

58-219  
F



Jersey Central Power & Light Company  
Madison Avenue at Punch Bowl Road  
Morristown, New Jersey 07960  
(201) 455-8200

November 16, 1978

Mr. Dennis L. Ziemann, Chief  
Operating Reactors Branch #2  
Division of Operating Reactors  
United States Nuclear Regulatory Commission  
Washington, DC 20555

Dear Mr. Ziemann:

Subject: Oyster Creek Nuclear Generating Station  
Docket No. 50-219  
Emergency Plan, Revision 2

Enclosure 1 to your letter of September 14, 1978 concludes that the Oyster Creek Emergency Plan should be revised to provide early notification to the local authorities. We have discussed this matter with the New Jersey Department of Environmental Protection and have advised them that we plan to follow the NRC guidance. Therefore, the Oyster Creek Emergency Plan will be revised to make evident that the local authorities and organizations capable of providing assistance will be notified directly by the Station Superintendent. Copies of the revised pages of the plan will be forwarded to you no later than January 31, 1979.

In compliance with your request for additional information relating to the Emergency Plan, we are forwarding with this letter (1) copies of letters of agreement with off site response organizations and (2) copies of the procedures used for determining the dose received at various distances from the plant following four (4) design basis accidents. Maps that reflect the information called for in Regulatory Guide 1.70, Section 13.3-6a and 6b are being prepared and will be forwarded to you with the revised pages to the Emergency Plan discussed above.

Very truly yours,

*Ivan R. Finfrock, Jr.*  
Ivan R. Finfrock, Jr.  
Vice President

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Enclosures

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A011/s \*

ENCLOSURE 1

Copies of Letters of Agreement  
with Off Site Response Organizations

R.V. SILVA, M.D. — D.D. USTARIS, M.D.  
77 Highway 37 West  
Toms River, New Jersey 08753  
TELEPHONE 201-349-7077

Mr. Edward Scalsky  
Oyster Creek Nuclear Generating Plant  
Post Office Box 366  
Forked River, N.J. 08731

August 8, 1978

Attention Mr. Edward Scalsky:

We would like to inform you that we would be  
available for any emergency that would arise at the  
Power Plant.

We can be contacted day or night by calling our  
office at 349-7077.

If we can be of any other service please notify  
us.

Respectfully,  
*Ruben V. Silva* M.D.  
Ruben V. Silva, M.D.

*Domingo D. Ustaris* M.D.  
Domingo D. Ustaris, M.D.



# Community Memorial Hospital

HIGHWAY 37 WEST • TOMS RIVER, NEW JERSEY 08753 • 349-8000 Area Code 201

ACCREDITED BY THE JOINT COMMISSION ON ACCREDITATION OF HOSPITALS

April 18, 1978

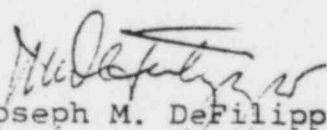
Mr. Edward Scalsky, Radiation Protection Supervisor  
Oyster Creek Nuclear Generating Station  
PO Box 388  
Forked River, New Jersey 08731

Dear Mr. Scalsky:

This will confirm the continued availability of emergency services at Community Memorial Hospital for Jersey Central employees injured at the Oyster Creek Generating Station. We are prepared to receive routine emergency patients and contaminated patients.

Please do not hesitate to contact me if I can be of further assistance.

Very truly yours,

  
Joseph M. DeFilippo  
Administrator

JMD:mam

cc: Mr. Schuessler



Department of Energy  
Brookhaven Area Office  
Upton, New York 11973

January 17, 1978

Mr. Edward D. Scalsky  
Radiation Protection Supervisor  
Oyster Creek Nuclear  
Generating Station  
P. O. Box 388  
Forked River, New Jersey 08731

Dear Mr. Scalsky:

SUBJECT: OYSTER CREEK NUCLEAR GENERATING STATION

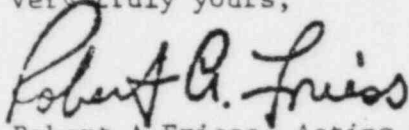
Since your nuclear facility is located in Region I, the Brookhaven Area Office is charged with the responsibility for providing radiological assistance in the event of an emergency. Such assistance can be requested, at all times, by calling 516-345-2200 and asking for radiological assistance indicating the nature of the incident, the location, and how to contact responsible authorities to coordinate our response.

The Department of Energy (DOE) will respond to requests for radiological assistance from licensees, Federal, state and local agencies, private organizations, or individuals involved in or cognizant of an incident believed to involve source, byproduct, or special nuclear material as defined by the Atomic Energy Act of 1954, as amended, or other ionizing radiation sources.

Unless the DOE or a DOE contractor is responsible for the activity, ionizing radiation source, or radioactive material involved in an incident, DOE radiological assistance will be limited to advice and emergency action essential for the control of the immediate hazards to health and safety. Radiological emergency assistance will be terminated as soon as the emergency situation is under control. Therefore, responsibility for postincident recovery, including further action for the protection of individuals and the public health and safety, should be assumed by the appropriate responsible Federal, state or local government, or private authority as soon as the emergency conditions are stabilized.

If you have any further questions or desire further information,  
feel free to contact me.

Very truly yours,

A handwritten signature in dark ink, appearing to read "Robert A. Friess". The signature is fluid and cursive, with the first name "Robert" and last name "Friess" clearly legible.

Robert A Friess, Acting Chief  
Operations & Safety Branch

cc: B. H. Grier, Office of Inspection & Enforcement, Nuclear  
Regulatory Commission, Region I  
H. Hollister, Director, Division of Operational and  
Environmental Safety, HQ

# *Forked River Volunteer Fire Co.*

OF LACEY TOWNSHIP - FORKED RIVER, N. J. 08731

February 15, 1978

Mr. Edward D. Scalsky  
Oyster Creek Nuclear Generating Sta.  
P. O. Box 388  
Forked River, N. J. 08731

Dear Mr. Scalsky:

In answer to your letter of January 12, 1978, the Forked River Volunteer Fire Co. confirms the renewal of our agreement with you as stated in our letter of March 19, 1976.

Yours very truly,

*Kenneth Buntain*

Kenneth Buntain, Chief  
Forked River Vol. Fire Co.



**rmc**

17 January 1978

Mr. Joseph Carroll  
Superintendent  
Oyster Creek Nuclear Generating Station  
Forked River, New Jersey 08731

SUBJECT: Emergency Medical Assistance Program

Dear Mr. Carroll:

This confirms an agreement between Radiation Management Corporation (RMC) and Jersey Central Power & Light Company (JCP&L), wherein RMC agrees to furnish certain services to nuclear generating stations operated by JCP&L. These services comprise a program that is identified by RMC as an Emergency Medical Assistance Program (EMAP). With regard to Oyster Creek Nuclear Generating Station, the EMAP contains the following provisions:

1. Semi-annual review of plant and hospital procedures, equipment and supplies; one of these audits will be in conjunction with (6.) below;
2. Twenty-four-hour-per day availability of expert consultation on management of radiation accidents;
3. Availability of Bioassay Laboratory for evaluation of radiation accidents;
4. Twenty-four-hour-per day access to a Radiation Emergency Medical Team consisting of a physician, certified health physicist, and technicians with portable instrumentation to location of accident victim;
5. Availability and access to a medical center equipped for the definitive evaluation and treatment of radiation injuries;
6. Annual training for the plant, ambulance and hospital personnel who may be directly or indirectly involved in the execution of the radiation medical emergency program;
7. Preparation of an "accident" scenario for use as a training aid in a radiation medical emergency drill;
8. Coordination of a radiation medical emergency drill based on the scenario; umpired, video-taped and critiqued by RMC.

**radiation  
management  
corporation**

UNIVERSITY CITY  
SCIENCE CENTER

3508 MARKET STREET  
PHILADELPHIA, PA 19104  
(215) 243-2950



rmc

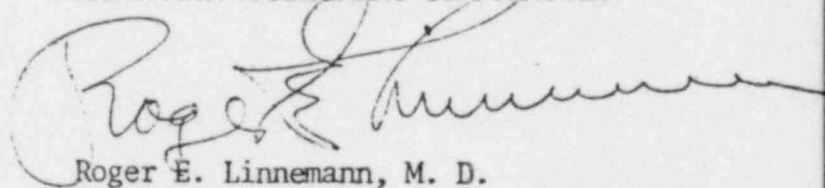
Mr. Joseph Carroll  
17 January 1978  
Page Two

9. Submission of two Drill Evaluation Reports; one relating to the observations made at the station, and another relating to observations made at the hospital; and
10. Participation in an annual one-day seminar in Philadelphia on the management of radiation accidents for physicians. Each plant site may send one person, and each utility company may send one person.

Accident Response

Consultation and laboratory services by RMC personnel are at no charge, except incremental costs associated with consultative activities, such as travel, lodging and other related expenses.

RADIATION MANAGEMENT CORPORATION



Roger E. Linnemann, M. D.  
President

REL:pg



THOMAS R. DARMODY  
CHIEF OF POLICE

## LACEY TOWNSHIP POLICE DEPARTMENT

818 WEST LACEY ROAD FORKED RIVER, NEW JERSEY 08731 609 - 693-6636

January 17, 1978

Oyster Creek Nuclear Generating Station  
P. O. Box 388  
Forked River, New Jersey 08731

Attn: Mr. Edward D. Scalsky  
Radiation Protection Supervisor

Dear Mr. Scalsky:

In answer to your letter of January 12, 1978 in regard to response to the Oyster Creek Nuclear Generating Station by the Lacey Township Police Department. I wish to inform you that the Lacey Township Police Department will continue to provide requested services.

You may accept this letter as a renewal of our agreement of 11-4-74.

Very truly yours,

Thomas R. Darmody  
Chief of Police

TRD/jh

# Lacey Township First Aid Squad, Inc.

Parker and Oak Streets

Forked River, New Jersey

February 13, 1978

Mr. Edward D. Scalsky  
Oyster Creek Nuclear Generating Station  
P.O. Box 388  
Forked River, N.J. 08731

Dear Mr. Scalsky,

This is to confirm that Lacey Township  
First Aid Squad agrees to transport patients arising  
from radiation accidents at Oyster Creek Generating  
Station, Forked River, New Jersey.

Mattie M. Simpson

*Mattie M. Simpson*  
Captain  
Lacey Township First  
Aid Squad

# Lacey Township First Aid Squad, Inc.

Parker and Oak Streets      Forked River, New Jersey

February 1978

## Synopsis of operating procedure

The duty officers vehicle will respond from 6 P.M. to 6 A.M. Monday through Thursday and from 6 P.M. Friday to 6 A.M. Monday. An ambulance will respond shortly after the duty officer.

An ambulance will respond alone at any other time or if the duty officer is otherwise disposed.

The duty officers vehicle normally carries only the duty officer, but it is not unusual for there to be another member riding with him/her. The ambulance will respond with two to five persons.

In the event we are not able to handle a call because members are unavailable, we will ask our police dispatcher to call for mutual aid from either Waretown or Bayville.

All patients will be transported to Community Memorial Hospital unless they request to go to another hospital in our service area. (SOCH, Paul Kimball or Point Pleasant).

If the duty officer or member in charge feels the injury does not warrant an ambulance he/she will so inform the patient.

All squad members have been informed to follow any directions given them by security guards or plant employees.

These procedure may be changed or updated periodically. We will attempt to keep you informed of same.

# Lacey Township First Aid Squad, Inc.

Parker and Oak Streets

Forked River, New Jersey

Below is a list of our officers effective Nov. 1, 1977 to Nov. 1, 1978.

## Captain

Mattie M. Simpson 693-9661  
P.O. Box 26  
Lanoka Harbor, N.J.

## First Lieutenant

Emery Miszlay 693-7909  
1704 Fleetwood Dr.  
Forked River, N.J.

## Second Lieutenant and President

Richard Tatham 693-5971  
1829 Lakeside Dr. South  
Forked River, N.J.

## Third Lieutenant and Vice President

Craig Miller 693-1485  
Beach Blvd.  
Forked River, N.J.

## Secretary

Dorris Wolverton 693-5356  
Richard Road  
Forked River, N.J.

ENCLOSURE 2

Copies of Procedures Used for Determining the Doses  
Received at Various Distances Following Design Basis Accidents



Jersey Central  
Power & Light Company



Procedure No.  
905.18

Page 1 of 3

Date Issued  
6/30/78

Effective Date  
7/7-7/17/78

Revision No.  
0

Date  
6/30/78

Subject: Initial Estimate of Offsite Exposure  
for "Steam Line Break Outside  
Reactor Building" Accident

Authorized By  
Station Superintendent

Approval/Concurrence

*J. L. Sullivan* *FR JTCALL 10*

Project:

Oyster Creek Nuclear Generating Station

LIST OF EFFECTIVE PAGES

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| Subject:<br>Initial Estimate of Offsite Exposure for "Steam Line Break Outside Reactor Building" Accident | Procedure No.<br>905.18 | Page 2 of 3 Pages |
|   | Revision No.<br>0       | Date<br>6/30/78   |

## 1.0 APPLICABILITY

This procedure describes the method for estimating off-site exposures due to releases from the design basis accident "Steam Line Break Outside the Reactor Building".

## 2.0 REFERENCES

- 2.1 FDSAR Section XIII Safety Analysis
- 2.2 Main Steam Line Rupture Outside the Drywell 516.1
- 2.3 Assessment of Conditions 905.38

## 3.0 PREREQUISITES

- 3.1 Class IV accident

## 4.0 PRECAUTIONS

- 4.1 The data are to be used as preliminary estimates only and should represent the maximum exposure possible due to the release from the facility.

## 5.0 PROCEDURE

NOTE: The data from the "Steam Line Break Outside the Reactor Building" represents releases to the environs for a short time thru the turbine building walls and ventilation ducts.

- 5.1 From the table below determine the postulated off-site doses at distances from the site.

NOTE: The doses are for a conservative wind condition of 50 mph.

| <u>Distance</u><br><u>Miles</u> | <u>Passing Cloud Whole Body Dose (REM)</u> |
|---------------------------------|--|
| 1/4                             | $3.6 \times 10^{-6}$                       |
| 1/2                             | $2.0 \times 10^{-6}$                       |
| 1                               | $8.6 \times 10^{-7}$                       |
| 2                               | $3.2 \times 10^{-7}$                       |
| 5                               | $6.6 \times 10^{-8}$                       |
| 10                              | $1.9 \times 10^{-8}$                       |

|  |                         |                   |
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| Subject:<br>Initial Estimate of Offsite Exposure for "Steam<br>Line Break Outside Reactor Building" Accident | Procedure No.<br>905.18 | Page 3 of 3 Pages |
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5.2 Subsequently more refined "Steam Line Break Outside the Reactor Building" offsite exposure estimates shall be performed requiring the use of Procedure 905.38 "Assessment of Conditions".

NOTE: A "Steam Line Break Outside the Reactor Building" accident can be described as a sudden complete break of one of the two main steam lines in the pipe tunnel outside the drywell which would instantly discharge high pressure steam until the reactor side is isolated in a short time by the main steam isolation valves and the turbine side is isolated by the turbine admission valves.

Jersey Central  
Power & Light Company



Subject: Initial Estimate of Offsite  
Exposure for "Loss of Coolant  
Inside Drywell" Accident

Procedure No.  
905.17

Page 1 of 4

Date Issued  
6/30/78

Effective Date  
7/7-7/17/78

Revision No.  
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6/30/78

Authorized By Station Superintendent

Approval/Concurrence

Project:

Oyster Creek Nuclear Generating Station

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| Subject:<br><br>Initial Estimate of Offsite Exposures for<br>"Loss of Coolant Inside Drywell" Accident | Procedure No.<br>905.17 | Page 2 of 4 Pages |
|  | Revision No.<br>0       | Date<br>6/30/78   |

## 1.0 APPLICABILITY

This procedure describes the method for estimating off-site exposures for the design basis accident "Loss of Coolant Inside the Drywell".

## 2.0 REFERENCES

- 2.1 FDSAR Section XIII Safety Analysis
- 2.2 Small Piping Leaks in Drywell 515.3
- 2.3 Piping Rupture Inside Drywell, Offsite Power Available 516.2
- 2.4 Piping Rupture Inside Drywell with Loss of Offsite Power 516.3
- 2.5 Piping Rupture Inside Drywell with Loss of Offsite Power and One Diesel Generator Inoperable 516.5
- 2.6 Assessment of Conditions 905.38
- 2.7 Loss of Coolant Inside the Drywell Offsite Exposure Estimation Calculation Sheet HP-905-25

## 3.0 PREREQUISITES

- 3.1 Class IV accident

## 4.0 PRECAUTIONS

- 4.1 The data in the table in this procedure is to be used for only preliminary estimates of off-site exposures.

## 5.0 PROCEDURE

- 5.1 "Loss of Coolant Inside the Drywell" off-site exposure estimation.  
(perform estimation on form HP-905-25)
  - 5.1.1 Determine the wind speed (MPH)
  - 5.1.2 Determine the temperature differential between 400 ft. and 33 ft. elevation ( $\Delta T$ ) ( $^{\circ}F$ ).
  - 5.1.3 Determine the meteorological condition.

Subject:

Initial Estimate of Offsite Exposures for  
"Loss of Coolant Inside Drywell" AccidentProcedure No.  
905.17

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5.1.3.1 If  $\Delta T$  is higher than  $-1.1^{\circ}\text{F}$  (more positive) the condition is stable.

5.1.3.2 If  $\Delta T$  is between  $-1.1^{\circ}\text{F}$  and  $-3.3^{\circ}\text{F}$ , the condition is neutral.

5.1.3.3 If  $\Delta T$  is less than  $-3.3^{\circ}\text{F}$  (more negative) the condition is unstable.

5.1.4 From the table below, determine the postulated off-site dose for the given meteorological condition and distance from the site.

Whole Body Passing Cloud Dose (REM)

| <u>Distance</u><br><u>Miles</u> | <u>First 2 hour dose</u> |                      |                      |
|---------------------------------|--------------------------|----------------------|----------------------|
|                                 | <u>Stable</u>            | <u>Neutral</u>       | <u>Unstable</u>      |
| 1/4                             | $8.2 \times 10^{-6}$     | $8.3 \times 10^{-6}$ | $1.2 \times 10^{-5}$ |
| 1/2                             | $7.0 \times 10^{-6}$     | $7.6 \times 10^{-6}$ | $1.1 \times 10^{-5}$ |
| 1                               | $5.1 \times 10^{-6}$     | $6.3 \times 10^{-6}$ | $5.6 \times 10^{-6}$ |
| 2                               | $3.2 \times 10^{-6}$     | $4.0 \times 10^{-6}$ | $2.1 \times 10^{-6}$ |
| 5                               | -                        | -                    | -                    |
| 10                              | -                        | -                    | -                    |

NOTE: The doses specified above are for a wind speed of 2 MPH.

5.1.5 Determine the wind speed correction factor by dividing the actual wind speed by the "basis" wind speed of 2 MPH.

5.1.6 Determine the corrected off-site dose by dividing the dose value determined in step 5.1.4 by the wind speed correction factor in step 5.1.5.

NOTE: The release was from the Reactor Building thru the stack by way of the standby gas treatment system which consists of high efficiency filters and impregnated charcoal filters.



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| Subject:<br>Initial Estimate of Offsite Exposures for<br>"Loss of Coolant Inside Drywell" Accident | Procedure No.<br>905.17 | Page 4 of 4 Pages |
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5.2 Subsequently more refined "Loss of Coolant Inside the Drywell" off-site exposure estimates shall be performed requiring the use of Procedure 905.38 "Assessment of Conditions".

NOTE: "Loss of Coolant Inside the Drywell"; the accident is defined as while the reactor is at full power, a break occurs in the primary system equal in area to twice the flow area of a recirculation line. Depressurization occurs, primary coolant is expelled into the containment, a scram is initiated, the core temperature rises causing a portion of the fuel rods to perforate and release the fission products stored in the fuel rod gas plenums. Some of the activity leaks into the Reactor Building, most of the activity remains in the drywell system.

Jersey Central  
Power & Light Company



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| Procedure No.<br>905.16                 | Page 1 of 3                   |
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| Revision No.<br>0                       | Date<br>6/30/78               |
| Authorized By<br>Station Superintendent |                               |

Subject: Initial Estimates of Offsite  
Exposures for Control Rod Drop  
Accident

Approval/Concurrence

*John P. Sullivan for JTCASCOU re.*

Project: Oyster Creek Nuclear Generating Station

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## 1.0 APPLICABILITY

This procedure describes the method for estimating off-site exposures for the design basis accident "Control Rod Drop".

## 2.0 REFERENCES

2.1 FDSAR Section XIII Safety Analysis

2.2 Rod Drop 506.1

2.3 Assessment of Conditions 905.38

2.4 "Control Rod Drop" off-site exposure estimation calculation sheet HP-905-24

## 3.0 PREREQUISITES

3.1 Class IV accident

## 4.0 PRECAUTIONS

4.1 The data in the table in this procedure is to be used for only preliminary estimates of off-site exposures.

## 5.0 PROCEDURE

5.1 Control Rod Drop off-site exposure estimation. (Perform estimation on form HP-905-24)

5.1.1 Determine the wind speed (MPH)

5.1.2 Determine the temperature differential between 400 ft. and 33 ft. elevation ( $\Delta T$ ) ( $^{\circ}\text{F}$ ).

5.1.3 Determine the meteorological condition.

5.1.3.1 If  $\Delta T$  is higher than  $-1.1^{\circ}\text{F}$  (more positive) the condition is stable.

5.1.3.2 If  $\Delta T$  is between  $-1.1^{\circ}\text{F}$  and  $-3.3^{\circ}\text{F}$ , the condition is neutral.

5.1.3.3 If  $\Delta T$  is less than  $-3.3^{\circ}\text{F}$  (more negative) the condition is unstable.

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| Subject:<br><br>Initial Estimates of Offsite Exposures<br>for Control Rod Drop Accident | Procedure No.<br>905.16 | Page 3 of 3 Pages |
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- 5.1.4 From the table below, determine the postulated off-site dose for the given meteorological condition and distance from the site.

Whole Body Passing Cloud Dose (RFM)

| <u>Distance</u><br><u>Miles</u> | <u>First 2 hour dose</u> |                      | <u>Unstable</u>      |
|---------------------------------|--------------------------|----------------------|----------------------|
|                                 | <u>Stable</u>            | <u>Neutral</u>       |                      |
| 1/4                             | $3.2 \times 10^{-1}$     | $3.3 \times 10^{-1}$ | $4.8 \times 10^{-1}$ |
| 1/2                             | $2.8 \times 10^{-1}$     | $3.0 \times 10^{-1}$ | $4.2 \times 10^{-1}$ |
| 1                               | $2.0 \times 10^{-1}$     | $2.5 \times 10^{-1}$ | $2.2 \times 10^{-1}$ |
| 2                               | $1.3 \times 10^{-1}$     | $1.6 \times 10^{-1}$ | $8.3 \times 10^{-1}$ |
| 5                               | -                        | -                    | -                    |
| 10                              | -                        | -                    | -                    |

NOTE: The doses specified above are for a wind speed of 2 MPH.

- 5.1.5 Determine the wind speed correction factor by dividing the actual wind speed by the "basis" wind speed of 2 MPH.
- 5.1.6 Determine the corrected off-site dose by dividing the dose value determined in step 5.1.4 by the wind speed correction factor in step 5.1.5.
- 5.2 Subsequently more refined Control Rod Drop off-site exposure estimates shall be performed requiring the use of Procedure 905.38 "Assessment of Conditions".

NOTE: A control rod drop accident is defined as a power excursion caused by the accidental removal of a control rod from the core at a more rapid rate than can be achieved by use of the control drive mechanism. A fully inserted control rod is assumed to drop out of the core after becoming disconnected from its drive and after the drive has been removed to the fully withdrawn position.

Jersey Central  
Power & Light Company



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| Revision No.<br>0                       | Date<br>6/30/78               |
| Authorized By<br>Station Superintendent |                               |

Subject: Initial Estimate of Off-Site  
Exposures for "Refueling Accident"

Approval/Concurrence

*J. L. Sullivan* for JTCAR/KC JR.

Project: Oyster Creek Nuclear Generating Station

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## 1.0 APPLICABILITY

This procedure describes the method for estimating off-site exposures for the design basis accident "Refueling Accident".

## 2.0 REFERENCES

- 2.1 FDSAR Section XIII Safety Analysis
- 2.2 Hazardous Condition on the Refueling Floor 521
- 2.3 Assessment of Conditions 905.38
- 2.4 "Refueling Accident" offsite exposure estimation calculation sheet HP-905-23

## 3.0 PREREQUISITES

- 3.1 Class IV accident

## 4.0 PRECAUTIONS

- 4.1 The data in the table in this procedure is to be used for only preliminary estimates of off-site exposures.

## 5.0 PROCEDURE

- 5.1 "Refueling Accident" off-site exposure estimation. (Perform estimation on form HP-905-23)

- 5.1.1 Determine the wind speed (MPH)
- 5.1.2 Determine the temperature differential between 400 ft. and 33 ft. elevation ( $\Delta T$ ) ( $^{\circ}F$ ).
- 5.1.3 Determine the meteorological condition.
  - 5.1.3.1 If  $\Delta T$  is higher than  $-1.1^{\circ}F$  (more positive) the condition is stable.
  - 5.1.3.2 If  $\Delta T$  is between  $-1.1^{\circ}F$  and  $-3.3^{\circ}F$ , the condition is neutral.
  - 5.1.3.3 If  $\Delta T$  is less than  $-3.3^{\circ}F$  (more negative) the condition is unstable.



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|--|-------------------------|-------------------|
| Subject:<br><br>Initial Estimate of Off-Site Exposures<br>for "Refueling Accident" | Procedure No.<br>905.15 | Page 3 of 3 Pages |
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- 5.1.4 From the table below, determine the postulated off-site dose for the given meteorological condition and distance from the site.

Whole Body Passing Cloud Dose (REM)

| <u>Distance</u><br><u>Miles</u> | <u>First 2 hour dose</u> |                      |                      |
|---------------------------------|--------------------------|----------------------|----------------------|
|                                 | <u>Stable</u>            | <u>Neutral</u>       | <u>Unstable</u>      |
| 1/4                             | $2.8 \times 10^{-4}$     | $2.8 \times 10^{-4}$ | $4.4 \times 10^{-4}$ |
| 1/2                             | $2.3 \times 10^{-4}$     | $2.5 \times 10^{-4}$ | $3.8 \times 10^{-4}$ |
| 1                               | $1.6 \times 10^{-4}$     | $2.1 \times 10^{-4}$ | $1.9 \times 10^{-4}$ |
| 2                               | $9.7 \times 10^{-5}$     | $1.3 \times 10^{-4}$ | $6.9 \times 10^{-5}$ |
| 5                               | -                        | -                    | -                    |
| 10                              | -                        | -                    | -                    |

NOTE: The doses specified above are for a wind speed of 2 MPH.

- 5.1.5 Determine the wind speed correction factor by dividing the actual wind speed by the "basis" wind speed of 2 MPH.

- 5.1.6 Determine the corrected off-site dose by dividing the dose value determined in step 5.1.4 by the wind speed correction factor in step 5.1.5.

NOTE: The release was from the Reactor Building thru the stack by way of the standby gas treatment system which consists of high efficiency filters and impregnated charcoal filters.

- 5.2 Subsequently more refined "Refueling Accident" off-site exposure estimates shall be performed requiring the use of Procedure 905.38 "Assessment of Conditions".

NOTE: The "Refueling Accident" represents the maximum fission product release to the secondary containment if a fuel bundle is accidentally dropped on to the top of the core during fuel handling operation.