1 METER	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.03	0.06
OPEN WINDOW @ GROUND	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.03	0.05	0.09
VICTOREEN 190 (uR/hr MODE)	uR/hr	6	6	6	6	6	6	6	6	10	16	31

NOTES:

CART. GROSS TOTAL COUNTS IS TOTAL COUNTS + BACKGROUND ON IODINE CARTRIDGE @ 5 MIN. WITH 10 CUBIC FOOT SAMPLE.

CLOSED WINDOW/OPEN WINDOW READINGS ARE VICTOREEN 450 B-E WITH BAKELITE BETA SHIELD

PREFILTER GROSS COUNTS IS CPM + BACKGROUND USING VIC 450 AND THIN-WINDOW "PANCAKE" PROBE ON 10 CUBIC FOOT SAMPLE.

IODINE AIRBORNE CONCENTRATION MDA IS 3.00E-09 uCi/cc

CONFIDENTIAL (Until 12-16-93)

FPL/PTN

DHRS-14

93-EE/Rev.05/12-07-93



CONFIDENTIAL (Until 12-16-93)

**FLORIDA DHRS FIELD TEAM
12/15/93 EXERCISE PLUME DATA**

TIME: 15:30

VICTOREEN 190/LUDLUM 2200 BKG TOT.	250	cts @ 5 min
VICTOREEN 450 B-E MDA	0.01	mR/hr
VICTOREEN 190 BKG	6	uR/hr
LUDLUM 2200 EFF.	5	%
VICTOREEN 450 B-E FRISK EFF. (BETA)	10	%
AIR SAMPLE VOL.	10	cubic feet

CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	gross cpm	12	12	12	12	12	12	12	12	12	12	82
CART. GROSS TOTAL COUNTS	counts	250	250	250	250	250	250	250	250	250	250	866
IODINE AIRBORNE CONC.	uCi/cc	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	5.60E-09
CLOSED WINDOW @ 1 METER	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.07
CLOSED WINDOW @ GROUND	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.07
OPEN WINDOW @ 1 METER	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.14
OPEN WINDOW @ GROUND	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.03	0.21
VICTOREEN 190 (uR/hr MODE)	uR/hr	6	6	6	6	6	6	6	6	6	10	68

HALF CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	gross cpm	12	12	12	12	12	12	12	12	12	12	47
CART. GROSS TOTAL COUNTS	counts	250	250	250	250	250	250	250	250	250	250	250
IODINE AIRBORNE CONC.	uCi/cc	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09
CLOSED WINDOW @ 1 METER	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.04
CLOSED WINDOW @ GROUND	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.04
OPEN WINDOW @ 1 METER	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.08
OPEN WINDOW @ GROUND	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.03	0.12
VICTOREEN 190 (uR/hr MODE)	uR/hr	6	6	6	6	6	6	6	6	6	10	39

TENTH CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	gross cpm	12	12	12	12	12	12	12	12	12	12	19
CART. GROSS TOTAL COUNTS	counts	250	250	250	250	250	250	250	250	250	250	250
IODINE AIRBORNE CONC.	uCi/cc	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09
CLOSED WINDOW @ 1 METER	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02
CLOSED WINDOW @ GROUND	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02
OPEN WINDOW @ 1 METER	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.03
OPEN WINDOW @ GROUND	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.03	0.05
VICTOREEN 190 (uR/hr MODE)	uR/hr	6	6	6	6	6	6	6	6	6	10	16

NOTES:

CART. GROSS TOTAL COUNTS IS TOTAL COUNTS + BACKGROUND ON IODINE CARTRIDGE @ 5 MIN. WITH 10 CUBIC FOOT SAMPLE.

CLOSED WINDOW/OPEN WINDOW READINGS ARE VICTOREEN 450 B-E WITH BAKELITE BETA SHIELD

PREFILTER GROSS COUNTS IS CPM + BACKGROUND USING VIC 450 AND THIN-WINDOW "PANCAKE" PROBE ON 10 CUBIC FOOT SAMPLE.

IODINE AIRBORNE CONCENTRATION MDA IS 3.00E-09 uCi/cc

CONFIDENTIAL (Until 12-16-93)

FPL/PTN

DHRS-15

93-EE/Rev.05/12-07-93

CONFIDENTIAL (Until 12-16-93)

**FLORIDA DHRS FIELD TEAM
12/15/93 EXERCISE PLUME DATA**

TIME: 15:45

VICTOREEN 190/LUDLUM 2200 BKG TOT.	250	cts @ 5 min
VICTOREEN 450 B-E MDA	0.01	mR/hr
VICTOREEN 190 BKG	6	uR/hr
LUDLUM 2200 EFF.	5	%
VICTOREEN 450 B-E FRISK EFF. (BETA)	10	%
AIR SAMPLE VOL.	10	cubic feet

CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	gross cpm	12	12	12	12	12	12	12	12	12	12	12
CART. GROSS TOTAL COUNTS	counts	250	250	250	250	250	250	250	250	250	250	250
IODINE AIRBORNE CONC.	uCi/cc	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09
CLOSED WINDOW @ 1 METER	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
CLOSED WINDOW @ GROUND	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
OPEN WINDOW @ 1 METER	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02
OPEN WINDOW @ GROUND	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.03
VICTOREEN 190 (uR/hr MODE)	uR/hr	6	6	6	6	6	6	6	6	6	6	10

HALF CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	gross cpm	12	12	12	12	12	12	12	12	12	12	12
CART. GROSS TOTAL COUNTS	counts	250	250	250	250	250	250	250	250	250	250	250
IODINE AIRBORNE CONC.	uCi/cc	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09
CLOSED WINDOW @ 1 METER	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
CLOSED WINDOW @ GROUND	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
OPEN WINDOW @ 1 METER	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02
OPEN WINDOW @ GROUND	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.03
VICTOREEN 190 (uR/hr MODE)	uR/hr	6	6	6	6	6	6	6	6	6	6	10

TENTH CENTERLINE

MILES FROM SOURCE		0.5	1	2	3	4	5	6	7	8	9	10
SECTOR		P	P	P	P	P	P	P	P	P	P	P
PREFILTER GROSS COUNTS	gross cpm	12	12	12	12	12	12	12	12	12	12	12
CART. GROSS TOTAL COUNTS	counts	250	250	250	250	250	250	250	250	250	250	250
IODINE AIRBORNE CONC.	uCi/cc	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09	<3.00E-09
CLOSED WINDOW @ 1 METER	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
CLOSED WINDOW @ GROUND	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
OPEN WINDOW @ 1 METER	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02
OPEN WINDOW @ GROUND	mR/hr	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.03
VICTOREEN 190 (uR/hr MODE)	uR/hr	6	6	6	6	6	6	6	6	6	6	10

NOTES:

CART. GROSS TOTAL COUNTS IS TOTAL COUNTS + BACKGROUND ON IODINE CARTRIDGE @ 5 MIN. WITH 10 CUBIC FOOT SAMPLE.

CLOSED WINDOW/OPEN WINDOW READINGS ARE VICTOREEN 450 B-E WITH BAKELITE BETA SHIELD

PREFILTER GROSS COUNTS IS CPM + BACKGROUND USING VIC 450 AND THIN-WINDOW "PANCAKE" PROBE ON 10 CUBIC FOOT SAMPLE.

IODINE AIRBORNE CONCENTRATION MDA IS 3.00E-09 uCi/cc

CONFIDENTIAL (Until 12-16-93)

FPU/PTN

DHRS-16

93-EE/Rev.05/12-07-93



Turkey Point Nuclear Plant 1993 Evaluated Exercise
Isotopic Analysis Results on Field Air Samples, uCi/cc

MDA= 1.00E-12

Turkey Point Nuclear Plant 1993 Evaluated Exercise													
Ct/sec ●		Isotopic Analysis Results on Field Air Samples, uCi/cc										MDA= 1.00E-12	
Time of Release:	Downwind Distance (mi)												
	0.5	1	2	3	4	5	6	7	8	9	10		
	11:45	11:52	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45	14:00	14:15	
Ar-41	2.31E-03	1.03E-06	3.23E-07	1.29E-07	7.74E-08	5.16E-08	3.87E-08	3.35E-09	2.58E-08	2.32E-08	1.81E-08	1.55E-08	
Kr-85m	6.37E-03	2.85E-06	8.91E-07	3.56E-07	2.14E-07	1.43E-07	1.07E-07	9.27E-09	7.13E-08	6.42E-08	4.99E-08	4.28E-08	
Kr-85	3.71E-04	1.66E-07	5.18E-08	2.07E-08	1.24E-08	8.29E-09	6.22E-09	5.39E-10	4.15E-09	3.73E-09	2.90E-09	2.49E-09	
Kr-87	5.98E-03	2.68E-06	8.36E-07	3.34E-07	2.01E-07	1.34E-07	1.00E-07	8.70E-09	6.69E-08	6.02E-08	4.68E-08	4.01E-08	
Kr-88	1.79E-04	8.00E-08	2.50E-08	9.99E-09	6.00E-09	4.00E-09	3.00E-09	2.60E-10	2.00E-09	1.80E-09	1.40E-09	1.20E-09	
Xe-131m	3.24E-04	1.45E-07	4.53E-08	1.81E-08	1.09E-08	7.25E-09	5.44E-09	4.71E-10	3.62E-09	3.26E-09	2.54E-09	2.17E-09	
Xe-133m	3.24E-04	1.45E-07	4.53E-08	1.81E-08	1.09E-08	7.25E-09	5.44E-09	4.71E-10	3.62E-09	3.26E-09	2.54E-09	2.17E-09	
Xe-133	1.33E-03	5.93E-07	1.85E-07	7.41E-08	4.45E-08	2.96E-08	2.22E-08	1.93E-09	1.48E-08	1.33E-08	1.04E-08	8.89E-09	
Xe-135	9.60E-02	4.30E-05	1.34E-05	5.37E-06	3.22E-06	2.15E-06	1.61E-06	1.40E-07	1.07E-06	9.67E-07	7.52E-07	6.44E-07	
I-131	1.04E-02	4.66E-06	1.45E-06	5.82E-07	3.49E-07	2.33E-07	1.75E-07	1.51E-08	1.16E-07	1.05E-07	8.15E-08	6.98E-08	
I-132	1.81E-03	8.11E-07	2.53E-07	1.01E-07	6.08E-08	4.05E-08	3.04E-08	2.64E-09	2.03E-08	1.82E-08	1.42E-08	1.22E-08	
I-133	1.08E-03	4.83E-07	1.51E-07	6.04E-08	3.62E-08	2.41E-08	1.81E-08	1.57E-09	1.21E-08	1.09E-08	8.45E-09	7.24E-09	
I-134	2.79E-03	1.25E-06	3.91E-07	1.56E-07	9.37E-08	6.25E-08	4.69E-08	4.06E-09	3.12E-08	2.81E-08	2.19E-08	1.87E-08	
I-135	9.01E-04	4.03E-07	1.26E-07	5.04E-08	3.02E-08	2.02E-08	1.51E-08	1.31E-09	1.01E-08	9.07E-09	7.05E-09	6.05E-09	
Cr-51	1.93E-03	8.65E-07	2.70E-07	1.08E-07	6.49E-08	4.32E-08	3.24E-08	2.81E-09	2.16E-08	1.95E-08	1.51E-08	1.30E-08	
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Sr-90	6.76E-04	3.03E-07	9.46E-08	3.78E-08	2.27E-08	1.51E-08	1.13E-08	9.83E-10	7.56E-09	6.81E-09	5.29E-09	4.54E-09	
Y-90	4.72E-05	2.11E-08	6.60E-09	2.64E-09	1.58E-09	1.06E-09	7.92E-10	6.86E-11	5.28E-10	4.75E-10	3.69E-10	3.17E-10	
Sr-91	4.87E-05	2.18E-08	6.81E-09	2.72E-09	1.63E-09	1.09E-09	8.17E-10	7.08E-11	5.45E-10	4.90E-10	3.81E-10	3.27E-10	
Y-91m	7.46E-04	3.34E-07	1.04E-07	4.17E-08	2.50E-08	1.67E-08	1.25E-08	1.09E-09	8.35E-09	7.51E-09	5.84E-09	5.01E-09	
Y-91	1.38E-04	6.19E-08	1.94E-08	7.74E-09	4.65E-09	3.10E-09	2.32E-09	2.01E-10	1.55E-09	1.39E-09	1.08E-09	9.29E-10	
Zr-95	8.80E-04	3.94E-07	1.23E-07	4.92E-08	2.95E-08	1.97E-08	1.48E-08	1.28E-09	9.85E-09	8.86E-09	6.89E-09	5.91E-09	
Nb-95	1.22E-03	5.48E-07	1.71E-07	6.85E-08	4.11E-08	2.74E-08	2.05E-08	1.78E-09	1.37E-08	1.23E-08	9.59E-09	8.22E-09	
Mo-99	1.23E-03	5.52E-07	1.72E-07	6.90E-08	4.14E-08	2.76E-08	2.07E-08	1.79E-09	1.38E-08	1.24E-08	9.66E-09	8.28E-09	
Tc-99m	1.31E-03	5.87E-07	1.83E-07	7.33E-08	4.40E-08	2.93E-08	2.20E-08	1.91E-09	1.47E-08	1.32E-08	1.03E-08	8.80E-09	
Ru-103	9.67E-04	4.33E-07	1.35E-07	5.41E-08	3.25E-08	2.16E-08	1.62E-08	1.41E-09	1.08E-08	9.74E-09	7.57E-09	6.49E-09	
Ru-106	1.20E-03	5.35E-07	1.67E-07	6.68E-08	4.01E-08	2.67E-08	2.01E-08	1.74E-09	1.34E-08	1.20E-08	9.36E-09	8.02E-09	
Sb-129	3.38E-04	1.51E-07	4.72E-08	1.89E-08	1.13E-08	7.55E-09	5.67E-09	4.91E-10	3.78E-09	3.40E-09	2.64E-09	2.27E-09	
Te-129m	1.90E-04	8.52E-08	2.66E-08	1.07E-08	6.39E-09	4.26E-09	3.20E-09	2.77E-10	2.13E-09	1.92E-09	1.49E-09	1.28E-09	
Te-129	6.26E-05	2.80E-08	8.76E-09	3.50E-09	2.10E-09	1.40E-09	1.05E-09	9.11E-11	7.00E-10	6.30E-10	4.90E-10	4.20E-10	
Sb-131	9.51E-05	4.26E-08	1.33E-08	5.32E-09	3.19E-09	2.13E-09	1.60E-09	1.38E-10	1.06E-09	9.57E-10	7.45E-10	6.38E-10	
Te-131m	5.35E-05	2.40E-08	7.49E-09	2.99E-09	1.80E-09	1.20E-09	8.98E-10	7.79E-11	5.99E-10	5.39E-10	4.19E-10	3.59E-10	
Te-131	1.06E-04	4.75E-08	1.49E-08	5.94E-09	3.57E-09	2.38E-09	1.78E-09	1.55E-10	1.19E-09	1.07E-09	8.32E-10	7.13E-10	
Te-132	5.12E-05	2.29E-08	7.16E-09	2.86E-09	1.72E-09	1.15E-09	8.59E-10	7.44E-11	5.73E-10	5.15E-10	4.01E-10	3.44E-10	
Te-133m	1.14E-03	5.11E-07	1.60E-07	6.39E-08	3.83E-08	2.56E-08	1.92E-08	1.66E-09	1.28E-08	1.15E-08	8.95E-09	7.67E-09	
Cs-134	1.69E-04	7.57E-08	2.37E-08	9.46E-09	5.68E-09	3.79E-09	2.84E-09	2.46E-10	1.89E-09	1.70E-09	1.32E-09	1.14E-09	
Te-134	1.16E-04	5.18E-08	1.62E-08	6.48E-09	3.89E-09	2.59E-09	1.94E-09	1.68E-10	1.30E-09	1.17E-09	9.07E-10	7.77E-10	
Cs-135	2.60E-04	1.16E-07	3.64E-08	1.46E-08	8.73E-09	5.82E-09	4.37E-09	3.78E-10	2.91E-09	2.62E-09	2.04E-09	1.75E-09	
Cs-136	1.95E-10	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	
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Cs-138	6.33E-05	2.83E-08	8.85E-09	3.54E-09	2.12E-09	1.42E-09	1.06E-09	9.21E-11	7.08E-10	6.37E-10	4.96E-10	4.25E-10	
Ba-140	1.79E-04	8.03E-08	2.51E-08	1.00E-08	6.02E-09	4.01E-09	3.01E-09	2.61E-10	2.01E-09	1.81E-09	1.40E-09	1.20E-09	
La-140	1.35E-03	6.02E-07	1.88E-07	7.53E-08	4.52E-08	3.01E-08	2.26E-08	1.96E-09	1.51E-08	1.36E-08	1.05E-08	9.04E-09	
La-142	1.35E-03	6.02E-07	1.88E-07	7.53E-08	4.52E-08	3.01E-08	2.26E-08	1.96E-09	1.51E-08	1.36E-08	1.05E-08	9.04E-09	
Ce-143	1.32E-03	5.89E-07	1.84E-07	7.36E-08	4.42E-08	2.94E-08	2.21E-08	1.91E-09	1.47E-08	1.33E-08	1.03E-08	8.83E-09	
Pr-143	7.85E-04	3.51E-07	1.10E-07	4.39E-08	2.64E-08	1.76E-08	1.32E-08	1.14E-09	8.79E-09	7.91E-09	6.15E-09	5.27E-09	
Ce-144	1.07E-03	4.77E-07	1.49E-07	5.96E-08	3.58E-08	2.38E-08	1.79E-08	1.55E-09	1.19E-08	1.07E-08	8.35E-09	7.15E-09	
Pr-144	1.08E-03	4.82E-07	1.51E-07	6.03E-08	3.62E-08	2.41E-08	1.81E-08	1.57E-09	1.21E-08	1.08E-08	8.44E-09	7.23E-09	
Np-239	8.68E-04	3.89E-07	1.21E-07	4.86E-08	2.91E-08	1.94E-08	1.46E-08	1.26E-09	9.71E-09	8.74E-09	6.80E-09	5.83E-09	



Turkey Point Nuclear Plant 1993 Evaluated Exercise
Isotopic Analysis Results on Field Air Samples, uCi/cc

MDA= 1.00E-12

Isotopic Analysis Results on Field Air Samples, uCi/cc	Cl/sec @ Time of Release:	Downwind Distance (mi)										MDA= 1.00E-12	
		0.5	1	2	3	4	5	6	7	8	9		10
		12:00	12:07	12:15	12:30	12:45	13:00	13:15	13:30	13:45	14:00		14:15
Ar-41	2.38E-03	1.06E-06	3.32E-07	1.33E-07	7.97E-08	5.32E-08	3.99E-08	3.46E-09	2.66E-08	2.39E-08	1.86E-08	1.59E-08	
Kr-85m	6.94E-03	3.11E-06	9.71E-07	3.88E-07	2.33E-07	1.55E-07	1.16E-07	1.01E-08	7.76E-08	6.99E-08	5.44E-08	4.66E-08	
Kr-85	4.20E-04	1.88E-07	5.87E-08	2.35E-08	1.41E-08	9.39E-09	7.05E-09	6.11E-10	4.70E-09	4.23E-09	3.29E-09	2.82E-09	
Kr-87	5.91E-03	2.64E-06	8.26E-07	3.30E-07	1.98E-07	1.32E-07	9.91E-08	8.59E-09	6.61E-08	5.95E-08	4.63E-08	3.97E-08	
Kr-88	1.90E-04	8.51E-08	2.66E-08	1.06E-08	6.39E-09	4.26E-09	3.19E-09	2.77E-10	2.13E-09	1.92E-09	1.49E-09	1.28E-09	
Xe-131m	3.67E-04	1.64E-07	5.13E-08	2.05E-08	1.23E-08	8.21E-09	6.16E-09	5.34E-10	4.10E-09	3.69E-09	2.87E-09	2.46E-09	
Xe-133m	3.67E-04	1.64E-07	5.13E-08	2.05E-08	1.23E-08	8.21E-09	6.16E-09	5.34E-10	4.10E-09	3.69E-09	2.87E-09	2.46E-09	
Xe-133	1.31E-03	5.88E-07	1.84E-07	7.35E-08	4.41E-08	2.94E-08	2.21E-08	1.91E-09	1.47E-08	1.32E-08	1.03E-08	8.82E-09	
Xe-135	1.09E-01	4.86E-05	1.52E-05	6.08E-06	3.65E-06	2.43E-06	1.82E-06	1.58E-07	1.22E-06	1.09E-06	8.51E-07	7.29E-07	
I-131	1.16E-02	5.18E-06	1.62E-06	6.47E-07	3.88E-07	2.59E-07	1.94E-07	1.68E-08	1.29E-07	1.16E-07	9.06E-08	7.76E-08	
I-132	2.05E-03	9.19E-07	2.87E-07	1.15E-07	6.90E-08	4.60E-08	3.45E-08	2.99E-09	2.30E-08	2.07E-08	1.61E-08	1.38E-08	
I-133	1.14E-03	5.08E-07	1.59E-07	6.35E-08	3.81E-08	2.54E-08	1.91E-08	1.65E-09	1.27E-08	1.14E-08	8.89E-09	7.62E-09	
I-134	3.14E-03	1.41E-06	4.40E-07	1.76E-07	1.06E-07	7.03E-08	5.28E-08	4.57E-09	3.52E-08	3.17E-08	2.46E-08	2.11E-08	
I-135	8.40E-04	3.76E-07	1.17E-07	4.70E-08	2.82E-08	1.88E-08	1.41E-08	1.22E-09	9.39E-09	8.45E-09	6.57E-09	5.64E-09	
Cr-51	2.14E-03	9.56E-07	2.99E-07	1.20E-07	7.17E-08	4.78E-08	3.59E-08	3.11E-09	2.39E-08	2.15E-08	1.67E-08	1.43E-08	
Mn-54	7.46E-11	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	
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Sr-90	7.67E-04	3.43E-07	1.07E-07	4.29E-08	2.58E-08	1.72E-08	1.29E-08	1.12E-09	8.58E-09	7.73E-09	6.01E-09	5.15E-09	
Y-90	5.36E-05	2.40E-08	7.49E-09	3.00E-09	1.80E-09	1.20E-09	8.99E-10	7.79E-11	5.99E-10	5.39E-10	4.19E-10	3.59E-10	
Sr-91	5.51E-05	2.47E-08	7.71E-09	3.08E-09	1.85E-09	1.23E-09	9.25E-10	8.02E-11	6.17E-10	5.55E-10	4.32E-10	3.70E-10	
Y-91m	8.32E-04	3.72E-07	1.16E-07	4.65E-08	2.79E-08	1.86E-08	1.40E-08	1.21E-09	9.30E-09	8.37E-09	6.51E-09	5.58E-09	
Y-91	1.28E-04	5.72E-08	1.79E-08	7.15E-09	4.29E-09	2.86E-09	2.14E-09	1.86E-10	1.43E-09	1.29E-09	1.00E-09	8.58E-10	
Zr-95	9.99E-04	4.47E-07	1.40E-07	5.59E-08	3.35E-08	2.24E-08	1.68E-08	1.45E-09	1.12E-08	1.01E-08	7.82E-09	6.71E-09	
Nb-95	1.39E-03	6.22E-07	1.94E-07	7.77E-08	4.66E-08	3.11E-08	2.33E-08	2.02E-09	1.55E-08	1.40E-08	1.09E-08	9.33E-09	
Mo-99	1.40E-03	6.26E-07	1.96E-07	7.83E-08	4.70E-08	3.13E-08	2.35E-08	2.04E-09	1.57E-08	1.41E-08	1.10E-08	9.40E-09	
Tc-99m	1.48E-03	6.64E-07	2.08E-07	8.30E-08	4.98E-08	3.32E-08	2.49E-08	2.16E-09	1.66E-08	1.49E-08	1.16E-08	9.96E-09	
Ru-103	1.07E-03	4.77E-07	1.49E-07	5.97E-08	3.58E-08	2.39E-08	1.79E-08	1.55E-09	1.19E-08	1.07E-08	8.35E-09	7.16E-09	
Ru-106	1.36E-03	6.07E-07	1.90E-07	7.59E-08	4.55E-08	3.03E-08	2.28E-08	1.97E-09	1.52E-08	1.37E-08	1.06E-08	9.10E-09	
Sb-129	3.83E-04	1.71E-07	5.36E-08	2.14E-08	1.29E-08	8.57E-09	6.43E-09	5.57E-10	4.29E-09	3.86E-09	3.00E-09	2.57E-09	
Te-129m	2.08E-04	9.30E-08	2.91E-08	1.16E-08	6.97E-09	4.65E-09	3.49E-09	3.02E-10	2.32E-09	2.09E-09	1.63E-09	1.39E-09	
Te-129	7.11E-05	3.18E-08	9.94E-09	3.97E-09	2.38E-09	1.59E-09	1.19E-09	1.03E-10	7.95E-10	7.15E-10	5.56E-10	4.77E-10	
Sb-131	9.24E-05	4.14E-08	1.29E-08	5.17E-09	3.10E-09	2.07E-09	1.55E-09	1.34E-10	1.03E-09	9.30E-10	7.24E-10	6.20E-10	
Te-131m	4.07E-05	1.82E-08	5.70E-09	2.28E-09	1.37E-09	9.12E-10	6.84E-10	5.93E-11	4.56E-10	4.10E-10	3.19E-10	2.73E-10	
Te-131	1.20E-04	5.37E-08	1.68E-08	6.71E-09	4.02E-09	2.68E-09	2.01E-09	1.74E-10	1.34E-09	1.21E-09	9.39E-10	8.05E-10	
Te-132	3.82E-05	1.71E-08	5.34E-09	2.14E-09	1.28E-09	8.55E-10	6.41E-10	5.56E-11	4.27E-10	3.85E-10	2.99E-10	2.56E-10	
Te-133m	1.29E-03	5.79E-07	1.81E-07	7.24E-08	4.34E-08	2.89E-08	2.17E-08	1.88E-09	1.45E-08	1.30E-08	1.01E-08	8.68E-09	
Cs-134	1.59E-04	7.11E-08	2.22E-08	8.89E-09	5.33E-09	3.56E-09	2.67E-09	2.31E-10	1.78E-09	1.60E-09	1.24E-09	1.07E-09	
Te-134	1.31E-04	5.88E-08	1.84E-08	7.35E-09	4.41E-09	2.94E-09	2.21E-09	1.91E-10	1.47E-09	1.32E-09	1.03E-09	8.82E-10	
Cs-135	2.32E-04	1.04E-07	3.24E-08	1.30E-08	7.78E-09	5.19E-09	3.89E-09	3.37E-10	2.59E-09	2.33E-09	1.82E-09	1.56E-09	
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Cs-137	4.36E-05	1.95E-08	6.10E-09	2.44E-09	1.46E-09	9.76E-10	7.32E-10	6.35E-11	4.88E-10	4.39E-10	3.42E-10	2.93E-10	
Cs-138	7.18E-05	3.21E-08	1.00E-08	4.02E-09	2.41E-09	1.61E-09	1.21E-09	1.04E-10	8.04E-10	7.23E-10	5.63E-10	4.82E-10	
Ba-140	1.47E-04	6.60E-08	2.06E-08	8.25E-09	4.95E-09	3.30E-09	2.47E-09	2.14E-10	1.65E-09	1.48E-09	1.15E-09	9.90E-10	
La-140	1.53E-03	6.83E-07	2.14E-07	8.54E-08	5.13E-08	3.42E-08	2.56E-08	2.22E-09	1.71E-08	1.54E-08	1.20E-08	1.03E-08	
La-142	1.53E-03	6.83E-07	2.14E-07	8.54E-08	5.13E-08	3.42E-08	2.56E-08	2.22E-09	1.71E-08	1.54E-08	1.20E-08	1.03E-08	
Ce-143	1.49E-03	6.66E-07	2.08E-07	8.32E-08	4.99E-08	3.33E-08	2.50E-08	2.16E-09	1.66E-08	1.50E-08	1.16E-08	9.98E-09	
Pr-143	7.95E-04	3.56E-07	1.11E-07	4.45E-08	2.67E-08	1.78E-08	1.33E-08	1.16E-09	8.89E-09	8.01E-09	6.23E-09	5.34E-09	
Ce-144	1.20E-03	5.38E-07	1.68E-07	6.73E-08	4.04E-08	2.69E-08	2.02E-08	1.75E-09	1.35E-08	1.21E-08	9.42E-09	8.08E-09	
Pr-144	1.22E-03	5.47E-07	1.71E-07	6.84E-08	4.10E-08	2.73E-08	2.05E-08	1.78E-09	1.37E-08	1.23E-08	9.57E-09	8.20E-09	
Np-239	9.86E-04	4.41E-07	1.38E-07	5.51E-08	3.31E-08	2.20E-08	1.65E-08	1.43E-09	1.10E-08	9.92E-09	7.72E-09	6.61E-09	



Turkey Point Nuclear Plant 1993 Evaluated Exercise
Isotopic Analysis Results on Field Air Samples, uCi/cc

MDA= 1.00E-12

C/Sec @ Time of Release:		Isotopic Analysis Results on Field Air Samples, uCi/cc											MDA= 1.00E-12
		Downwind Distance (mi)											
		0.5	1	2	3	4	5	6	7	8	9	10	
	12:15	12:22	12:30	12:45	13:00	13:15	13:30	13:45	14:00	14:15	14:30	14:45	
Ar-41	2.02E-03	9.02E-07	2.82E-07	1.13E-07	6.76E-08	4.51E-08	3.38E-08	2.93E-09	2.25E-08	2.03E-08	1.58E-08	1.35E-08	
Kr-85m	6.23E-03	2.79E-06	8.71E-07	3.48E-07	2.09E-07	1.39E-07	1.04E-07	9.05E-09	6.96E-08	6.27E-08	4.88E-08	4.18E-08	
Kr-85	3.92E-04	1.75E-07	5.48E-08	2.19E-08	1.31E-08	8.77E-09	6.57E-09	5.70E-10	4.38E-09	3.94E-09	3.07E-09	2.63E-09	
Kr-87	4.81E-03	2.15E-06	6.72E-07	2.69E-07	1.61E-07	1.08E-07	8.07E-08	6.99E-09	5.38E-08	4.84E-08	3.76E-08	3.23E-08	
Kr-88	1.67E-04	7.47E-08	2.33E-08	9.33E-09	5.60E-09	3.73E-09	2.80E-09	2.43E-10	1.87E-09	1.68E-09	1.31E-09	1.12E-09	
Xe-131m	3.42E-04	1.53E-07	4.78E-08	1.91E-08	1.15E-08	7.66E-09	5.74E-09	4.98E-10	3.83E-09	3.44E-09	2.68E-09	2.30E-09	
Xe-133m	3.42E-04	1.53E-07	4.78E-08	1.91E-08	1.15E-08	7.66E-09	5.74E-09	4.98E-10	3.83E-09	3.44E-09	2.68E-09	2.30E-09	
Xe-133	1.11E-03	4.95E-07	1.55E-07	6.19E-08	3.71E-08	2.47E-08	1.86E-08	1.61E-09	1.24E-08	1.11E-08	8.66E-09	7.42E-09	
Xe-135	1.01E-01	4.53E-05	1.42E-05	5.66E-06	3.40E-06	2.26E-06	1.70E-06	1.47E-07	1.13E-06	1.02E-06	7.93E-07	6.79E-07	
I-131	1.06E-02	4.74E-06	1.48E-06	5.92E-07	3.55E-07	2.37E-07	1.78E-07	1.54E-08	1.18E-07	1.07E-07	8.29E-08	7.11E-08	
I-132	1.92E-03	8.58E-07	2.68E-07	1.07E-07	6.44E-08	4.29E-08	3.22E-08	2.79E-09	2.15E-08	1.93E-08	1.50E-08	1.29E-08	
I-133	9.83E-04	4.40E-07	1.37E-07	5.50E-08	3.30E-08	2.20E-08	1.65E-08	1.43E-09	1.10E-08	9.90E-09	7.70E-09	6.60E-09	
I-134	2.91E-03	1.30E-06	4.07E-07	1.63E-07	9.77E-08	6.52E-08	4.89E-08	4.24E-09	3.26E-08	2.93E-08	2.28E-08	1.95E-08	
I-135	6.44E-04	2.88E-07	9.01E-08	3.60E-08	2.16E-08	1.44E-08	1.08E-08	9.37E-10	7.20E-09	6.48E-09	5.04E-09	4.32E-09	
Cr-51	1.94E-03	8.70E-07	2.72E-07	1.09E-07	6.52E-08	4.35E-08	3.26E-08	2.83E-09	2.17E-08	1.96E-08	1.52E-08	1.30E-08	
Mn-54	5.53E-11	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	
Fe-55	1.38E-11	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	
Fe-59	4.66E-11	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	
Co-58	3.36E-11	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	
Co-60	4.74E-10	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	
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Sr-89	6.03E-06	2.70E-09	8.43E-10	3.37E-10	2.02E-10	1.35E-10	1.01E-10	8.77E-12	6.74E-11	6.07E-11	4.72E-11	4.05E-11	
Sr-90	7.17E-04	3.21E-07	1.00E-07	4.01E-08	2.41E-08	1.60E-08	1.20E-08	1.04E-09	8.02E-09	7.22E-09	5.61E-09	4.81E-09	
Y-90	5.00E-05	2.24E-08	6.99E-09	2.80E-09	1.68E-09	1.12E-09	8.39E-10	7.27E-11	5.60E-10	5.04E-10	3.92E-10	3.36E-10	
Sr-91	5.14E-05	2.30E-08	7.18E-09	2.87E-09	1.72E-09	1.15E-09	8.62E-10	7.47E-11	5.74E-10	5.17E-10	4.02E-10	3.45E-10	
Y-91m	7.63E-04	3.41E-07	1.07E-07	4.27E-08	2.56E-08	1.71E-08	1.28E-08	1.11E-09	8.54E-09	7.68E-09	5.98E-09	5.12E-09	
Y-91	9.71E-05	4.34E-08	1.36E-08	5.43E-09	3.26E-09	2.17E-09	1.63E-09	1.41E-10	1.09E-09	9.77E-10	7.60E-10	6.51E-10	
Zr-95	9.33E-04	4.17E-07	1.30E-07	5.22E-08	3.13E-08	2.09E-08	1.57E-08	1.36E-09	1.04E-08	9.39E-09	7.31E-09	6.26E-09	
Nb-95	1.30E-03	5.81E-07	1.82E-07	7.26E-08	4.36E-08	2.90E-08	2.18E-08	1.89E-09	1.45E-08	1.31E-08	1.02E-08	8.71E-09	
Mo-99	1.31E-03	5.85E-07	1.83E-07	7.31E-08	4.39E-08	2.92E-08	2.19E-08	1.90E-09	1.46E-08	1.32E-08	1.02E-08	8.77E-09	
Tc-99m	1.38E-03	6.19E-07	1.93E-07	7.73E-08	4.64E-08	3.09E-08	2.32E-08	2.01E-09	1.55E-08	1.39E-08	1.08E-08	9.28E-09	
Ru-103	9.68E-04	4.33E-07	1.35E-07	5.41E-08	3.25E-08	2.17E-08	1.62E-08	1.41E-09	1.08E-08	9.75E-09	7.58E-09	6.50E-09	
Ru-106	1.27E-03	5.67E-07	1.77E-07	7.08E-08	4.25E-08	2.83E-08	2.13E-08	1.84E-09	1.42E-08	1.28E-08	9.92E-09	8.50E-09	
Sb-129	3.58E-04	1.60E-07	5.01E-08	2.00E-08	1.20E-08	8.01E-09	6.01E-09	5.21E-10	4.00E-09	3.60E-09	2.80E-09	2.40E-09	
Te-129m	1.87E-04	8.35E-08	2.61E-08	1.04E-08	6.26E-09	4.18E-09	3.13E-09	2.71E-10	2.09E-09	1.88E-09	1.46E-09	1.25E-09	
Te-129	6.64E-05	2.97E-08	9.28E-09	3.71E-09	2.23E-09	1.49E-09	1.11E-09	9.65E-11	7.43E-10	6.68E-10	5.20E-10	4.46E-10	
Sb-131	7.39E-05	3.31E-08	1.03E-08	4.13E-09	2.48E-09	1.65E-09	1.24E-09	1.07E-10	8.27E-10	7.44E-10	5.79E-10	4.96E-10	
Te-131m	2.55E-05	1.14E-08	3.57E-09	1.43E-09	8.56E-10	5.71E-10	4.28E-10	3.71E-11	2.85E-10	2.57E-10	2.00E-10	1.71E-10	
Te-131	1.11E-04	4.98E-08	1.56E-08	6.23E-09	3.74E-09	2.49E-09	1.87E-09	1.62E-10	1.25E-09	1.12E-09	8.72E-10	7.47E-10	
Te-132	2.35E-05	1.05E-08	3.28E-09	1.31E-09	7.88E-10	5.25E-10	3.94E-10	3.41E-11	2.63E-10	2.36E-10	1.84E-10	1.58E-10	
Te-133m	1.21E-03	5.40E-07	1.69E-07	6.75E-08	4.05E-08	2.70E-08	2.02E-08	1.75E-09	1.35E-08	1.21E-08	9.44E-09	8.09E-09	
Cs-134	1.23E-04	5.50E-08	1.72E-08	6.87E-09	4.12E-09	2.75E-09	2.06E-09	1.79E-10	1.37E-09	1.24E-09	9.62E-10	8.25E-10	
Te-134	1.23E-04	5.49E-08	1.72E-08	6.87E-09	4.12E-09	2.75E-09	2.06E-09	1.79E-10	1.37E-09	1.24E-09	9.61E-10	8.24E-10	
Cs-135	1.70E-04	7.61E-08	2.38E-08	9.51E-09	5.71E-09	3.81E-09	2.85E-09	2.47E-10	1.90E-09	1.71E-09	1.33E-09	1.14E-09	
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Cs-138	6.71E-05	3.00E-08	9.38E-09	3.75E-09	2.25E-09	1.50E-09	1.13E-09	9.76E-11	7.51E-10	6.76E-10	5.25E-10	4.50E-10	
Ba-140	9.97E-05	4.46E-08	1.39E-08	5.58E-09	3.35E-09	2.23E-09	1.67E-09	1.45E-10	1.12E-09	1.00E-09	7.81E-10	6.69E-10	
La-140	1.43E-03	6.38E-07	1.99E-07	7.97E-08	4.78E-08	3.19E-08	2.39E-08	2.07E-09	1.59E-08	1.44E-08	1.12E-08	9.57E-09	
La-142	1.43E-03	6.38E-07	1.99E-07	7.97E-08	4.78E-08	3.19E-08	2.39E-08	2.07E-09	1.59E-08	1.44E-08	1.12E-08	9.57E-09	
Ce-143	1.38E-03	6.19E-07	1.93E-07	7.74E-08	4.64E-08	3.10E-08	2.32E-08	2.01E-09	1.55E-08	1.39E-08	1.08E-08	9.29E-09	
Pr-143	6.63E-04	2.96E-07	9.27E-08	3.71E-08	2.22E-08	1.48E-08	1.11E-08	9.64E-10	7.41E-09	6.67E-09	5.19E-09	4.45E-09	
Ce-144	1.12E-03	5.00E-07	1.56E-07	6.25E-08	3.75E-08	2.50E-08	1.88E-08	1.63E-09	1.25E-08	1.13E-08	8.76E-09	7.51E-09	
Pr-144	1.14E-03	5.10E-07	1.60E-07	6.38E-08	3.83E-08	2.55E-08	1.91E-08	1.66E-09	1.28E-08	1.15E-08	8.93E-09	7.66E-09	
Np-239	9.21E-04	4.12E-07	1.29E-07	5.15E-08	3.09E-08	2.06E-08	1.54E-08	1.34E-09	1.03E-08	9.27E-09	7.21E-09	6.18E-09	



Turkey Point Nuclear Plant 1993 Evaluated Exercise
Isotopic Analysis Results on Field Air Samples, uCi/cc

MDA= 1.00E-12

C/Sec Time of Release:	Isotopic Analysis Results on Field Air Samples, uCi/cc										MDA= 1.00E-12
	Downwind Distance (mi)										
	0.5	1	2	3	4	5	6	7	8	9	10
12:30	12:37	12:45	13:00	13:15	13:30	13:45	14:00	14:15	14:30	14:45	15:00
1.47E-03	6.58E-07	2.06E-07	8.22E-08	4.93E-08	3.29E-08	2.47E-08	2.14E-09	1.64E-08	1.48E-08	1.15E-08	9.87E-09
4.80E-03	2.15E-06	6.72E-07	2.69E-07	1.61E-07	1.07E-07	8.06E-08	6.98E-09	5.37E-08	4.83E-08	3.76E-08	3.22E-08
3.14E-04	1.41E-07	4.40E-08	1.76E-08	1.05E-08	7.03E-09	5.27E-09	4.57E-10	3.52E-09	3.16E-09	2.46E-09	2.11E-09
3.36E-03	1.51E-06	4.70E-07	1.88E-07	1.13E-07	7.53E-08	5.64E-08	4.89E-09	3.76E-08	3.39E-08	2.63E-08	2.26E-08
1.26E-04	5.63E-08	1.76E-08	7.04E-09	4.22E-09	2.82E-09	2.11E-09	1.83E-10	1.41E-09	1.27E-09	9.86E-10	8.45E-10
2.74E-04	1.23E-07	3.84E-08	1.53E-08	9.21E-09	6.14E-09	4.60E-09	3.99E-10	3.07E-09	2.76E-09	2.15E-09	1.84E-09
2.74E-04	1.23E-07	3.84E-08	1.53E-08	9.21E-09	6.14E-09	4.60E-09	3.99E-10	3.07E-09	2.76E-09	2.15E-09	1.84E-09
8.24E-04	3.69E-07	1.15E-07	4.61E-08	2.77E-08	1.84E-08	1.38E-08	1.20E-09	9.22E-09	8.30E-09	6.45E-09	5.53E-09
8.11E-02	3.63E-05	1.13E-05	4.54E-06	2.72E-06	1.81E-06	1.36E-06	1.18E-07	9.07E-07	8.17E-07	6.35E-07	5.44E-07
8.34E-03	3.73E-06	1.17E-06	4.66E-07	2.80E-07	1.87E-07	1.40E-07	1.21E-08	9.33E-08	8.39E-08	6.53E-08	5.60E-08
1.54E-03	6.88E-07	2.15E-07	8.60E-08	5.16E-08	3.44E-08	2.58E-08	2.24E-09	1.72E-08	1.55E-08	1.20E-08	1.03E-08
7.32E-04	3.28E-07	1.02E-07	4.09E-08	2.46E-08	1.64E-08	1.23E-08	1.06E-09	8.19E-09	7.37E-09	5.73E-09	4.91E-09
2.32E-03	1.04E-06	3.24E-07	1.30E-07	7.78E-08	5.19E-08	3.89E-08	3.37E-09	2.59E-08	2.33E-08	1.82E-08	1.56E-08
4.25E-04	1.90E-07	5.94E-08	2.38E-08	1.43E-08	9.50E-09	7.13E-09	6.18E-10	4.75E-09	4.28E-09	3.33E-09	2.85E-09
1.52E-03	6.80E-07	2.13E-07	8.51E-08	5.10E-08	3.40E-08	2.55E-08	2.21E-09	1.70E-08	1.53E-08	1.19E-08	1.02E-08
3.76E-11	<MDA>	<MDA>	<MDA>	<MDA>	<MDA>	<MDA>	<MDA>	<MDA>	<MDA>	<MDA>	<MDA>
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5.76E-04	2.58E-07	8.05E-08	3.22E-08	1.93E-08	1.29E-08	9.66E-09	8.37E-10	6.44E-09	5.79E-09	4.51E-09	3.86E-09
4.02E-05	1.80E-08	5.62E-09	2.25E-09	1.35E-09	8.99E-10	6.74E-10	5.84E-11	4.49E-10	4.04E-10	3.15E-10	2.70E-10
4.11E-05	1.84E-08	5.75E-09	2.30E-09	1.38E-09	9.20E-10	6.90E-10	5.98E-11	4.60E-10	4.14E-10	3.22E-10	2.76E-10
6.02E-04	2.69E-07	8.42E-08	3.37E-08	2.02E-08	1.35E-08	1.01E-08	8.75E-10	6.73E-09	6.06E-09	4.71E-09	4.04E-09
6.34E-05	2.84E-08	8.86E-09	3.54E-09	2.13E-09	1.42E-09	1.06E-09	9.22E-11	7.09E-10	6.38E-10	4.96E-10	4.25E-10
7.49E-04	3.35E-07	1.05E-07	4.19E-08	2.51E-08	1.68E-08	1.26E-08	1.09E-09	8.38E-09	7.54E-09	5.87E-09	5.03E-09
1.04E-03	4.66E-07	1.46E-07	5.83E-08	3.50E-08	2.33E-08	1.75E-08	1.52E-09	1.17E-08	1.05E-08	8.16E-09	6.99E-09
1.05E-03	4.70E-07	1.47E-07	5.87E-08	3.52E-08	2.35E-08	1.76E-08	1.53E-09	1.17E-08	1.06E-08	8.22E-09	7.04E-09
1.11E-03	4.95E-07	1.55E-07	6.19E-08	3.72E-08	2.48E-08	1.86E-08	1.61E-09	1.24E-08	1.11E-08	8.67E-09	7.43E-09
7.55E-04	3.38E-07	1.06E-07	4.22E-08	2.53E-08	1.69E-08	1.27E-08	1.10E-09	8.45E-09	7.60E-09	5.91E-09	5.07E-09
1.02E-03	4.55E-07	1.42E-07	5.69E-08	3.41E-08	2.28E-08	1.71E-08	1.48E-09	1.14E-08	1.02E-08	7.96E-09	6.83E-09
2.87E-04	1.29E-07	4.02E-08	1.61E-08	9.65E-09	6.43E-09	4.82E-09	4.18E-10	3.22E-09	2.89E-09	2.25E-09	1.93E-09
1.44E-04	6.45E-08	2.01E-08	8.06E-09	4.84E-09	3.22E-09	2.42E-09	2.10E-10	1.61E-09	1.45E-09	1.13E-09	9.67E-10
5.33E-05	2.38E-08	7.45E-09	2.98E-09	1.79E-09	1.19E-09	8.94E-10	7.75E-11	5.96E-10	5.37E-10	4.17E-10	3.58E-10
5.08E-05	2.27E-08	7.11E-09	2.84E-09	1.71E-09	1.14E-09	8.53E-10	7.39E-11	5.69E-10	5.12E-10	3.98E-10	3.41E-10
1.37E-05	6.15E-09	1.92E-09	7.68E-10	4.61E-10	3.07E-10	2.30E-10	2.00E-11	1.54E-10	1.38E-10	1.08E-10	9.22E-11
8.89E-05	3.98E-08	1.24E-08	4.97E-09	2.98E-09	1.99E-09	1.49E-09	1.29E-10	9.94E-10	8.95E-10	6.96E-10	5.97E-10
1.24E-05	5.54E-09	1.73E-09	6.93E-10	4.16E-10	2.77E-10	2.08E-10	1.80E-11	1.39E-10	1.25E-10	9.70E-11	8.32E-11
9.66E-04	4.32E-07	1.35E-07	5.40E-08	3.24E-08	2.16E-08	1.62E-08	1.41E-09	1.08E-08	9.73E-09	7.57E-09	6.48E-09
8.17E-05	3.66E-08	1.14E-08	4.57E-09	2.74E-09	1.83E-09	1.37E-09	1.19E-10	9.14E-10	8.23E-10	6.40E-10	5.48E-10
9.86E-05	4.41E-08	1.38E-08	5.51E-09	3.31E-09	2.21E-09	1.65E-09	1.43E-10	1.10E-09	9.92E-10	7.72E-10	6.62E-10
1.07E-04	4.80E-08	1.50E-08	6.00E-09	3.60E-09	2.40E-09	1.80E-09	1.56E-10	1.20E-09	1.08E-09	8.40E-10	7.20E-10
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5.39E-05	2.41E-08	7.53E-09	3.01E-09	1.81E-09	1.21E-09	9.04E-10	7.84E-11	6.03E-10	5.42E-10	4.22E-10	3.62E-10
5.80E-05	2.59E-08	8.11E-09	3.24E-09	1.95E-09	1.30E-09	9.73E-10	8.43E-11	6.49E-10	5.84E-10	4.54E-10	3.89E-10
1.14E-03	5.12E-07	1.60E-07	6.40E-08	3.84E-08	2.56E-08	1.92E-08	1.66E-09	1.28E-08	1.15E-08	8.96E-09	7.68E-09
1.14E-03	5.12E-07	1.60E-07	6.40E-08	3.84E-08	2.56E-08	1.92E-08	1.66E-09	1.28E-08	1.15E-08	8.96E-09	7.68E-09
1.11E-03	4.95E-07	1.55E-07	6.19E-08	3.71E-08	2.47E-08	1.86E-08	1.61E-09	1.24E-08	1.11E-08	8.66E-09	7.42E-09
4.75E-04	2.12E-07	6.64E-08	2.65E-08	1.59E-08	1.06E-08	7.96E-09	6.90E-10	5.31E-09	4.78E-09	3.72E-09	3.19E-09
8.93E-04	4.00E-07	1.25E-07	5.00E-08	3.00E-08	2.00E-08	1.50E-08	1.30E-09	9.99E-09	8.99E-09	6.99E-09	5.99E-09
9.16E-04	4.10E-07	1.28E-07	5.12E-08	3.07E-08	2.05E-08	1.54E-08	1.33E-09	1.02E-08	9.22E-09	7.17E-09	6.15E-09
7.39E-04	3.31E-07	1.03E-07	4.13E-08	2.48E-08	1.65E-08	1.24E-08	1.07E-09	8.27E-09	7.44E-09	5.79E-09	4.96E-09

Turkey Point Nuclear Plant 1993 Evaluated Exercise
Isotopic Analysis Results on Field Air Samples, uCi/cc

MDA= 1.00E-12

CI/sec @ Time of Release:		Isotopic Analysis Results on Field Air Samples, uCi/cc										MDA=
		Downwind Distance (mi)										1.00E-12
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12:45		12:52	13:00	13:15	13:30	13:45	14:00	14:15	14:30	14:45	15:00	15:15
Ar-41	8.62E-04	3.86E-07	1.21E-07	4.82E-08	2.89E-08	1.93E-08	1.45E-08	1.25E-09	9.64E-09	8.68E-09	6.75E-09	5.78E-09
Kr-85m	2.98E-03	1.33E-06	4.16E-07	1.67E-07	9.99E-08	6.66E-08	5.00E-08	4.33E-09	3.33E-08	3.00E-08	2.33E-08	2.00E-08
Kr-85	2.03E-04	9.07E-08	2.83E-08	1.13E-08	6.80E-09	4.54E-09	3.40E-09	2.95E-10	2.27E-09	2.04E-09	1.59E-09	1.36E-09
Kr-87	1.89E-03	8.46E-07	2.64E-07	1.06E-07	6.35E-08	4.23E-08	3.17E-08	2.75E-09	2.12E-08	1.90E-08	1.48E-08	1.27E-08
Kr-88	7.63E-05	3.41E-08	1.07E-08	4.27E-09	2.56E-09	1.71E-09	1.28E-09	1.11E-10	8.53E-10	7.68E-10	5.97E-10	5.12E-10
Xe-131m	1.77E-04	7.91E-08	2.47E-08	9.89E-09	5.93E-09	3.96E-09	2.97E-09	2.57E-10	1.98E-09	1.78E-09	1.38E-09	1.19E-09
Xe-133m	1.77E-04	7.91E-08	2.47E-08	9.89E-09	5.93E-09	3.96E-09	2.97E-09	2.57E-10	1.98E-09	1.78E-09	1.38E-09	1.19E-09
Xe-133	5.08E-04	2.27E-07	7.10E-08	2.84E-08	1.70E-08	1.14E-08	8.52E-09	7.38E-10	5.68E-09	5.11E-09	3.97E-09	3.41E-09
Xe-135	5.22E-02	2.34E-05	7.30E-06	2.92E-06	1.75E-06	1.17E-06	8.76E-07	7.60E-08	5.84E-07	5.26E-07	4.09E-07	3.51E-07
I-131	5.28E-03	2.36E-06	7.38E-07	2.95E-07	1.77E-07	1.18E-07	8.85E-08	7.67E-09	5.90E-08	5.31E-08	4.13E-08	3.54E-08
I-132	9.92E-04	4.44E-07	1.39E-07	5.55E-08	3.33E-08	2.22E-08	1.66E-08	1.44E-09	1.11E-08	9.98E-09	7.76E-09	6.65E-09
I-133	4.38E-04	1.96E-07	6.12E-08	2.45E-08	1.47E-08	9.80E-09	7.35E-09	6.37E-10	4.90E-09	4.41E-09	3.43E-09	2.94E-09
I-134	1.48E-03	6.64E-07	2.07E-07	8.30E-08	4.98E-08	3.32E-08	2.49E-08	2.16E-09	1.66E-08	1.49E-08	1.16E-08	9.96E-09
I-135	2.25E-04	1.01E-07	3.15E-08	1.26E-08	7.55E-09	5.03E-09	3.78E-09	3.27E-10	2.52E-09	2.27E-09	1.76E-09	1.51E-09
Cr-51	9.56E-04	4.28E-07	1.34E-07	5.34E-08	3.21E-08	2.14E-08	1.60E-08	1.39E-09	1.07E-08	9.62E-09	7.48E-09	6.41E-09
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Fe-55	5.36E-12	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA
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Co-58	1.30E-11	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA
Co-60	1.83E-10	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA
Rb-88	2.34E-11	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA
Sr-89	9.71E-07	4.34E-10	1.36E-10	5.43E-11	3.26E-11	2.17E-11	1.63E-11	1.41E-12	1.09E-11	9.78E-12	7.60E-12	6.52E-12
Sr-90	3.71E-04	1.66E-07	5.19E-08	2.08E-08	1.25E-08	8.31E-09	6.23E-09	5.40E-10	4.15E-09	3.74E-09	2.91E-09	2.49E-09
Y-90	2.59E-05	1.16E-08	3.62E-09	1.45E-09	8.70E-10	5.80E-10	4.35E-10	3.77E-11	2.90E-10	2.61E-10	2.03E-10	1.74E-10
Sr-91	2.65E-05	1.18E-08	3.70E-09	1.48E-09	8.88E-10	5.92E-10	4.44E-10	3.85E-11	2.96E-10	2.66E-10	2.07E-10	1.78E-10
Y-91m	3.81E-04	1.71E-07	5.33E-08	2.13E-08	1.28E-08	8.53E-09	6.40E-09	5.55E-10	4.27E-09	3.84E-09	2.99E-09	2.56E-09
Y-91	3.33E-05	1.49E-08	4.65E-09	1.86E-09	1.12E-09	7.44E-10	5.58E-10	4.84E-11	3.72E-10	3.35E-10	2.60E-10	2.23E-10
Zr-95	4.83E-04	2.16E-07	6.76E-08	2.70E-08	1.62E-08	1.08E-08	8.11E-09	7.03E-10	5.41E-09	4.86E-09	3.78E-09	3.24E-09
Nb-95	6.72E-04	3.01E-07	9.40E-08	3.76E-08	2.26E-08	1.50E-08	1.13E-08	9.78E-10	7.52E-09	6.77E-09	5.26E-09	4.51E-09
Mo-99	6.77E-04	3.03E-07	9.46E-08	3.79E-08	2.27E-08	1.51E-08	1.14E-08	9.84E-10	7.57E-09	6.81E-09	5.30E-09	4.54E-09
Tc-99m	7.13E-04	3.19E-07	9.96E-08	3.99E-08	2.39E-08	1.59E-08	1.20E-08	1.04E-09	7.97E-09	7.17E-09	5.58E-09	4.78E-09
Ru-103	4.74E-04	2.12E-07	6.62E-08	2.65E-08	1.59E-08	1.06E-08	7.95E-09	6.89E-10	5.30E-09	4.77E-09	3.71E-09	3.18E-09
Ru-106	6.56E-04	2.93E-07	9.17E-08	3.67E-08	2.20E-08	1.47E-08	1.10E-08	9.54E-10	7.34E-09	6.60E-09	5.14E-09	4.40E-09
Sb-129	1.85E-04	8.30E-08	2.59E-08	1.04E-08	6.22E-09	4.15E-09	3.11E-09	2.70E-10	2.07E-09	1.87E-09	1.45E-09	1.24E-09
Te-129m	8.94E-05	4.00E-08	1.25E-08	5.00E-09	3.00E-09	2.00E-09	1.50E-09	1.30E-10	1.00E-09	9.00E-10	7.00E-10	6.00E-10
Te-129	3.44E-05	1.54E-08	4.81E-09	1.92E-09	1.15E-09	7.69E-10	5.77E-10	5.00E-11	3.85E-10	3.46E-10	2.69E-10	2.31E-10
Sb-131	2.81E-05	1.26E-08	3.93E-09	1.57E-09	9.42E-10	6.28E-10	4.71E-10	4.08E-11	3.14E-10	2.83E-10	2.20E-10	1.88E-10
Te-131m	5.94E-06	2.66E-09	8.31E-10	3.32E-10	1.99E-10	1.33E-10	9.97E-11	8.64E-12	6.65E-11	5.98E-11	4.65E-11	3.99E-11
Te-131	5.70E-05	2.55E-08	7.97E-09	3.19E-09	1.91E-09	1.28E-09	9.57E-10	8.29E-11	6.38E-10	5.74E-10	4.46E-10	3.83E-10
Te-132	5.26E-06	2.35E-09	7.35E-10	2.94E-10	1.76E-10	1.18E-10	8.82E-11	7.64E-12	5.88E-11	5.29E-11	4.12E-11	3.53E-11
Te-133m	6.22E-04	2.78E-07	8.70E-08	3.48E-08	2.09E-08	1.39E-08	1.04E-08	9.04E-10	6.96E-09	6.26E-09	4.87E-09	4.17E-09
Cs-134	4.36E-05	1.95E-08	6.10E-09	2.44E-09	1.46E-09	9.76E-10	7.32E-10	6.34E-11	4.88E-10	4.39E-10	3.42E-10	2.93E-10
Te-134	6.36E-05	2.85E-08	8.89E-09	3.56E-09	2.13E-09	1.42E-09	1.07E-09	9.25E-11	7.11E-10	6.40E-10	4.98E-10	4.27E-10
Cs-135	5.43E-05	2.43E-08	7.60E-09	3.04E-09	1.82E-09	1.22E-09	9.12E-10	7.90E-11	6.08E-10	5.47E-10	4.25E-10	3.65E-10
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Cs-138	3.48E-05	1.56E-08	4.86E-09	1.94E-09	1.17E-09	7.78E-10	5.83E-10	5.06E-11	3.89E-10	3.50E-10	2.72E-10	2.33E-10
Ba-140	2.71E-05	1.21E-08	3.79E-09	1.51E-09	9.09E-10	6.06E-10	4.54E-10	3.94E-11	3.03E-10	2.73E-10	2.12E-10	1.82E-10
La-140	7.38E-04	3.30E-07	1.03E-07	4.13E-08	2.48E-08	1.65E-08	1.24E-08	1.07E-09	8.25E-09	7.43E-09	5.78E-09	4.95E-09
La-142	7.38E-04	3.30E-07	1.03E-07	4.13E-08	2.48E-08	1.65E-08	1.24E-08	1.07E-09	8.25E-09	7.43E-09	5.78E-09	4.95E-09
Ce-143	7.10E-04	3.18E-07	9.93E-08	3.97E-08	2.38E-08	1.59E-08	1.19E-08	1.03E-09	7.95E-09	7.15E-09	5.56E-09	4.77E-09
Pr-143	2.73E-04	1.22E-07	3.82E-08	1.53E-08	9.17E-09	6.11E-09	4.58E-09	3.97E-10	3.06E-09	2.75E-09	2.14E-09	1.83E-09
Ce-144	5.73E-04	2.56E-07	8.01E-08	3.21E-08	1.92E-08	1.28E-08	9.62E-09	8.34E-10	6.41E-09	5.77E-09	4.49E-09	3.85E-09
Pr-144	5.90E-04	2.64E-07	8.25E-08	3.30E-08	1.98E-08	1.32E-08	9.91E-09	8.59E-10	6.60E-09	5.94E-09	4.62E-09	3.96E-09
Np-239	4.77E-04	2.13E-07	6.67E-08	2.67E-08	1.60E-08	1.07E-08	8.00E-09	6.93E-10	5.33E-09	4.80E-09	3.73E-09	3.20E-09



Turkey Point Nuclear Plant 1993 Evaluated Exercise
Isotopic Analysis Results on Field Air Samples, uCi/cc

MDA= 1.00E-12

		Turkey Point Nuclear Plant 1993 Evaluated Exercise										
		Isotopic Analysis Results on Field Air Samples, uCi/cc										MDA= 1.00E-12
CI/sec @ Time of Release:	Downwind Distance (mi)											
		0.5	1	2	3	4	5	6	7	8	9	10
	13:00	13:07	13:15	13:30	13:45	14:00	14:15	14:30	14:45	15:00	15:15	15:30
Ar-41	2.17E-04	9.70E-08	3.03E-08	1.21E-08	7.28E-09	4.85E-09	3.64E-09	3.15E-10	2.43E-09	2.18E-09	1.70E-09	1.46E-09
Kr-85m	7.92E-04	3.54E-07	1.11E-07	4.43E-08	2.66E-08	1.77E-08	1.33E-08	1.15E-09	8.86E-09	7.98E-09	6.20E-09	5.32E-09
Kr-85	5.61E-05	2.51E-08	7.85E-09	3.14E-09	1.88E-09	1.26E-09	9.41E-10	8.16E-11	6.28E-10	5.65E-10	4.39E-10	3.77E-10
Kr-87	4.57E-04	2.04E-07	6.38E-08	2.55E-08	1.53E-08	1.02E-08	7.66E-09	6.64E-10	5.11E-09	4.60E-09	3.58E-09	3.06E-09
Kr-88	1.98E-05	8.88E-09	2.78E-09	1.11E-09	6.66E-10	4.44E-10	3.33E-10	2.89E-11	2.22E-10	2.00E-10	1.55E-10	1.33E-10
Xe-131m	4.89E-05	2.19E-08	6.84E-09	2.74E-09	1.64E-09	1.09E-09	8.21E-10	7.11E-11	5.47E-10	4.92E-10	3.83E-10	3.28E-10
Xe-133m	4.89E-05	2.19E-08	6.84E-09	2.74E-09	1.64E-09	1.09E-09	8.21E-10	7.11E-11	5.47E-10	4.92E-10	3.83E-10	3.28E-10
Xe-133	1.38E-04	6.19E-08	1.94E-08	7.74E-09	4.64E-09	3.10E-09	2.32E-09	2.01E-10	1.55E-09	1.39E-09	1.08E-09	9.29E-10
Xe-135	1.44E-02	6.46E-06	2.02E-06	8.07E-07	4.84E-07	3.23E-07	2.42E-07	2.10E-08	1.61E-07	1.45E-07	1.13E-07	9.69E-08
I-131	1.43E-03	6.41E-07	2.00E-07	8.01E-08	4.81E-08	3.20E-08	2.40E-08	2.08E-09	1.60E-08	1.44E-08	1.12E-08	9.61E-09
I-132	2.74E-04	1.23E-07	3.83E-08	1.53E-08	9.20E-09	6.13E-09	4.60E-09	3.99E-10	3.07E-09	2.76E-09	2.15E-09	1.84E-09
I-133	1.12E-04	5.03E-08	1.57E-08	6.28E-09	3.77E-09	2.51E-09	1.89E-09	1.63E-10	1.26E-09	1.13E-09	8.80E-10	7.54E-10
I-134	4.07E-04	1.82E-07	5.69E-08	2.28E-08	1.37E-08	9.11E-09	6.83E-09	5.92E-10	4.56E-09	4.10E-09	3.19E-09	2.73E-09
I-135	5.12E-05	2.29E-08	7.15E-09	2.86E-09	1.72E-09	1.14E-09	8.58E-10	7.44E-11	5.72E-10	5.15E-10	4.01E-10	3.43E-10
Cr-51	2.58E-04	1.15E-07	3.60E-08	1.44E-08	8.65E-09	5.76E-09	4.32E-09	3.75E-10	2.88E-09	2.59E-09	2.02E-09	1.73E-09
Mn-54	5.39E-12	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA
Fe-55	1.35E-12	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA
Fe-59	4.53E-12	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA
Co-58	3.26E-12	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA
Co-60	4.59E-11	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA
Rb-88	5.88E-12	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA
Sr-89	1.50E-07	6.71E-11	2.10E-11	8.38E-12	5.03E-12	3.35E-12	2.51E-12	<MDA	1.68E-12	1.51E-12	1.17E-12	1.01E-12
Sr-90	1.03E-04	4.60E-08	1.44E-08	5.75E-09	3.45E-09	2.30E-09	1.72E-09	1.49E-10	1.15E-09	1.03E-09	8.05E-10	6.90E-10
Y-90	7.17E-08	3.21E-09	1.00E-09	4.01E-10	2.41E-10	1.60E-10	1.20E-10	1.04E-11	8.02E-11	7.22E-11	5.62E-11	4.81E-11
Sr-91	7.30E-06	3.27E-09	1.02E-09	4.09E-10	2.45E-10	1.63E-10	1.23E-10	1.06E-11	8.17E-11	7.35E-11	5.72E-11	4.90E-11
Y-91m	1.04E-04	4.64E-08	1.45E-08	5.80E-09	3.48E-09	2.32E-09	1.74E-09	1.51E-10	1.16E-09	1.04E-09	8.12E-10	6.96E-10
Y-91	7.49E-06	3.35E-09	1.05E-09	4.19E-10	2.51E-10	1.67E-10	1.26E-10	1.09E-11	8.37E-11	7.54E-11	5.86E-11	5.02E-11
Zr-95	1.34E-04	5.98E-08	1.87E-08	7.48E-09	4.49E-09	2.99E-09	2.24E-09	1.94E-10	1.50E-09	1.35E-09	1.05E-09	8.98E-10
Nb-95	1.86E-04	8.33E-08	2.60E-08	1.04E-08	6.24E-09	4.16E-09	3.12E-09	2.71E-10	2.08E-09	1.87E-09	1.46E-09	1.25E-09
Mo-99	1.87E-04	8.38E-08	2.62E-08	1.05E-08	6.29E-09	4.19E-09	3.14E-09	2.72E-10	2.10E-09	1.89E-09	1.47E-09	1.26E-09
Tc-99m	1.97E-04	8.80E-08	2.75E-08	1.10E-08	6.60E-09	4.40E-09	3.30E-09	2.86E-10	2.20E-09	1.98E-09	1.54E-09	1.32E-09
Ru-103	1.27E-04	5.70E-08	1.78E-08	7.12E-09	4.27E-09	2.85E-09	2.14E-09	1.85E-10	1.42E-09	1.28E-09	9.97E-10	8.55E-10
Ru-106	1.82E-04	8.12E-08	2.54E-08	1.02E-08	6.09E-09	4.06E-09	3.05E-09	2.64E-10	2.03E-09	1.83E-09	1.42E-09	1.22E-09
Sb-129	5.13E-05	2.30E-08	7.18E-09	2.87E-09	1.72E-09	1.15E-09	8.61E-10	7.46E-11	5.74E-10	5.17E-10	4.02E-10	3.44E-10
Te-129m	2.38E-05	1.06E-08	3.33E-09	1.33E-09	7.98E-10	5.32E-10	3.99E-10	3.46E-11	2.66E-10	2.39E-10	1.86E-10	1.60E-10
Te-129	9.52E-06	4.26E-09	1.33E-09	5.32E-10	3.19E-10	2.13E-10	1.60E-10	1.38E-11	1.06E-10	9.58E-11	7.45E-11	6.39E-11
Sb-131	6.65E-06	2.98E-09	9.30E-10	3.72E-10	2.23E-10	1.49E-10	1.12E-10	9.68E-12	7.44E-11	6.70E-11	5.21E-11	4.47E-11
Te-131m	1.10E-06	4.93E-10	1.54E-10	6.17E-11	3.70E-11	2.47E-11	1.85E-11	1.60E-12	1.23E-11	1.11E-11	8.63E-12	7.40E-12
Te-131	1.57E-05	7.02E-09	2.19E-09	8.78E-10	5.27E-10	3.51E-10	2.63E-10	2.28E-11	1.76E-10	1.58E-10	1.23E-10	1.05E-10
Te-132	9.57E-07	4.28E-10	1.34E-10	5.35E-11	3.21E-11	2.14E-11	1.61E-11	1.39E-12	1.07E-11	9.63E-12	7.49E-12	6.42E-12
Te-133m	1.72E-04	7.69E-08	2.40E-08	9.61E-09	5.76E-09	3.84E-09	2.88E-09	2.50E-10	1.92E-09	1.73E-09	1.34E-09	1.15E-09
Cs-134	1.00E-05	4.47E-09	1.40E-09	5.59E-10	3.35E-10	2.24E-10	1.68E-10	1.45E-11	1.12E-10	1.01E-10	7.83E-11	6.71E-11
Te-134	1.76E-05	7.87E-09	2.46E-09	9.84E-10	5.91E-10	3.94E-10	2.95E-10	2.56E-11	1.97E-10	1.77E-10	1.38E-10	1.18E-10
Cs-135	1.18E-05	5.28E-09	1.65E-09	6.60E-10	3.96E-10	2.64E-10	1.98E-10	1.72E-11	1.32E-10	1.19E-10	9.25E-11	7.93E-11
Cs-136	2.86E-11	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA
Cs-137	5.83E-06	2.61E-09	8.16E-10	3.26E-10	1.96E-10	1.31E-10	9.79E-11	8.48E-12	6.53E-11	5.87E-11	4.57E-11	3.92E-11
Cs-138	9.62E-06	4.31E-09	1.35E-09	5.38E-10	3.23E-10	2.15E-10	1.61E-10	1.40E-11	1.08E-10	9.69E-11	7.53E-11	6.46E-11
Ba-140	5.43E-06	2.43E-09	7.59E-10	3.04E-10	1.82E-10	1.21E-10	9.11E-11	7.89E-12	6.07E-11	5.47E-11	4.25E-11	3.64E-11
La-140	2.04E-04	9.13E-08	2.85E-08	1.14E-08	6.85E-09	4.57E-09	3.42E-09	2.97E-10	2.28E-09	2.05E-09	1.60E-09	1.37E-09
La-142	2.04E-04	9.13E-08	2.85E-08	1.14E-08	6.85E-09	4.57E-09	3.42E-09	2.97E-10	2.28E-09	2.05E-09	1.60E-09	1.37E-09
Ce-143	1.96E-04	8.76E-08	2.74E-08	1.10E-08	6.57E-09	4.38E-09	3.29E-09	2.85E-10	2.19E-09	1.97E-09	1.53E-09	1.31E-09
Pr-143	6.74E-05	3.02E-08	9.43E-09	3.77E-09	2.26E-09	1.51E-09	1.13E-09	9.81E-11	7.54E-10	6.79E-10	5.28E-10	4.53E-10
Ce-144	1.58E-04	7.06E-08	2.21E-08	8.83E-09	5.30E-09	3.53E-09	2.65E-09	2.30E-10	1.77E-09	1.59E-09	1.24E-09	1.06E-09
Pr-144	1.63E-04	7.31E-08	2.28E-08	9.13E-09	5.48E-09	3.65E-09	2.74E-09	2.38E-10	1.83E-09	1.64E-09	1.28E-09	1.10E-09
Np-239	1.32E-04	5.91E-08	1.85E-08	7.38E-09	4.43E-09	2.95E-09	2.21E-09	1.92E-10	1.48E-09	1.33E-09	1.03E-09	8.86E-10

**Turkey Point Nuclear Plant 1993 Evaluated Exercise
Isotopic Analysis Results on Field Air Samples, uCi/cc**

MDA= 1.00E-12

[illegible]

8.0 MISCELLANEOUS

**FLORIDA POWER AND LIGHT COMPANY
TURKEY POINT NUCLEAR PLANT
1993 EMERGENCY PREPAREDNESS
EVALUATED EXERCISE
DECEMBER 15, 1993**

8.0 MISCELLANEOUS

This section contains the following information:

- Section 8.1 EVALUATION PACKAGE** - Forms and record sheets to be utilized by the FPL Controllers in recording and evaluating the performance of the participants.
- **Section 8.2 ACRONYMS AND ABBREVIATIONS** - An alphabetical listing of many acronyms and abbreviations utilized in the scenario text and at the Turkey Point Nuclear Plant.
- Section 8.3 SITE LAYOUT DATA** - Reference data on the Turkey Point Nuclear Plant location, key facilities, access routes, etc.



8.1 EVALUATION MATERIALS

**FLORIDA POWER AND LIGHT COMPANY
TURKEY POINT NUCLEAR PLANT
1993 EMERGENCY PREPAREDNESS
EVALUATED EXERCISE
DECEMBER 15, 1993**

8.1 EVALUATION PACKAGE

I. EVALUATION INSTRUCTIONS

- A. Each Controller should take detailed notes regarding the progress of the exercise and response of the exercise participants at their assigned locations. Each Controller should carefully note the arrival and departure times of participants, the times when major activities or milestones occur, and problem areas encountered.

The standards listed below shall be used by the Controller to evaluate assigned areas pertaining to the emergency response. A dual purpose will be served by this rating system. First, the capability of each facility or response area will be evaluated, and second, the system will provide a vehicle for guiding and directing improvement. The rating scale is as follows:

Satisfactory - Personnel and equipment performed as required. Any errors or problems were minor and easily correctable.

Marginal - Personnel and equipment generally performed as required. Errors noted were not severe and could be resolved without undue labor and expense.

Unsatisfactory - Personnel and equipment generally performed below expectations and there were several significant deficiencies noted.

N/A - Not applicable to the situation or not observed.

- B. Controller comments shall consider the demonstration of the following Facility and Personnel evaluation elements:

Facilities:

- ◆ Accurate and timely determination of Emergency Action Levels.
- ◆ Timely activation and staffing of each emergency facility.
- ◆ Adequacy of appropriate emergency procedure instructions, duties, and responsibilities.

8.1 EVALUATION PACKAGE (Continued)

- ◆ Timely notification of plant, corporate, local, State and Federal personnel/agencies (information updates).
- ◆ Adequacy of internal information systems (i.e., message handling, displays, status boards, and maps).
- ◆ Properly controlled documentation and accurate, timely record keeping.
- ◆ Utilization of proper communications procedures and techniques.
- ◆ Capability of facility managers/supervisors to interface with personnel and coordinate facility activities.
- ◆ Adequacy of interface between emergency response facilities.
- ◆ Adequacy of equipment and supplies.
- ◆ Timely initiation of onsite protective/corrective actions.
- ◆ Development of protective action recommendations.
- ◆ Performance of radiological surveys, plant damage, and hazardous condition assessment.
- ◆ Timely request of emergency support services.
- ◆ Coordinated, accurate, and orderly dissemination of information to the news media.

Personnel:

- ◆ Timely notification and activation.
- ◆ Adequacy of team staffing.
- ◆ Familiarity with appropriate emergency procedures, duties, and responsibilities.
- ◆ Availability and utilization of proper equipment.
- ◆ Performance of contamination/decontamination controls.

8.1 EVALUATION PACKAGE (Continued)

- ◆ Proper interface with emergency support personnel.
- ◆ Utilization of proper communications, instructions and techniques.
- ◆ Availability of reference documents to team members.
- ◆ Utilization of proper radiological control practices.
- ◆ Performance of radiological surveys.
- ◆ Timely and proper performance of damage assessment.
- ◆ Properly maintained survey records and maps.
- ◆ Adequacy of briefing sessions prior to dispatch.
- ◆ Proper direction and control by team leaders.
- ◆ Timely requests for offsite assistance.
- ◆ Coordination and interaction between emergency response team members.
- ◆ Proper interface with plant supervisory personnel.

- C. All Controllers should maintain an exercise chronology. This chronology shall be detailed and contain significant exercise events, actions taken (or not taken) by players, questions noted, and positive as well as negative assessments made by the Controller. This chronological record may be used to corroborate critique items that are questioned by participants. Each Lead Controller shall debrief the Controllers for whom he (she) is responsible and compile an Evaluation Report for the facility. This Evaluation Report shall reflect an overall assessment of the performance of that facility and itemization of significant weaknesses or deficiencies to ensure adequate follow-up attention is devoted to the resolution of identified concerns. Significant positive items should be included as well.

The formal Exercise Critique shall be conducted by the Exercise Coordinator, with each Lead Controller providing an evaluation of their responsible facility. Controllers are reminded that subjective comments are not valid. Comments should be based on fact. Please document your comments as such.

8.1.1 CONTROLLER CHECKLISTS - CONTROL ROOM

Name: _____

Item

Sat / Marg / Unsat / N/A

1. Did Control Room personnel recognize that events were progressing abnormally?
2. Did operators correctly interpret instrumentation displays or other information?
3. Did Control Room personnel properly classify the emergency?
4. Were classifications based upon EALs
5. Was an evacuation of nonessential personnel ordered?

Communications

6. Were teams being initially directed from the Control Room briefed in an acceptable manner?
7. Were the State & Counties notified with 15 minutes of each emergency classification?
8. Was NRC notified within 60 minutes of each emergency classification?
9. Were the NRC and offsite officials notified concerning:
 - the event classification
 - emergency conditions
 - protective action recommendations
 - status of radioactive release
 - projected doses
10. Were protective actions made consistent with EPIP-20101?
11. Were key FPL emergency personnel notified in a timely manner?
12. Were onsite personnel notified of:
 - the event classification?
 - emergency conditions
 - protective actions
 - status of radioactive release
 - acceptable access routes to facilities



8.1.1 CONTROLLER CHECKLISTS - CONTROL ROOM

Name: _____

Item

Sat / Marg / Unsat / N/A

13. Were the notification forms completed and reviewed by the EC prior to being released?
14. Were major actions and activities recorded in the Control Room log?
15. Were phone lists available, complete and current?
16. At Alert (or greater):
 - Was an HP directed to investigate the cause of the alarm?
 - Was an evacuation of the affected area announced?
17. At Site Area Emergency (or greater):
 - Was incident promptly reported to the Emergency Coordinator?
 - Did the Control Room monitor the status of the emergency after the Emergency Coordinator assumed responsibility?
 - Were Control Room personnel kept informed or major decisions and actions being taken in the TSC, OSC and EOF?
18. Was a communications link established and maintained to the TSC?
19. Was emergency medical help requested in a timely manner?
20. Was the Security Specialist notified?
21. Were the correct procedures consulted?
22. Did someone verify that the Control Room Communicator performed all required notifications upon declaration or change of an EAL?

8.1.1 CONTROLLER CHECKLISTS - CONTROL ROOM

Name: _____

Item

Sat / Marg / Unsat / N/A

Radiological Assessment

23. Were dose assessment activities initiated in the Control Room?
24. Was the dose assessment function activated in a timely manner?
25. At General Emergency:
 - Were protective actions made within 15 minutes of recognition of the event?
 - Were at least the minimum 2 mile radius and 5 mile downwind recommendations made?



8.1.1 CONTROLLER CHECKLISTS - CONTROL ROOM

Name: _____

SUMMARY OF FACILITY PERFORMANCE

COMMENTS:

8.1.2 CONTROLLER CHECKLISTS - TECHNICAL SUPPORT CENTER

Name: _____

Item

Sat / Marg / Unsat / N/A

1. Did emergency response members assigned to the TSC report in a timely manner?
2. Were TSC personnel aware of their assigned work area's and procedures?
3. Was the TSC declared operational within one half hour of an alert or higher classification using EPIP-20132?
4. Was activation of the TSC/OSC announced and logged?
5. Was emergency medical help requested in a timely manner?
6. Were the correct procedures consulted for emergency equipment operation, Security, and transport of contaminated injured person?
7. Was the Emergency Coordinator informed of changes in a timely manner?
8. Was sufficient equipment and manpower available to respond to the events?
9. Were message forms and logs kept in an accurate and timely manner to reflect the events and major decisions?
10. Did the Emergency Coordinator meet with key personnel at periodic intervals and review all data sheets for possible changes in classification or protective action recommendations?
11. Was the chain of command understood by personnel in the TSC/OSC?
12. Was HP coverage available in the TSC?
13. Were there protective supplies and equipment for TSC personnel?
14. Were onsite evacuation decisions logical and clear?

8.1.2 CONTROLLER CHECKLISTS - TECHNICAL SUPPORT CENTER

Name: _____

Item

Sat / Marg / Unsat / N/A

15. Did onsite evacuation directive include travel routes and special precautions?
16. Was continuing accountability information given by Security?
17. Was the Emergency Coordinator briefed on conditions prior to the EOF being activated?
18. Was the congestion and noise maintained to reasonable levels?
19. Were relief personnel properly briefed before assuming their positions?
20. Was the Radiation Team Leader directed to implement radiological assessment procedures?
21. Was the radiological assessment function activated in a timely manner?
22. Was responsibility for dose assessment passed from the Control Room to the TSC?
23. Was the chain of command clearly understood inside and outside of the radiological assessment group?
24. Did TSC personnel promptly initiate onsite monitoring?
25. Were offsite monitoring teams dispatched?
26. Were manpower needs assessed?
27. Was emergency radiochemistry initiated?
28. Were TSC habitability surveys conducted periodically?



8.1.2 CONTROLLER CHECKLISTS - TECHNICAL SUPPORT CENTER

Name: _____

Item

Sat / Marg / Unsat / N/A

29. Were the following communications conducted:
- plant status updates
 - communications with offsite, Health Physics Supervisor and Lead Engineer quickly established and followup information provide in a timely manner
 - major changes in radiological status given to Health Physics Supervisor and Dose Assessment Personnel quickly
 - results of radiological assessment transmitted quickly within the staff
 - communications between TSC, CR, EOF, and OSC established and used?
 - adequate communications with field teams
 - discussions concerning trends, and course of action.
30. Did the Radiation Team Leader assure that data sheets, logbooks, and checklists were properly filled out?
31. Did the Radiation Team Leader and Chemistry Team Leader make recommendations to the Emergency Coordinator on upgrading based on radiological conditions?
32. Were the Emergency Response Teams - Onsite properly directed by the TSC?
33. Were comparisons made between projected and actual dose levels?
34. Were teams provided with adequate information to perform their duties?



8.1.2 CONTROLLER CHECKLISTS - TECHNICAL SUPPORT CENTER

Name: _____

Item

Sat / Marg / Unsat / N/A

Operational Assessment

35. Was accurate status information posted in a timely manner for operational assessment?
36. Was a core damage evaluation performed in accordance with proper procedure?
37. Was post-accident sampling employed?
38. Were assessment personnel able to maintain a clear overview of reactor conditions?
39. Was key plant parameter trending performed?
40. Did the performance of operational assessment proceed without interference from other TSC activities?
41. Were corrective actions developed?
42. Were adequate resources available for performing the required analysis?
43. Were the consequences of proposed corrective actions properly evaluated?
44. Were status boards used?
45. Did the TSC Supervisor and Lead Engineer consult frequently with other TSC key personnel and with offsite personnel?
46. Was the status of the TSC ventilation addressed?
47. Were onsite personnel notified of:
 - the event classification?
 - emergency conditions
 - protective actions
 - status of radioactive release
48. Were the notification forms completed and authorized by the EC before transmittal?



8.1.2 CONTROLLER CHECKLISTS - TECHNICAL SUPPORT CENTER

Name: _____

Item

Sat / Marg / Unsat / N/A

49. At Alert (or greater)
- Was an evacuation of the affected area announced?
 - Did the TSC notify and utilize the other members of the Emergency Response Team?
50. At Site Area Emergency (or greater):
- Was incident promptly reported to the Emergency Coordinator?
 - Did the TSC monitor the status of the emergency after Recovery Manager assumed responsibility?
 - Were TSC personnel kept informed of major decisions and actions being taken in the EOF?
51. Was a communications link established and maintained to the EOF?
52. Was emergency medical help requested in a timely manner?
53. Were the correct procedures consulted?

Security

54. Were badge numbers recorded as personnel entered and left the TSC?
55. Was Security notified that an evacuation was being ordered?
56. Were the results of the accountability reported to the EC in 30 minutes or less following the order to perform a site evacuation?



8.1.2 CONTROLLER CHECKLISTS - TECHNICAL SUPPORT CENTER

Name: _____

SUMMARY OF FACILITY PERFORMANCE

COMMENTS:

8.1.3 CONTROLLER CHECKLISTS - OPERATIONS SUPPORT CENTER

Name: _____

Item

Sat / Marg / Unsat / N/A

1. Were equipment shortages documented?
2. Was the OSC activated at an Alert (at a minimum)?
3. Did the OSC Supervisor activate the facility in accordance with proper procedure?
4. Were personnel assigned to the OSC qualified for their position?
5. Did HP personnel:
 - ensure area radiation monitors were functional?
 - check habitability?
6. Were:
 - status boards cleaned?
 - arriving personnel names listed on OSC Accountability Board?
 - manpower assessments conducted at appropriate timeframes?
7. Did OSC Supervisor review manpower requirements ensuring the minimum staffing requirements were met for:
 - Mechanical Technicians
 - I&C Technicians
 - Radiation Protection Technicians
 - Electrical Technicians
8. Did OSC determine if manpower support at the OSC was adequate as identified in staffing procedures.
9. Did the OSC Supervisor make the announcement that the OSC was operational and report this to the Emergency Coordinator?
10. Was the OSC declared operational within approximately one half hour after declaration of Alert or greater?
11. Did communications equipment function properly?

8.1.3 CONTROLLER CHECKLISTS - OPERATIONS SUPPORT CENTER

Name: _____

Item

Sat / Marg / Unsat / N/A

12. Was the OSC kept informed of site activities?
13. Were status boards used and updated in a timely manner to accurately reflect conditions and events?
14. Were major actions and activities recorded in the log to recreate the event?
15. Did the OSC Supervisor maintain a status of activities of all personnel under his control?
16. Was emergency medical help supported by the OSC Supervisor?
17. Were correct procedures available and consulted?
18. Were the Emergency Coordinator and TSC Staff kept informed of OSC operations and status?
19. Was sufficient equipment provided to perform needed functions?
20. Was the congestion and noise in the OSC maintained to reasonable levels?
21. Were relief personnel properly briefed before assuming their positions?
22. Was communications with teams and assistance groups adequate?
23. Was OSC habitability maintained properly?
24. If an OSC evacuation was required, was it accomplished in an efficient manner?



8.1.3 CONTROLLER CHECKLISTS - OPERATIONS SUPPORT CENTER

Name: _____

Item

Sat / Marg / Unsat / N/A

25. Security matters:
- Was assembly and accountability conducted efficiently and in a timely manner.
 - Was site access control maintained throughout?
 - Was personnel accountability maintained throughout the emergency?
 - Was a search conducted for unaccounted for personnel?
26. Did the Supervisors properly request and brief the Emergency Response Teams?
27. Did the OSC Supervisor properly assign and dispatch the Teams?
28. Did the briefing cover:
- team identification
 - communications equipment and channels
 - nature of corrective actions
 - required equipment
 - authorized dose
 - need to stay in visual contact
29. Were in-plant team operations planned in enough detail to ensure exposures would be ALARA?
30. Were team actions initiated and performed promptly following the decision to conduct operations?
31. Before entry, did the team coordinate with operations personnel to receive a briefing about hazards that may be encountered?
32. Were team members selected in accordance with EPIP 20111 for emergency dose authorization?
33. Were the teams provided with adequate protective equipment:
- SCBA
 - Monitoring equipment
 - protective masks and clothing



8.1.3 CONTROLLER CHECKLISTS - OPERATIONS SUPPORT CENTER

Name: _____

Item

Sat / Marg / Unsat / N/A

34. Were the teams monitored constantly?
35. Did the teams avoid exceeding exposure guidelines?
36. Were communications maintained with the teams from one of the response facilities?
37. Were team members qualified by training or experience to perform their duties in a high radiation area and in protective clothing?
38. Did team members demonstrate that they were knowledgeable in the use of protective clothing?
39. Did the medical team ensure
 - communications maintained between the emergency vehicle and the hospital?
 - a qualified health physics person accompany the vehicle to the hospital?
 - the health physics representative brief hospital personnel on extent of injury and communications?

Chemistry

40. Were samples properly logged?
41. Were the results of analyses transmitted to the TSC?
42. Were the samples properly stored after analysis?
43. Were the storage locations logged?
44. Were the team members familiar with sample retrieval procedures/practices?
45. Was the team given an adequate briefing - radiation hazards - contamination problems?
46. Was there a predetermined route taken/discussed?



8.1.3 CONTROLLER CHECKLISTS - OPERATIONS SUPPORT CENTER

Name: _____

<u>Item</u>	<u>Sat / Marg / Unsat / N/A</u>
47. Did they use good HP practices (Dosimetry, Survey, etc.)?	
48. Were the team members familiar with equipment operation?	
49. Were the procedures sufficient to provide acceptable and accurate results?	
50. Did the lab technicians observe good lab practices (e.g., hot sample shielding and disposal)?	
51. Were protective clothing requirements adequate?	
52. Were communications maintained?	



8.1.3 CONTROLLER CHECKLISTS - OPERATIONS SUPPORT CENTER

Name: _____

SUMMARY OF FACILITY PERFORMANCE

COMMENTS:

8.1.4 CONTROLLER CHECKLISTS - EMERGENCY NEWS CENTER

Name: _____

Item

Sat / Marg / Unsat / N/A

1. Were the facilities activated according to the implementing procedures?
2. Were the personnel assigned to the ENC trained for their positions?
3. Was the Company spokesman briefed on conditions prior to the ENC being declared operational?
4. Was the EOF advised that the ENC was ready for operation?
5. Did the Company spokesman make an announcement that the ENC was operational?
6. Did communications equipment function properly?
7. Was a communications link established and maintained to the EOF?
8. Was the ENC kept informed of off-site activities?
9. Were major actions and activities recorded in the logs to enable recreation of the events?
10. Were status boards used and properly updated?
11. Did ENC interface and coordinate with the NRC, State, and local public information officers concerning new releases?
12. Did ENC personnel stay informed as to what protective actions offsite authorities were implementing?
13. Were the correct procedures consulted?
14. Was the Emergency Control Officer briefed on the status of public information operations?

8.1.4 CONTROLLER CHECKLISTS - EMERGENCY NEWS CENTER

Name: _____

Item

Sat / Marg / Unsat / N/A

15. Was sufficient equipment provided to perform needed functions?
16. Were offsite representatives briefed and kept informed on changing conditions?
17. Was information released in an accurate and timely manner?
18. Were media personnel prohibited from interfering with the emergency response?
19. Was corrective or supplemental information promptly released in the event of an error or misinformation in a news release?
20. Was the information provided to the public understandable by the public?
21. Were periodic news updates provided even when changes in status had not occurred?
22. Was the congestion and noise maintained to reasonable levels in the ENC?
23. Were relief personnel properly briefed before assuming their positions?
24. Did ENC personnel respond to citizen and reporter calls and new broadcasts?



8.1.4 CONTROLLER CHECKLISTS - EMERGENCY NEWS CENTER

Name: _____

SUMMARY OF FACILITY PERFORMANCE

COMMENTS:

8.1.5 CONTROLLER CHECKLISTS - EMERGENCY OPERATIONS FACILITY

Name: _____

Item

Sat / Marg / Unsat / N/A

1. At General Emergency:
 - were protective actions made within 15 minutes of classification of the event?
 - was at least the minimum 2 mile radius recommendation made?
 - in the case of physical loss of control of the plant, was a minimum 2 mile evacuation recommendation made?
2. Were protective actions made consistent with the EPIPs?
3. Was confirmation made that offsite authorities received the utilities protective action recommendations?
4. Were EOF personnel knowledgeable as to what protective actions offsite authorities were actually implementing, and was management and the NRC informed of the current status?
5. Were the correct procedures consulted?
6. Was the Emergency Control Officer informed of changes in a timely manner?
7. Was sufficient equipment provided to perform needed functions?
8. Were message forms and logs in use?
9. Did the Recovery Manager meet with key personnel at periodic intervals?
10. Was the Recovery Manager briefed on conditions prior to the EOF being declared operational?
11. Were offsite liaison personnel briefed and kept informed on changing conditions?
12. Was the congestion and noise maintained to reasonable levels?



8.1.5 CONTROLLER CHECKLISTS - EMERGENCY OPERATIONS FACILITY

Name: _____

Item

Sat / Marg / Unsat / N/A

13. Were relief personnel properly briefed before assuming their positions?
14. Was the facility activated in accordance with proper procedures?
15. Were the personnel assigned to the EOF trained for their positions?
16. Did the Recovery Manager make the announcement that the EOF had assumed command and control?
17. Was the EOF adequately staffed?
18. Did communications equipment function properly?
19. Were the appropriate TSC functions transferred in an efficient and timely manner?
20. Was the State of Florida notified within 15 minutes of each classification?
21. Were offsite personnel notified of:
 - the event classification?
 - emergency conditions?
 - protective action recommendations?
 - status of radioactive releases?
22. Were EOF personnel notified and updated of the event?
23. Were notification forms completed and approved by the Recovery Manager prior to release?
24. Was a communications link established and maintained to the TSC?
25. Was the EOF kept informed of site activities?



8.1.5 CONTROLLER CHECKLISTS - EMERGENCY OPERATIONS FACILITY

Name: _____

Item

Sat / Marg / Unsat / N/A

26. Was there a verification that the EOF communications personnel performed all required notifications upon declaration or change of classified events?
27. Did the EOF complete notification forms in a timely manner?
28. Were the status boards updated periodically to reflect the current status?
29. Were all logs maintained in a clear concise manner to enable the reconstruction of the event?
30. Did status boards reflect accurate information?
31. Were regular communications maintained with the NRC, state and local counties?
32. Did the EOF personnel serve to:
 - provide tech support and other assistance to the TSC and other facilities?
 - manage corporate emergency resources?
 - manage radiological monitoring and dose projections?
33. Did the Recovery Manager perform the following (without delegation):
 - directing the notification of offsite officials
 - making protective action recommendations to offsite management officials
34. Were protective action recommendations made for offsite?
35. Was the radiological assessment function activated in a timely manner?
36. Was responsibility for dose assessment passed from the TSC to the EOF?
- Was the chain of command clearly understood by EOF personnel?

8.1.5 CONTROLLER CHECKLISTS - EMERGENCY OPERATIONS FACILITY

Name: _____

Item

Sat / Marg / Unsat / N/A

38. Was the transfer of command and control formal, announced and logged?
39. Did EOF personnel promptly initiate offsite monitoring and sampling?
40. Were manpower needs assessed?
41. Were the following communications conducted:
 - plant status updates
 - communications with Emergency Coordinator and quickly established
 - follow-up information provided in a timely manner
 - major changes in radiological status given to Recovery Manager and Health Physics Manager
 - offsite protective actions made clearly and quickly
 - results of radiological assessment transmitted quickly within the team
 - communications between TSC and EOF established and used?
 - discussions concerning trends and courses of action
42. Did Health Physics Manager assure that:
 - controlled copies of the plans and procedures are available
 - data sheets, logbooks, and checklists are properly filled out
43. Did dose assessment personnel display knowledge of their procedures?
44. Did the Health Physics Manager make recommendations to the Recovery Manager on upgrading and downgrading protective actions based on radiological conditions?
45. Was the plume defined and tracked?
46. Did the backup method computation work effectively?

8.1.5 CONTROLLER CHECKLISTS - EMERGENCY OPERATIONS FACILITY

Name: _____

Item

Sat / Marg / Unsat / N/A

47. Were comparisons made between projected and actual dose levels.
48. Was timely meteorological information available?
49. Were dose projections performed in an accurate and expeditious manner?
50. Were monitoring and projection results coordinated with offsite officials?
51. Was accurate status information posted in a timely manner for operational assessment?
52. Was a core damage evaluation performed?
53. Were post-accident sampling results employed?
54. Were assessment personnel able to maintain a clear overview of reactor conditions?
55. Was key plant parameter trending performed?
56. Did the performance of operational assessment proceed without interference from other EOF activities?
57. Were corrective actions developed?
58. Was adequate data available for performing the required analysis?
59. Were the consequences of proposed corrective actions properly evaluated?
60. Did EOF technical personnel consult frequently with other EOF key personnel and with onsite personnel?



8.1.5 CONTROLLER CHECKLISTS - EMERGENCY OPERATIONS FACILITY

Name: _____

Item

Sat / Marg / Unsat / N/A

70. Were the following communications conducted:
- plant operational status updates
 - communications with TSC support personnel quickly established
 - follow-up information provided in a timely manner
 - major changes in meteorological and plant radiological status given to the teams quickly
 - status of offsite protective actions recommendations being made and implemented
 - communications between TSC and EOF established and used?
71. Were survey results reported promptly and correctly to the EOF?
72. Did the radio communications contain the statement "This is a Drill", or a similar statement?
73. Were radio communications adequate?
74. Were data sheets properly filled out and maintained?
75. Was equipment returned to its original status?
76. Re-entry/Recovery Operations:
- did the Emergency Control Officer and Recovery Manager meet with his key personnel to discuss recovery and existing radiological hazards?
 - were offsite officials consulted concerning recovery issues?



8.1.5 CONTROLLER CHECKLISTS - EMERGENCY OPERATIONS FACILITY

Name: _____

SUMMARY OF FACILITY PERFORMANCE

COMMENTS:



8.2 ACRONYMS AND ABBREVIATIONS



**FLORIDA POWER AND LIGHT COMPANY
TURKEY POINT NUCLEAR PLANT
1993 EMERGENCY PREPAREDNESS
EVALUATED EXERCISE
DECEMBER 15, 1993**

8.2 ACRONYMS AND ABBREVIATIONS

AC	Alternating Current
ADV	Atmospheric Dump Valve
AFAS	Auxiliary Feedwater Actuation Signal
AFP	Auxiliary Feedwater Pump
AFW	Auxiliary Feedwater
AMSAC	ATWS Mitigating System Actuating Circuit
ANPO	Auxiliary Nuclear Plant Operator
ANPS	Assistant Nuclear Plant Supervisor
ARC	American Red Cross
ARM	Area Radiation Monitor
ASP	Alternate Shutdown Panel
ATWS	Anticipated Transient Without SCRAM
AUX	Auxiliary
BAST	Boric Acid Storage Tank
BATT	Battery
BHB	Backup Heater Breaker
BOP	Balance of Plant
C-E	Combustion Engineering
CAS	Central Alarm Station
CAT	Chemical Addition Tank
CCW	Component Cooling Water
CRDM	Control Rod Drive Mechanism
CET	Core Exit Thermocouple
CFMS	Critical Function Monitoring System
CHRRM	Containment High-Range Radiation Monitor
CIAS	Containment Isolation Actuation Signal
CNTMT	Containment
COND	Condensate (Condenser)
CONT	Controller
CPM	Counts Per Minute
CPS	Counts Per Second
CR	Control Room
CS	Containment Spray

8.2 ACRONYMS AND ABBREVIATIONS (Continued)

CSAS	Containment Spray Actuation Signal
CSS	Containment Spray System
CST	Condensate Storage Tank
CTL	Chemistry Team Leader
CVCS	Chemical Volume Control System
DC	Direct Current
DCS	Duty Call Supervisor
DEQ	Dose Equivalent (eg: DEQ-I ₁₃₁)
DECON	Decontaminate (Decontamination)
DEM	Florida Division of Emergency Management
DER	Florida Department of Environmental Regulation
DHRS	Florida Department of Health & Rehabilitative Services
DNB	Departure From Nucleate Boiling
DPM	Disintegrations Per Minute
DPS	Disintegrations Per Second
EAL	Emergency Action Level
EBS	Emergency Broadcast System
EC	Emergency Coordinator
ECCS	Emergency Core Cooling System
ECO	Emergency Control Officer
EDG	Emergency Diesel Generator
EIM	Emergency Information Manager
EMT	Emergency Medical Technician
ENC	Emergency News Center
EOC	Emergency Operating Center
EOF	Emergency Operations Facility
EOP	Emergency Operating Procedure
EPA	U.S. Environmental Protection Agency
EPIP	Emergency Plan Implementing Procedure
EPZ	Emergency Planning Zone
ERDADS	Emergency Response Data Acquisition and Display System
ERF	Emergency Response Facility
ESC	Engineered Safeguards Cabinet
ESF	Engineered Safety Feature
ESM	Emergency Security Manager
F-A	First Aid
FEMA	Federal Emergency Management Agency
FEOC	Field Emergency Operations Center (DEM)

8.2 ACRONYMS AND ABBREVIATIONS (Continued)

FCV	Flow Control Valve
FPL	Florida Power and Light Company
FRERP	Federal Radiological Emergency Response Plan
FRMAP	Federal Radiological Monitoring and Assessment Plan
FSAR	Final Safety Analysis Report
GAC	Governor's Advisory Committee
GAM	Governor's Affairs Manager
GAR	Governor's Authorized Representative
GDT	Gas Decay Tank
GO	Florida Power & Light General Office, Miami
GE	General Emergency
GPM	Gallons Per Minute
HHSI	High Head Safety Injection
HP	Health Physics
HPT	Health Physics Technician
HR	Heat Removal
HRD	Hot Ring-Down (Phone System)
HT/HUT	Holdup Tank
HVAC	Heating, Ventilation and Air Conditioning
HX	Heat Exchanger
IC	Inventory Control
I&C	Instrumentation and Calibration
ICW	Intake Cooling Water
JENC	Joint Emergency News Center
KI	Potassium Iodide
LCO	Limiting Condition for Operation
LGR	Local Government Radio
LOCA	Loss of Coolant Accident
LOFA	Loss of Feedwater Accident
LOOP	Loss of Off-Site Power
LPSI	Low Pressure Safety Injection
MCA	Multi-Channel Analyzer
MCC	Motor Control Center
MDA	Minimum Detectable Activity



8.2 ACRONYMS AND ABBREVIATIONS (Continued)

MERL	Mobile Emergency Radiological Laboratory (DEM)
MIMS	Metal Impact Monitoring System
MOV	Motor Operated Valve
MPC	Maximum Permissible Concentration
MPH	Miles Per Hour
MSIS	Main Steam Isolation Signal
MSIV	Main Steam Isolation Valve
MSLB	Main Steam Line Break
MSSV	Main Steam Safety Valve
NAWAS	National Warning System
NEDO	Nuclear Energy Duty Officer
NC	Natural Circulation
NPO	Nuclear Plant Operator
NPS	Nuclear Plant Supervisor
NRC	U.S. Nuclear Regulatory Commission
NSSS	Nuclear Steam Supply System
NUE	Notification of Unusual Event
NWE	Nuclear Watch Engineer
OSC	Operations Support Center
PAG	Protective Action Guideline
PAR	Protective Action Recommendation
PASS	Post-Accident Sampling System
PCs	Protective Clothing
PIO	Public Information Officer
PORV	Power Operated Relief Valve
PPM	Parts Per Million
PRMS	Process Radiation Monitor System
PROC	Procedure
PRT	Pressurizer Relief Tank
PSL	St. Lucie Nuclear Plant
PTN	Turkey Point Nuclear Plant
PZR	Pressurizer
QT	Quench Tank
RC	Reactivity Control
RCA	Radiologically Controlled Area
RCC	Reception and Care Center

8.2 ACRONYMS AND ABBREVIATIONS (Continued)

RCDT	Reactor Coolant Drain Tank
RCP	Reactor Coolant Pump
RCS	Reactor Coolant System
RECS	Radiological Emergency Communication System
RHR	Residual Heat Removal
RM	Recovery Manager
RO	Reactor Operator
RPM	Radiation Protection Man (Health Physics Technician)
RPS	Reactor Protection System
RSO	Radiation Safety Officer
RT	Reactor Trip
RTL	Radiation Team Leader
RV	Reactor Vessel
RVLMS	Reactor Vessel Level Monitoring System
RWP	Radiation Work Permit
RWST	Refueling Water Storage Tank
Rx	Reactor
SAE	Site Area Emergency
SAS	Secondary Alarm Station
SBO	Station Blackout
SCFM	Standard Cubic Feet Per Minute
SEC	Security
SEOC	State Emergency Operating Center
S/G	Steam Generator
SIAS	Safety Injection Actuation Signal
SIS	Safety Injection System
SMRAP	Southern Mutual Radiological Assistance Plan
SRO	Senior Reactor Operator
SRT	Spent Resin Tank
STA	Shift Technical Advisor
SV	Solenoid Valve
SWGR	Switchgear
SWP	State Warning Point
T_{ave}	Average Coolant Temperature
T_c	Cold Leg Temperature
TCV	Temperature Control Valve
T_h	Hot Leg Temperature
TO	Turbine Operator
TPCW	Turbine Plant Cooling Water

8.2 ACRONYMS AND ABBREVIATIONS (Continued)

T_{ref}	Turbine Control System Reference Temperature
TSC	Technical Support Center
VCT	Volume Control Tank
XFMR	Transformer

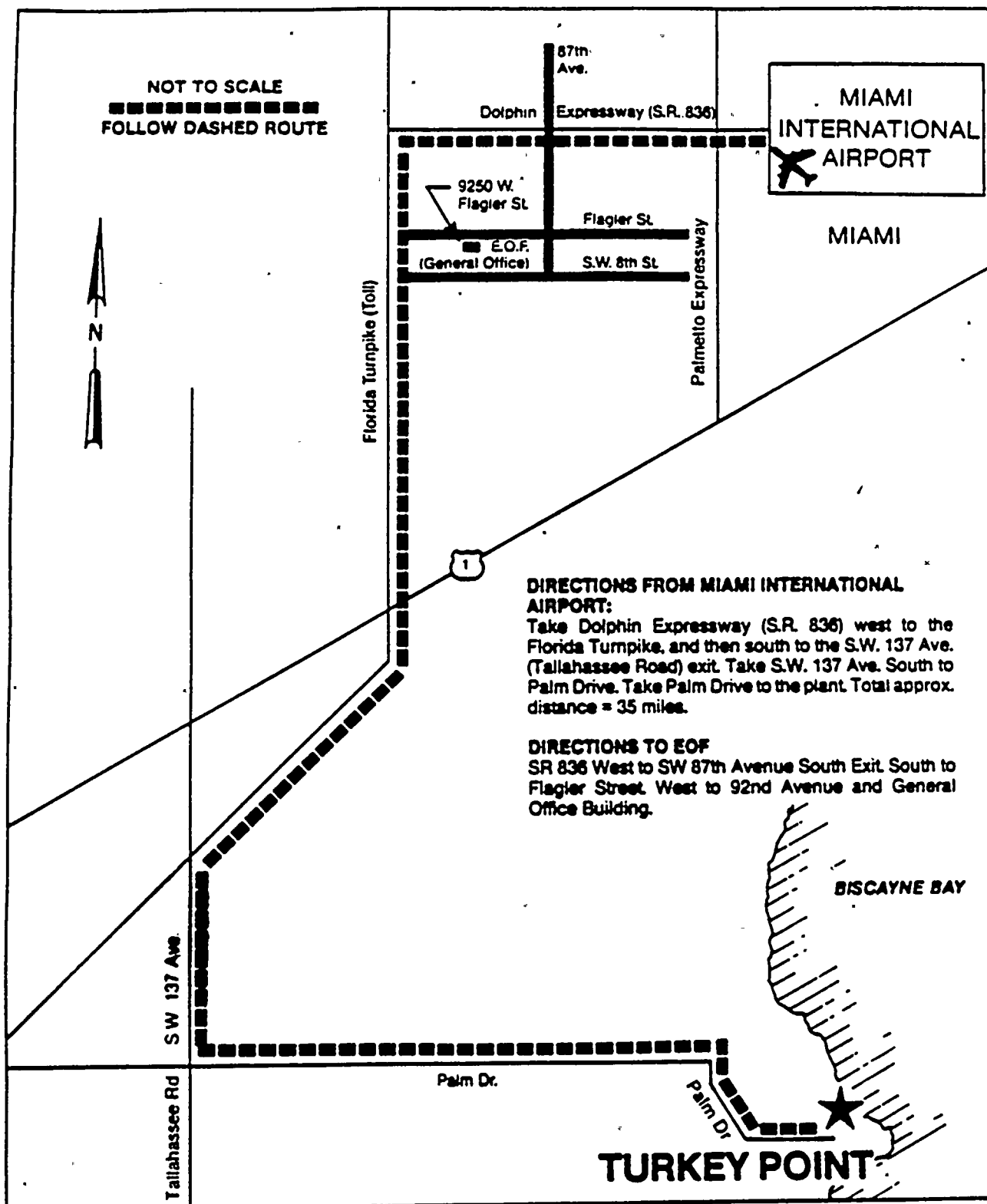


8.3 SITE LAYOUT DATA

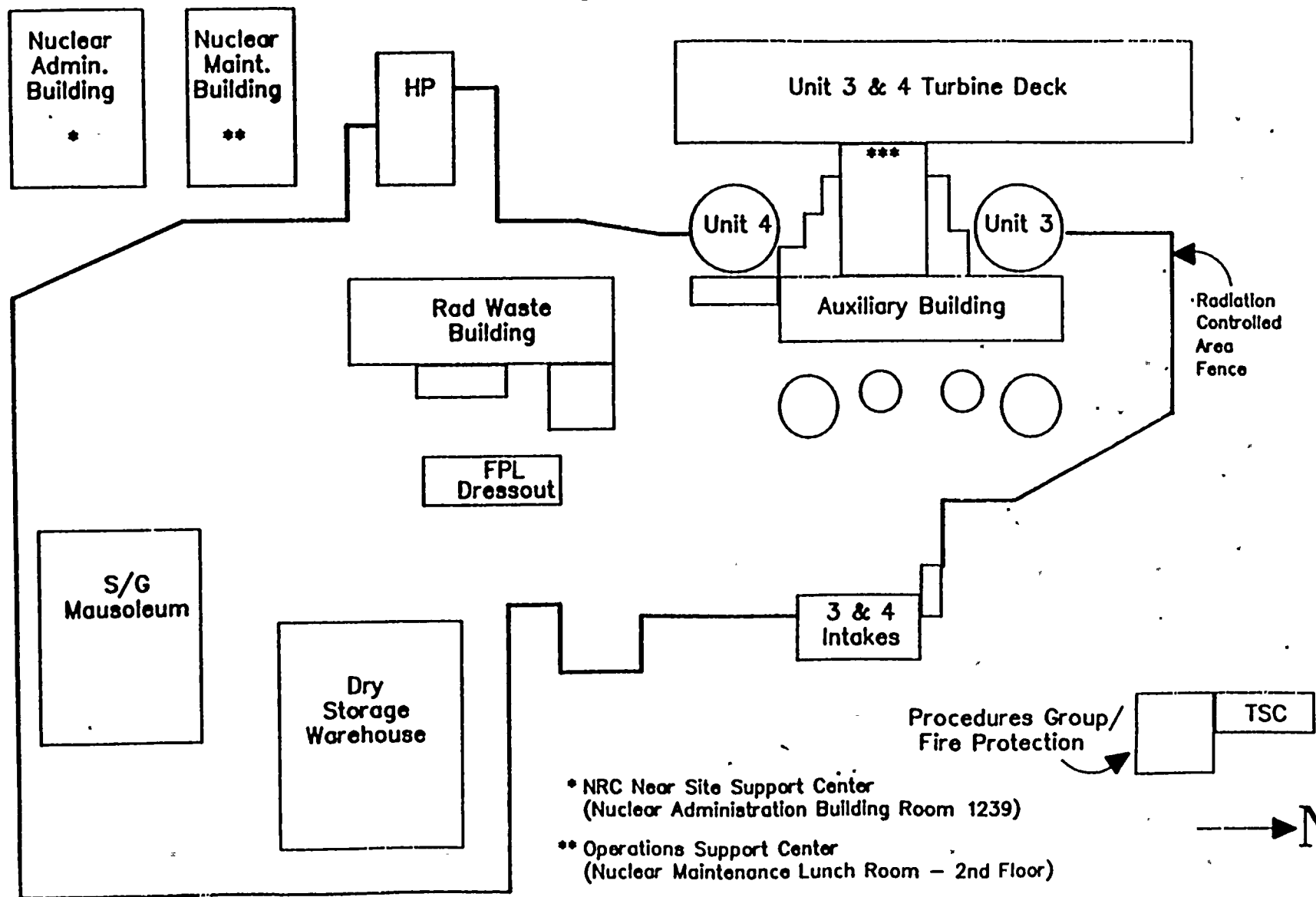
PLANT: **TURKEY POINT**

LOCATION: **Homestead, FL**

LICENSEE: **Florida Power & Light Co.**

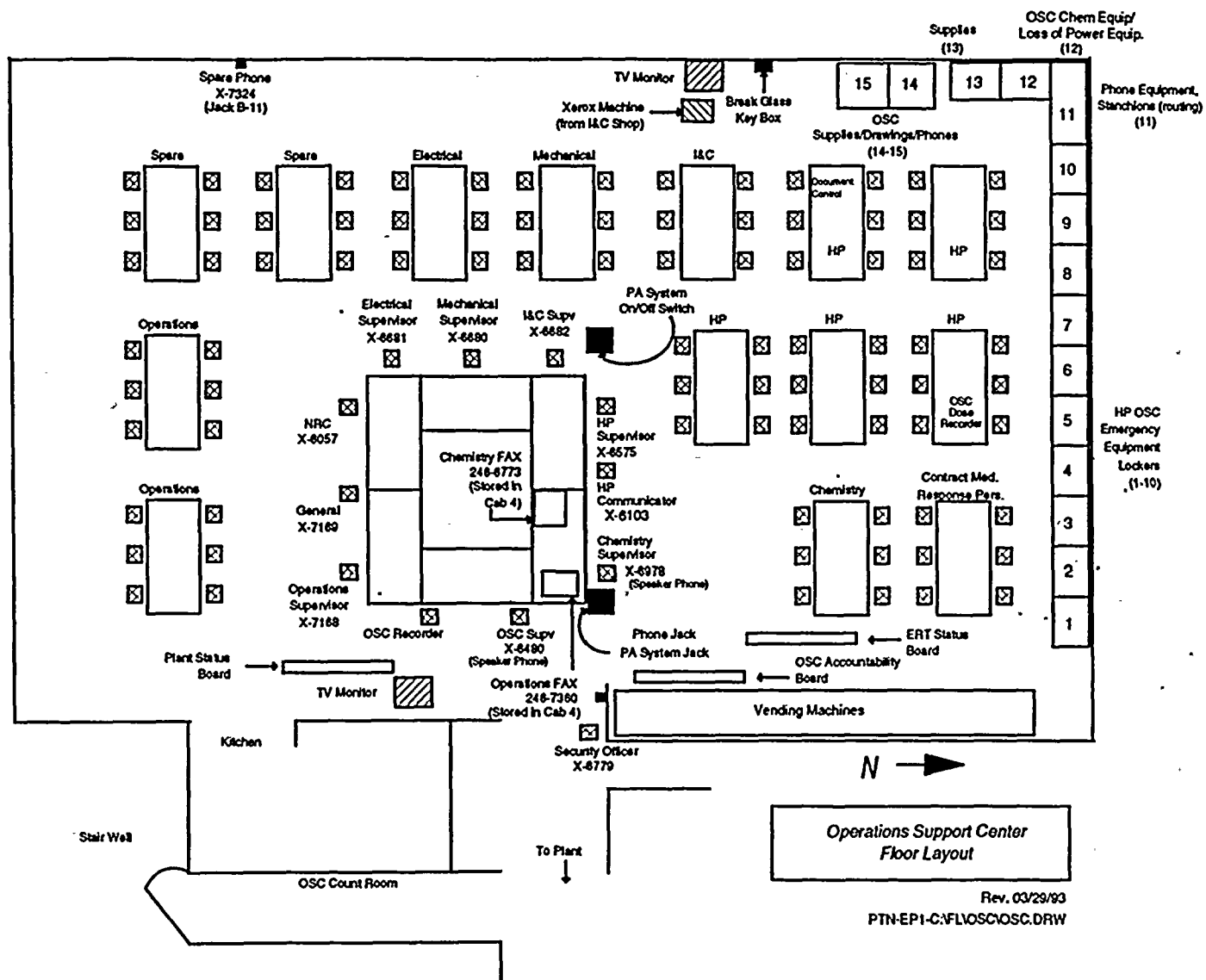






Turkey Point Emergency Response Facilities

- * NRC Near Site Support Center
(Nuclear Administration Building Room 1239)
- ** Operations Support Center
(Nuclear Maintenance Lunch Room - 2nd Floor)
- *** Units 3 and 4 Control Room





Technical Support Center

