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Initiated By: Scott McCain Date: 9/11/00 Department: EPSD Ext.: 3757

Document No.: MP-26-EPI-FAP09 Rev. No.: 000 Minor Rev.:

Title: Radiation Exposure Controls

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Convert to Master Manual format, implement EPSD document streamline initiative, and address CRs.

Continued ☐

C

Instructions:

None

Continued ☐

D

TPC Interim Approval

(1) Plant Mngt Staff Member Print/Sign/Date (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☒ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☒ *Revision* ☐ *Minor Revision* (See DC-GDL01 for guidance) ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☐ Supersedure

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒ Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

F

Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	SQR Qualified Dept.	✓ If Comments
	☐				☐	☐		
	☐				☐	☐		
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Independent	☒	T. Rigney	T. Rigney	10/5/00	☐	☑	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No **Environmental Review Required** ☐ Yes ☒ No

H

1. ☐ **SQR Program Final Review and Approval**

Approval ☐ Disapproval ☐

SQR Qualified Independent Reviewer / Date

Department Head/Responsible Individual

Approval Date

2. ☒ **~~SORC~~/PORC/RI/DH Final Review and Approval**

S. Arch 10/11/00
Department Head/Responsible Individual / Date

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MP-05-DC-SAP01-001
Rev. 002-01
Page 1 of 1

Functional Administrative Procedure

Millstone Station

Radiation Exposure Controls

MP-26-EPI-FAP09

Rev. 000

Approval Date: 10/11/00

Effective Date: 12/21/00

STOP THINK ACT REVIEW

Table of Contents

1. PURPOSE

1.1 Objective

This procedure provides guidance for personnel radiation exposure control, emergency dosimetry, and Potassium Iodide (KI) issuance during events which activate the Station Emergency Response Organization (SERO).

1.2 Applicability

An event has been classified as an emergency in accordance with EPI-FAP06, "Classification and PARs."

1.3 Supporting Documents

RPM 2.1.1, "Issuance and Control of RWPs"

RPM 2.1.2, "ALARA Interface With the RWP Process"

EPI-FAP02, "Technical Support Center Activation and Operation"

EPI-FAP04, "Emergency Operations Facility Activation and Operation"

C-OP 204, "Response to Medical Emergencies"

RPM 1.5.4, "Response to a Contaminated Injured Person"

RPM 2.1.2, "ALARA Interface with the RWP Process"

KI Qualifications List

1.4 Discussion

1.4.1 Exposure Control

When an Alert or higher classification incident has been declared, exposures up to a Total Effective Dose Equivalent (TEDE) of 4.5 Rem per year (inclusive of year-to-date exposures) are automatically authorized within the 10 CFR 20 limit of 5 Rem. Emergency exposures are exposures which may be authorized above 10 CFR 20 limits to enable SERO personnel to operate the plant and take actions to mitigate the effect of the emergency to plant systems and the public (see Attachment 3 for required authorizations). Emergency exposure guidelines are established per EPA 400.

If exposure > 25 Rem is expected, the mission is voluntary and the potential health effects of the increased exposure have to be explained to the volunteer (Refer to Attachment 4, "Health Risks of High Doses of Radiation").

1.4.2 Issuance of KI

The issuance of KI is based on the determination of a release in which radioiodine exposure may result in an Emergency Worker's accumulated of 50 Rem or greater to the thyroid. The MRCA will make the recommendation for issuance of KI to the ADTS for on-site personnel. The MRDA will make the recommendation for issuance of KI to the ADEOF for off-site SERO personnel. The appropriate assistant director is then responsible for authorizing the use of KI.

1.4.3 Definitions and abbreviations are contained in Attachment 1. Responsibilities are contained in Attachment 2.

2. INSTRUCTIONS

2.1 Emergency Worker Exposure Controls and Increased Exposure Authorization

2.1.1 Refer to Attachment 3, "Emergency Exposure Control Guidance," and develop Mission Specific Exposure Limits and assign those limits to emergency workers based on their task considering the work environment, event conditions and ALARA practices.

2.1.2 IF the dose received for the mission is expected to exceed 4.5 Rem, Refer To and complete EPI-FAP09-001, "Increased Radiation Exposure Authorization," and submit for approval.

2.1.3 IF the dose received for the mission is expected to exceed 25 Rem, perform the following:

a. Obtain DSEO approval.

b. Explain the consequences of large exposures to the volunteer. Refer to Attachment 4, "Health Risks of High Doses of Radiation.".

2.1.4 IF the source of exposure is expected to include a significant amount of non-noble gases (such as when fuel failure is imminent or has occurred):

a. Determine the TEDE to DDE ratio using EPI-FAP09-002, "DDE Limit Reduction," and base the Mission Specific Exposure Limits on corrected DDE values.

b. Calculate a TEDE/DDE ratio for each mission whenever environmental conditions are expected to differ.

2.1.5 In addition to the DDE limit reduction developed in EPI-FAP09-002, "DDE Limit Reduction," consideration should be given to the following items when determining DDE dose limit restrictions:

- Measured air sample results
- Use of respiratory protection
- β sensitive radiation instrument response

2.1.6 Refer To RPM 2.1.2 and develop respiratory protection/PPE recommendations.

2.1.7 IF emergency workers receive emergency exposures in excess of Emergency Exposure Limits, perform the following:

- Determine exposure conditions and status and notify the DSEO (via the ADTS or ADEOF as appropriate).
- Maintain dosimetry records of personnel who have received excess emergency exposures for the dosimetry laboratory.
- Perform whole body counts and bioassays, as necessary.
- Transport potentially contaminated or highly exposed personnel to off-site medical facilities, as necessary.

2.1.8 IF emergency workers receive exposures in excess of 10 CFR 20.1201, initiate NRC notification per 10 CFR 20.2202 through the MOC, as soon as possible, without interfering with the emergency actions or prompt actions to protect health and safety.

2.2 Potassium Iodide (KI) Use and Distribution

NOTE

Consider the administration of KI to emergency workers during radiological releases in which radioiodine exposure is projected to result in an dose of 50 Rem or greater to the thyroid. The total accumulated dose is based on the inhaled iodine dose rate from airborne concentrations of radioiodine plus the gamma dose rate.

2.2.1 Calculate thyroid CDE using EPI-FAP09-006, "Thyroid CDE Based on Field Air Samples," when air sample results are available.

> The inhaled iodine dose rate from airborne concentrations of radioiodine is based on the following rule of thumb:
>
> Breathing 6×10^{-7} μCi/cc of I-131 for 1 hour = 1 Rem to Thyroid (Adult)

2.2.2 WHEN the control and issue of KI has been determined as the appropriate response to emergency conditions, notify the appropriate Assistant Director (ADTS or ADEOF).

2.2.3 WHEN approval has been granted to initiate the KI tablet issue process by the Assistant Director, perform the following:

a. Log the date, time and justification for when approval was granted.

b. IF needed, request that the MOR call in clerical or medical staff to assist in KI tablet issue and documentation.

NOTES

1. The "KI Issue Qualifications List" is located in the EOF Nurse's Office and OSC-AA.
2. KI should not be administered to individuals with known allergies to shellfish.
3. Optimum protection of the thyroid gland against radioiodine exposure is achieved when KI is administered within 4 hours preceding or 4 hours following an acute radioiodine dose.
4. KI Tablets are located in each unit control room, the EOF Nurse's Office, the TSC/OSC lockers in the ventilation room, and in each RMT Kit.

2.2.4 Review "KI Issue Qualifications List" and determine emergency workers qualified to receive KI tablets.

2.2.5 Direct HP personnel to complete the following:

- Issue a copy of EPI-FAP09-003, "KI Tablet Issue, Authorization, and Tracking Sheet," for each emergency worker scheduled to receive KI and track use of KI.
- Direct authorized emergency workers to read the "KI Information Sheet" section of EPI-FAP09-003 and advise personnel that the use of KI is voluntary.
- Issue first KI tablet to emergency workers.

2.2.6 Refer To EPI-FAP09-003, "KI Tablet Issue, Authorization, and Tracking Sheet," and track the control and issue of KI tablets for each authorized emergency worker.

a. Ensure authorized emergency workers are only taking 130 mg KI tablet for each 24 hour period.

b. Ensure a 10 consecutive day limit for KI tablet use is tracked for each authorized emergency worker.

c. Log Senior Company Physician approval for each extension of the 10 consecutive day limit for KI tablet issue.

3. SUMMARY OF CHANGES

3.1 Original issue

Attachment 1
Definitions and Abbreviations
(Sheet 1 of 1)

Definitions

Computerized Based Exposure Tracking System (CBETS) - A station approved database, such as PREM or Fastrak, used to track personnel radiation exposure.

Emergency Worker - Any utility, contractor, or other personnel performing duties in support of the Station Emergency Response Organization during a declared emergency at Millstone Station.

Life Saving Exposures - There are no upper limits for emergency life-saving and protection of large populations. The DSEO shall authorize a limit if a dose greater than 25 Rem is anticipated. Acceptance by emergency workers is voluntary.

Mission Specific Exposure Limits - Assistant Director approved 10 CFR 50.47 emergency exposures to conduct a specific task or mission.

Protection of Valuable Property (Exposure) - EPA 400 recommends 10 Rem limit.

Abbreviations

ADEOF - Assistant Director Emergency Operations Facility

ADTS - Assistant Director Technical Support

ALARA - As Low As Reasonably Achievable

DSEO - Director of Station Emergency Operations

MOR - Manager of Resources

MRCA - Manager of Radiological Consequence Assessment

MRDA - Manager of Radiological Dose Assessment

RMT - Radiation Monitoring Team

TEDE/DDE - Total Effective Dose Equivalent/Deep Dose Equivalent

Attachment 2
Responsibilities

(Sheet 1 of 1)

1. The Director of Station Emergency Operations (DSEO) is responsible for authorizing emergency exposures greater than 25 Rem.

2. The Assistant Director, Technical Support (ADTS) is responsible for approving the Manager of Radiological Consequences Assessment's (MRCA) recommendations for emergency exposure upgrades up to 25 Rem and for authorizing KI issuance for SERO emergency workers within the protected area fence.

3. The Assistant Director, Emergency Operations Facility (ADEOF) is responsible for approving the Manager of Radiological Dose Assessment's (MRDA) recommendations for emergency exposure upgrades up to 25 Rem and for authorizing KI issuance for SERO emergency workers outside the protected area fence.

4. The MRCA is responsible for recommending emergency dosimetry issuance, personnel radiation exposure limits including Mission Specific Exposure Limits, and KI issuance to the ADTS and implementing the approved actions.

5. The on-shift Health Physics (HP) Technician is responsible for providing dosimetry and guidance on radiation exposure control to Control Room personnel.

6. The Computer Based Exposure Tracking System (CBETS) Operators are responsible for utilizing the current exposure tracking system and providing radiation exposure reports to SERO personnel as requested by the MRCA.

7. The Manager of Radiological Dose Assessment (MRDA) is responsible for recommending and implementing exposure limits upgrades, and the issuance of KI for off-site Radiological Monitoring Team (RMT) personnel.

Attachment 3
Emergency Exposure Control Guidance

(Sheet 1 of 1)

> **NOTE**
>
> For many accident scenarios, only noble gases are released and hence, the contribution of non-noble gasses to TEDE is negligible. This allows emergency worker exposure limits to be based on the measurement of DDE. If it is determined that the iodine/particulate dose is a substantial contributor to the TEDE, additional dose contribution for non-noble gasses must be evaluated (per EPI-FAP09-002). Special on-site conditions may require independent review/special evaluation.

Emergency exposure control at Millstone is conducted in a step process. For events classified at the Unusual Event level, normal operational exposure control limits and levels are maintained in accordance with 10 CFR 20 per station procedures. At Alert and higher classification levels, dose limits are automatically extended to 4.5 Rem and continue to follow 10 CFR 20 criteria (any emergency dose is added to any accumulated annual dose to establish control limits). For situations where exposure may exceed 4.5 Rem, dose accumulated during the emergency follows EPA-400 criteria and is independent of any prior occupational exposure. The table below assumes an Alert or higher classification has been declared:

If the following condition is expected	**The following may be applicable**
Dose (including annual exposure to date) **is not** expected to reach 4.5 Rem TEDE	Emergency workers may be dispatched without exposure extension.
Dose (accumulated during the emergency) **may** reach 10 Rem TEDE for actions needed to protect valuable property.	Assistant Director approval required for exposure > 4.5 Rem and ≤ 10 Rem.
Dose (accumulated during the emergency) **may** reach 25 Rem TEDE for actions needed for lifesaving or protection of large populations.	Assistant Director approval required for exposure > 4.5 Rem and ≤ 25 Rem.
Dose (accumulated during the emergency) **may** exceed 25 Rem TEDE for actions needed for lifesaving or protection of large populations.	a. DSEO approval required for exposures > 25 Rem. b. Exposure is voluntary. c. Risks of exposure explained to volunteers
Contaminated or highly exposed individual requires evaluation for medical attention.	Addressed by C OP 204 or RPM 1.5.4.

Attachment 4
Health Risks of High Doses of Radiation

(Sheet 1 of 2)

Health Effects Associated with Doses Received Within a Few Hours[a]

Whole Body Absorbed Dose (rad)	Early Fatalities[b] (%)	Whole Body Absorbed Dose (rad)	Prodromal Effects[c] (% affected)
140	5	50	2
200	15	100	15
300	50	150	50
400	85	200	85
460	95	250	98

(a) Risks will be lower for protracted periods.

(b) Supportive medical treatment may increase the dose at which these frequencies occur by approximately 50 percent.

(c) Forewarning symptoms of more serious health effects associated with large doses of ionizing radiation (such as changes in blood characteristics, headaches, nausea, diarrhea).

Approximate Cancer Risk to Average Individuals from 25 Rem Effective Dose Equivalent Delivered Promptly

Age at Exposure (years)	Approximate Risk of Premature Death (deaths/1000 people exposed)	Average Years of Life Lost if Premature Death Occurs (years)
20 to 30	9.1	24
30 to 40	7.2	19
40 to 50	5.3	15
50 to 60	3.5	11

Attachment 4
Health Risks of High Doses of Radiation

(Sheet 2 of 2)

NOTE: All doses shown are total effective dose equivalent in Rem.

Organ	Volume or Area of Exposure[1]	Risk of injury in five years 5 percent	50 percent	Type of Injury
Bone marrow	whole	230	340	aplasia and pancytopenia
	segment	1135	1360	
Liver	whole	1000	1360	acute and chronic hepatitis
Stomach	100 cm^2	1464	1665	ulcer, perforation, hemorrhage
Intestine	400 cm^2	1465	1665	ulcer, perforation, hemorrhage
	100 cm^2	1570	1855	
Lung	whole	720	1000	acute and chronic pneumonitis
	100 cm^2	1135	1245	
	75 percent	770	-------	
Kidney	whole	875	1000	acute and chronic ephrosclerosis
Brain	whole	1770	1950	infarction, necrosis
Spinal cord	10 cm	1465	1665	infarction, necrosis
Heart	60 percent	1465	1665	pericarditis and pancarditis
Skin	---	1665	1950	ulcers, fibrosis
Fetus	whole	200	314	death
Lens of eye	whole	355	620	cataracts
Ovary	whole	200-430	410-875	permanent sterilization
Testes	Whole	340-720	410-875	permanent sterilization

[1] Dose delivered in 200 Rad fractions, 5 fractions per week.

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Document No.: MP-26-EPI-FAP09 -001 Rev. No.: 000 Minor Rev.:

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Reason for Request (attach commitments, CRs, ARs, OEs etc)

Convert to Master Manual format, implement EPSD document streamline initiative, and address CRs.

Continued ☐

C

Instructions:

None

Continued ☐

D

TPC Interim Approval (1) Plant Mngt Staff Member Print/Sign/Date (2) SM/SRO/CFH on Unit Print/Sign/Date

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Procedure Request/Feedback Disposition

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See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒

Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

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Independent	☒	T. Rigney	T. Rigney	10/5/00	☐	☑	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No Environmental Review Required ☐ Yes ☒ No

H

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Approval ☐ Disapproval ☐

SQR Qualified Independent Reviewer / Date

Department Head/Responsible Individual

Approval Date

2. ☒ ~~SORC~~/PORC/RI/DH Final Review and Approval

10/6/00

Department Head/Responsible Individual / Date

Meeting No.: 00-30

Approval Signature

10/11/00

Approval Date

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Increased Radiation Exposure Authorization

The personnel listed below are authorized to receive the indicated Exposure Limit (in Rem):

☐ Emergency exposure to save valuable property (up to 10 Rem)
Mission Specific Exposure Limit (Rem): ________

☐ Emergency exposure for lifesaving or protection of large populations(up to 25 Rem)
Mission Specific Exposure Limit (Rem): ________

☐ Emergency exposure for lifesaving or protection of large populations(> 25 Rem)
Mission Specific Exposure Limit (Rem): ________

Basis: ____

Mission: ____

Name/EID	**Emergency Exposure to Date**	**Available Exposure**	***Employee Signature**

* Required if MSEL > 25 Rem. Documentation of verbal acceptance is sufficient if time does not permit employee signature. Mission is voluntary and exposure risks must be explained (see MP-26-EPI-FAP09 Attachment 4 for guidance).

Reviewed By: ____________________ Date: __________ Time: __________
MRCA or MRDA Signature

Approved By: ____________________ Date: __________ Time: __________
ADTS, ADEOF, or DSEO Signature

NOTE

The MRCA or MRDA is responsible for ensuring appropriate exposure increases are issued to individuals and entered on this form.

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Continued ☐

C

Instructions:

None

Continued ☐

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See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒

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DDE Limit Reduction

NOTE

TEDE will normally be controlled by the measurement of DDE. Dose due to iodine/particulates can be a substantial contributor to the TEDE. Limiting the DDE to a factor below the DDE exposure limit will assure the TEDE limit is not exceeded.

Mission:

1. Determine and circle the appropriate iodine/particulate Total Decontamination Factor (DF) based on the accident type and plant conditions.

Accident Type	Total DF (without cleanup)[a]	Total DF (with cleanup)[b]
LOCA in containment with sprays	300	30,000 if filtered
LOCA in containment without sprays	30	3,000 if filtered
Dry LOCA	10	1,000 if filtered
Steam Line Break	1000	100,000 if filtered
SGTR	100	10,000 if via SJAE
Fuel Handling - flooded	500	50,000 if filtered
Fuel Handling - not flooded	1	100 if filtered
Other Accidents	Ask RAE	Ask RAE

a. Includes combined DFs from partitioning (scrubbing), plateout (surface removal), and washout (sprays).

b. Cleanup refers to filtering, and the SJAE in the case of a SGTR. Filtering is performed only by EBFS, SLCRS, ABFS, or FBVF - and the system must be operating.

c. Can be filtered only if the release is into the enclosure building.

2. Determine and circle the corresponding TEDE/DDE ratio from the DF above.

Total DF	TEDE/DDE Ratio	
	1 hour since RX shutdown	10 hours since RX shutdown[a]
10	25 (15)[b]	100 (60)[b]
100	5	25 (10)[b]
1000 or greater	2	3

a. For times between 1 hour and 10 hours, linear interpolation is conservative. After 10 hours, to determine the ratio the measured field air sample analysis must be relied upon to adjust the dose model.

b. Numbers in parentheses specify the corrected ratio if KI is issued to the Emergency Worker.

3. Divide the targeted TEDE limit (5, 10, 25 Rem) by the ratio to determine the corresponding DDE limit.

$$\frac{\text{TEDE Limit}}{\text{TEDE / DDE Ratio}} = \text{DDE Limit}$$

DDE Limit = __________ (Rem)

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KI Tablet Issue Authorization and Tracking Sheet

Employee Name: ______________________________

EID or Social Security Number: ______________________________

SERO Position Title: ______________________________

NOTE

KI shall not be administered beyond the 10 consecutive day limit for each authorized emergency worker without approval from the Senior Company Physician.

KI Tablet Administration

Dose	Date Taken	Administered/Tracked By
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

KI Information Sheet

You may take Potassium Iodide (KI) even if you are taking other medications for a thyroid problem (for example, a thyroid hormone or anti-thyroid drug).

If directed to take KI, you should ingest one KI tablet every 24 hours. Large daily doses of KI will not help you because the thyroid can "hold" only limited amounts of iodine. Additionally, larger doses may increase the risk of side effects. You will be told *not* to take KI for more than 10 consecutive days without specific prior approval of the Senior Company Physician.

SIDE EFFECTS

The side effects of KI occur when individuals take higher doses than normal for greater than 10 days. You should take only the KI issued at the site and *not* take it for longer than you are instructed. Side effects of KI are unlikely due to the low dose and the short duration you will be taking the medicine.

Possible side effects are skin rashes, swelling of the salivary glands, and "iodism" (metallic taste, burning mouth and throat, sore teeth and gums, symptoms of head cold, and sometimes stomach upset and diarrhea).

Some people may experience an allergic reaction with more serious symptoms. These individuals typically have a known allergy to shellfish. Symptoms of an allergic reaction may include fever and joint pain, swelling of parts of the face and body, and in some cases, severe shortness of breath ***requiring immediate medical attention***.

In rare cases, taking KI may cause overactivity of the thyroid gland, underactivity of the thyroid gland, or enlargement of the thyroid gland (goiter).

WHAT TO DO IF SIDE EFFECTS OCCUR

If you have an allergic reaction, or the side effects are severe, stop taking the KI tablets. Seek immediate medical attention by fastest means available (up to and including calling 9-1-1). Notify the your immediate supervisor as soon as possible.

THYRO-BLOCK® TABLETS

(POTASSIUM IODIDE TABLETS, USP)
(pronounced poe-TASS-e-um EYE-oh-dyed)
(abbreviated: KI)

TAKE POTASSIUM IODIDE ONLY WHEN PUBLIC HEALTH OFFICIALS TELL YOU. IN A RADIATION EMERGENCY, RADIOACTIVE IODINE COULD BE RELEASED INTO THE AIR. POTASSIUM IODIDE (A FORM OF IODINE) CAN HELP PROTECT YOU.

IF YOU ARE TOLD TO TAKE THIS MEDICINE, TAKE IT ONE TIME EVERY 24 HOURS. DO NOT TAKE IT MORE OFTEN. MORE WILL NOT HELP YOU AND MAY INCREASE THE RISK OF SIDE EFFECTS. *DO NOT TAKE THIS DRUG IF YOU KNOW YOU ARE ALLERGIC TO IODINE.* (SEE SIDE EFFECTS BELOW.)

INDICATIONS

THYROID BLOCKING IN A RADIATION EMERGENCY ONLY.

DIRECTIONS FOR USE

Use only as directed by State of local public health authorities in the event of a radiation emergency.

DOSE

Tablets: ADULTS AND CHILDREN 1YEAR OF AGE OR OLDER: One (1) tablet once a day. Crush for small children.

BABIES UNDER 1 YEAR OF AGE: One-half (1/2) tablet once a day. Crush first.

Take for 10 days unless directed otherwise by State or local public health authorities.

Store at controlled room temperature between 15° and 30° C (59° to 86° F). Keep container tightly closed and protect from light.

WARNING

Potassium iodide should not be used by people allergic to iodine. Keep out of the reach of children. In case of overdose or allergic reaction, contact a physician or the public health authority.

DESCRIPTION

Each THYRO-BLOCK® TABLET contains 130 mg of potassium iodide. Other ingredients: magnesium stearate, microcrystalline cellulose, silica gel, sodium thiosulfate.

HOW POTASSIUM IODIDE WORKS

Certain forms of iodine help your thyroid gland work right. Most people get the iodine they need from foods, like iodized salt or fish. The thyroid can "store" or hold only a certain amount of iodine.

In a radiation emergency, radioactive iodine may be released in the air. This material may be breathed or swallowed. It may enter the thyroid gland and damage it. The damage would probably not show itself for years. Children are most likely to have thyroid damage.

If you take potassium iodide, it will fill up your thyroid gland. This reduces the chance that harmful radioactive iodine will enter the thyroid gland.

WHO SHOULD NOT TAKE POTASSIUM IODIDE

The only people who should not take potassium iodide are people who know they are allergic to iodine. You may take potassium iodide even if you are taking medicines for a thyroid problem (for example, a thyroid hormone or anti-thyroid drug). Pregnant and nursing women and babies and children may also take this drug.

HOW AND WHEN TO TAKE POTASSIUM IODIDE

Potassium Iodide should be taken as soon as possible after public health officials tell you. You should take one dose every 24 hours. More will not help you because the thyroid can "hold" only limited amounts of iodine. Larger doses will increase the risk of side effects. You will probably be told not to take the drug for more than 10 days.

SIDE EFFECTS

Usually, side effects of potassium iodide happen when people take higher doses for a long time. You should be careful not to take more than the recommended dose or take it for longer than you are told. Side effects are unlikely because of the low dose and the short time you will be taking the drug.

Possible side effects include skin rashes, swelling of the salivary glands, and "iodism" (metallic taste, burning mouth and throat, sore teeth and gums, symptoms of a head cold, and sometimes stomach upset and diarrhea).

A few people have an allergic reaction with more serious symptoms. These could be fever and joint pains, or swelling of parts of the face and body and at times severe shortness of breath requiring immediate medical attention.

Taking iodine may rarely cause overactivity of the thyroid gland, underactivity of the thyroid gland, or enlargement of the thyroid gland (goiter).

WHAT TO DO IF SIDE EFFECTS OCCUR

If the side effects are severe or if you have an allergic reaction, stop taking potassium iodide. Then, if possible, call a doctor or public health authority for instructions.

HOW SUPPLIED

THYRO-BLOCK® TABLETS (Potassium Iodide Tablets, UPS) bottles of 14 tablets (NDC 0037-0472-20). Each white, round, scored tablet contains 130 mg potassium iodide.

WALLACE LABORATORIES
Division of
CARTER-WALLACE, INC.
Cranbury, New Jersey 08512

IN-0472-01 Rev 2/85

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: Scott McCain Date: 9/11/00 Department: EPSD Ext.: 3757

Document No.: MP-26-EPI-FAP09-004 Rev. No.: 000 Minor Rev.:

Title: Radiation Exposure Controls

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Convert to Master Manual format, implement EPSD document streamline initiative, and address CRs.

Continued ☐

C

Instructions:

None

Continued ☐

D

TPC Interim Approval

(1) Plant Mngt Staff Member Print/Sign/Date

(2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☒ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☒ *Revision* ☐ *Minor Revision* (See DC-GDL01 for guidance) ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☐ Supersedure

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒

Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date

Continued ☐

F

Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	SQR Qualified Dept.	✓ if Comments
	☐				☐	☐		
	☐				☐	☐		
Validation	☒	T. Rigney	T. Rigney	10/5/00	☐	☑	EPSD	✓
Writer's Guide	☒	M. Maryeski	M Maryeski	9/22/00	☐	☑	SPG	✓
50.54(q)	☒	T. Rigney	T. Rigney	10/5/00	☐	☑	EPSD	✓
RCD	☒	T. Rigney	T. Rigney	10/5/00			EPSD	
Independent	☒	T. Rigney	T. Rigney	10/5/00	☐	☑	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No Environmental Review Required ☐ Yes ☒ No

H

1. ☐ SQR Program Final Review and Approval

Approval ☐ Disapproval ☐

SQR Qualified Independent Reviewer / Date

Department Head/Responsible Individual

Approval Date

2. ☒ SORC/PORC/RI/DH Final Review and Approval

S. Arch 10/6/00
Department Head/Responsible Individual / Date

Meeting No.: 00-30

[signature]
Approval Signature

10/11/00
Approval Date

I

Effective Date: 12/21/00

MP-05-DC-SAP01-001
Rev. 002-01
Page 1 of 1

10/11/00
Approval Date

12/21/00
Effective Date

Emergency Worker Access and Exposure Control Log

AREA	DOSIMETRY (PIC, TLD, ED, Other):	SHIFT:	DATE:
RWP #	JOB TASK #		

NAME EMPLOYEE IDENTIFICATION NUMBER		INITIALS	AVAILABLE EXPOSURE	TIME IN	TIME OUT	EXP IN	EXP OUT	TOTAL EXPOSURE (mREM)
NAME:	1ST ENTRY							
EMPLOYEE ID#:	2ND ENTRY							
NAME:	1ST ENTRY							
EMPLOYEE ID#:	2ND ENTRY							
NAME:	1ST ENTRY							
EMPLOYEE ID#:	2ND ENTRY							
NAME:	1ST ENTRY							
EMPLOYEE ID#:	2ND ENTRY							
NAME:	1ST ENTRY							
EMPLOYEE ID#:	2ND ENTRY							

1. This form is to be used only when a declared emergency is in progress.
2. Exposure limits are to be determined by MRCA or MRDA. ADTS or ADEOF approval is required for mission-specific exposures > 4.5 Rem but ≤ 25 Rem. DSEO approval is required for exposures > 25 Rem.
3. Each team member's name must appear on a copy of this form.
4. Periodically check dosimetry and compare accumulated with available exposure; Return this form to MRCA. "Total" should be maintained less than "Available" exposure.

NOTE
This form is directly derived from RPM 2.1.1 to ensure clear and consistent exposure control.

Preparer's Signature: ______________________________

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: Scott McCain Date: 9/11/00 Department: EPSD Ext.: 3757

Document No.: MP-26-EPI-FAP09 - 005 Rev. No.: 000 Minor Rev.:

Title: Radiation Exposure Controls

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Convert to Master Manual format, implement EPSD document streamline initiative, and address CRs.

Continued ☐

C

Instructions:

None

Continued ☐

D

TPC Interim Approval (1) Plant Mngt Staff Member Print/Sign/Date (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☒ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☒ *Revision* ☐ *Minor Revision* (See DC-GDL01 for guidance) ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☐ Supersedure

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒ Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

F

Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	Dept.	✓ if Comments
	☐				☐	☐		
	☐				☐	☐		
Validation	☒	T. Rigney	T. Rigney	10/5/00	☐	☑	EPSD	✓
Writer's Guide	☒	M. Maryeski	M Maryeski	9/22/00	☐	☑	SPG	✓
50.54(q)	☒	T. Rigney	T. Rigney	10/5/00	☐	☑	EPSD	✓
RCD	☒	T. Rigney	T. Rigney	10/5/00			EPSD	
Independent	☒	T. Rigney	T. Rigney	10/5/00	☐	☑	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No Environmental Review Required ☐ Yes ☒ No

H

1. ☐ SQR Program Final Review and Approval

Approval ☐ Disapproval ☐

SQR Qualified Independent Reviewer / Date

Department Head/Responsible Individual

Approval Date

2. ☒ SORC/PORC/RI/DH Final Review and Approval

S Arch 10/4/00
Department Head/Responsible Individual / Date

Meeting No.: 00-30

Approval Signature

10/11/00
Approval Date

I

Effective Date: 12/21/00

MP-05-DC-SAP01-001
Rev. 002-01
Page 1 of 1

10/11/00 Approval Date

12/21/00 Effective Date

Calculation of I-131 Activity Worksheet Based on HP-210 Count

Sample Location: ______________________ Team Number: ________

Sample Collection Date: ________ Time: ______ (From) ______ (To) RMT Member: ________

Sample Count Date: ________ Time: ______ RMT Member: ________

1. Sample volume [A] determined as follows:

$$\frac{}{\textit{Duration of air sample in minutes}} \times \frac{}{\textit{Flowrate cfm}} \times 2.8E4\, cc / ft3 = \frac{}{[A]}\, cc$$

2. Determine corrected counts per minute [B] from the HP-210 as follows:

$$\frac{}{\textit{Sample cpm}} - \frac{}{\textit{Background}} = \frac{}{[B]}$$

3. Check the conversion factor [C] based on time since shutdown and origin or release:

	Time Since Shutdown	Origin of Release	Conversion Factor (μCi/ccpm)
☐	0-5 hours	Primary System	1.3×10^{-5}
☐	5-12 hours	Primary System	2.8×10^{-5}
☐	12-24 hours	Primary System	4.7×10^{-5}
☐	24-96 hours	Primary System	1.0×10^{-4}
☐	> 96 hours	Primary System	2.1×10^{-4}
☐	At all times	Other than Primary System	2.1×10^{-4}

4. Determine I-131 activity [D] as follows:

$$\frac{}{[B]} \times \frac{}{[C]} = \frac{}{[D]}\, \mu Ci$$

5. Determine I-131 activity concentration [E] as follows:

$$\frac{}{[D]} \div \frac{}{[A]} = \frac{}{[E]}\, \mu Ci / cc$$

6. Provide results of calculation to MRDA and or MRCA as appropriate.

Completed By: ______________________ (MRCA or Designee) ________ (Date)

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: Scott McCain Date: 9/11/00 Department: EPSD Ext.: 3757

Document No.: MP-26-EPI-FAP09 -006. Rev. No.: 000 Minor Rev.:

Title: Radiation Exposure Controls

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Convert to Master Manual format, implement EPSD document streamline initiative, and address CRs.

Continued ☐

C

Instructions:

None

Continued ☐

D

TPC Interim Approval

(1) Plant Mngt Staff Member Print/Sign/Date (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☒ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☒ *Revision* ☐ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☐ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID

☐ Edit Corr.:⇒

Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

F

Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	SQR Qualified Dept.	✓ if Comments
	☐				☐	☐		
	☐				☐	☐		
Validation	☒	T. Rigney	T. Rigney	10/5/00	☐	☑	EPSD	✓
Writer's Guide	☒	M. Maryeski	M Maryeski	9/22/00	☐	☑	SPG	✓
50.54(q)	☒	T. Rigney	T. Rigney	10/5/00	☐	☑	EPSD	✓
RCD	☒	T. Rigney	T. Rigney	10/5/00			EPSD	
Independent	☒	T. Rigney	T. Rigney	10/5/00	☐	☑	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No Environmental Review Required ☐ Yes ☒ No

H

1. ☐ SQR Program Final Review and Approval

Approval ☐ Disapproval ☐

SQR Qualified Independent Reviewer / Date

Department Head/Responsible Individual

Approval Date

2. ☒ ~~SORC~~/PORC/RI/DH Final Review and Approval

[signature] 10/11/00

Department Head/Responsible Individual / Date

Meeting No.: 00-30

[signature]

Approval Signature

10/11/00

Approval Date

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Effective Date: 12/21/00

10/4/00	12/21/00
Approval Date	Effective Date

Thyroid CDE Based On Field Air Samples

❑ 1. Record location, time of sample, and air sample results (ccpm).

Location: ____________________

Time of sample: ____________________

Corrected cpm: ____________________ ccpm

❑ 2. IF air sample was analyzed by field counts, calculate thyroid I-131 Dose Equivalent (DEQ) concentration using equation 2.a or 2.b (based on time since reactor shutdown):

a. I-131 DEQ μCi/cc = $1.15 \times 10^{-11}\ H^{0.66}$ (ccpm) [for 1 hour $\leq$ H* $\leq$ 168 hour]

b. I-131 DEQ μCi/cc = 3.3×10^{-10} (ccpm) [for H* > 168 hour]

❑ 3. IF air sample was analyzed by gamma analysis, complete the equation below and determine I-131 DEQ:

$$\text{I-131 DEQ } \mu\text{Ci/cc} = \mu\text{Ci/cc}_{\text{I-131}} + 0.18\ (\mu\text{Ci/cc}_{\text{I-133}}) + 0.03\ (\mu\text{Ci/cc}_{\text{I-135}})$$

❑ 4. Calculate thyroid CDE for 1 hour of inhalation using the equation below:

$$\text{Thyroid CDE (mRem)} = (1.79 \times 10^{9}\ \text{mRem-cc}/\mu\text{Ci})\ (\text{I-131 DEQ } \mu\text{Ci/cc})$$

❑ 5. Multiply the 1 hour thyroid CDE by the projected hours of exposure. IF the result is > 50 Rem, recommend issuance if KI.

❑ 6. Provide results of calculation to MRDA or MRCA as appropriate.

*Note: H is # of hours between reactor shutdown time and the time when sample was counted.

Prepared by: ____________________ ____________________ ____________________

Signature Print Date

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG# N/A

A

Initiated By: B. Tarallo Date: 12/12/00 Department: Unit 1 Ext.: 2096

Document No.: MP-26-EPI-FAP10 Rev. No.: 000 Minor Rev.: 01

Title: Dose Assessment

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Add steps to perform MIDAS

Continued ☐

C

Instructions:

Continued ☐

D

TPC Interim Approval (1) Plant Mngt Staff Member Print/Sign/Date (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☒ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☐ *Revision* ☒ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☐ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒
Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

F

Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	Dept.	✓ If Comments
	☐				☐	☐		
	☐				☐	☐		
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	☐				☐	☐		
	☐				☐	☐		
RCD	☒	K. Burgess	KBurgess	12/12/00			EPSD	
Independent	☐	K. Burgess	KBurgess	12/12/00	☐	☒	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No **Environmental Review Required** ☐ Yes ☒ No

H

1. ☒ **SQR Program Final Review and Approval**

Approval ☒ Disapproval ☐

KBurgess 12/12/00
SQR Qualified Independent Reviewer / Date

Paul A. Blasioli
Department Head/Responsible Individual

12/15/00
Approval Date

2. ☐ **SORC/PORC/RI/DH Final Review and Approval**

Department Head/Responsible Individual / Date

Meeting No.:

Approval Signature

Approval Date

I

Effective Date: 12/21/00

Functional Administrative Procedure

Millstone Station

Dose Assessment

MP-26-EPI-FAP10

Rev. 000-01

Approval Date: 12/15/00

Effective Date: 12/21/00

STOP THINK ACT REVIEW

Table of Contents

1. PURPOSE

1.1 Objective

Provide methods for calculating dose equivalents around the Millstone Nuclear Power Station for actual or potential airborne releases to use in assessing radiological event classifications and dose based general public protective action recommendations.

1.2 Applicability

An emergency has been declared.

Events require the projection of offsite doses due to an actual or potential release of radioactive materials near or beyond the site boundary.

1.3 Supporting Documents

1.3.1 EPUG 07, "Accident Dose Assessment Model (ADAM) User's Guide" 1

1.4 Discussion

Dose assessment requires an understanding of the purpose for the analysis (e.g., off-site protective actions), knowledge of the physical situation (i.e., release point), knowledge of the available release rate and dose rate calculational models, including their limitations and personnel requirements and a validation by comparison to field measurements.

Radiological emergency classification and dose based protective action recommendations are based on the TEDE and the thyroid CDE. Potential exposure pathways within this procedure include:

- External gamma dose (DDE) from noble gases in the plume
- External gamma dose (DDE) from ground shine from deposited radioactive material
- CEDE from inhalation of plume activity

Two computer programs can be used within this procedure, MIDAS (Meteorological Information and Dose Assessment System) and IDA (Initial Dose Assessment).

MIDAS

All MIDAS accident calculations (TEDE, CDE, EDE, etc.) are performed in accordance with EPA 400 and NRC guidance. An unlimited number of fixed field monitoring points can be displayed on MIDAS maps. MIDAS can accommodate up to 10 design basis accident scenarios for each unit. The MIDAS roadmap is centered on unit 1 stack and contains features such as the EPZ or IPZ towns, roads, railroads, bodies of water and field monitoring points. MIDAS accident reports contain site specific protective action recommendations.

The MIDAS software can handle up to four release points per unit. Each release point is calculated separately and merged together spatially on a grid. The output reports are then plotted and printed from the gridded results. Release points can have multiple sources and are distinguished only by physical features that affect dispersion. The MIDAS software performs range checking on all data and numeric entries. The input ranges are in user-friendly site specific files. The MIDAS software also has a user friendly mouse screen input. The user selects from large boxes that are easy to read and understand. The MIDAS accident software is set up so that the user is required to make a minimum of entries. Each menu has a default duration and monitor flow (if required) In most cases, other than automatic runs, the user has the option to change these values before proceeding with the run. The MIDAS accident software has many methods of source term entry. The data can be automatic, manually entered, default values, or preplanned scenario data. The scenario data are typically used for drills. The MIDAS software can calculate dose and release rates down to 1.0 E-17 and has the capability to back calculate from field data. Once the release rate is established based on the location of the field monitoring reading, the normal variable trajectory dose calculations are made. The MIDAS software takes into account the affect of daughter in-growth.

MIDAS software can be run from each PC workstation connected to the central server where the real time meteorological and effluent data will be stored. All software changes under system manager control will be made on the central server and sent to each PC workstation. The accident model can be run using manually entered data as a stand-alone computer calculation if data are not available from the central server. MIDAS can accept and display data in either metric or English units.

MIDAS utilizes both dry and wet deposition depending on existing weather conditions. Different deposition velocities and rainout rates are used depending on the precipitation rate.

All MIDAS emergency dose calculations for plume and ingestion pathway are made on a polar fine grid with 64 direction sectors by 56 downwind distances typically out to 50 miles. This distance and detail of the grid is under user control in a site specific edit. The grid approach allows plume track following changes in weather conditions.

The age of the fuel for fuel handling accidents can be taken into account through the design basis accidents. Different mixes can be entered for the various fuel ages required.

All MIDAS reports are available in tabular format. In most cases, reports are also available as color plots. The graphical data are always plotted on site specific maps with contours depicting various projected dose or concentration levels. All MIDAS plots have "point of interest" capability. This allows the user to select any point on the map and immediately display numerical text giving dose or dose rate information. There is no limit to the number of points that can be selected. The wind speed is adjusted up or down to the actual release height using the Power Law. Before all calculations are made, the user has the opportunity to check both the meteorological and radiological data to be used for each release point calculation. The MIDAS software has editors for both meteorological and radiological data.

The following methods can be used to perform dose assessment using MIDAS:

- **What If** - Provides an integrated dose based on an assumed future release. Typically done in anticipation of a barrier failure to assist in classification and to project dose based PARs for comparison with plant based PARs.
- **Real Time** - Based on releases in progress in order to project radiological conditions and validate the adequacy of the current classification level and PARs.
- **Normalized** - Based on an assumed release rate of noble gas and iodine or monitor reading. Normalized dose calculations could be run with near-term or current forecast meteorological data and anticipated release points, etc. The results are used to establish ratios with field data should releases occur. The ratio can then be used to estimate the release rate for noble gas or iodines.

IDA

IDA, developed in-house, is written to be user friendly. IDA estimates plume centerline TEDE, thyroid CDE, CEDE, plume and ground DDE values. The results provided by the program comply to EPA-400 methodology and represent an "estimate" of offsite dose equivalents that would result due to real time user inputs (i.e., met data and monitor data) as well as specified accident conditions (i.e., filtered release, sprays operating, fuel degradation, accident type, and decontamination factors). IDA is a database program based on results obtained from the NRC's RASCAL code, version 2.1. RASCAL was run for multiple accident and meteorological conditions and the results were placed in a Microsoft Access datafile. The RASCAL generated results provide all aspects of the resulting dose assessment. The site specific inputs that determine the accident, determine the appropriate RASCAL results to use. The noble gas source term is calculated using defined monitor conversion methods, or can be input by the user. Assumptions for various release pathways were incorporated into IDA to determine eventual release height of the resulting plume.

General

Definitions and abbreviation are contained in Attachment 1. Responsibilities are contained in Attachment 2.

2. INSTRUCTIONS

2.1 Selecting and Initiating Dose Calculations

2.1.1 IF performing dose assessment from the EOF perform the following:

a. Ensure the Meteorological Assistant has determined if fumigation potential exists as per Table 1 in EPI-FAP04-010, "Meteorological Assistant".

b. IF fumigation potential exists, run projections using ground release and an "E" stability class until fumigation conditions cease to exist.

2.1.2 Refer To Attachment 4 for reference information needed during the performance of dose calculations, as required.

2.1.3 Select the appropriate dose assessment method from the options listed below:

- IF performing dose calculations from the Control Room using IDA, Go To Section 2.2.
- IF performing dose calculations from the EOF using IDA, Go To Section 2.4.
- IF performing dose calculations using MIDAS, Go To Section 2.5.

2.2 Control Room OFIS Access for IDA Dose Calculations

> **NOTE**
>
> If a monitored and unmonitored release are occurring simultaneously, only the field monitoring data is used to calculate dose.

2.2.1 Refer To EPI-FAP10-001, "IDA - Data Input Information" and obtain information for Part 1 and Part 3 (Column A) of the section from the CR-DSEO or Designee.

> **NOTE**
>
> The CR-DSEO is the source of data if OFIS is not available or functioning.

2.2.2 Access the OFIS program as follows:

a. Open "Control Room Dose Assessment" icon.

b. Open "Mainframe" icon.

c. Type "CICSNPRX" in the "APPLICATION" field and press "Enter".

d. Type the emergency log-on user ID "BE091AZ" and press "Tab".

e. Type Password "DRAGON" and press "Enter".

f. Press the "PAUSE" key on upper right hand corner of keyboard to clear the screen.

g. Type "OFIS" and press "Enter"

h. Select "Unit 3" from OFIS menu by pressing F3 key.

i. Type "S A11" and press "Enter"

2.2.3 Complete EPI-FAP10-001 Part 2 (Meteorology).

> **NOTE**
>
> The CR-DSEO is the source of data if OFIS is not available or functioning. To ensure OFIS is current, the time and date should be checked.

a. IF meteorological data is not available on OFIS, request data from CR-DSEO or Designee to provide data from an alternate source.

b. Press F3.

2.2.4 Enter one of the following commands into OFIS to obtain applicable monitor and flow parameters for Part 3 of EPI-FAP10-001, "IDA - Data Input Information," as applicable:

- IF Unit 3, type "S A10" and press "Enter"
- IF Unit 2, perform the following:
  - ⇒ Type "U MP2" and press "Enter"
  - ⇒ Type "S A10" and press "Enter"
- IF Unit 1, perform the following:
  - ⇒ Type "U MP1" and press "Enter"
  - ⇒ Type "S A10" and press "Enter"

2.2.5 IF designated OFIS item is not available, perform the following:

a. Refer to Attachment 3, "Data Sources," and select an alternate source.

b. Consult CR-DSEO or TIC on method to obtain data.

2.2.6 Press "F3" twice.

2.2.7 Press "PAUSE" to clear the screen.

2.2.8 Type "logoff" and press "Enter".

2.2.9 Close "Mainframe" window.

2.3 Control Room IDA Dose Calculations

> **NOTE**
>
> A back-up computer is located in the TSC if the Control Room PC is not available.

2.3.1 Select IDA icon from the designated Control Room PC.

2.3.2 Refer To EPI-FAP10-001, "IDA - Data Input Information," Part 1 and enter the following on the "Accident Description" screen:

- Unit Affected
- Accident type
- Fuel damage state
- IF applicable, containment sprays "YES" (on) or "NO" (off)

> **NOTE**
>
> If reactor is still critical, the reactor shutdown date and time should be left blank.
>
> If a fuel drop accident, most recent refueling date and time must be estimated from CR-DSEO and entered.

- Current ("now") and reactor shutdown date and time
- Release duration (2 hour default unless instructed otherwise by the CR-DSEO)

2.3.3 Select "Next".

2.3.4 Refer To EPI-FAP10-001, "IDA - Data Input Information," Part 2 and enter all of the following on the "Meteorology" screen:

- Wind speeds from the 033', 142', and 374' elevations
- Wind directions from the 033', 142', and 374' elevations
- Delta temperatures from the 142' and 374' elevations

> **NOTE**
>
> If the unmonitored ground release pathway is selected, no other release pathway can be selected.
>
> IDA can accept up to two NON GROUND release pathways.
>
> If multiple NON GROUND release pathways are chosen, only the two LOWEST elevation pathways are entered.

2.3.5 Select "Next".

2.3.6 Refer To EPI-FAP10-01, "IDA - Data Input Information," Part 3 and enter the following on the "Release Pathways" screen:

- Active Release pathways
- Filters operating, if applicable
- Number of safeties releasing, if applicable
- Flow rates using default values or OFIS

2.3.7 Select "Next".

NOTE
Plant monitor data is zeroed if unmonitored field team data is entered.

2.3.8 Refer To EPI-FAP10-001, "IDA - Data Input Information," and enter the following on the "Monitor" screen:

- Applicable radiation monitor readings
- Applicable field team reading (If unmonitored release)

2.3.9 Select "Finish".

2.3.10 Press "Printer" icon and select "All".

2.3.11 Press "OK" to print output.

2.3.12 IF printer is unavailable, manually record data from "Doses for Protective Action Recommendation," on EPI-FAP10-003, "Doses for Protective Action Recommendation".

2.3.13 Attach EPI-FAP10-001, "IDA - Data Input Information," to printed output or to EPI-FAP10-003, "Doses for Protective Action Recommendation".

2.3.14 Refer To EPI-FAP10-001, "IDA - Data Input Information," and perform verification of input data from Output Summary.

2.3.15 Submit results to the CR DSEO.

2.3.16 IF warranted by changing conditions, repeat this sections and notify CR-DSEO of changes.

2.4 EOF IDA Dose Calculations

2.4.1 Refer To and complete EPI-FAP10-001, "IDA - Data Input Information," as necessary.

2.4.2 Select the following from the designated EOF PC:

a. IDA icon

b. "OPTION"

c. "EXTENDED"

2.4.3 Refer To EPI-FAP10-001, "IDA - Data Input Information," and enter the following information on the "Accident Description" screen:

- Affected unit
- Accident type
- Fuel damage state
- IF applicable, containment sprays "YES" (on) or "NO" (off)

NOTE

If the reactor is still critical, leave the reactor shutdown date and time as a blank.

- Current ("now") and reactor shutdown date and time
- Release duration (2 hour default unless instructed otherwise by the MRDA)

2.4.4 Select "Next."

2.4.5 Enters the following on the "Meteorology" screen:

- Wind Speeds from the 033', 142', and 374' elevations
- Wind directions from the 033', 142', and 374' elevations
- Delta temperatures from the 142', and 374' elevations

2.4.6 Select "Next."

NOTE

If the unmonitored ground release pathway is chosen in EPI-FAP10-001, "IDA - Data Input Information," no other release pathway can be selected.

IDA can accept up to two non-ground release paths.

If multiple non-ground release pathways are chosen in EPI-FAP10-001, "IDA - Data Input Information," only the two lowest elevation pathways shall be entered.

2.4.7 Refer To EPI-FAP10-001, "IDA - Data Input Information," and enter the following on the "Release Pathways" screen:

- Release Pathways
- Filters operating (if applicable)
- Number of safeties releasing (if applicable)
- Flow rates using default values or OFIS

2.4.8 Select "Next."

NOTE

Plant monitor data is zeroed if unmonitored field team data is entered. If field team data is entered first, the code will not allow monitor data input.

A postulated noble gas release rate in (Ci/sec) for the release path can be entered on the release pathway screen and "Finish" selected if performing "What-If" calculations using IDA.

Iodine release rates are inversely proportional to DF. If iodine release rates need to be reduced by a factor of 100, increase the DF by a factor of 100.

2.4.9 Refer To EPI-FAP10-001, "IDA - Data Input Information," and enter the following on the "Monitor" screen:

- Applicable radiation monitor readings.
- Applicable field team reading (if unmonitored release).
- Applicable noble gas release rate (if unavailable).
- Applicable DF based on field team comparisons to calculated values.

2.4.10 Presses "Enter" and calculate Source Term Ci/sec.

2.4.11 Select "Finish" and calculate TEDE and Thyroid CDE.

2.4.12 Print the report.

2.4.13 Review the results and verify the inputs to the calculations prior to releasing.

2.4.14 IF performed by RAE, submit results to the MRDA.

2.5 MIDAS Dose Calculations

2.5.1 Refer To and complete the following Sections as appropriate:

a. IF performing a projection using manual entry of radiation monitor data, use EPI-FAP10-002 Section A, "Manual Entry of Radiation Monitor Data".

b. IF performing a 'What-If' projection for a LOCA in containment, use EPI-FAP10-002 Section B, "What-If Based Upon LOCA in Containment".

c. IF performing a back calculation based on field data, use EPI-FAP10-002 Section C, "Back Calculation Based Upon Field Monitoring".

d. IF MIDAS is *not* available, Go To step 2.5.45. | 1

2.5.2 Select the 'MIDAS' icon.

2.5.3 Ensure the site selection is set to 'Millstone'.

2.5.4 Select the appropriate affected unit.

2.5.5 Set 'Accident Run Menu Selection' to correspond to the applicable data sheet section.

2.5.6 Select 'OK'.

2.5.7 Ensure the following:

a. Data source is set to 'Manual Entry' on the spreadsheet.

b. Appropriate release points have check marks.

c. 'Exit Flow to Environment' is correct for the projected release point.

d. 'Initial Display Radius' is adequate (typically set to 13 miles).

2.5.8 Select the 'Next' down arrow.

2.5.9 Ensure the Dose Calculation Mode is set to 'Projected PAG'.

NOTE

Projection times are integrated duration (stay) times starting from the current time. The plume transit time must be considered as well as the evacuation time estimates to ensure the projection time will encompass the entire dose.

2.5.10 Ensure the 'Start of Exposure' is appropriate.

2.5.11 Ensure the 'Exposure Times' are set to '0.25', '4', '6', and '12'.

2.5.12 Select the 'Next' down arrow.

2.5.13 Ensure the 'Release Option' is set to mode from the applicable section.

2.5.14 Select 'Confirm'.

2.5.15 IF the calculation mode is 'Manual Radiation Monitor Mode', perform the following:

a. Select 'New' on the spreadsheet control menu.

b. Select 'OK' on the warning dialog box.

NOTE

All required meteorological data must be entered on the blue highlighted time line.

c. Enter met data on the time step for the beginning of the release.

d. Select 'OK' at the bottom of the met spreadsheet.

CAUTION

Only one monitor per release point (i.e., stack low or stack high range monitor) shall be entered.

e. Enter the applicable monitor/flow data on the same time step as in 'Met Data'.

f. Select 'OK' at the bottom of the Met and Vent Flow spreadsheet.

g. Select 'Event Tree' at the bottom of the page.

h. Using the pull down boxes, select the type of accident and associated conditions for the same time step as in the Met and Vent Flow spreadsheets.

i. Select 'OK'.

j. Ensure the 'Event Tree' is appropriate.

k. Select the 'Next' down arrow.

l. Set 'data and Time' of trip by using one of the following methods:

- Select by clicking in the associated time window using the thumb wheels.
- Select 'At Current Time' and manually adjust as necessary.

2.5.16 IF the calculation mode is 'What If Based Upon LOCA in Containment', perform the following:

a. Ensure 'Data Source' is set to Manual Entry on the spreadsheet.

b. Select 'OK'.

c. Complete the 'Event Tree' by using the pull down boxes to set the type of accident and associated conditions.

d. Enter containment leak rate as a percent.

e. Select either day or hour, as appropriate for the selected leak rate.

f. Select 'OK'.

g. Select 'New' on the spreadsheet control menu.

h. Select 'OK' on the warning dialog box.

CAUTION

All required meteorological data must be entered on the blue highlighted time line.

i. Select 'Met Data' on the time step for the beginning of the release.

j. Select 'OK' at the bottom of the met spreadsheet.

CAUTION

Only one monitor per release point shall be entered. The lower of the two containment monitors must be chosen. If it is not already chosen, only one release elevation must be selected.

k. Enter the applicable containment monitor reading.

l. Select the 'Next' down arrow.

2.5.17 IF the calculation mode is 'Back Calculation from Field Data', perform the following:

a. Select the appropriate release height (ground or elevated).

b. Enter closed window field monitoring reading near the plume centerline in mR/hr.

c. Enter the distance from the release point in miles.

d. Select 'OK'.

e. Complete the 'Event Tree' by using the pull down boxes to select the type of accident and associated conditions.

f. Select 'OK'.

g. Select 'New' on the spreadsheet control menu.

CAUTION

All required meteorological data must be entered on the blue highlighted time line.

h. Enter met data on the time step for the beginning of the release.

i. Select 'OK' at the bottom of the met spreadsheet.

j. Select the 'Next' down arrow.

CAUTION

'Start of Release' defaults to the time step of input for the first non-zero rad monitoring reading.

2.5.18 IF known, set 'Remaining Duration' otherwise set 2 hours as the default.

2.5.19 Select 'Start Calc'.

2.5.20 Upon completion of calculations, ensure the projected time is set to 12 hours.

2.5.21 Under 'Special Reports' select 'State'.

2.5.22 Select 'Confirm'.

2.5.23 Select 'Printer' icon.

2.5.24 Select 'OK'.

2.5.25 IF acceptable results are obtained, submit the 'State Report' to the MRDA.

2.5.26 Select 'X' in the upper right corner to close the 'State report' window.

2.5.27 Under 'Special Reports' select 'Met/Rad Summary'.

2.5.28 Select 'Confirm'.

2.5.29 Ensure time is set to current time step.

2.5.30 Select 'Print' icon.

2.5.31 Select 'OK'.

2.5.32 Select 'X' in upper right corner to close 'Met/Rad Summary' window.

2.5.33 Ensure the following options are selected at the bottom of the screen:

- TEDE
- Integrated Dose
- Graphic

2.5.34 Select 'Confirm'.

2.5.35 Select the 'Printer' icon.

2.5.36 Ensure the following options are selected at the bottom of the screen:

- CDE Thyroid
- Integrated Dose
- Graphic

2.5.37 Select 'Confirm'.

2.5.38 Select the 'Printer' icon.

2.5.39 Ensure the following options are selected at the bottom of the screen:

- Special Report
- RMP

2.5.40 Select 'Confirm'.

2.5.41 Select the 'Printer' icon.

2.5.42 Document the run by placing copies of the following in the Computer Run notebook:

- State Report
- Special Report/Rad Met Summary
- RMP
- TEDE Integrated 12 hour Graphic
- CDE Thyroid Integrated 12 hour Graphic

2.5.43 Select 'End Run' to complete.

2.5.44 Select appropriate option to either run the next time step or to exit the program.

NOTE

EPUG 07, " Accident Dose Assessment Model (ADAM) User's Guide," provides information on ADAM operation.

2.5.45 Refer To Section 2.4, "EOF IDA Dose Calculations," and perform IDA calculations.

2.5.46 Using IDA release rate results, perform ADAM run to determine DDE dose rates and iodine concentrations. 1

2.5.47 Verify input information on ADAM input summary sheet and initial sheet.

2.5.48 Ensure RDAT member performs an independent review of ADAM inputs.

2.5.49 Compare ADAM results to field team measurements and discuss results with the MRDA.

2.5.50 IF IDA release rates need to be revised, Go To step 2.5.45.

2.6 Calculating Thyroid CDE From a Field Air Sample

2.6.1 Obtain air sample data from the FTDC or Designee.

2.6.2 Record the following on EPI-FAP10-004:

- Location
- Time of sample
- Field air sample results (ccpm)

2.6.3 Determine the appropriate calculation method based on time since reactor shutdown and the I-131 Dose Equivalent Concentration.

2.6.4 IF the air sample was analyzed by gamma analysis, determine I-131 DEQ.

2.6.5 Calculate thyroid CDE for 1 hour of inhalation.

2.6.6 Notify the MRDA of the results.

3. <u>SUMMARY OF CHANGES</u>

Summary of Changes - Revision 000-01

3.1 Added reference to EPUG 07, "Accident Dose Assessment Model (ADAM) User's Guide in step 1.3.1 and note prior to step 2.5.45.

3.2 Added step 2.5.1.d to go to step 2.5.45 if MIDAS is not available.

3.3 Added steps 2.5.45 through 2.5.50 to provide instructions to perform an ADAM run to determine DDE dose rates and iodine concentrations.

Attachment 1
Definitions and Abbreviations

(Sheet 1 of 1)

Definitions

Committed Dose Equivalent (CDE) - The dose equivalent to an individual organ or tissue that will be received from an intake of radioactive material during the 50 year period following the intake.

Committed Effective Dose Equivalent (CEDE) - the sum of the products of the CDEs and their weighting factors. The weighting factors account for the relative sensitivities of different organs to radiation.

Deep Dose Equivalent (DDE) - External exposure at a 1 cm tissue depth.

Fumigation Potential - Seashore meteorology conditions can combine infrequently to create an atmospheric downdraft called a fumigation that converts elevated releases to ground level.

Mixed Mode Release - A release at a level of, or above, but lower than twice the height of adjacent solid structures.

Radiation Monitoring Points (RMP) - Set of site-specific monitoring locations.

RASCAL - Radiological Assessment System for Consequence Analysis. The dose assessment model used by the NRC.

Total Effective Dose Equivalent (TEDE) - The sum of the DDE and the CEDE.

Abbreviations

CDE - Committed Dose Equivalent

CEDE - Committed Effective Dose Equivalent

DCF - Dose Conversion Factor

DDE - Deep Dose Equivalent

IDA - Initial Dose Assessment computer program

IPZ - Ingestion Pathway Zone

MIDAS - Meteorological Information and Dose Assessment System

MRDA - Manager of Radiological Dose Assessment

PAR - Protective Action Recommendation

RDAT - Radiological Dose Assessment Team

Attachment 2
Responsibilities

(Sheet 1 of 1)

Manager of Radiological Dose Assessment (MRDA) - Responsible for determining when the Emergency Operations Facility will assume offsite dose assessment responsibilities from the Control Room and for performing IDA dose calculations as necessary.

Radiological Assessment Engineer (RAE) - Responsible for performing the appropriate calculations.

On-Shift Chemistry Technician - Responsible for performing initial dose assessment if available until relieved by the MRDA.

Attachment 3
Data Sources

(Sheet 1 of 3)

UNIT 1 - Monitor Data					
Data	**Units**	**Primary Source**		**Backup Source**	
		Obtain From	**Label**	**Obtain Form**	**Label**
MP1 GE Stack Monitor	cps	Unit 1 OFIS (panel 10)	RM1705-18A	Control Room panel	RR-1705-19
MP1 KAMAN Mid or High Range Stack Monitor	μCi/cc	Unit 1 OFIS (panel 10)	RM1705-19A	Control Room panel	RI-1705-79
MP1 Stack Flow	CFM	Unit 1 OFIS (panel 10)	FZ20-34	Control Room panel	FR-20-36 (channel 2)

Met Data					
Data	**Units**	**Primary Source**		**Backup Source**	
		Obtain From	**Label**	**Obtain From**	**Label**
WS033	mph	Unit 3 OFIS (panel 11)	CVWS033MPH	Unit 3 PPC	CVWS033MPH
WS142	mph	Unit 3 OFIS (panel 11)	CVWS142MPH	Unit 3 PPC	CVWS142MPH
WS374	mph	Unit 3 OFIS (panel 11)	CVWS374MPH	Unit 3 PPC	CVWS374MPH
DT142	°F	Unit 3 OFIS (panel 11)	CVDT142F	Unit 3 PPC	CVDT142F
DT374	°F	Unit 3 OFIS (panel 11)	CVDT374F	Unit 3 PPC	CVDT374
WD033	deg from	Unit 3 OFIS (panel 11)	CVWD033	Unit 3 PPC	CVWD033
WD142	deg from	Unit 3 OFIS (panel 11)	CVWD142	Unit 3 PPC	CVWD142
WD374	deg from	Unit 3 OFIS (panel 11)	CVWD374	Unit 3 PPC	CVWD374

Attachment 3
Data Sources

(Sheet 2 of 3)

UNIT 2 - Monitor Data					
Data	**Units**	**Primary Source**		**Backup Source**	
		Obtain From	**Label**	**Obtain Form**	**Label**
MP2 Vent Monitor	cpm	Unit 2 OFIS (panel 10)	R8132B	Control Room panel	PT.2: r 8132B
MP2 KAMAN Mid or High Range Stack Monitor	μCi/cc	Unit 2 OFIS (panel 10)	RIC8168	Control Room panel	RIC 8168
MP2 Vent Flow	CFM	Control Room panel	PT.3: F 8412	None Available	
MP2 Steam Line Monitors					
4299A	R/hr	Unit 2 OFIS (panel 10)	R4299A	Control Room Panel	R 4299A
4299B	R/hr	Unit 2 OFIS (panel 10)	R4299B	Control Room Panel	R 4299B
4299C	R/hr	Unit 2 OFIS (panel 10)	R4299C	Control Room Panel	R 4299C

Met Data					
Data	**Units**	**Primary Source**		**Backup Source**	
		Obtain From	**Label**	**Obtain From**	**Label**
WS033	mph	Unit 3 OFIS (panel 11)	CVWS033MPH	Unit 3 PPC	CVWS033MPH
WS142	mph	Unit 3 OFIS (panel 11)	CVWS142MPH	Unit 3 PPC	CVWS142MPH
WS374	mph	Unit 3 OFIS (panel 11)	CVWS374MPH	Unit 3 PPC	CVWS374MPH
DT142	°F	Unit 3 OFIS (panel 11)	CVDT142F	Unit 3 PPC	CVDT142F
DT374	°F	Unit 3 OFIS (panel 11)	CVDT374F	Unit 3 PPC	CVDT374
WD033	deg from	Unit 3 OFIS (panel 11)	CVWD033	Unit 3 PPC	CVWD033
WD142	deg from	Unit 3 OFIS (panel 11)	CVWD142	Unit 3 PPC	CVWD142
WD374	deg from	Unit 3 OFIS (panel 11)	CVWD374	Unit 3 PPC	CVWD374

Attachment 3
Data Sources

(Sheet 3 of 3)

UNIT 3 - Monitor Data

Data	Units	Primary Source		Backup Source	
		Obtain From	Label	Obtain Form	Label
MP3 KAMAN Normal Range Vent Monitor	μCi/cc	Unit 3 OFIS (panel 10)	CVHVR10B	Control Room panel	RIC-5A3HVR*RIY10B
MP3 KAMAN Mid or High Range Stack Monitor	μCi/cc	Unit 3 OFIS (panel 10)	CVHVR10A1	Control Room panel	RIC-4A3HVR*RIY10A
MP3 Vent Flow	CFM	Unit 3 OFIS (panel 10)	CVFE10	KAMAN Computer	RE10 process flow
MP3 Steam Line Monitors					
RE 75	μCi/cc	Unit 3 OFIS (panel 10)	CVMSS75	KAMAN Computer	MSS75
RE 76	μCi/cc	Unit 3 OFIS (panel 10)	CVMSS76	KAMAN Computer	MSS76
RE 77	μCi/cc	Unit 3 OFIS (panel 10)	CVMSS77	KAMAN Computer	MSS77
RE 78	μCi/cc	Unit 3 OFIS (panel 10)	CVMSS78	KAMAN Computer	MSS78

Met Data

Data	Units	Primary Source		Backup Source	
		Obtain From	Label	Obtain From	Label
WS033	mph	Unit 3 OFIS (panel 11)	CVWS033MPH	Unit 3 PPC	CVWS033MPH
WS142	mph	Unit 3 OFIS (panel 11)	CVWS142MPH	Unit 3 PPC	CVWS142MPH
WS374	mph	Unit 3 OFIS (panel 11)	CVWS374MPH	Unit 3 PPC	CVWS374MPH
DT142	°F	Unit 3 OFIS (panel 11)	CVDT142F	Unit 3 PPC	CVDT142F
DT374	°F	Unit 3 OFIS (panel 11)	CVDT374F	Unit 3 PPC	CVDT374
WD033	deg from	Unit 3 OFIS (panel 11)	CVWD033	Unit 3 PPC	CVWD033
WD142	deg from	Unit 3 OFIS (panel 11)	CVWD142	Unit 3 PPC	CVWD142
WD374	deg from	Unit 3 OFIS (panel 11)	CVWD374	Unit 3 PPC	CVWD374

Attachment 4
Reference Information

(Sheet 1 of 3)

Mnemonic Definitions:

AT = Ambient Temperature

DT = Differential in Temperature (to determine stability class)

WS = Wind Speed

WD = Wind Direction (listed as the direction the wind is from)

Conversion Formulas:

°C = 5/9 (°F - 32)

Δ °C = Δ °F x 0.556

m/sec = mph x 0.447

DT 142

Differential Temperature (°F)	Stability Class
DT ≤ -1.25	A
-1.25 < DT ≤ -1.10	B
-1.10 < DT ≤ -0.90	C
-0.90 < DT ≤ -0.36	D
-0.36 < DT ≤ +0.72	E
+0.72 < DT	F

DT 374

Differential Temperature (°F)	Stability Class
DT ≤ -3.6	A
-3.6 < DT ≤ -3.3	B
-3.3 < DT ≤ -2.9	C
-2.9 < DT ≤ -1.1	D
-1.1 < DT ≤ +2.7	E
+2.7 < DT	F

Default Flow Rates

MP1	MP2	MP3
Stack............... 170,000 cfm	Stack.............. 170,000 cfm Vent.................. 64,000 cfm Safety........... 6,000 cfm per Dump.................. 7,375 cfm Terry...................... 550 cfm	Stack.............. 170,000 cfm SLCRS .... 12,000 cfm Vent................ 210,000 cfm Safety .... 6,000 cfm per Dump .... 3,500 cfm Terry.................. 1,200 cfm

Attachment 4
Reference Information

(Sheet 2 of 3)

Wind Directions and Distances to Nearest Land and Site Boundary

			MP1, MP2, Ground & MP2 Mixed		MP3 Ground & Mixed		MP1 Stack	
Wind Direction (From)	Downwind Direction	Downwind Sector	Nearest Land	Nearest Site Boundary	Nearest Land	Nearest Site Boundary	Nearest Land	Nearest Site Boundary
169°-191°	349°-011°	A (N)	1,138 m	1,138 m	924 m	924 m	1,695 m	1,695 m
192°-213°	012°-033°	B (NNE)	997 m	997 m	1,550 m	1,550 m	813 m	813 m
214°-236°	034°-056°	C (NE)	620 m	620 m	841 m	841 m	496 m	496 m
237°-258°	057°-078°	D (ENE)	1,070 m	620 m	602 m	602 m	1,101 m	496 m
259°-281°	079°-101°	E (E)	1,600 m	620 m	1,300 m	602 m	1,410 m	496 m
282°-303°	102°-123°	F (ESE)	1,900 m	620 m	1,690 m	602 m	1,640 m	496 m
304°-326°	124°-146°	G (SE)	31,700 m	620 m	33,000 m	602 m	31,700 m	496 m
327°-348°	147°-168°	H (SSE)	12,390 m	620 m	22,200 m	631 m	12,390 m	496 m
349°-011°	169°-191°	J (S)	11,800 m	620 m	16,100 m	602 m	11,800 m	496 m
012°-033°	192°-213°	K (SSW)	13,030 m	620 m	18,300 m	602 m	13,030 m	496 m
034°-056°	214°-236°	L (SW)	3,430 m	620 m	3,380 m	602 m	3,660 m	496 m
057°-078°	237°-258°	M(WSW)	3,100 m	620 m	3,050 m	602 m	3,270 m	496 m
079°-101°	259°-281°	N (W)	2,830 m	620 m	2,700 m	602 m	3,050 m	496 m
102°-123°	282°-303°	P (WNW)	2,550 m	620 m	2,310 m	602 m	2,660 m	649 m
124°-146°	304°-326°	Q (NW)	1,930 m	620 m	684 m	602 m	997 m	710 m
147°-168°	327°-348°	R (NNW)	915 m	915 m	694 m	694 m	1,029 m	1,029 m

NOTES

1. Meter - m
2. For nearest land sectors on riverside, the distance to the opposite side of the river is given.
3. Nearest site boundary is given as 620 m from the MP2 stack for water sectors (D through Q).
4. Nearest site boundary is given as 602 m from the MP3 ventilation vent for water sectors (D-G and J-Q).
5. Nearest site boundary is given as 496 m from the MP1 stack for water sectors (D through N).

Attachment 4
Reference Information

(Sheet 3 of 3)

Stability Dependent X•μ/Q Values per Release Height

MP1 Stack 374' Release

Distance	Stability Class					
Miles	A	B	C	D	E	F
0.3	1.7E-5*	6.8E-6	3.4E-7	1.6E-12	1.0E-20	< 1.0E-20
0.5	6.6E-6	1.3E-5*	5.4E-6	1.9E-8	1.5E-12	1.0E-20
1	1.4E-6	6.6E-6	9.9E-6*	2.1E-6	8.9E-8	1.1E-11
2	7.4E-7	1.9E-6	4.8E-6	5.3E-6*	1.8E-6	3.7E-8
3	5.2E-7	8.9E-7	2.6E-6	5.3E-6	3.1E-6	2.5E-7
4	4.0E-7	5.0E-7	1.6E-6	4.2E-6	3.5E-6*	5.6E-7
5	3.3E-7	4.3E-7	1.1E-6	3.4E-6	3.5E-6	8.4E-6
10	1.7E-7	2.3E-7	3.1E-7	1.6E-6	2.5E-6	1.4E-5*

MP Rooftop Release

Distance	Stability Class					
Miles	A	B	C	D	E	F
0.3	2.3E-5*	5.0E-5*	5.2E-5*	1.3E-5	9.1E-7	1.4E-10
0.5	6.9E-6	2.7E-5	4.4E-5	3.6E-5*	1.2E-5	2.5E-7
1	1.4E-6	7.7E-6	1.8E-5	3.4E-5	3.5E-5*	1.4E-5
2	7.4E-7	2.0E-6	5.7E-6	1.7E-5	2.6E-5	2.6E-5*
3	5.2E-7	9.0E-7	2.8E-6	1.0E-5	1.8E-5	2.4E-5
4	4.0E-7	5.1E-7	1.7E-6	6.9E-6	1.3E-5	2.0E-5
5	3.3E-7	4.3E-7	1.1E-6	5.1E-6	1.0E-5	1.7E-5
10	1.7E-7	2.3E-7	3.2E-7	1.9E-6	4.5E-6	9.0E-6

MP Ground Release

Distance	Stability Class					
Miles	A	B	C	D	E	F
0.3	2.5E-5*	7.3E-5*	1.4E-4*	2.6E-4*	3.7E-4*	4.9E-4*
0.5	7.0E-6	3.1E-5	6.6E-5	1.5E-4	2.5E-4	3.8E-4
1	1.4E-6	8.0E-6	2.0E-5	5.8E-5	1.1E-4	2.0E-4
2	7.5E-7	2.0E-6	5.9E-6	2.1E-5	4.3E-5	9.1E-5
3	5.2E-7	9.0E-7	2.8E-6	1.2E-5	2.5E-5	5.6E-5
4	4.0E-7	5.1E-7	1.7E-6	7.6E-6	1.7E-5	3.9E-5
5	3.3E-7	4.3E-7	1.1E-7	5.5E-6	1.3E-5	3.0E-5
10	1.7E-7	2.3E-7	3.2E-8	2.0E-6	5.1E-6	1.3E-5

*Denotes location of maximum concentration.

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: Scott McCain Date: 9/11/00 Department: EPSD Ext.: 3757

Document No.: MP-26-EPI-FAP10 - 001 Rev. No.: 000 Minor Rev.:

Title: Dose Assessment

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Convert to Master Manual format, implement EPSD document streamline initiative, and address CRs.

Continued ☐

C

Instructions:

None

Continued ☐

D

TPC Interim Approval (1) Plant Mngt Staff Member Print/Sign/Date (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☒ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☒ *Revision* ☐ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☐ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID

☐ Edit Corr.:⇒
Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date

Continued ☐

F

Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	Dept.	✔ if Comments
	☐				☐	☐		
	☐				☐	☐		
Validation	☒	D. Aloi	Dan Aloi	9/13/00	☐	☐	EPSD	✔
Writer's Guide	☒	M. Maryeski	M Maryeski	9/22/00	☐	☑	SPG	✔
50.54(q)	☒	D. Aloi	Dan Aloi	9/21/00	☐	☐		
RCD	☒	D. Aloi	Dan Aloi	9/21/00				
Independent	☒	D. Aloi	Dan Aloi	9/20/00	☐	☒	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No **Environmental Review Required** ☐ Yes ☒ No

H

1. ☐ **SQR Program Final Review and Approval**

Approval ☐ Disapproval ☐

SQR Qualified Independent Reviewer / Date

Department Head/Responsible Individual

Approval Date

2. ☒ **SORC/PORC/RI/DH Final Review and Approval**

S Arute 9/26/00
Department Head/Responsible Individual / Date

Meeting No.: 00-30

Approval Signature

10/11/00
Approval Date

I

Effective Date: 12/21/00

MP-05-DC-SAP01-001
Rev. 002-01

10/11/00
Approval Date

12/21/00
Effective Date

IDA - Data Input Information

Performed By: ______________________________ Date: ______________

Part 1. Accident Parameters (circle as appropriate)

A. Unit affected: Unit 1 Unit 2 Unit 3

B. Accident Type: LOCA SGTR Fuel Drop

C. Damage State: Coolant Clad Fuel (EOF Only)

D. Containment Sprays Initiated: YES NO

E. Rx Shutdown: Date: ______________ Time: __________
MM/DD/YY HH:MM

Note: If fuel drop accident, enter most recent refueling date and time.

F. Estimated duration: ______________ hours (default = 2 hours)

G. Is there an unmonitored release? YES / NO If yes, ______________ mR/hr
Max. Field team reading "closed window"

H. Using Part 3, Release Pathway/Monitors column, circle all appropriate pathways, filter status, and number of safeties, as applicable

Part2. Meteorology

Description	Data Values	CR Units OFIS Points	EOF Units
Wind Speed (33 feet)		MPH CVWS033MPH	m/sec
Wind Speed (142 feet)		MPH CVWS142MPH	m/sec
Wind Speed (374 feet)		MPH CVWS374MPH	m/sec
Wind Direction (33 feet)		° from CVWD033	° from
Wind Direction (142 feet)		° from CVWD142	° from
Wind Direction (374 feet)		° from CVWD374	° from
Delta Temp. (142 feet)		° F CVDT142F	° C
Delta Temp. (374 feet)		° F CVDT374F	° C

Part 3. Release Pathways, Flow, And Monitors (circle all that are appropriate)

A	B	C	D
Release Pathway/Monitors	**OFIS Designation**	**Reading**	**Units**
Unmonitored Ground Release Path (33')	Field Team Reading		CW mR/hr
MP1 Stack (374')			
(Filtered, Unfiltered)	Unmonitored		mR/hr
Stack Gas Radiation	RM1705-18A		CPS
Stack Gas Rad HI RNG	RM1705-19A		µCi/cc
Stack Flow Rate	FZ20-34		SCFM
MP1 Hardened Vent* (33') CNMT Radiation	Unmonitored (Highest of) RIT 1825 or RIT 1826		mR/hr R/hr
MP2 Vent (142')			
(Unfiltered)	Unmonitored		mR/hr
Unit 2 Stack Gas	R8132B		CPM
Unit 2 Stack Rad Monitor	RIC8168		µCi/cc
Vent Flow Rate	None (panel -PT 3:F 8412)		CFM
MP2 Safeties (142')			
(How Many? __________)	Unmonitored		mR/hr
Main Steam Line 4299A	R4299A		R/hr
Main Steam Line 4200C	R4299C		R/hr
MP2 Relief Valves (Dumps) (142')	Unmonitored		mR/hr
Main Steam Line 4299B	R4299B		R/hr
Main Steam Line 4299C	R4299C		R/hr
MP2 Aux Feed (Terry Turbine) (142')	Unmonitored		mR/hr
Main Steam Line 4299A	R4299A		R/hr
Main Steam Line 4299B	R4299B		R/hr
Main Steam Line 4299C	R4299C		R/hr
MP3 Vent (142')			
(Filtered, Unfiltered)	Unmonitored		mR/hr
Vent. Vent Normal Range	CVHVR10B		µCi/cc
Vent. Vent Ext Range	CVHVR10A1		µCi/cc
Ventilation Vent Air Flow	CVFE10		CFM
MP3 Safeties (142') (How Many? __________) Main Steam Lines RE75-78	Unmonitored (Highest of) CVMSS75, 76, 77, or 78		mR/hr µCi/cc
MP3 Relief Valves (Dumps) (142') Main Steam Lines RE75-78	Unmonitored (Highest of) CVMSS75, 76, 77, or 78		mR/hr µCi/cc
MP3 Aux Feed (Terry Turbine) (142') Main Steam Line RE79	Unmonitored CVMSS79		mR/hr µCi/cc

* = MP1 hardened Vent is not considered an unmonitored release path for dose assessment.

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: Scott McCain Date: 9/11/00 Department: EPSD Ext.: 3757

Document No.: MP-26-EPI-FAP10-002 Rev. No.: 000 Minor Rev.:

Title: Dose Assessment

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Convert to Master Manual format, implement EPSD document streamline initiative, and address CRs.

Continued ☐

C

Instructions:

None

Continued ☐

D

TPC Interim Approval (1) Plant Mngt Staff Member Print/Sign/Date (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☒ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☒ *Revision* ☐ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☐ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒

Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

F

Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	Dept.	✔ if Comments
	☐				☐	☐		
	☐				☐	☐		
Validation	☒	D. Aloi	Dan Aloi	9/18/00	☐	☐	EPSD	✔
Writer's Guide	☒	M. Maryeski	M Maryeski	9/22/00	☐	☑	SPG	✔
50.54(9)	☒	D. Aloi	Dan Aloi	9/21/00	☐	☐		
RCD	☒	D. Aloi	Dan Aloi	9/21/00				
Independent	☒	D. Aloi	Dan Aloi	9/20/00	☐	☒	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No Environmental Review Required ☐ Yes ☒ No

H

1. ☐ SQR Program Final Review and Approval

Approval ☐ Disapproval ☐

SQR Qualified Independent Reviewer / Date

Department Head/Responsible Individual

Approval Date

2. ☒ SORC/PORC/RI/DH Final Review and Approval

S Arute 9/26/00
Department Head/Responsible Individual / Date

Meeting No.: 00-30

Approval Signature

10/11/00
Approval Date

I

Effective Date: 12/21/00

10/11/00 Approval Date

12/21/00 Effective Date

MIDAS - Data Input Information

Section A: - Manual Entry of Radiation Monitor Data

Date: ____________ Time: ____________

Screen 1

1. Unit affected: ☐ Unit 1 ☐ Unit 2 ☐ Unit 3
2. Run Menu: ☒ Manual Entry ☐ LOCA in Ctmt ☐ Back Calc

Screen 2 - Panel A

1. Data Source: ☒ Manual Entry
2. Release Points:
   - ☐ Stack ________________ CFM*
   - ☐ Vent ________________ CFM*
   - ☐ Steam ________________ CFM*
   - ☐ Terry/Ground ________________ CFM*
3. Initial Display Radius: ________________ Miles*

Screen 2 - Panel B

1. Dose Calculation Mode: ☒ PAG Projection
2. Start of Exposure: Use Default Time*
3. Exposure Times: 1* ________ 2* ________ 3* ________ 4* ________

Screen 2 - Panel C

1. Release Option: ☒ Manual Entry ☐ LOCA in Ctmt ☐ Back Calc
2. Met Data:

	33'	142'	374'	Rainfall
Wind Speed (m/sec):	________	________	________	________
Direction (°from):	________	________	________	Temp -33'
Delta Temp (°C):	N/A	________	________	________

Time of Met data Buffer Entry: ________

* A default is available in code or on EPI-FAP10 Attachment 4.

Screen 2 - Panel D

1. Time of Trip: Date: ____________ Time: ____________

2. Time of Release: Date: Use Default Time: : Use Default

3. Remaining Duration: Hours*: ____________

Rad Monitor Data

1. Units 1 / 2/ 3: Stack Lo ______ Stack Hi ______ Stack Flow* ______

2. Units 2/ 3: Vent Lo ______ Vent Hi ______ Stack Flow ______

3. Unit 2: Steam A ______ Steam B ______ Steam C ______ Steam Flow* ______
   Steam AT ______ Steam BT ______ Steam CT ______ Terry Flow* ______

4. Unit 3: SCLRS Lo ______ SCLRS Hi ______ SCLRS Flow* ______
   Steam A ______ Steam B ______ Steam C ______ Steam D ______ Steam Flow* ______
   Terry ______ Terry Flow* ______

5. Event Tree:
   - ☐ LOCA ☐ SGTR ☐ Fuel Handling
   - ☐ Coolant ☐ Gap ☐ Melt ☐ Fire
   - ☐ Spray ☐ No Spray
   - ☐ Filter ☐ No Filter
   - ☐ Safety/Dump ☐ SJAE/Leak

Prepared By: ____________________

Reviewed By: ____________________

* A default is available in code or on EPI-FAP10 Attachment 4.

Section B: MIDAS Input Sheet - What If Based Upon LOCA in Containment

Date: ____________ Time: ____________

Screen 1

1. Unit affected: ☐ Unit 1 ☐ Unit 2 ☐ Unit 3
2. Run Menu: ☐ Manual Entry ☒ LOCA in Ctmt ☐ Back Calc

Screen 2 - Panel A

1. Data Source: ☒ Manual Entry
2. Release Points: ☐ Stack ________________ CFM*
   ☐ Vent ________________ CFM*
   ☐ Terry/Ground ________________ CFM*
3. Initial Display Radius: ________________ Miles*

Screen 2 - Panel B

1. Dose Calculation Mode: ☒ PAG Projection
2. Start of Exposure: Use Default Time*
3. Exposure Times: 1* ________ 2* ________ 3* ________ 4* ________

Screen 2 - Panel C

1. Release Option: ☐ Manual Entry ☒ LOCA in Ctmt ☐ Back Calc
2. Data Source: ☒ Manual Entry ☐ Drill Space ☐ Auto Data
3. Event Tree: ☒ LOCA ☐ SGTR ☐ Fuel Handling
   ☐ Coolant ☐ Gap ☐ Melt ☐ Fire
   ☐ Spray ☐ No Spray
   ☐ Filter ☐ No Filter
4. Containment: Leakage %: ______ ☐ Per Day ☐ Per Hour

* A default is available in code or on EPI-FAP10 Attachment 4.

5.	Met Data:	33'	142'	374'	Rainfall
	Wind Speed (m/sec):	______	______	______	______
	Direction (°from):	______	______	______	Temp -33'
	Delta Temp (°C):	N/A	______	______	______

Time of Met data Buffer Entry: ______

6.	Rad Data:	CTMNT A	CTMNT B		
		______	______	☐ Unit 2	☐ Unit 3

Screen 2 - Panel D

1. Time of Trip: Date: ______ Time: ______
2. Time of Release: Date: Use Default Time: : Use Default
3. Remaining Duration: Hours*: ______

Prepared By: ______

Reviewed By: ______

* A default is available in code or on EPI-FAP10 Attachment 4.

Section C: MIDAS Input Sheet - Back Calculation Based Upon Field Monitoring

Date: ____________ Time: ____________

Screen 1

1. Unit affected: ☐ Unit 1 ☐ Unit 2 ☐ Unit 3
2. Run Menu: ☐ Manual Entry ☐ LOCA in Ctmt ☒ Back Calc

Screen 2 - Panel A

1. Data Source: ☒ Manual Entry
2. Release Points:
   - ☐ Stack ____________ CFM*
   - ☐ Vent ____________ CFM*
   - ☐ Steam ____________ CFM*
   - ☐ Terry/Ground ____________ CFM*
3. Initial Display Radius: ____________ Miles*

Screen 2 - Panel B

1. Dose Calculation Mode: ☒ PAG Projection
2. Start of Exposure: Use Default Time*
3. Exposure Times: 1* ________ 2* ________ 3* ________ 4* ________

Screen 2 - Panel C

1. Release Option: ☐ Manual Entry ☐ LOCA in Ctmt ☒ Back Calc
2. Back Calc Input: ☒ Ground in Wake ☐ Elevated
3. Closed Window Data: mR/hr ________ Dist (miles) ________
4. Event Tree:
   - ☒ LOCA ☐ SGTR ☐ Fuel Handling
   - ☐ Coolant ☐ Gap ☐ Melt ☐ Fire
   - ☐ Spray ☐ No Spray
   - ☐ Filter ☐ No Filter

* A default is available in code or on EPI-FAP10 Attachment 4.

5.	Met Data:	33'	142'	374'	Rainfall
	Wind Speed (m/sec):	______	______	______	______
	Direction (°from):	______	______	______	Temp -33'
	Delta Temp (°C):	N/A	______	______	______

Time of Met data Buffer Entry: ______

Screen 2 - Panel D

1. Time of Trip: Date: ______ Time: ______
2. Time of Release: Date: Use Default Time: : Use Default
3. Remaining Duration: Hours*: ______

Prepared By: ______

Reviewed By: ______

* A default is available in code or on EPI-FAP10 Attachment 4.

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: Scott McCain Date: 9/11/00 Department: EPSD Ext.: 3757

Document No.: MP-26-EPI-FAP10 - 003 Rev. No.: 000 Minor Rev.:

Title: Dose Assessment

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Convert to Master Manual format, implement EPSD document streamline initiative, and address CRs.

Continued ☐

C

Instructions:

None

Continued ☐

D

TPC Interim Approval (1) Plant Mngt Staff Member Print/Sign/Date (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☒ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☒ *Revision* ☐ *Minor Revision* (See DC-GDL01 for guidance) ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☐ Supersedure

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒ Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

F

Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	SQR Qualified Dept.	✔ if Comments
	☐				☐	☐		
	☐				☐	☐		
Validation	☒	D. Aloi	Dan Aloi	9/18/00	☐	☐	EPSD	✓
Writer's Guide	☒	M. Maryeski	M Maryeski	9/22/00	☐	☑	SPG	✓
50.54(q)	☒	D. Aloi	Dan Aloi	9/21/00	☐	☐		
RCD	☒	D. Aloi	Dan Aloi	9/21/00				
Independent	☒	D. Aloi	Dan Aloi	9/20/00	☐	☒	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No **Environmental Review Required** ☐ Yes ☒ No

H

1. ☐ **SQR Program Final Review and Approval**

Approval ☐ Disapproval ☐

SQR Qualified Independent Reviewer / Date

Department Head/Responsible Individual

Approval Date

2. ☒ **SORC/PORC/RI/DH Final Review and Approval**

S Ault 9/26/00
Department Head/Responsible Individual / Date

Meeting No.: 00-30

Approval Signature

10/11/00
Approval Date

I

Effective Date: 12/21/00

MP-05-DC-SAP01-001
Rev. 002-01
Page 1 of 1

10/11/00
Approval Date

12/21/00
Effective Date

Doses for Protective Action Recommendation
(Dose in Rem)

Type	Wind Dir (Deg From)	Affected Sector(s)	Site Boundary	1 Mile	2 Miles	5 Miles	10 Miles
TEDE							
Thyroid-CDE							

Prepared by: ______________________ ______________________ ______________________

Signature Print Date/Time

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: Scott McCain Date: 9/11/00 Department: EPSD Ext.: 3757

Document No.: MP-26-EPI-FAP10-004 Rev. No.: 000 Minor Rev.:

Title: Dose Assessment

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Convert to Master Manual format, implement EPSD document streamline initiative, and address CRs.

Continued ☐

C

Instructions:

None

Continued ☐

D

TPC Interim Approval (1) Plant Mngt Staff Member Print/Sign/Date (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☒ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☒ *Revision* ☐ *Minor Revision* (See DC-GDL01 for guidance) ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☐ Supersedure

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒

Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

F

Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	Dept.	✔ if Comments
	☐				☐	☐		
	☐				☐	☐		
Validation	☒	D. Aloi	Dan Aloi	9/18/00	☐	☐	EPSD	✔
Writer's Guide	☒	M. Maryeski	M Maryeski	9/22/00	☐	☑	SPG	✔
50.54(q)	☒	D. Aloi	Dan Aloi	9/21/00	☐	☐		
RCD	☒	D. Aloi	Dan Aloi	9/21/00				
Independent	☒	D. Aloi	Dan Aloi	9/20/00	☐	☒	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No **Environmental Review Required** ☐ Yes ☒ No

H

1. ☐ **SQR Program Final Review and Approval**

Approval ☐ Disapproval ☐

SQR Qualified Independent Reviewer / Date

Department Head/Responsible Individual

Approval Date

2. ☒ **SORC/PORC/RI/DH Final Review and Approval**

S Arute 9/26/00

Department Head/Responsible Individual / Date

Meeting No.: 00-30

Approval Signature

10/11/00

Approval Date

I

Effective Date: 12/21/00

10/11/00 Approval/Date

12/21/00 Effective Date

Thyroid CDE Calculation Based on Field Air Sample Worksheet

Field Data

Field Location: RMP ________________ OR

Downwind Distance ____________ Direction ________________

Time of Sample: __________________ Corrected Counts (ccpm): ______________

Calculation

1) I-131 DEQ using Field Counts:

For 1 hour ≤ H* ≤ 168 hours

Conversion (1.15×10^{-11})		Decay Correction* ($H^{0.66}$)		Corrected Counts (ccpm)		I-131 DEQ (μCi/cc)
______________	x	______________	x	______________	=	______________

For H* > 168 hours

Conversion (3.3×10^{-10})		Corrected Counts (ccpm)		I-131 DEQ (μCi/cc)
______________	x	______________	=	______________

2.) I-131 DEQ from Ge Gamma Spectrum analysis:

Activity ($\mu Ci/cc_{I\text{-}131}$)		($\mu Ci/cc_{I\text{-}133} \times 0.18$)		($\mu Ci/cc_{I\text{-}135} \times 0.03$)		I-131 DEQ (μCi/cc)
______________	+	______________	+	______________	=	______________

3) Thyroid CDE for 1 hour of inhalation:

I-131 DEQ (μCi/cc)		Conversion (mRem cc/μCi)		Thy CDE (mRem)
______________	x	1.79×10^{9}	=	______________

Prepared by: ______________ ______________ ______________

Signature Print Date/Time

Note - * H is time between reactor shutdown and time of measurement in hours.

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: Scott McCain   Date: 9/11/00   Department: EPSD   Ext.: 3757

Document No.: MP-26-EPI-FAP11-011   Rev. No.: 000   Minor Rev.:

Title: Core Damage Assessment

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Convert to Master Manual format, implement EPSD document streamline initiative, and address CRs.

Continued ☐

C

Instructions:

None

Continued ☐

D

TPC Interim Approval (1) Plant Mngt Staff Member Print/Sign/Date (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☒ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☒ *Revision* ☐ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☐ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID

☐ Edit Corr.:⇒
Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date   Continued ☐

F

Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	Dept.	✔ If Comments
	☐				☐	☐		
	☐				☐	☐		
Validation	☒	D. Aloi	Dan Aloi	9/19/00	☐	☐	EPSD	✔
Writer's Guide	☒	M. Maryeski	M Maryeski	9/22/00	☐	☑	SPG	✔
50.54(q)	☒	D. Aloi	Dan Aloi	9/22/00	☐	☐		
RCD	☒	K. Burgess	K Burgess	10/3/00			EPSD	
Independent	☒	D. Aloi	Dan Aloi	9/18/00	☐	☒	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No   **Environmental Review Required** ☐ Yes ☒ No

H

1. ☐ **SQR Program Final Review and Approval**

Approval ☐ Disapproval ☐

SQR Qualified Independent Reviewer / Date

Department Head/Responsible Individual

Approval Date

2. ☒ **SORC/PORC/RI/DH Final Review and Approval**

S Arn 9/26/00
Department Head/Responsible Individual / Date

Meeting No.: 00-30

Approval Signature

10/11/00
Approval Date

I

Effective Date: 12/21/00

MP-05-DC-SAP01-001
Rev. 002-01
Page 1 of 1

10/11/00
Approval Date

12/21/00
Effective Date

Unit 3 Reactor Coolant and Liquid Waste Sample Worksheet

START

Is the fuel damaged as indicated in Table 1?
No → Has ADTS requested guidance on PASS implementation?
No → Continue Monitoring Core
Yes

Is the RCS > 255 psia (240 psig)?
No → Has Cold or Hot leg Recirc. been initiated?
No → No sample can be taken at this time

Yes →
Choose the sample point:
RCS Cold Leg A
RCS Cold Leg B
RCS Cold Leg C
RCS Cold Leg D
RCS Hot Leg A
RCS Hot Leg C
Normal RCS Sample

Yes →
Choose the sample point: RSS: A or B

Choose the Purge/Flush Path: CTMT Drain Sump or VCT

Choose the sample analysis using Table 2

Fax to ADTS

TABLE 1

RE-04A/05A Reading ≥ 500 R/hr (>5% Clad Damage)
RE-04A/05A Reading ≥ 5 R/hr without RCS Release into CTMT (>5% Clad Damage)

________ Appropriate indicator circled.

TABLE 2

- ☐ pH*
- ☐ Chlorides*
- ☐ Boron*
- ☐ Degas liquid isotopic*
- ☐ Gas isotopic*
- ☐ Dissolved Oxygen (optional)
- ☐ Gas composition (optional)
- ☐ Pressurized 2.0 ml grab sample
- ☐ Depressurized 2.0 ml grab sample
- ☐ Total dissoved gas*

*Analysis required for initial sample

________ Appropriate sample analysis checked.

Completed by: ____________________ Date: __________ Time: __________
(MRDA/AMRDA)

ADTS Approval: ____________________ Date: __________ Time: __________

6/27/00	6/30/00
Approval Date	Effective Date

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Initiated By: Scott McCain Date: 9/11/00 Department: EPSD Ext.: 3757

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Title: Core Damage Assessment

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Convert to Master Manual format, implement EPSD document streamline initiative, and address CRs.

Continued ☐

C

Instructions:

None

Continued ☐

D

TPC Interim Approval (1) Plant Mngt Staff Member Print/Sign/Date (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☒ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☒ *Revision* ☐ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☐ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒

Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

F

Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	SQR Qualified Dept.	✔ if Comments
	☐				☐	☐		
	☐				☐	☐		
Validation	☒	D. Aloi	Dan Aloi	9/19/00	☐	☐	EPSD	✔
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50.54(8)	☒	D. Aloi	Dan Aloi	9/22/00	☐	☐		
RCD	☒	K. Burgess	K Burgess	10/3/00			EPSD	
Independent	☒	D. Aloi	Dan Aloi	9/18/00	☐	☒	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No Environmental Review Required ☐ Yes ☒ No

H

1. ☐ SQR Program Final Review and Approval

Approval ☐ Disapproval ☐

SQR Qualified Independent Reviewer / Date

Department Head/Responsible Individual

Approval Date

2. ☒ SORC/PORC/RI/DH Final Review and Approval

SiAnk 9/26/00

Department Head/Responsible Individual / Date

Meeting No.: 00:30

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Effective Date: 12/21/00

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Rev. 002-01
Page 1 of 1

10/11/00
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12/21/00
Effective Date

Unit 3 Vent and Containment Air Sample Worksheet

INSTRUCTIONS;

Circled desired Sample, Sample Location, Sample Type, and Analysis.

SAMPLE	LOCATION	TYPE	ANALYSIS
PASS Containment Air	Hydrogen Recombiner Train "A"	Gas	Gas Isotopic Gas Composition
PASS Containment Air	Hydrogen Recombiner Train "B"	Gas	Gas Isotopic Gas Composition
Vent (High Range)	3HVR*RE10A Aux. Bldg. 66'6	Gas Particulate Iodine	Gas Isotopic Particulate Isotopic Iodine Isotopic
Vent (Normal Range)	"3HVR*RE10B Aux. Bldg. 66'6"	Gas Particulate Iodine	Gas Isotopic Particulate Isotopic Iodine Isotopic
SCLRS (High Range)	3HVR*RE19A Aux. Bldg. 66'6"	Gas Particulate Iodine	Gas Isotopic Particulate Isotopic Iodine Isotopic
SCLRS (Normal Range)	3HVR*RE19B Aux. Bldg. 66'6"	Gas Particulate Iodine	Gas Isotopic Particulate Isotopic Iodine Isotopic
ESF Vent	3HVQ*RE49 ESF Bldg. 36'6"	Gas Particulate Iodine	Gas Isotopic Particulate Isotopic Iodine Isotopic
Primary Vent Stack	Stack Sample Room	Gas Particulate Iodine	Gas Isotopic Particulate Isotopic Iodine Isotopic

Completed by: ______________________ Date: ____________ Time: ____________
(MRDA/MRCA)

ADTS Approval: ______________________ Date: ____________ Time: ____________

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

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Initiated By: Scott McCain Date: 9/11/00 Department: EPSD Ext.: 3757

Document No.: MP-26-EPI-FAP11 Rev. No.: 000 Minor Rev.:

Title: Core Damage Assessment

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Convert to Master Manual format, implement EPSD document streamline initiative, and address CRs.

Continued ☐

C

Instructions:

None

Continued ☐

D

TPC Interim Approval

(1) Plant Mngt Staff Member Print/Sign/Date

(2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

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See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒

Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date

Continued ☐

F

Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	Dept.	✔ If Comments
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	☐				☐	☐		
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RCD	☒	K. Burgess	K Burgess	10/3/00			EPSD	
Independent	☒	D. Aloi	Dan Aloi	9/18/00	☐	☒	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No **Environmental Review Required** ☐ Yes ☒ No

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Approval ☐ Disapproval ☐

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Department Head/Responsible Individual

Approval Date

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SiAnk 9/26/00

Department Head/Responsible Individual / Date

Meeting No.: 00:30

Approval Signature for

10/11/00

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I

Effective Date: 12/21/00

Functional Administrative Procedure

Millstone Station

Core Damage Assessment

MP-26-EPI-FAP11

Rev. 000

Approval Date: 10/11/00

Effective Date: 12/21/00

Table of Contents

1. PURPOSE

1.1 Objective

This procedure provides sampling and analysis guidance under accident conditions. Additionally, it provides guidance and instructions for estimating core damage under accident conditions.

1.2 Applicability

An emergency has been declared and the SERO has been activated.

Whenever there are indications of core damage or when events require the estimation of the type and amount of core damage.

1.3 Supporting Documents

EPOP 4446, "Site Stack Air PASS"

CP 2804L, "Unit 2 Reactor Coolant and Liquid Radwaste PASS"

CP 2804M, "Unit 2 Vent and Containment Air PASS"

CP 3804K, "PASS RCS/RSS Sample"

CP 3804L, "PASS Containment Air Sample"

CP 3804M, "PASS Ventilation Samples"

1.4 Discussion

1.4.1 The time for taking and analyzing samples shall be 3 hours or less from the time the decision is made to sample, except for chloride, which shall be within 24 hours.

1.4.2 Core Damage estimates are used to provide the following:

a. To confirm whether fuel barriers are breached.

b. To determine the potential quality (type) and/or quantity (%) of source term available for release in support of projected offsite doses.

c. To support the determination of radiological protection actions that should be considered for long term recovery activities.

d. To satisfy inquiries from local and federal government agencies and provide evidence that the utility understands the plant conditions.

1.4.3 An overall estimation of the extent of core damage can be made when information accumulated from all available sources and methods are evaluated. The NRC defines the overall condition of the core using a matrix of 10 categories below:

Table 1

Degree of Degradation	Minor (<10%)	Intermediate (10%-50%)	Major (>50%)
No Fuel Damage	1	1	1
Cladding Failure	2	3	4
Fuel Overheat	5	6	7
Fuel Melt	8	9	10

The NRC recognizes four general classifications with three degrees of core damage within each (excepting the 'No Fuel Damage classification'). It is important to recognize that different methodologies may provide indications that point to several degrees if not several classifications simultaneously.

1.4.4 The types of damage sustained as well as their severity depend upon fission rate, power, and temperature of the reactor. During an accident, clad damage would occur first, followed by fuel overheating, and finally fuel melt as conditions becomes more severe. Common conditions of core damage are described below.

Table 2

Indicators of Core Damage	
Damage Type	**Conditions**
Clad Damage	An increasing potential for inadequate core cooling exists Loose part indication is observed. No significant overheating has been observed at this point.
Fuel Overheat	The fuel is suspected to be at least partially uncovered for a period of time greater than a few minutes. Loss of inventory in the pressurizer is observed. Hot leg temperatures are increasing. Voiding in the core is detected. Ex-core count rate increasing (occurs when uncovered core is no longer shielded by water). High in-core thermocouple readings are observed. Fuel clad oxidation is detected by excess hydrogen in the containment (>10%).
Fuel Melt	The core has been uncovered for an appreciable period of time. In-core thermocouples are off-scale. In-core and ex-core instrumentation display erratic readings.

1.4.5 The presence of specific isotopes within the core fission product inventory are indicative of the type(s) of core damage that exist. Although each type of core damage exhibits the presence of certain isotopes, the isotopes related to each damage type build up as accident severity increases. Thus, when determining the type of core damage, the presence and amounts of some isotopes and the absence of others is usually a good indicator.

- Most of the noble gases will be detected in containment air samples unless the accident does not involve a break inside the containment.

- Fission products are grouped with respect to their relative volatility. The categories of isotopes below are grouped in order of decreasing volatility.

Group	Fission Product Type	Group	Fission Product Type
I	Noble Gases (Xe, Kr)	V	Alkaline Earths (Sr, Br)
II	Halogens (I, Br)	VI	Noble Metals (Ru, Rh, Pd, Mo, Tc)
III	Alkali Metals (Cs, Rb)	VII	Rare Earths and Actinides (Y, La, Ce)
IV	Tellurium (Te, Se, Sb)	VIII	Refractory Oxides of Zr and Nb

Isotopes with longer half-lives will serve as a better basis for analysis in long-term sampling. Note that any sample taken soon after shutdown will be difficult to analyze due to the large amount of short-lived isotopes in the sample. There may be many isotopes with similar peaks which will be difficult to distinguish one from another. Some isotopes may have peaks near the annihilation radiation level (511KeV). Also, Compton edges could lead to difficulties in the sample analysis. Therefore, it is recommended that confirming peaks be used in the isotopic analysis. Any other quantifying techniques, such as iodine cartridge analysis, if available for analysis in long-term sampling, are recommended.

The isotopes listed in the table below reflect a best choice in terms of measurement and effect from in-growth of daughter products. It is important to recognize that halogens, and to some degree other particulate radioisotopes, may not be a good measure of the extent of core damage when identified as part of a gaseous sample.

Table 3

Core Damage State	Nuclide	Group	Half-Life (hrs)
Clad Failure	Kr-85m	I	4.48E+00
	Kr-87	I	1.27E+00
	Kr-88	I	2.84E+00
	Xe-131m	I	2.86E+02
	Xe-133	I	1.26E+02
	Xe-133m	I	5.25E+01
	Xe-135	II	9.09E+00
	I-131	II	1.93E+02
	I-132	II	2.30E+00
	I-133	II	2.08E+01
	I-135	II	6.61E+00
	Rb-88	III	2.97E-01

Core Damage State	Nuclide	Group	Half-Life (hrs)
Fuel Overheat	Cs-134	III	1.81E+04
	Cs-137	III	2.63E+05
	Te-129	IV	1.16E+00
	Te-132	IV	7.82E+01
Fuel Meltdown	Sr-89	V	1.21E+03
	Sr-90	V	2.55E+05
	Ba-140	V	3.06E+02
	La-140	VII	4.03E+01
	La-142	VII	1.54E+00
	Pr-144	VII	2.88E-01
Combination	Xe-135m	I	4.32E+00
(Related Parent Nuclides)	Sb-129	IV	8.06E+02
	Te-129m	IV	2.55E-01
	Ba-142	V	1.77E-01
	Ce-144	VII	6.82E+03

a. Clad Damage

- The presence of noble gases and iodines in reactor coolant or containment air without the presence of other fission products is a fair indication of clad damage and perhaps some degree of fuel overheat.

- Iodines may be detected in both reactor coolant and containment air, depending upon the accident scenario and upon the physical and chemical form of the radioactive release.

b. Fuel Overheat Damage

- No significant quantity of cesiums (i.e., greater than 30 percent of the inventory) should be found if core temperatures remain below 2300° F or if the core has not been at least partially uncovered for an appreciable amount of time. Therefore, the presence of a significant amount of cesium is indicative of a fuel overheat condition. The amount of hydrogen in the containment air and reactor coolant samples can serve as confirmation. It should also be noted that just as in the case of iodines, the cesiums from both containment air and reactor coolant samples should be taken together.

- Over 50 percent of the core inventory of noble gases, iodines, and cesiums may be released from extensively damaged fuel clad (i.e., fuel overheating) even if fuel temperatures remain below the melting point.

- As the fuel temperature increases (and fuel melting is suspected to have occurred), the possibility of finding significant quantities of other core solids (e.g., groups IV thru VIII) above the baseline increases. However, these fission products will not be found in reactor coolant samples unless the core has been covered and a recirculation mode has been established. Many of the fission products and most of the actinides which occur as refractory oxides are released only in relatively small amounts even at elevated temperatures. However, if damaged fuel pellets are rewetted, some of the more refractory radioactive material will be leached out.

c. Fuel Melt Damage

- Significant releases of tellurium, ruthenium, and more refractory materials will occur only if the temperature approaches the fuel melting point (5200° F). However, the presence of ruthenium and tellurium does not prove melting, but their absence in long-term sampling analysis is a good indication that fuel meltdown has not occurred.

1.4.6 Assuming equilibrium conditions have been reached, a fixed inventory of radioisotopes exists within the fuel pellet. The relative ratios of the isotopes which have reached equilibrium can be considered a constant value. The distribution of isotopes in the fuel gap are not in the same proportion as in the fuel pellet. This is due to the differing diffusion rates of the isotopes from the fuel pellet to the fuel gap. During an accident, the ratios of isotopic activities obtained from samples can be compared to the expected ratios for a gap and melt type mix.

1.4.7 There are several methods and indications which can be used to estimate the amount or type of core damage under accident conditions which include:

a. Core Parameters: An indirect method which is immediately available and is used to indicate the potential for core damage. Indications are provided by core exit thermocouples and the time of core uncovery. Applicable for all types of accidents. This method does not provide numerical estimations, but rather can be used to determine the type of damage.

b. Containment Radiation: An indirect method which is used to determine the amount of core damage. Indications are provided by containment high range or main steam line radiation monitors. This method is only applicable for a loss of coolant accident and is based upon an end-of-life source term and static nuclide ratio assumptions.

c. Containment Hydrogen: An indirect method which is used to determine the amount of fuel melt. Assumes all the hydrogen generated by the metal-water reaction is released into containment (LOCA).

d. System Activity - Isotopic Ratio Comparison: A direct method which is used to help establish the type of core damage (clad failure or fuel melt). Applicable under all types of accidents. Valid any time following an accident although accuracy will decrease over time.

e. System Activity - Presence of Abnormal Isotopes: A direct method which is used to indicate some degree of fuel melt by the presence of unusually high concentrations of any of the less volatile fission products.

f. System Activity - Isotopic Concentration Evaluation: A direct method which can yield numeric estimations. Applicable for all types of accidents. Requires the sampled system(s) be in a steady state which usually prevents its use until the plant is in a stable shutdown condition.

1.4.8 Precise damage estimates are based upon accounting for all of the radioactivity released from the core. Methods which provide a numerical estimation of the extent of core damage should be evaluated to ensure all activity has been accounted for. If reactor coolant and containment air samples are available, then the total activity should be determined from the sum of both types of samples.

1.4.9 Iodine should not be used as the sole means of determining an estimate of core damage since it is difficult to determine the extent to which iodine will plate-out on containment walls, other surfaces, and piping. Spiking due to power excursions can also lead to inaccurate results in the iodine analysis.

1.4.10 No single method should be relied upon for a definitive damage estimation. All available data and sound engineering principals should be used to compile the best overall estimation.

2. INSTRUCTIONS

2.1 Determine Purpose

2.1.1 IF samples are needed for operational or source term adjustment Go To Section 2.5.

2.1.2 IF core damage assessment is necessary Go To section 2.2.

2.2 Select Available Assessment Methods

NOTE

The magnitude and type of event, transport mechanism and time after shutdown will be influencing factors on the method(s) utilized to determine the extent of core damage. Damage estimates should be developed using one or more methods as they become available.

2.2.1 Methods available for assisting in the determination of the extent of core damage include the following:

NOTE

Plant operating parameters are usually the first type of information available for core damage evaluation. Generally, they can only provide a low confidence numerical value, but do help to determine the type of core damage resulting from the accident.

a. Plant Parameters - Plant parameter core damage evaluations include the following methods:

- Core Exit Temperatures
- Core Uncovery Time
- Containment Radiation
- Main Steam Line Radiation
- Containment Hydrogen

NOTE

System activity results are not usually available in the early stages of an emergency. Assessment involving isotopic ratio comparisons and the presence of abnormal isotopes are valid as soon as a sample can be taken following an accident, but provide only an indication of the *type* of core damage. Concentration evaluations will normally provide the most accurate assessment, but require a stable steady state condition to be valid.

b. System Activity - System activity core damage evaluations include the following methods:

- Isotopic Ratio Comparison
- Presence of Abnormal Isotopes
- Isotopic Concentration

2.2.2 Choose the assessment method(s) most appropriate for the existing conditions and source term evaluation.

a. Refer To Section 2.3 to evaluate whether current core conditions are appropriate for the plant parameter methods and to obtain the applicable estimation worksheet(s).

b. Refer To Section 2.4 to evaluate whether current plant conditions would yield a representative reactor coolant or containment sample and to obtain the applicable estimation worksheet(s).

2.2.3 Provide an overall estimation of the extent of core damage to the DSEO, through the ADEOF, whenever information becomes available or is revised throughout the course of an accident. Print the DAMAGE application summary report or complete EPI-FAP11-008 to record and summarize the overall damage estimation.

2.3 Plant Parameter Evaluation Methods

2.3.1 IF necessary, contact the reactor engineer in the TSC responsible for thermal hydraulic evaluations for assistance with core temperatures or uncovery times.

2.3.2 Use the Off-Site Facilities Information System (OFIS), or contact the Technical Information Coordinator or the Control Room Data Coordinator to obtain applicable plant parameters.

2.3.3 When plant data becomes available:

NOTE

Containment radiation, main steam line radiation and containment hydrogen methods assume a significant reactor coolant leak (LOCA) has occurred into containment.

- Use the DAMAGE computer application to evaluate all methods.

OR

- Refer To EPI-FAP11-001 for core exit temperature evaluations.
- Refer To EPI- FAP11-002 for core uncovery time evaluations.
- Refer To EPI- FAP11-003 for containment radiation evaluations.
- Refer To EPI- FAP11-004 for main steam line radiation evaluations.
- Refer To EPI- FAP11-005 for containment hydrogen evaluations.

2.4 System Activity Evaluation Methods

2.4.1 Determine the most representative sample points (location of the activity released from the core) based on current system conditions using the table below:

Table 4

Sampling Points Unit 2	Sampling Points Unit 3	Limitations
Loop 1 Hot Leg	Loop 1 or 3 Hot Leg	Break should not be upstream of the sample point.
Liquid Waste	Liquid Waste	Not used for core damage estimates.
Cont Sump via: • HPSI Pumps • LPSI Pumps • Cont Spray Pumps	Cont Sump via: • Cont Spray System	System in operation and sump recirculation actuation signal in effect prior to sampling.
Cont Air	Cont Air	Accident must involve a release into containment.
Vent Air	Vent Air	Not used for core damage estimates.

2.4.2 Contact the MRCA to discuss in-plant radiological conditions, the priority for obtaining samples and the sampling sequence if multiple locations are available.

NOTE

A three hour sample and analysis time requirement exists once the decision to obtain a sample is made. The ADTS controls the onsite response resources and is the individual responsible for the decision to initiate sampling for core damage assessment.

2.4.3 Inform the ADEOF of the selected sample points and request the dispatch of a chemistry team be considered and directed through the ADTS for core damage assessment purposes.

2.4.4 When sample results become available:

- Use the DAMAGE computer application to evaluate all methods.

OR

- Refer To EPI-FAP11-006 for isotopic ratio comparison or identification of abnormal isotope evaluations.
- Refer To EPI-FAP11-007 for isotopic concentration evaluations.

2.5 Sample Location Determination

2.5.1 Discuss normal sample or PASS preparations with the MRCA considering ongoing in-plant activities and priorities.

2.5.2 Determine sampling and analysis requirements using one of the following forms, as applicable:

- EPI-FAP11-009, "Unit 2 RX Coolant and Liquid Waste Sample Worksheet"
- EPI-FAP11-010, "Unit 2 Vent and Containment Air Sample Worksheet"
- EPI-FAP11-011, "Unit 3 RX Coolant and Liquid Waste Sample Worksheet"
- EPI-FAP11-012, "Unit 3 Vent and Containment Air Sample Worksheet"

NOTE

Before the PASS Team is dispatched, the following must occur:

- A minimum of 2 Chemistry Technicians and 1 HP Technician have been designated and assembled as PASS Team members by the MOSC.
- The PASS Team has been briefed by the MOSC, as required, for sampling and analysis.
- The MRCA has briefed the OSC ARPS on radiation exposure controls.

2.5.3 Fax completed forms to the ADTS for review.

2.5.4 IF required, request additional Chemistry Technician support from the MOR.

3. SUMMARY OF CHANGES

3.1 Original issue.

Attachment 1
Definitions and Abbreviations
(Sheet 1 of 1)

Definitions

PASS Team - SERO personnel designated for sampling and analysis of reactor coolant or liquid waste at the affected unit. The PASS Team shall be comprised of at least 2 Chemistry Technicians and 1 HP Technician.

Abbreviations

ADEOF - Assistant Director, EOF

ADTS - Assistant Director Technical Support Center

AMRDA - Assistant Manager of Radiological Dose Assessment

DSEO - Director of Station Emergency Operations

ESF - Engineered Safety Features

MOSC - Manager of Operational Support Center

MRCA - Manager of Radiological Consequence Assessment

MRDA - Manager of Radiological Dose Assessment

PASS - Post Accident Sampling System

RSS - Recirculation Spray System

SERO - Station Emergency Response Organization

SLCRS - Supplementary Leak Collection and Release System

TSC - Technical Support Center

Attachment 2
Responsibilities
(Sheet 1 of 1)

1. The PASS Team performs the required sampling and analysis detailed. The appropriate Chemistry procedure.
2. The ADTS shall make the decision to obtain a sample using PASS.
3. The Manager of Operational Support Center designates, assembles, and briefs the PASS Team.
4. The Manager of Radiological Consequence Assessment specifies PASS Team radiological controls.
5. The Operational Support Center Assistant Radiological Protection Supervisor assigns HP technicians and briefs the PASS Team on radiological conditions.
6. The Manager of Radiological Dose Assessment or the Assistant Manager of Radiological Dose Assessment specify PASS Team sampling and analysis requirements.
7. The Assistant Manager of Radiological Dose Assessment (AMRDA) is responsible for performing the calculations and evaluations required for determining core damage estimates.

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By:	Scott McCain	Date:	9/11/00	Department:	EPSD	Ext.:	3757
Document No.:	MP-26-EPI-FAP11 – 001	Rev. No.:	000	Minor Rev.:			

Title: Core Damage Assessment

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Convert to Master Manual format, implement EPSD document streamline initiative, and address CRs.

Continued ☐

C

Instructions:

None

Continued ☐

D

TPC Interim Approval (1) Plant Mngt Staff Member Print/Sign/Date (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☒ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

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See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒

Plant Mngt Staff Member - Approval

Comments:

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F

Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	Dept.	✔ If Comments
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	☐				☐	☐		
Validation	☒	D. Aloi	Dan Aloi	9/19/00	☐	☐	EPSD	✔
Writer's Guide	☒	M. Maryeski	M Maryeski	9/22/00	☐	☒	SPG	✔
50.54 (8)	☒	D. Aloi	Dan Aloi	9/22/00	☐	☐		
RCD	☒	K. Burgess	K Burgess	10/3/00			EPSD	
Independent	☒	D. Aloi	Dan Aloi	9/18/00	☐	☒	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No **Environmental Review Required** ☐ Yes ☒ No

H

1. ☐ **SQR Program Final Review and Approval**

Approval ☐ Disapproval ☐

SQR Qualified Independent Reviewer / Date

Department Head/Responsible Individual

Approval Date

2. ☒ **SORC/PORC/RI/DH Final Review and Approval**

SiArck 9/26/00
Department Head/Responsible Individual / Date

Meeting No.: 00-30

for
Approval Signature

10/11/00
Approval Date

I

Effective Date: 12/21/00

10/11/00
Approval Date

12/21/00
Effective Date

Core Damage Estimate: Core Exit Temperatures

Affected Unit: ☐ Unit 2 ☐ Unit 3

Assessment Steps:

1. Record the core exit thermocouple reading that is most representative of the overall core exit temperature (° F). [ ]

2. Evaluate the assumptions and limitations of the indication using the following guidance:
   - The core exit thermocouple do not measure core temperature directly, they measure the temperature of the water as it exits the core.
   - The core exit thermocouple readings are generally several hundred degrees below the actual core temperatures, especially during transient heat-up conditions.
   - The maximum temperature core exit thermocouples can reliably measure is about 2000° F.
   - There can be flow blockages in the core that would cause localized overheating that may not be represented by the core exit thermocouple.

3. Record the estimate from the AMT that is most representative of the nominal core temperature (° F). [ ]

4. Record the core state which is best described by the temperature ranges provided in the table below. [ ]

5400° F - 4800° F	The uranium oxide (UO2) fuel pellet itself melts	Fuel has Melted
4800° F - 4200° F	All volatile fission products are released from the fuel core	Fuel has Melted
4200° F - 3600° F	Possible formation of an uncoolable core	Fuel has Melted
3600° F - 3000° F	Fuel pellets dissolve into melted components	Fuel has Melted
3000° F - 2400° F	Rapid release of noble gases, halogens, and cesium from the fuel	Fuel is Overheated
2400° F - 1800° F	Very rapid H_2O-Zr reaction. H_2 is released	Fuel Cladding Fails
1800° F - 1200° F	Fission products are released into the fuel pin gap	Possible Clad Ruptures
1200° F - 600° F	Normal operating or slightly elevated temperatures	No Damage Expected

Performed By:

Name: ______________________ Date: __________ Time: __________

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: Scott McCain Date: 9/11/00 Department: EPSD Ext.: 3757

Document No.: MP-26-EPI-FAP11 -002 Rev. No.: 000 Minor Rev.:

Title: Core Damage Assessment

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Convert to Master Manual format, implement EPSD document streamline initiative, and address CRs.

Continued ☐

C

Instructions:

None

Continued ☐

D

TPC Interim Approval (1) Plant Mngt Staff Member Print/Sign/Date (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☒ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☒ *Revision* ☐ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☐ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒

Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

F

Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	Dept.	✔ If Comments
	☐				☐	☐		
	☐				☐	☐		
Validation	☒	D. Aloi	Dan Aloi	9/19/00	☐	☐	EPSD	✓
Writer's Guide	☒	M. Maryeski	M Maryeski	9/22/00	☐	☑	SPG	✓
50.54(?)	☒	D. Aloi	Dan Aloi	9/22/00	☐	☐		
RCD	☒	K. Burgess	K. Burgess	10/3/00			EPSD	
Independent	☒	D. Aloi	Dan Aloi	9/18/00	☐	☒	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No Environmental Review Required ☐ Yes ☒ No

H

1. ☐ **SQR Program Final Review and Approval**

Approval ☐ Disapproval ☐

SQR Qualified Independent Reviewer / Date

Department Head/Responsible Individual

Approval Date

2. ☒ **SORC/PORC/RI/DH Final Review and Approval**

SiAnk 9/26/00

Department Head/Responsible Individual / Date

Meeting No.: 00:30

for

Approval Signature

10/11/00

Approval Date

I

Effective Date: 12/21/00

10/11/00
Approval Date

12/21/00
Effective Date

Core Damage Estimate: Core Uncovery Times

Affected Unit: ☐ Unit 2 ☐ Unit 3

Assessment Steps:

1. Evaluate plant indications to determine whether core uncovery has occurred using the following guidance:
   - Primary indication of core uncovery is a RVLIS Full Range value < 39% (3½ feet, or only the lower 1/3 of the core is covered).
   - An unexpected increase in the source range count rate can also be used to indicate core uncovery.
     - ⇒ A loss of water results in an increase in the gamma radiation at the source range detector.
     - ⇒ Upon core uncovery, the source range count rate will begin to increase as shielding (i.e. water) is removed from the region between the core and the source range detector outside the reactor vessel.
   - A source range count rate that is one decade above the normal count rate can also be used as a possible indication of core uncovery.

2. Record the estimate of the time that is most representative of the period that the core was uncovered (Hours). ______

3. Record the core state which is best described by the time ranges provided in the table below. ______

T = 0	Core Uncovered	
0 to ¼ hr	Minimal uncovery time.	No Damage Expected
¼ to ¾ hr[1]	Rapid H_2 generation. Release of fuel pin (gap) fission products. Local fuel melting.	Fuel Cladding Fails
½ to 1½ hrs	Possible uncoolable core. Possible slump of molten core. Rapid release of volatile (grain boundary) fission products.	Fuel is Overheated
1 to 3+ hrs	Melt through vessel. Maximum rate of core melt and H_2 generation. Maximum in-vessel (melt) fission product release.	Fuel has Melted

Performed By:

Name: ______________________ Date: __________ Time: __________

[1] TMI experienced cladding failure at 34 minutes after core uncovery.

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: Scott McCain Date: 9/11/00 Department: EPSD Ext.: 3757

Document No.: MP-26-EPI-FAP11 – 003 Rev. No.: 000 Minor Rev.:

Title: Core Damage Assessment

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Convert to Master Manual format, implement EPSD document streamline initiative, and address CRs.

Continued ☐

C

Instructions:

None

Continued ☐

D

TPC Interim Approval (1) Plant Mngt Staff Member Print/Sign/Date (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☒ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☒ *Revision* ☐ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☐ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒

Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

F

Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	Dept.	✔ if Comments
	☐				☐	☐		
	☐				☐	☐		
Validation	☒	D. Aloi	Dan Aloi	9/19/00	☐	☐	EPSD	✔
Writer's Guide	☒	M. Maryeski	M Maryeski	9/22/00	☐	☑	SPG	✔
50.54 (8)	☒	D. Aloi	Dan Aloi	9/22/00	☐	☐		
RCD	☒	K. Burgess	K Burgess	10/3/00			EPSD	
Independent	☒	D. Aloi	Dan Aloi	9/18/00	☐	☒	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No Environmental Review Required ☐ Yes ☒ No

H

1. ☐ SQR Program Final Review and Approval

Approval ☐ Disapproval ☐

SQR Qualified Independent Reviewer / Date

Department Head/Responsible Individual

Approval Date

2. ☒ SORC/PORC/RI/DH Final Review and Approval

SiAnte 9/26/00
Department Head/Responsible Individual / Date

Meeting No.: 00-30

[signature] for
Approval Signature

10/11/00
Approval Date

I

Effective Date: 12/21/00

10/11/00
Approval Date

12/21/00
Effective Date

Core Damage Estimate: Containment Radiation Monitors

LOCA ONLY **Affected Unit:** ❑ Unit 2 ❑ Unit 3

Assessment Steps:

1. Record number of hours between the time that the monitor reading was taken and the reactor trip (or shutdown) occurred.

2. Record the containment monitor readings in R/hr.

[Unit 2] RIT-8240 or [Unit 3] RE-04A

[Unit 2] RIT-8241 or [Unit 3] RE-05A

3. Determine and record the dose rate to concentration conversion (µCi/cc per R/hr) for the appropriate period after shutdown.

Hours Past S/D	Unit 2	Unit 3
0	0.023	0.010
½	0.028	0.019
2	0.040	0.028
4	0.055	0.038
12	0.097	0.068
48	0.200	0.140
72	0.230	0.160

4. Multiply the lowest monitor reading by the selected dose rate to concentration conversion to obtain an estimate of the containment Noble Gas concentration (µCi/cc).

Step 2 (lowest) x Step 3 =

5. Multiply the Noble Gas concentration by the appropriate volumetric conversion factor (Ci - cc/µCi) below to obtain an estimate of the total curies of Noble Gas in containment (Ci).

Step 4 x [Unit 2] 5.687E+4 =
[Unit 3] 6.513E+4 =

Assessment Steps:

6. Determine and record the estimate of the total core inventory of Noble Gas in curies (Ci).

Hours Past S/D	Unit 2	Unit 3
0	9.13E+08	1.15E+09
½	5.40E+08	6.82E+08
2	4.40E+08	5.56E+08
4	3.83E+08	4.84E+08
12	2.81E+08	3.55E+08
48	1.51E+08	1.91E+08
72	1.17E+08	1.48E+08

7. Divide the total curies of Noble Gas in containment by the core Noble Gas inventory to obtain an estimate of the fraction of the core Noble Gas inventory released.

Step 5 ÷ Step 6 =

8. Multiply the fraction of the core Noble Gas inventory released by 100 to obtain an estimate of the % Noble Gas inventory released into containment.

Step 7 x 100 =

9. Divide the % Noble Gas inventory released by the damage fraction below to obtain the % damage estimates (round to the nearest % and record results >100% as 100%).

Clad	Overheat	Melt
Step 8 ÷ (3%) **x 100**	**Step 8** ÷ (50%) **x 100**	**Step 8** ÷ (100%) **x 100**

Performed By:

Name: ______________________________ Date: __________ Time: _________

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: Scott McCain Date: 9/11/00 Department: EPSD Ext.: 3757

Document No.: MP-26-EPI-FAP11 -004 Rev. No.: 000 Minor Rev.:

Title: Core Damage Assessment

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Convert to Master Manual format, implement EPSD document streamline initiative, and address CRs.

Continued ☐

C

Instructions:

None

Continued ☐

D

TPC Interim Approval (1) Plant Mngt Staff Member Print/Sign/Date (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☒ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☒ *Revision* ☐ *Minor Revision* (See DC-GDL01 for guidance) ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☐ Supersedure

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒ Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

F

Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	SQR Qualified Dept.	✔ if Comments
	☐				☐	☐		
	☐				☐	☐		
Validation	☒	D. Aloi	Dan Aloi	9/19/00	☐	☐	EPSD	✔
Writer's Guide	☒	M. Maryeski	M Maryeski	9/22/00	☐	☑	SPG	✔
50.54(8)	☒	D. Aloi	Dan Aloi	9/22/00	☐	☐		
RCD	☒	K. Burgess	K Burgess	10/3/00			EPSD	
Independent	☒	D. Aloi	Dan Aloi	9/18/00	☐	☒	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No Environmental Review Required ☐ Yes ☒ No

H

1. ☐ SQR Program Final Review and Approval

Approval ☐ Disapproval ☐

SQR Qualified Independent Reviewer / Date

Department Head/Responsible Individual

Approval Date

2. ☒ SORC/PORC/RI/DH Final Review and Approval

SiAuk 9/26/00
Department Head/Responsible Individual / Date

Meeting No.: 00-30

Approval Signature

10/11/00
Approval Date

I

Effective Date: 12/21/00

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Rev. 002-01
Page 1 of 1

10/11/00
Approval Date

12/21/00
Effective Date

Core Damage Estimate: Main Steam Line Radiation Monitors

LOCA ONLY **Affected Unit:** ☐ Unit 2 ☐ Unit 3

Assessment Steps:

1. Record number of hours between the time that the monitor reading was taken and the reactor trip (or shutdown) occurred. [ ]

2. Record the main steam line monitor reading in R/hr (Unit 3's monitor must be removed from it's shield).

[Unit 2] 4299C (R/hr) or [Unit 3] RE-76/77 (uCi/cc) [ ]

3. Determine and record the MSL to containment monitor conversion factor for the appropriate period after shutdown.

Hours Past S/D	Unit 2	Unit 3
0	3680	105
½	4290	103
2	4340	113
4	4350	121
12	4620	157
48	4610	218
> 72	4640	241

[ ]

4. Multiply the monitor reading by the selected conversion factor to obtain an estimate of the containment monitor reading (R/hr).

Step 2 x Step 3 = [ ]

5. Determine and record the dose rate to concentration conversion (μCi/cc per R/hr) for the appropriate period after shutdown.

Hours Past S/D	Unit 2	Unit 3
0	0.023	0.010
½	0.028	0.019
2	0.040	0.028
4	0.055	0.038
12	0.097	0.068
48	0.200	0.140
72	0.230	0.160

[ ]

6. Multiply the monitor reading by the selected dose rate to concentration conversion to obtain an estimate of the containment Noble Gas concentration (μCi/cc).

Step 4 x Step 5 = [ ]

Assessment Steps:

7. Multiply the Noble Gas concentration by the appropriate volumetric conversion factor (Ci - cc/μCi) below to obtain an estimate of the total curies of Noble Gas in containment (Ci).

Step 6 x [Unit 2] 5.687E+4 =
[Unit 3] 6.513E+4 = ☐

8. Determine and record the estimate of the total core inventory of Noble Gas in curies (Ci).

Hours Past S/D	Unit 2	Unit 3
0	9.13E+08	1.15E+09
½	5.40E+08	6.82E+08
2	4.40E+08	5.56E+08
4	3.83E+08	4.84E+08
12	2.81E+08	3.55E+08
48	1.51E+08	1.91E+08
72	1.17E+08	1.48E+08

☐

9. Divide the total curies of Noble Gas in containment by the core Noble Gas inventory to obtain an estimate of the fraction of the core Noble Gas inventory released.

Step 7 ÷ Step 8 = ☐

10. Multiply the fraction of the core Noble Gas inventory released by 100 to obtain an estimate of the % Noble Gas inventory released into containment.

Step 9 x 100 = ☐

11. Divide the % Noble Gas inventory released by the damage fraction below to obtain the % damage estimates (round to the nearest % and record results >100% as 100%).

Clad	Overheat	Melt
Step 10 ÷ (3%) x 100	**Step 10 ÷ (50%) x 100**	**Step 10 ÷ (100%) x 100**
☐	☐	☐

Performed By:

Name: ________________________ Date: __________ Time: __________

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: Scott McCain Date: 9/11/00 Department: EPSD Ext.: 3757

Document No.: MP-26-EPI-FAP11-005 Rev. No.: 000 Minor Rev.:

Title: Core Damage Assessment

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Convert to Master Manual format, implement EPSD document streamline initiative, and address CRs.

Continued ☐

C

Instructions:

None

Continued ☐

D

TPC Interim Approval

(1) Plant Mngt Staff Member Print/Sign/Date

(2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☒ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☒ *Revision* ☐ *Minor Revision* (See DC-GDL01 for guidance) ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☐ Supersedure

☐ TPC ☐ OTC ☐ Place in VOID

☐ Edit Corr.:⇒

Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date

Continued ☐

F

Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	SQR Qualified Dept.	✔ If Comments
	☐				☐	☐		
	☐				☐	☐		
Validation	☒	D. Aloi	Dan Aloi	9/19/00	☐	☐	EPSD	✔
Writer's Guide	☒	M. Maryeski	M Maryeski	9/22/00	☐	☑	SPG	✔
50.54(8)	☒	D. Aloi	Dan Aloi	9/22/00	☐	☐		
RCD	☒	K. Burgess	K Burgess	10/3/00			EPSD	
Independent	☒	D. Aloi	Dan Aloi	9/18/00	☐	☒	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No **Environmental Review Required** ☐ Yes ☒ No

H

1. ☐ **SQR Program Final Review and Approval**

Approval ☐ Disapproval ☐

SQR Qualified Independent Reviewer / Date

Department Head/Responsible Individual

Approval Date

2. ☒ **SORC/PORC/RI/DH Final Review and Approval**

SIAnck 9/26/00

Department Head/Responsible Individual / Date

Meeting No.: 00-30

Approval Signature

10/11/00

Approval Date

I

Effective Date: 12/21/00

10/11/00
Approval Date

12/21/00
Effective Date

Core Damage Estimate: Containment Hydrogen

LOCA ONLY **Affected Unit:** ☐ Unit 2 ☐ Unit 3

Assessment Steps:

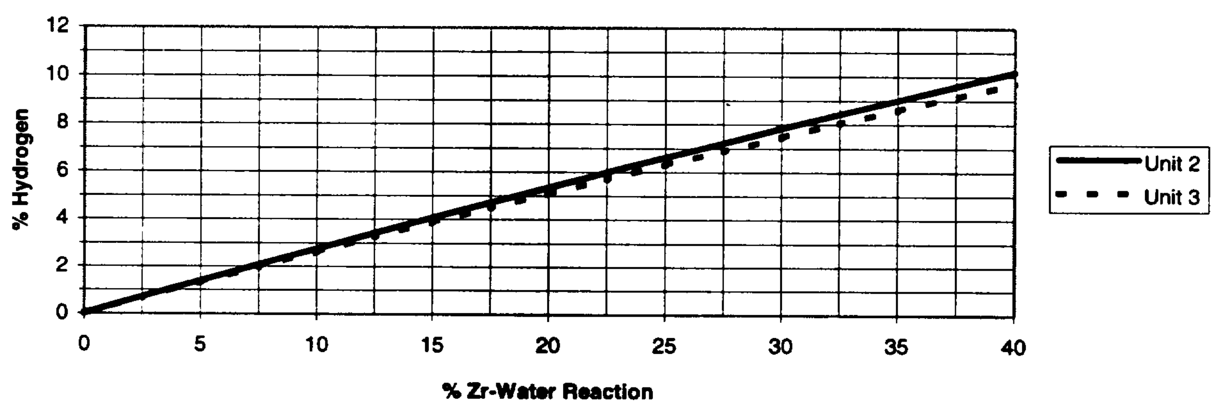
1. Record the highest OFIS dry containment Hydrogen concentration (%).

[Unit 2] AE8152/8154 or [Unit 3] SSP-A58A/B ☐

2. Evaluate the methods assumptions and limitations using the following guidance:
   - This method is not valid and should not be used for accidents which do not involve a LOCA.
   - All hydrogen generated by the reaction is released to containment.
   - Perfect mixing conditions exist in containment with ideal gas behavior.
   - No depletion of hydrogen occurs (such as containment leakage or combustion).

3. Record the amount of Zirc-Water reaction from the hydrogen concentration graph below. ☐

% Hydrogen Concentration in Dry Air



4. Record the core state which is best described by the % Zr-Water reaction provided in the table below. ☐

Zr-Water Reaction	Damage State
< 5%	No Damage Expected
5-10%	Fuel Cladding Fails
10-20%	Fuel has Melted
> 20%	Vessel Melt Through Possible

Performed By:

Name: ______________________ Date: __________ Time: __________

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: Scott McCain Date: 9/11/00 Department: EPSD Ext.: 3757

Document No.: MP-26-EPI-FAP11 - 006 Rev. No.: 000 Minor Rev.:

Title: Core Damage Assessment

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Convert to Master Manual format, implement EPSD document streamline initiative, and address CRs.

Continued ☐

C

Instructions:

None

Continued ☐

D

TPC Interim Approval

(1) Plant Mngt Staff Member Print/Sign/Date (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☒ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☒ *Revision* ☐ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☐ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒ Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

F

Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	Dept.	✔ if Comments
	☐				☐	☐		
	☐				☐	☐		
Validation	☒	D. Aloi	Dan Aloi	9/19/00	☐	☐	EPSD	✓
Writer's Guide	☒	M. Maryeski	M Maryeski	9/22/00	☐	☑	SPG	✓
50.54 (8)	☒	D. Aloi	Dan Aloi	9/22/00	☐	☐		
RCD	☒	K. Burgess	K Burgess	10/3/00			EPSD	
Independent	☒	D. Aloi	Dan Aloi	9/18/00	☐	☒	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No **Environmental Review Required** ☐ Yes ☒ No

H

1. ☐ **SQR Program Final Review and Approval**

Approval ☐ Disapproval ☐

SQR Qualified Independent Reviewer / Date

Department Head/Responsible Individual

Approval Date

2. ☒ **SORC/PORC/RI/DH Final Review and Approval**

SiAnk 9/26/00
Department Head/Responsible Individual / Date

Meeting No.: 00-30

Approval Signature

10/11/00
Approval Date

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Effective Date: 12/21/00

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Rev. 002-01
Page 1 of 1

10/11/00
Approval Date

12/21/00
Effective Date

Core Damage Estimate: Ratio Comparison/Abnormal Isotopes

Affected Unit: ☐ Unit 2 ☐ Unit 3

Assessment Steps:

1. Record number of hours between the time that the sample was taken and the reactor trip (or shutdown) occurred.

2. Obtain sample information and decay correct the activity from the time of reactor shutdown to the time of sample as follows:

$$A_{SHUTDOWN} = A_{SAMPLE} \times e^{\lambda t}$$

Where:

$A_{SHUTDOWN}$ Decay corrected activity of the sample in µCi/ml or cc.

A_{SAMPLE} Measured sample concentration in µCi/ml or cc.

λ Decay constant in $hours^{-1}$ (see table below).

t Time interval between reactor shutdown and sample measurement in hours (from Step 1).

Isotope	A_{SAMPLE}	λ ($Hours^{-1}$)	t	$e^{\lambda t}$	$A_{SHUTDOWN}$
Xe-133		5.50E-03			
Kr-85m		1.55E-01			
Kr-87		5.45E-01			
Kr-88		2.44E-01			
Xe-131m		2.42E-03			
Xe-133m		1.32E-02			
Xe-135		7.62E-02			
I-131		3.59E-03			
I-132		3.01E-01			
I-133		3.33E-02			
I-135		1.05E-01			

Evaluation Steps:

3. Calculate and record the ratios for the nuclides and evaluate the results as follows:

$$\text{Noble Gas Ratio} = \frac{\text{Noble Gas Isotope - A(shutdown)}}{\text{Xe-133 A(shutdown)}}$$

$$\text{Iodine Ratio} = \frac{\text{Iodine Isotope - A(shutdown)}}{\text{I-131 - A(shutdown)}}$$

- If the ratio of the sample is greater than the ratio for fuel melt, check the fuel box.
- If the ratio of the sample is less than the ratio for a gap release, check the gap box.
- If the ratio is between the values evaluate the ratio as follows:

$$\frac{Ratio_{MELT}}{Ratio_{SAMPLE}} < \frac{Ratio_{SAMPLE}}{Ratio_{GAP}}$$

⇒ If the above relationship is true, check the fuel box.

⇒ If the above relationship is not true, check the gap box.

Isotope	Fuel Ratio (melt)		Sample Ratio	Gap Ratio (clad)	
Xe-133	**1.0**		**1.0**	**1.0**	
Kr-85m	0.11	☐		0.022	☐
Kr-87	0.22	☐		0.022	☐
Kr-88	0.29	☐		0.045	☐
Xe-131m	0.04	☐		0.004	☐
Xe-133m	0.14	☐		0.096	☐
Xe-135	0.19	☐		0.051	☐
I-131	**1.0**		**1.0**	**1.0**	
I-132	1.5	☐		0.17	☐
I-133	2.1	☐		0.71	☐
I-135	1.9	☐		0.39	☐

4. Determine and record the overall damage state by identifying the column that contains the most checked boxes.

Ratio Assessment: ☐ Undetermined ☐ Clad Failure ☐ Fuel Melt

Evaluation Steps:

5. Check any of the isotopes listed below which were identified within the sample.

Alkaline Earths

❑ Sr ❑ Ba

Noble Metals

❑ Ru ❑ Rh ❑ Pd ❑ Mo ❑ Tc

Rare Earths

❑ Y ❑ La ❑ Ce ❑ Nd ❑ Pr ❑ Eu ❑ Pm

❑ Sm ❑ Np ❑ Pu

Refractories

❑ Zr ❑ Nb

Unusually high concentrations of any of the less volatile fission products are indicative of some degree of fuel melt. These fission products may include soluble or insoluble isotopes of the above elements.

6. Based on the evaluation of the ratio analysis and the presence of abnormal isotopes, determine an overall damage estimation for this method.

Overall Assessment: ❑ Undetermined ❑ Clad Failure ❑ Fuel Melt

Performed By:

Name: ______________________________ Date: __________ Time: __________

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: **Scott McCain** Date: **9/11/00** Department: **EPSD** Ext.: **3757**

Document No.: **MP-26-EPI-FAP11**-007 Rev. No.: **000** Minor Rev.:

Title: **Core Damage Assessment**

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Convert to Master Manual format, implement EPSD document streamline initiative, and address CRs.

Continued ☐

C

Instructions:

None

Continued ☐

D

TPC Interim Approval (1) Plant Mngt Staff Member Print/Sign/Date (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☒ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☒ *Revision* ☐ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☐ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒

Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

F

Reviews		**Print**	**Sign**	**Date**	**SQR Qualified** Yes	No	Dept.	✔ If Comments
	☐				☐	☐		
	☐				☐	☐		
Validation	☒	**D. Aloi**	Dan Aloi	9/19/00	☐	☐	EPSD	✔
Writer's Guide	☒	**M. Maryeski**	M Maryeski	9/22/00	☐	☑	SPG	✔
50.54(8)	☒	**D. Aloi**	Dan Aloi	9/22/00	☐	☐		
RCD	☒	**K. Burgess**	K Burgess	10/3/00			EPSD	
Independent	☒	**D. Aloi**	Dan Aloi	9/18/00	☐	☒	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No **Environmental Review Required** ☐ Yes ☒ No

H

1. ☐ **SQR Program Final Review and Approval**

Approval ☐ Disapproval ☐

SQR Qualified Independent Reviewer / Date

Department Head/Responsible Individual

Approval Date

2. ☒ **SORC/PORC/RI/DH Final Review and Approval**

SiArk 9/26/00

Department Head/Responsible Individual / Date

Meeting No.: 00:30

[signature] for

Approval Signature

10/11/00

Approval Date

I

Effective Date: 12/21/00

10/11/00
Approval Date

12/21/00
Effective Date

Core Damage Estimate: Isotopic Concentrations

Affected Unit: ☐ Unit 2 ☐ Unit 3

Assessment Steps:

1. Select and record (on the applicable core fraction worksheet) the isotopes to be used for the core damage estimate from the sample analysis results.
   - Base isotope selection on the type and severity of accident and the temperature/condition of the core.
   - Refer to EPI-FAP11 Section 1.4 for additional selection guidance for the isotopes.
   - 'Other' isotopes can be obtained from the Fission Product Inventories at Shutdown list.

2. Perform the worksheet calculations to obtain the core release fractions for the isotopes selected.
   a) Decay correct the isotopic activities from time of sample back to time of shutdown.
   b) Obtain and record the baseline parameters for the appropriate sample location(s).
   c) If assessing an RCS sample, determine the density correction and RCS volume.
   d) If assessing a containment sample, determine the Pressure/Temperature correction.

3. Transfer the core fraction results from the unit core fraction worksheet to the damage estimate worksheet.
   a) Calculate the damage values.
   b) If more that one isotope was used in the assessment, determine a best estimate from the results obtained.

4. Record the results for the best estimate for the three possible types of core damage (record results >100% as 100%).

Clad	Overheat	Melt
______	______	______

Performed By:

Name: ______________________ Date: __________ Time: __________

RCS Baseline Data: **(complete for RCS samples only)**

1. Record number of hours between the time that the RCS sample was taken and the reactor trip (or shutdown) occurred.

2. Record reactor coolant temperature (°F average) at the time the sample was taken.

3. Record pressurizer pressure (psig) at the time the sample was taken.

4. Determine and record whether Emergency Core Cooling Systems were used prior to sampling. ☐ Yes ☐ No

5. Determine and record RCS volume at the time of sample:

   - If ECCS (Step 2) was not used, RCS volume = **[Unit 2] 2.85E+8 (cc)**
     [Unit 3] 3.31E+8 (cc)
   - If ECCS (Step 2) was used, determine the total using the RCS Volume Worksheet.

Containment Baseline Data: **(complete for Containment samples only)**

1. Record number of hours between the time that the containment sample was taken and the reactor trip (or shutdown) occurred.

2. Record containment temperature (°F) at the time the sample was taken.

3. Record containment pressure (psig) at the time the sample was taken.

Attach completed worksheet to the corresponding damage estimate calculation package.

RCS Volume Worksheet:

1. Determine the fraction of Refueling Water Storage Tank (RWST) used:

[% Initial (_______) - % at Sample (_______)] ÷ 100 = [ ]

2. Multiply the % tank volume used by the tank volume below:

Step 1 x [Unit 2] 4.75E+5 (gal)
[Unit 3] 1.20E+6 (gal) [ ]

3. Calculate and record the RWST volume added (cc) from the equation below:

Step 2 x 3785 (cc/gal) = [ ]

4. Determine and record the number of SI Tanks [Unit 2] or Accumulator Tanks [Unit 3] have been added:
   - Unit 2: if uncertain about how many SITs have been used, assume 4 provided RCS pressure < 250 psig.
   - Unit 3: if uncertain about how many isolation valves have been opened, assume 4 provided RCS pressure < 600 psig. [ ]

5. Multiply the number of tanks used by the tank volume below:

Step 4 x [Unit 2] 3.22E+7 (cc)
[Unit 3] 2.69E+6 (cc) [ ]

6. Determine the fraction of Boric Acid Storage Tank (BAST) used:

[Unit 2 only]

[% Initial (_______) - % at Sample (_______)] ÷ 100 = [ ]

7. Calculate and record the BAST volume added (cc) from the equation below:

Step 6 x 6000 (gal) x 3785 (cc/gal) = [ ]

8. Calculate the total (cc) added to the RCS by the time of sample:

Step 3 + Step 5 + [Unit 2 only] Step 7 = [ ]

9. Sum the addition volume and the normal RCS volume below and record the results:

Step 8 + [Unit 2] 2.85E+8 (cc)
[Unit 3] 3.31E+8 (cc) [ ]

Attach completed worksheet to the corresponding damage estimate calculation package.

Unit 2 Core Fraction Worksheet

Date: ______________ Time: ______________ Worksheet Completed by: ________________________________

Print Name

	REACTOR COOLANT					CONTAINMENT AIR						
	Activity µCi/ml	Decay	Density Corr.	RCS* Volume		Activity µCi/cc	Decay	Density Corr.	CONT Volume	Total µCi	Core Inv µCi	Core Fraction
Kr-85m	(	X	X	X	) + (		X	X	X 5.4E10) =		÷ 1.94E13	=
Kr-87	(	X	X	X	) + (		X	X	X 5.4E10) =		÷ 3.24E13	=
Kr-88	(	X	X	X	) + (		X	X	X 5.4E10) =		÷ 4.86E13	=
Xe-131m	(	X	X	X	) + (		X	X	X 5.4E10) =		÷ 4.75E11	=
Xe-133	(	X	X	X	) + (		X	X	X 5.4E10) =		÷ 1.49E14	=
Xe-133m	(	X	X	X	) + (		X	X	X 5.4E10) =		÷ 5.28E12	=
Xe-135	(	X	X	X	) + (		X	X	X 5.4E10) =		÷ 2.00E13	=
I-131	(	X	X	X	) + (		X	X	X 5.4E10) =		÷ 7.29E13	=
I-132	(	X	X	X	) + (		X	X	X 5.4E10) =		÷ 1.03E14	=
I-133	(	X	X	X	) + (		X	X	X 5.4E10) =		÷ 1,49E14	=
I-135	(	X	X	X	) + (		X	X	X 5.4E10) =		÷ 1.38E14	=
Cs-134	(	X	X	X	) + (		X	X	X 5.4E10) =		÷ 1.45E13	=
Cs-137	(	X	X	X	) + (		X	X	X 5.4E10) =		÷ 8.95E12	=
Sb-129	(	X	X	X	) + (		X	X	X 5.4E10) =		÷ 2.43E13	=
Te-132	(	X	X	X	) + (		X	X	X 5.4E10) =		÷ 1.03E14	=
Ba-140	(	X	X	X	) + (		X	X	X 5.4E10) =		÷ 1.30E14	=
La-142	(	X	X	X	) + (		X	X	X 5.4E10) =		÷ 1.13E14	=
Ce-144	(	X	X	X	) + (		X	X	X 5.4E10) =		÷ 9.45E13	=
Other												
	(	X	X	X	) + (		X	X	X 5.4E10) =		÷	=
	(	X	X	X	) + (		X	X	X 5.4E10) =		÷	=

Kr-85m	:exp (.155xT hrs)**
Kr-87	:exp (.547xT hrs)
Kr-88	:exp (.244xT hrs)
Xe-135	:exp (.076xT hrs)
I-132	:exp (.301xT hrs)
I-135	:exp (.103xT hrs)
Sb-129	:exp (.158xT hrs)
La-142	:exp (.500xT hrs)

T = Rx shutdown to time of sample

Rx Coolant Temp °F	Density Corr.
100	1.0
325	0.9
475	0.8
580	0.7
650	0.6
690	0.5

Kr-85m	:exp (.155xT hrs)
Kr-87	:exp (.547xT hrs)
Kr-88	:exp (.244xT hrs)
Xe-135	:exp (.076xT hrs)
I-132	:exp (.301xT hrs)
I-135	:exp (.103xT hrs)
Sb-129	:exp (.158xT hrs)
La-142	:exp (.500xT hrs)

T = Rx shutdown to time of sample

PT CORRECTION

Cont. P PSIG	Cont. Temp 100°	200°	300°
0	0.96	0.82	0.71
2	1.1	0.93	0.81
5	1.3	1.1	0.95
10	1.6	1.4	1.2
20	2.3	1.9	1.7
40	3.6	3.0	2.6

Transfer F_{Core} to the damage estimate worksheet.

*Use the RCS Volume Worksheet to determine appropriate reactor coolant inventory volume. **exp (.155 x T hrs) = $e^{+.155T}$

Unit 3 Core Fraction Worksheet

Date: ____________ Time: ____________ Worksheet Completed by: ______________________________

Print Name

	REACTOR COOLANT				CONTAINMENT AIR						
	Activity µCi/ml	Decay	Density Corr.	RCS* Volume	Activity µCi/cc	Decay	Density Corr.	CONT Volume	Total µCi	Core Inv µCi	Core Fraction
Kr-85m	(	X	X	X	) + (	X	X	X 6.5E10) =		÷ 2.45E13	=
Kr-87	(	X	X	X	) + (	X	X	X 6.5E10) =		÷ 4.09E13	=
Kr-88	(	X	X	X	) + (	X	X	X 6.5E10) =		÷ 6.14E13	=
Xe-131m	(	X	X	X	) + (	X	X	X 6.5E10) =		÷ 6.00E11	=
Xe-133	(	X	X	X	) + (	X	X	X 6.5E10) =		÷ 1.88E14	=
Xe-133m	(	X	X	X	) + (	X	X	X 6.5E10) =		÷ 6.67E12	=
Xe-135	(	X	X	X	) + (	X	X	X 6.5E10) =		÷ 2.53E13	=
I-131	(	X	X	X	) + (	X	X	X 6.5E10) =		÷ 9.21E14	=
I-132	(	X	X	X	) + (	X	X	X 6.5E10) =		÷ 1.30E14	=
I-133	(	X	X	X	) + (	X	X	X 6.5E10) =		÷ 1,88E14	=
I-135	(	X	X	X	) + (	X	X	X 6.5E10) =		÷ 1.74E14	=
Cs-134	(	X	X	X	) + (	X	X	X 6.5E10) =		÷ 1.83E13	=
Cs-137	(	X	X	X	) + (	X	X	X 6.5E10) =		÷ 1.13E13	=
Sb-129	(	X	X	X	) + (	X	X	X 6.5E10) =		÷ 3.07E13	=
Te-132	(	X	X	X	) + (	X	X	X 6.5E10) =		÷ 1.30E14	=
Ba-140	(	X	X	X	) + (	X	X	X 6.5E10) =		÷ 1.64E14	=
La-142	(	X	X	X	) + (	X	X	X 6.5E10) =		÷ 1.43E14	=
Ce-144	(	X	X	X	) + (	X	X	X 6.5E10) =		÷ 1.19E14	=
Other											
	(	X	X	X	) + (	X	X	X 6.5E10) =		÷	=
	(	X	X	X	) + (	X	X	X 6.5E10) =		÷	=

Kr-85m	:exp (.155xT hrs)**
Kr-87	:exp (.547xT hrs)
Kr-88	:exp (.244xT hrs)
Xe-135	:exp (.076xT hrs)
I-132	:exp (.301xT hrs)
I-135	:exp (.103xT hrs)
Sb-129	:exp (.158xT hrs)
La-142	:exp (.500xT hrs)

T = Rx shutdown to time of sample

Rx Coolant Temp °F	Density Corr.
100	1.0
325	0.9
475	0.8
580	0.7
650	0.6
690	0.5

Kr-85m	:exp (.155xT hrs)
Kr-87	:exp (.547xT hrs)
Kr-88	:exp (.244xT hrs)
Xe-135	:exp (.076xT hrs)
I-132	:exp (.301xT hrs)
I-135	:exp (.103xT hrs)
Sb-129	:exp (.158xT hrs)
La-142	:exp (.500xT hrs)

T = Rx shutdown to time of sample

PT CORRECTION

Cont. P PSIG	Cont. Temp 100°	200°	300°
0	0.96	0.82	0.71
2	1.1	0.93	0.81
5	1.3	1.1	0.95
10	1.6	1.4	1.2
20	2.3	1.9	1.7
40	3.6	3.0	2.6

Transfer F_{Core} to the damage estimate worksheet.

*Use the RCS Volume Worksheet to determine appropriate reactor coolant inventory volume **exp (.155 x T hrs) = $e^{+.155T}$

Damage Estimate Worksheet

Date: ____________ Time: ____________ Worksheet Completed by: ______________________________
Print Name

Fuel Cladding

Isotope	F_R	÷ Gap Frac	= Rel Frac	X 100 = % Release
Kr-85m		÷ .03	=	X 100 =
Kr-87		÷ .03	=	X 100 =
Kr-88		÷ .03	=	X 100 =
Xe-131m		÷ .03	=	X 100 =
Xe-133		÷ .03	=	X 100 =
Xe-133m		÷ .03	=	X 100 =
Xe-135		÷ .03	=	X 100 =
I-131		÷ .02	=	X 100 =
I-132		÷ .02	=	X 100 =
I-133		÷ .02	=	X 100 =
I-135		÷ .02	=	X 100 =
Cs-134		÷ .05	=	X 100 =
Cs-137		÷ .05	=	X 100 =
Sb-129		÷ .0001	=	X 100 =
Te-132		÷ .0001	=	X 100 =
Ba-140	[redacted]	÷ [redacted]	= [redacted]	X 100 = [redacted]
La-142	[redacted]	÷ [redacted]	= [redacted]	X 100 = [redacted]
Ce-144	[redacted]	÷ [redacted]	= [redacted]	X 100 = [redacted]
Other				
		÷	=	X 100 =
		÷	=	X 100 =
		÷	=	X 100 =

Fuel Overheat

Isotope	F_R	÷ OH Frac	= Rel Frac	X 100 = % Release
Kr-85m		÷ .50	=	X 100 =
Kr-87		÷ .50	=	X 100 =
Kr-88		÷ .50	=	X 100 =
Xe-131m		÷ .50	=	X 100 =
Xe-133		÷ .50	=	X 100 =
Xe-133m		÷ .50	=	X 100 =
Xe-135		÷ .50	=	X 100 =
I-131		÷ .50	=	X 100 =
I-132		÷ .50	=	X 100 =
I-133		÷ .50	=	X 100 =
I-135		÷ .50	=	X 100 =
Cs-134		÷ .50	=	X 100 =
Cs-137		÷ .50	=	X 100 =
Sb-129		÷ .02	=	X 100 =
Te-132		÷ .10	=	X 100 =
Ba-140		÷ .01	=	X 100 =
La-142	[redacted]	÷ [redacted]	= [redacted]	X 100 = [redacted]
Ce-144	[redacted]	÷ [redacted]	= [redacted]	X 100 = [redacted]
Other				
		÷	=	X 100 =
		÷	=	X 100 =
		÷	=	X 100 =

Fuel Melt

Isotope	F_R	÷ Melt Frac	= Rel Frac	X 100 = % Release
Kr-85m		÷ 1.0	=	X 100 =
Kr-87		÷ 1.0	=	X 100 =
Kr-88		÷ 1.0	=	X 100 =
Xe-131m		÷ 1.0	=	X 100 =
Xe-133		÷ 1.0	=	X 100 =
Xe-133m		÷ 1.0	=	X 100 =
Xe-135		÷ 1.0	=	X 100 =
I-131		÷ 1.0	=	X 100 =
I-132		÷ 1.0	=	X 100 =
I-133		÷ 1.0	=	X 100 =
I-135		÷ 1.0	=	X 100 =
Cs-134		÷ 1.0	=	X 100 =
Cs-137		÷ 1.0	=	X 100 =
Sb-129		÷ .20	=	X 100 =
Te-132		÷ .30	=	X 100 =
Ba-140		÷ .20	=	X 100 =
La-142		÷ .0001	=	X 100 =
Ce-144		÷ .0001	=	X 100 =
Other				
		÷	=	X 100 =
		÷	=	X 100 =
		÷	=	X 100 =

Fission Product Inventories at Shutdown

Isotope	Unit 2 µCi	Unit 3 µCi
Kr-83m	8.09E+12	1.26E+13
Kr-85m	1.94E+13	2.45E+13
Kr-85	7.83E+11	9.89E+11
Kr-87	3.24E+13	4.09E+13
Kr-88	4.86E+13	6.14E+13
Kr-89	5.94E+13	7.50E+13
Kr-90	6.75E+13	8.53E+13
Kr-91	5.13E+13	6.48E+13
Xe-131m	4.75E+11	6.00E+11
Xe-133m	5.28E+12	6.67E+12
Xe-133	1.49E+14	1.88E+14
Xe-135m	2.62E+13	3.31E+13
Xe-135	2.00E+13	2.53E+13
Xe-137	1.32E+14	1.67E+14
Xe-138	1.27E+14	1.60E+14
Xe-139	1.05E+14	1.33E+14
Xe-140	7.02E+13	8.87E+13
Xe-141	2.70E+13	3.41E+13
Br-84	1.46E+13	1.84E+13
Br-85	1.81E+13	2.29E+13
Br-86	2.67E+13	3.37E+13
Br-87	3.24E+13	4.09E+13
Br-88	4.05E+13	5.12E+13
Br-89	4.05E+13	5.12E+13
Br-90	4.05E+13	5.12E+13
I-131	7.29E+13	9.21E+13
I-132	1.02E+14	1.30E+14
I-133	1.49E+14	1.88E+14
I-134	1.59E+14	2.01E+14
I-135	1.38E+14	1.74E+14
I-136	7.56E+13	9.55E+13
I-137	9.18E+13	1.16E+14
I-138	5.67E+13	7.16E+13
I-139	2.97E+13	3.75E+13
I-140	1.27E+13	1.60E+13
Se-84	1.43E+13	1.81E+13
Se-85	1.70E+13	2.15E+13
Se-86	2.05E+13	2.59E+13
Se-87	1.78E+13	2.25E+13
Rb-88	4.86E+13	6.14E+13
Rb-89	6.21E+13	7.84E+13
Rb-90	8.10E+13	1.02E+14
Rb-91	8.10E+13	1.02E+14
Sr-89	6.48E+13	8.19E+13
Sr-91	8.10E+13	1.02E+14
Sr-92	8.91E+13	1.12E+14
Sr-93	1.03E+14	1.30E+14

Isotope	Unit 2 µCi	Unit 3 µCi
Sr-94	1.05E+14	1.33E+14
Y-91m	4.91E+13	6.20E+13
Y-91	8.37E+13	1.06E+14
Y-92	8.91E+13	1.13E+14
Y-93	1.05E+14	1.33E+14
Y-94	1.11E+14	1.40E+14
Y-95	1.19E+14	1.50E+14
Y-96	1.13E+14	1.43E+14
Y-99	2.97E+13	3.75E+13
Zr-95	1.22E+14	1.54E+14
Zr-97	1.24E+14	1.57E+14
Zr-98	1.22E+14	1.54E+14
Zr-99	1.11E+14	1.40E+14
Zr-100	8.64E+13	1.09E+14
Nb-95m	2.51E+12	3.17E+12
Nb-95	1.22E+14	1.54E+14
Nb-97m	1.23E+14	1.55E+14
Nb-97	1.24E+14	1.57E+14
Nb-98m	1.24E+14	1.57E+14
Nb-99m	4.59E+13	5.80E+13
Nb-99	1.22E+14	1.54E+14
Nb-100m	7.02E+13	8.87E+13
Nb-100	7.02E+13	8.87E+13
Mo-99	1.38E+14	1.74E+14
Mo-101	1.24E+14	1.57E+14
Mo-102	1.16E+14	1.47E+14
Mo-103m	2.54E+13	3.21E+13
Mo-103	9.99E+13	1.26E+14
Mo-104	8.10E+13	1.02E+14
Tc-99m	1.22E+14	1.54E+14
Tc-100	1.24E+13	1.57E+13
Tc-101	1.24E+14	1.57E+14
Tc-102m	1.19E+14	1.50E+14
Tc-103	1.19E+14	1.50E+14
Tc-104	9.45E+13	1.19E+14
Tc-105	6.21E+13	7.85E+13
Tc-107	2.67E+13	3.37E+13
Tc-108	1.89E+13	2.39E+13
Ru-103	1.19E+14	1.50E+14
Ru-105	6.48E+13	8.19E+13
Ru-106	4.32E+13	5.46E+13
Ru-107	4.05E+13	5.12E+13
Ru-108	3.24E+13	4.09E+13
Ru-109	1.97E+13	2.49E+13
Rh-103m	1.16E+14	1.47E+14
Rh-104	4.86E+13	6.14E+13
Rh-105m	1.38E+13	1.74E+13

Isotope	Unit 2 µCi	Unit 3 µCi
Rh-105	6.48E+13	8.19E+13
Rh-106	4.59E+13	5.80E+13
Rh-107	4.32E+13	5.46E+13
Rh-108	3.51E+13	4.43E+13
Rh-109	2.13E+13	2.69E+13
Pd-109	2.27E+13	2.87E+13
Sn-130	2.46E+13	3.11E+13
Sn-131	2.19E+13	2.77E+13
Sn-132	1.89E+13	2.39E+13
Sb-127	7.56E+12	9.59E+12
Sb-128m	1.11E+13	1.40E+13
Sb-129	2.43E+13	3.07E+13
Sb-130	3.51E+13	4.43E+13
Sb-131	5.94E+13	7.50E+13
Sb-132m	3.78E+13	4.78E+13
Sb-132	6.21E+13	7.85E+13
Sb-133	6.75E+13	8.53E+13
Sb-134	3.51E+13	4.43E+13
Sb-135	1.11E+13	1.40E+13
Te-127	9.72E+12	1.23E+12
Te-129	2.32E+13	2.93E+13
Te-131m	1.16E+13	1.47E+13
Te-131	6.48E+13	8.19E+13
Te-132	1.03E+14	1.30E+14
Te-133m	8.64E+13	1.09E+14
Te-133	6.48E+13	8.19E+13
Te-134	1.32E+14	1.67E+14
Te-135	6.75E+13	8.53E+13
Te-136	2.70E+13	3.41E+13
Cs-134	1.45E+13	1.83E+13
Cs-137	8.95E+12	1.13E+13
Cs-138	1.35E+14	1.71E+14
Cs-139	1.32E+14	1.67E+14
Cs-140	1.22E+14	1.54E+14
Cs-141	9.18E+13	1.16E+14
Cs-142	5.67E+13	7.16E+13
Cs-143	2.70E+13	3.41E+13

Isotope	Unit 2 µCi	Unit 3 µCi
Ba-139	1.35E+14	1.71E+14
Ba-140	1.30E+14	1.64E+14
Ba-141	1.24E+14	1.57E+14
Ba-142	1.05E+14	1.33E+14
Ba-143	8.64E+13	1.09E+14
Ba-144	5.13E+13	6.48E+13
La-140	1.35E+14	1.71E+14
La-141	1.24E+14	1.57E+14
La-142	1.13E+14	1.43E+14
La-143	1.08E+14	1.36E+14
La-144	9.45E+13	1.19E+14
Ce-141	1.24E+14	1.57E+14
Ce-143	1.11E+14	1.40E+14
Ce-144	9.45E+13	1.19E+14
Ce-145	7.56E+13	9.55E+13
Ce-146	5.94E+13	7.50E+13
Ce-147	4.05E+13	5.12E+13
Ce-148	2.35E+13	2.97E+13
Pr-142	9.45E+12	1.19E+13
Pr-143	1.08E+14	1.36E+14
Pr-144	9.45E+13	1.19E+14
Pr-145	7.56E+13	9.55E+13
Pr-146	6.21E+13	7.85E+13
Pr-147	4.59E+13	5.80E+13
Pr-148	3.78E+13	4.78E+13
Pr-149	2.46E+13	3.11E+13
Nd-147	4.86E+13	6.14E+13
Nd-149	2.70E+13	3.41E+13
Nd-151	1.35E+13	1.71E+13
Pm-147	1.76E+13	2.22E+13
Pm-149	4.05E+13	5.12E+13
Pm-151	1.46E+13	1.84E+13
Sm-153	2.40E+13	3.03E+13
Eu-156	1.30E+13	1.64E+13

Release Fractions for Various Types of Core Damage

Core Condition	Fuel Cladding Temperature*	Fission Product	Core Inventory Release Fraction
Core Intact	≤ 600° F	Normal Activity	N/A
Gap Release (cladding failure)	1300° F - 2100° F	Xe, Kr	0.03
		I	0.02
		Cs	0.05
		Te, Sb	0.0001
Fuel Overheat (grain boundary)	2000° F - 3200° F	Xe, Kr	0.5
		I, Cs	0.5
		Te	0.1
		Sb	0.02
		Ba	0.01
		Mo	0.01
		Sr	0.001
		Ru	0.0001
Core Meltdown	>3500° F	Xe, Kr	1.0
		I, Cs	1.0
		Sb	0.2
		Te	0.3
		Ba	0.2
		Mo	0.07
		Sr	0.1
		Ru	0.001
		La	0.0001
		Y	0.0001
		Ce	0.0001
		Np	0.0001

*Above 1300° F, release rates will approximately double with every 200° F increase in temperature.

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: Scott McCain Date: 9/11/00 Department: EPSD Ext.: 3757

Document No.: MP-26-EPI-FAP11-008 Rev. No.: 000 Minor Rev.:

Title: Core Damage Assessment

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Convert to Master Manual format, implement EPSD document streamline initiative, and address CRs.

Continued ☐

C

Instructions:

None

Continued ☐

D

TPC Interim Approval (1) Plant Mngt Staff Member Print/Sign/Date (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☒ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☒ *Revision* ☐ *Minor Revision* (See DC-GDL01 for guidance) ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☐ Supersedure

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒ Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

F

Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	Dept.	✔ If Comments
	☐				☐	☐		
	☐				☐	☐		
Validation	☒	D. Aloi	Dan Aloi	9/19/00	☐	☐	EPSD	✔
Writer's Guide	☒	M. Maryeski	M Maryeski	9/22/00	☐	☑	SPG	✔
50.54(8)	☒	D. Aloi	Dan Aloi	9/22/00	☐	☐		
RCD	☒	K. Burgess	K Burgess	10/3/00			EPSD	
Independent	☒	D. Aloi	Dan Aloi	9/18/00	☐	☒	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No Environmental Review Required ☐ Yes ☒ No

H

1. ☐ SQR Program Final Review and Approval

Approval ☐ Disapproval ☐

SQR Qualified Independent Reviewer / Date

Department Head/Responsible Individual

Approval Date

2. ☒ SORC/PORC/RI/DH Final Review and Approval

SiAnk 9/26/00
Department Head/Responsible Individual / Date

Meeting No.: 00-30

[signature] for
Approval Signature

10/11/00
Approval Date

I

Effective Date: 12/21/00

10/11/00 Approval Date

12/21/00 Effective Date

Core Damage Estimate: Summary Analysis

Affected Unit: ❑ Unit 2 ❑ Unit 3

Assessment Methods		Clad	OH	Melt
Core Parameters/Indications	Core Exit Temps:			
	Core Uncovery Time:			
Containment Radiation Monitors*				
Main Steam Line Radiation Monitors*				
Containment Hydrogen Concentration*				
Isotopic Ratio/Abnormal Nuclide	Ratios:			
	Abnormal Isotopes:			
Sample Activities				

* These methods should NOT be used for qualitative or quantitative assessment except in the case of a LOCA.

Analyst's Estimate:

❑ No Damage ❑ Clad ❑ Overheat ❑ Melt Amount: ______

NRC Core Condition Category: ______

Degree of Degradation	Minor (<10%)	Intermediate (10%-50%)	Major (>50%)
No Fuel Damage	1	1	1
Cladding Failure	2	3	4
Fuel Overheat	5	6	7
Fuel Melt	8	9	10

Performed By:

Name: ______________________ Date: __________ Time: __________

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: Scott McCain Date: 9/11/00 Department: EPSD Ext.: 3757

Document No.: MP-26-EPI-FAP11-009 Rev. No.: 000 Minor Rev.:

Title: Core Damage Assessment

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Convert to Master Manual format, implement EPSD document streamline initiative, and address CRs.

Continued ☐

C

Instructions:

None

Continued ☐

D

TPC Interim Approval (1) Plant Mngt Staff Member Print/Sign/Date (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☒ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☒ *Revision* ☐ *Minor Revision* (See DC-GDL01 for guidance) ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☐ Supersedure

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒

Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

F

Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	Dept.	✔ If Comments
	☐				☐	☐		
	☐				☐	☐		
Validation	☒	D. Aloi	Dan Aloi	9/19/00	☐	☐	EPSD	✓
Writer's Guide	☒	M. Maryeski	M Maryeski	9/22/00	☐	☑	SPG	✓
50.54(8)	☒	D. Aloi	Dan Aloi	9/22/00	☐	☐		
RCD	☒	K. Burgess	K Burgess	10/3/00			EPSD	
Independent	☒	D. Aloi	Dan Aloi	9/18/00	☐	☒	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No Environmental Review Required ☐ Yes ☒ No

H

1. ☐ SQR Program Final Review and Approval

Approval ☐ Disapproval ☐

SQR Qualified Independent Reviewer / Date

Department Head/Responsible Individual

Approval Date

2. ☒ SORC/PORC/RI/DH Final Review and Approval

SiAnke 9/26/00

Department Head/Responsible Individual / Date

Meeting No.: 00-30

Approval Signature

10/11/00

Approval Date

I

Effective Date: 12/21/00

MP-05-DC-SAP01-001
Rev. 002-01

10/11/00
Approval Date

12/21/00
Effective Date

Unit 2 Reactor Coolant and Liquid Waste Sample Worksheet

TABLE 1

RM-8240/8241 Reading ≥ 300 R/hr (>5% Clad Damage)
RM-8240/8241 Reading ≥ 5 R/hr without RCS Release into CTMT (>5% Clad Damage)

________ Appropriate indicator circled.

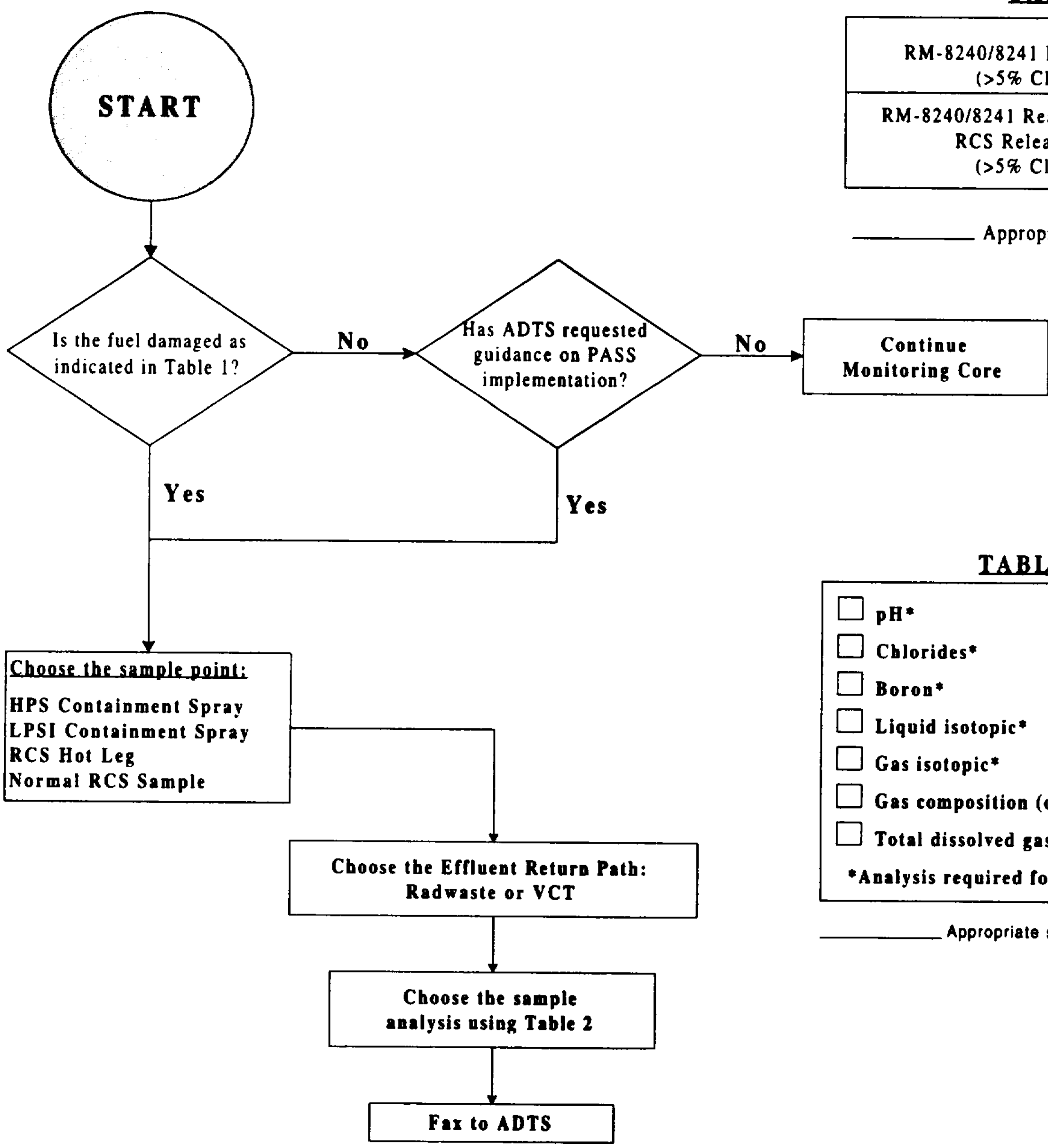


TABLE 2

- ☐ pH*
- ☐ Chlorides*
- ☐ Boron*
- ☐ Liquid isotopic*
- ☐ Gas isotopic*
- ☐ Gas composition (optional)
- ☐ Total dissolved gas*

*Analysis required for initial sample

________ Appropriate sample analysis checked.

Completed by: ________________ Date: ________ Time: ________
(MRDA/AMRDA)

ADTS Approval: ________________ Date: ________ Time: ________

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: Scott McCain Date: 9/11/00 Department: EPSD Ext.: 3757

Document No.: MP-26-EPI-FAP11-010 Rev. No.: 000 Minor Rev.:

Title: Core Damage Assessment

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Convert to Master Manual format, implement EPSD document streamline initiative, and address CRs.

Continued ☐

C

Instructions:

None

Continued ☐

D

TPC Interim Approval

(1) Plant Mngt Staff Member Print/Sign/Date (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☒ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☒ *Revision* ☐ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☐ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒

Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

F

Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	SQR Qualified Dept.	✔ If Comments
	☐				☐	☐		
	☐				☐	☐		
Validation	☒	D. Aloi	Dan Aloi	9/19/00	☐	☐	EPSD	✔
Writer's Guide	☒	M. Maryeski	M Maryeski	9/22/00	☐	☑	SPG	✔
50.54(8)	☒	D. Aloi	Dan Aloi	9/22/00	☐	☐		
RCD	☒	K. Burgess	K Burgess	10/3/00			EPSD	
Independent	☒	D. Aloi	Dan Aloi	9/18/00	☐	☒	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No Environmental Review Required ☐ Yes ☒ No

H

1. ☐ **SQR Program Final Review and Approval**

Approval ☐ Disapproval ☐

SQR Qualified Independent Reviewer / Date

Department Head/Responsible Individual

Approval Date

2. ☒ **SORC/PORC/RI/DH Final Review and Approval**

SiAnk 9/26/00

Department Head/Responsible Individual / Date

Meeting No.: 00-30

Approval Signature for

10/11/00

Approval Date

I

Effective Date: 12/21/00

10/11/00
Approval Date

12/21/00
Effective Date

Unit 2 Vent and Containment Air Sample Worksheet

INSTRUCTIONS:

Circled desired Sample, Sample Location, Sample Type, and Analysis.

SAMPLE	LOCATION	TYPE	ANALYSIS
PASS Containment Air	Hydrogen Analyzer Train "A"	Gas	Gas Isotopic Gas Composition
PASS Containment Air	Hydrogen Analyzer Train "B"	Gas	Gas Isotopic Gas Composition
Vent (High Range)	38'6" East Penetration Room	Gas Particulate Iodine	Gas Isotopic Particulate Isotopic Iodine Isotopic
Vent (Normal Range)	38'6" East Penetration Room	Gas Particulate Iodine	Gas Isotopic Particulate Isotopic Iodine Isotopic
Primary Vent Stack	Stack Sample Room	Gas Particulate Iodine	Gas Isotopic Particulate Isotopic Iodine Isotopic

Completed by: ______________________ Date: ____________ Time: ____________
(MRDA/MRCA)

ADTS Approval: ____________________ Date: ____________ Time: ____________

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: Scott McCain Date: 9/11/00 Department: EPSD Ext.: 3757

Document No.: MP-26-EPI-FAP12 Rev. No.: 000 Minor Rev.:

Title: Thermal Hydraulic Evaluations

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Convert to Master Manual format, implement EPSD document streamline initiative, and address CRs.

Continued ☐

C

Instructions:

None

Continued ☐

D

TPC Interim Approval (1) Plant Mngt Staff Member Print/Sign/Date (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☒ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☒ *Revision* ☐ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☐ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒

Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

F

Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	Dept.	✓ If Comments
	☐				☐	☐		
	☐				☐	☐		
Validation	☒	Yehia Khalil	Yehia F. Khalil	9/18/00	☐	☑	NED	
Writer's Guide	☒	M. Maryeski	M Maryeski	9/19/00	☐	☑	SDG	✓
50.54(q)	☒	M. White	M White	9/12/00	☒	☐	EPSD	
RCD	☒	M. White	M White	9/12/00			EPSD	
Independent	☒	M. White	M White	9/12/00	☐	☐		

G

Safety Evaluation Required ☐ Yes ☒ No **Environmental Review Required** ☐ Yes ☒ No

H

1. ☐ **SQR Program Final Review and Approval**

Approval ☐ Disapproval ☐

SQR Qualified Independent Reviewer / Date

Department Head/Responsible Individual

Approval Date

2. ☒ **SORC/PORC/RI/DH Final Review and Approval**

[illegible] 9/26/00

Department Head/Responsible Individual / Date

Meeting No.: 00-30

[illegible] for

Approval Signature

10/11/00

Approval Date

I

Effective Date: 12/21/00

Functional Administrative Procedure

Millstone Station

Thermal Hydraulic Evaluations

MP-26-EPI-FAP12

Rev. 000

Approval Date: 10/11/00

Effective Date: 12/21/00

STOP THINK ACT REVIEW

Table of Contents

1. PURPOSE

1.1 Objective

The purpose of this procedure is to provide guidance to the Technical Support Center staff in performing initial thermal hydraulic evaluations during an event that activates the Station Emergency Response Organization.

1.2 Applicability

NA

1.3 Supporting Documents

"Thermal Hydraulics Reference Book"

"Thermal-Hydraulic Evaluation Computer Codes"

1.4 Discussion

The following evaluations are performed as part of this procedure:

- Core Uncovery Time Estimate
- Estimation of Fuel Damage State
- Barrier Status Determination
- Containment Failure Time Estimate
- Core Cooling Water Inventory

2. INSTRUCTIONS

2.1 Refer To and complete the following forms, as applicable:

- EPI-FAP12-001, "Core Uncovery Time Estimate"
- EPI-FAP12-002, "Estimation of Fuel Damage State"
- EPI-FAP12-003, "Barrier Status Determination"
- EPI-FAP12-004, "Containment Failure Time Estimate"
- EPI-FAP12-005, "Core Cooling Water Inventory"

2.2 Analyze ongoing conditions.

2.3 Repeat thermal hydraulic evaluations, as necessary.

2.4 Retain all calculations.

2.5 Report results to MTSC.

2.6 Inform the MRDA of any results involving core damage estimations.

3. SUMMARY OF CHANGES

3.1 Original issue

Attachment 1
Definitions and Abbreviations

(Sheet 1 of 1)

Definitions

N/A

Abbreviations

MTSC - Manager of Technical Support Center

RVLMS - Reactor Vessel Level Monitoring System

RPV - Reactor Pressure Vessel

RCS- Reactor Coolant System

Attachment 2
Responsibilities

(Sheet 1 of 1)

1. Manager of Technical Support Center (MTSC)

   The MTSC has the responsibility for the performance of the calculations in this procedure. The MTSC may delegate this task to any qualified TSC staff member.

2. Accident Management Team (AMT)

   Once the TSC is fully staffed, the Accident Management Team will relieve the MTSC of this responsibility and may employ more sophisticated methods in making engineering evaluations.

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: Scott McCain Date: 9/11/00 Department: EPSD Ext.: 3757

Document No.: MP-26-EPI-FAP12 -001 Rev. No.: 000 Minor Rev.:

Title: Thermal Hydraulic Evaluations

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Convert to Master Manual format, implement EPSD document streamline initiative, and address CRs.

Continued ☐

C

Instructions:

None

Continued ☐

D

TPC Interim Approval (1) Plant Mngt Staff Member Print/Sign/Date (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☒ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☒ *Revision* ☐ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☐ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒

Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

F

Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	Dept.	✓ if Comments
	☐				☐	☐		
	☐				☐	☐		
Validation	☒	Yehia Khalil	Yehia F. Khalil	9/18/00	☐	☑	NED	
Writer's Guide	☒	M. Maryeski	M Maryeski	9/19/00	☐	☑	SPG	✓
50.54(q)	☒	M. White	M White	9/12/00	☑	☐	EPSD	
RCD	☒	M. White	M White	9/12/00			EPSD	
Independent	☒	M. White	M White	9/12/00	☐	☐		

G

Safety Evaluation Required ☐ Yes ☒ No Environmental Review Required ☐ Yes ☒ No

H

1. ☐ SQR Program Final Review and Approval

Approval ☐ Disapproval ☐

SQR Qualified Independent Reviewer / Date

Department Head/Responsible Individual

Approval Date

2. ☒ SORC/PORC/RI/DH Final Review and Approval

[signature] 9/26/00

Department Head/Responsible Individual / Date

Meeting No.: 00-30

[signature] for

Approval Signature

10/11/00

Approval Date

I

Effective Date: 12/21/00

10/11/00 — Approval Date

12/21/00 — Effective Date

Core Uncovery Time Estimate

CAUTION

This method should not be used when reactor coolant pumps are operating **or** reactor vessel level is above 29% [Unit 2] 64% [Unit 3].

1. Note the reactor vessel level (OFIS Display A3) and time just prior to a change in level ($T_2 > T_1$):

   Clock $Time_1$ (T_1) ________ $Level_1$ ________%

   Clock $Time_2$ (T_2) ________ $Level_2$ ________%

2. Obtain the liquid volumes from the following table (Note: The RVLMS Level indicates the liquid volume is greater than or equal to the value in the table.):

Unit 2	
RVLMS Level (%)	Liquid Volume (ft^3)
7	297
12	397
19	497
29	1415

Unit 3	
RVLMS Level (%)	Liquid Volume (ft^3)
19	308
32	433
47	558
64	1591

3. Calculate rate of liquid loss (time in minutes).

$$\frac{dV}{dt} = \frac{V_2 - V_1}{T_2 - T_1} = \frac{(\quad)-(\quad)}{(\quad)-(\quad)} = \frac{(\quad)(ft^3)}{(\quad)(min)}$$

4. Estimate time to reach Core Uncovery as follows:

   - Remaining Time until Core Uncovery = $\Delta t_{uncovery} = -\frac{(V_2)}{\left(\frac{dV}{dt}\right)}$ = ____minutes

   - Estimated Clock Time at Uncovery = $T_{2(\text{from Step 1})} + \Delta t_{uncovery}$ = ______

5. Report results to the MTSC.

Prepared by: ____________________ ____________________ ____________

Signature Print Date

6/27/00	6/30/00
Approval Date	Effective Date

Document Action Request

SPG#

A

Initiated By: Scott McCain Date: 9/11/00 Department: EPSD Ext.: 3757

Document No.: MP-26-EPI-FAP12 -002 Rev. No.: 000 Minor Rev.:

Title: Thermal Hydraulic Evaluations

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Convert to Master Manual format, implement EPSD document streamline initiative, and address CRs.

Continued ☐

C

Instructions:

None

Continued ☐

D

TPC Interim Approval (1) Plant Mngt Staff Member Print/Sign/Date (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☒ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☒ *Revision* ☐ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☐ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒ Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

F

Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	SQR Qualified Dept.	✓ If Comments
	☐				☐	☐		
	☐				☐	☐		
Validation	☒	Yehia Khalil	Yehia F. Khalil	9/18/00	☐	☑	NED	
Writer's Guide	☒	M. Maryeski	M Maryeski	9/19/00	☐	☑	SDG	✓
50.54(q)	☒	M. White	M White	9/12/00	☑	☐	EPSD	
RCD	☒	M. White	M White	9/12/00			EPSD	
Independent	☒	M. White	M White	9/12/00	☐	☐		

G

Safety Evaluation Required ☐ Yes ☒ No **Environmental Review Required** ☐ Yes ☒ No

H

1. ☐ **SQR Program Final Review and Approval**

Approval ☐ Disapproval ☐

SQR Qualified Independent Reviewer / Date

Department Head/Responsible Individual

Approval Date

2. ☒ **SORC/PORC/RI/DH Final Review and Approval**

[signature] 9/24/00

Department Head/Responsible Individual / Date

Meeting No.: 00-30

[signature] for

Approval Signature

10/11/00

Approval Date

I

Effective Date: 12/21/00

10/11/00	12/21/00
Approval Date	Effective Date

Estimation of Fuel Damage State

1. Refer To EPI-FAP12-001, "Core Uncovery Time Estimate" and estimate time to core uncovery, $T_{uncovery}$

2. Calculate time to start of fuel heatup using the following formula:

$$\frac{V_{Boil} \times h_{fg}}{\upsilon_{fsat} \times \frac{P}{P_0} \times P_0(Mw) \times 948.0\left(\frac{Btu}{sec.\,Mw.}\right) \times 60.0\left(\frac{sec.}{min.}\right)} + T_{uncovery}$$

<u>Where:</u>

V_{boil} = Top half of core volume (ft^3, Table 1)

P/P_0 = Decay heat fraction (Refer to Decay Heat Faction vs. Time After Trip plot)

P_0 = Initial core power (Mwth, Table 1, below)

h_{fg} = Heat of vaporization (Btu/lbm, Table 2, below)

υ_{fsat} = Saturated liquid specific volume (ft^3/lbm, Table 2)

Table 1

	MP2	MP3
V_{boil} (ft^3)	627.0	662.0
Full Power (Mwth)	2700	3411

Table 2

Pressure (psia)	50.00	1000.0	2000.0
υ_{fsat}	0.017274	0.02159	0.02565
h_{fg}	923.9	650.4	466.2

3. Determine time to various fuel damage (core condition) states as follows:

   a. Select the appropriate Decay Heat Fraction for the present time using the Figure 1 curve.

NOTE

The curves in Figure 2 represent decay heat levels at 15, 45, 105, and 600 minutes after reactor trip from an assumed 100% power level.

b. Using the Decay Heat Fraction (calculated in step a), select the corresponding curve from Figure 2 and the desired core damage state based on Time vs. Temperature on the curve.

NOTE

Analysis assumes No ECCS injection and 100% equilibrium core power distribution.

Table 3

Core Condition	Fuel Cladding Temperature (F)
Gap Release (cladding failure)	1500
Fuel Overheat (grain boundary)	2500
Core Meltdown	> 3500

4. Report results to the MTSC.

Prepared by: ______________________ ______________________ ______________________

Signature Print Date

Figure 1

Decay Heat Fraction vs. Time
(Assumes 36 Month Average Burnup)

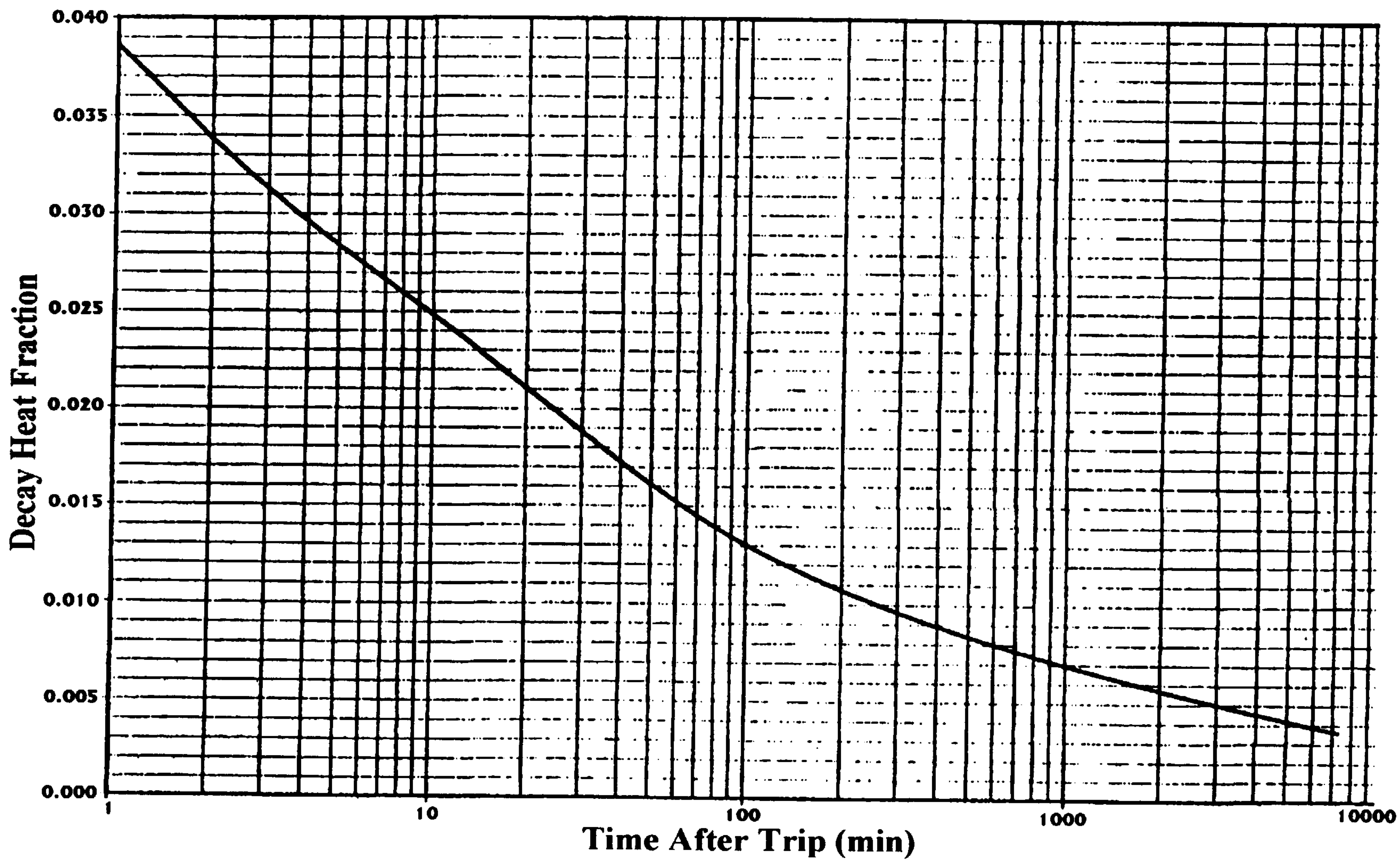


Figure 2

MP2, Decay Heat Fraction = 0.0213

(15 min. Post trip from 100% with 36 Month Average Burnup)

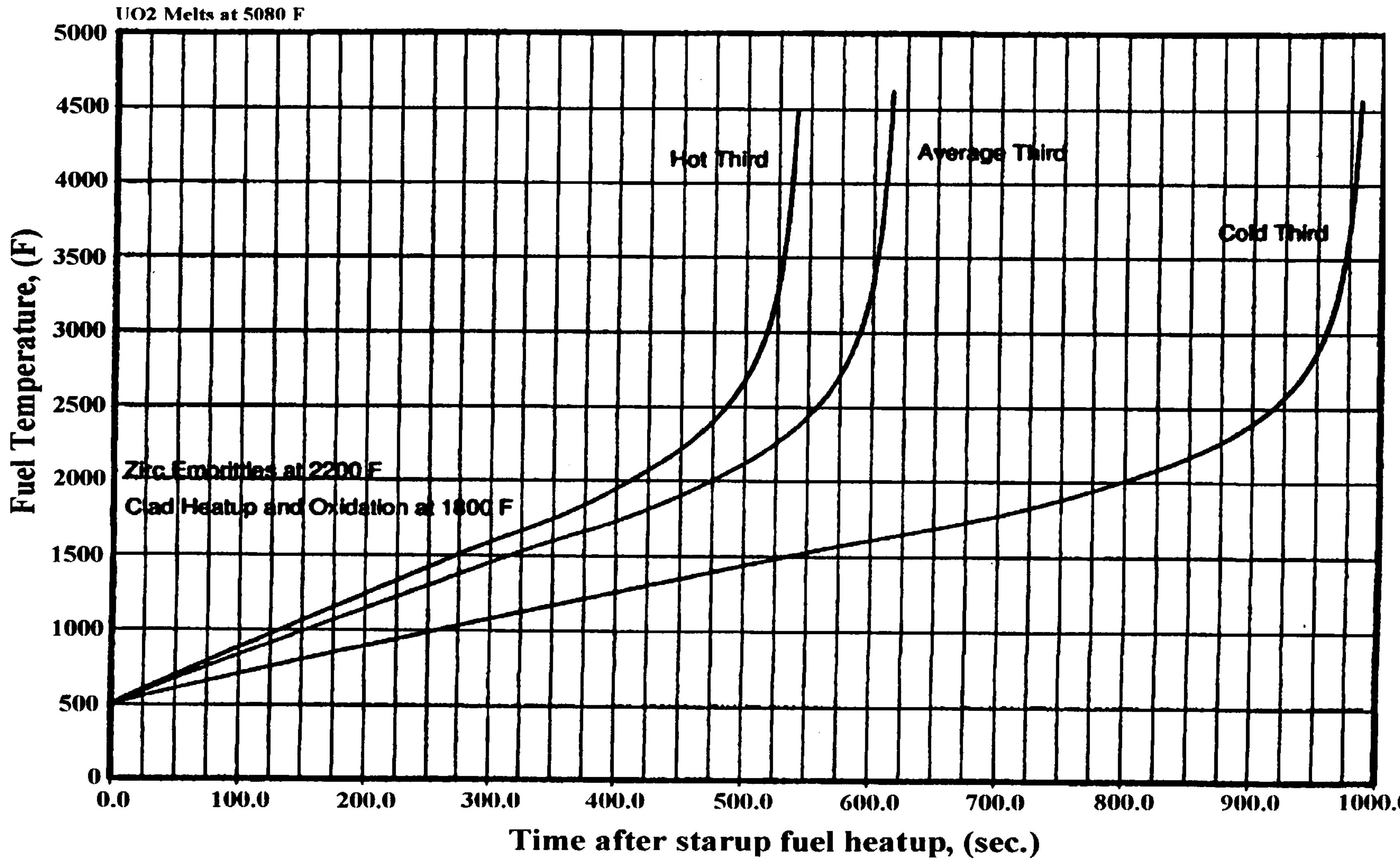


Figure 2
MP2 Decay Heat Fraction = 0.017

(45 min. Post trip from 100% with 36 Month Average Burnup)

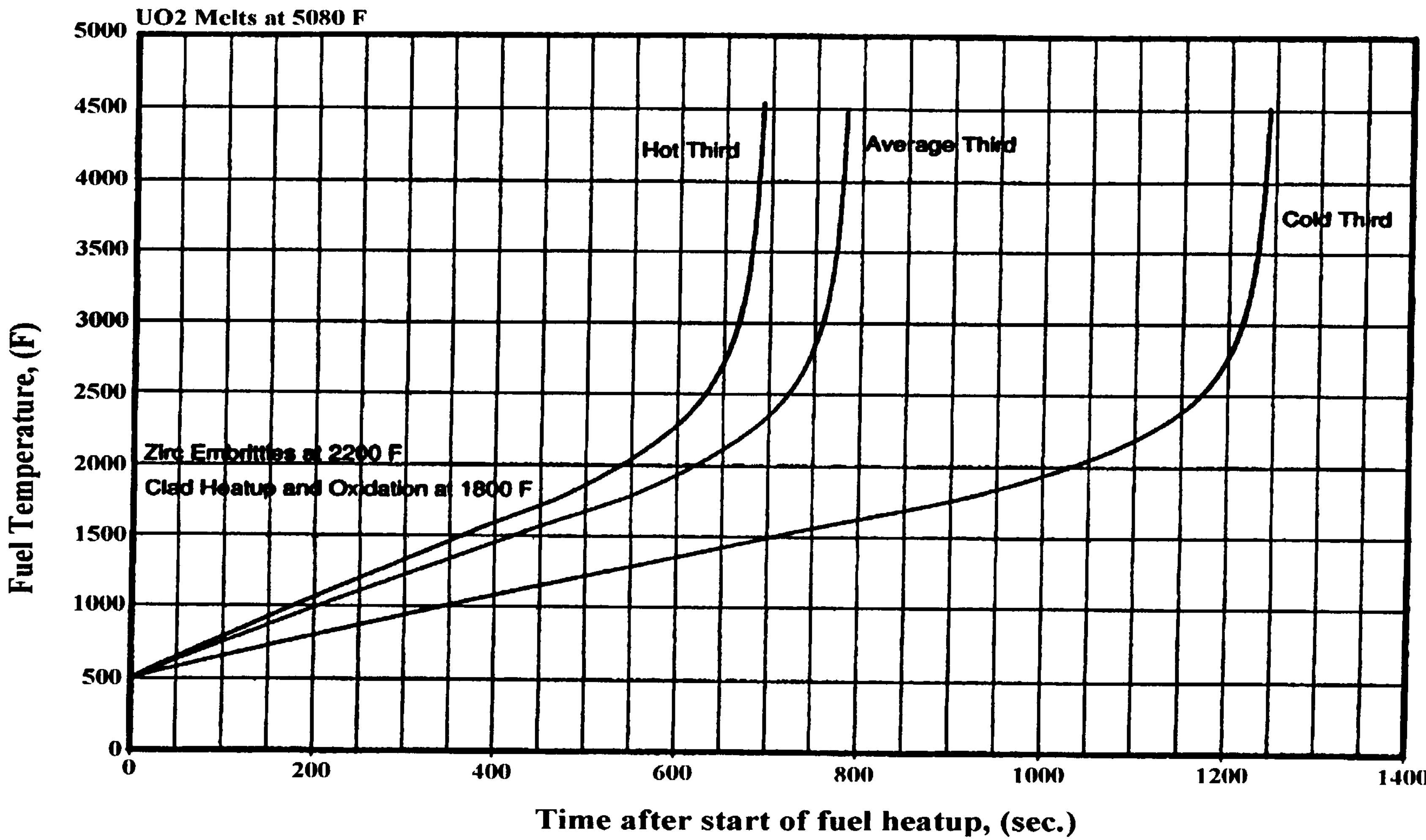


Figure 2
MP2 Decay Heat Fraction = 0.013
(105 min. Post trip from 100% with 36 Month Average Burnup)

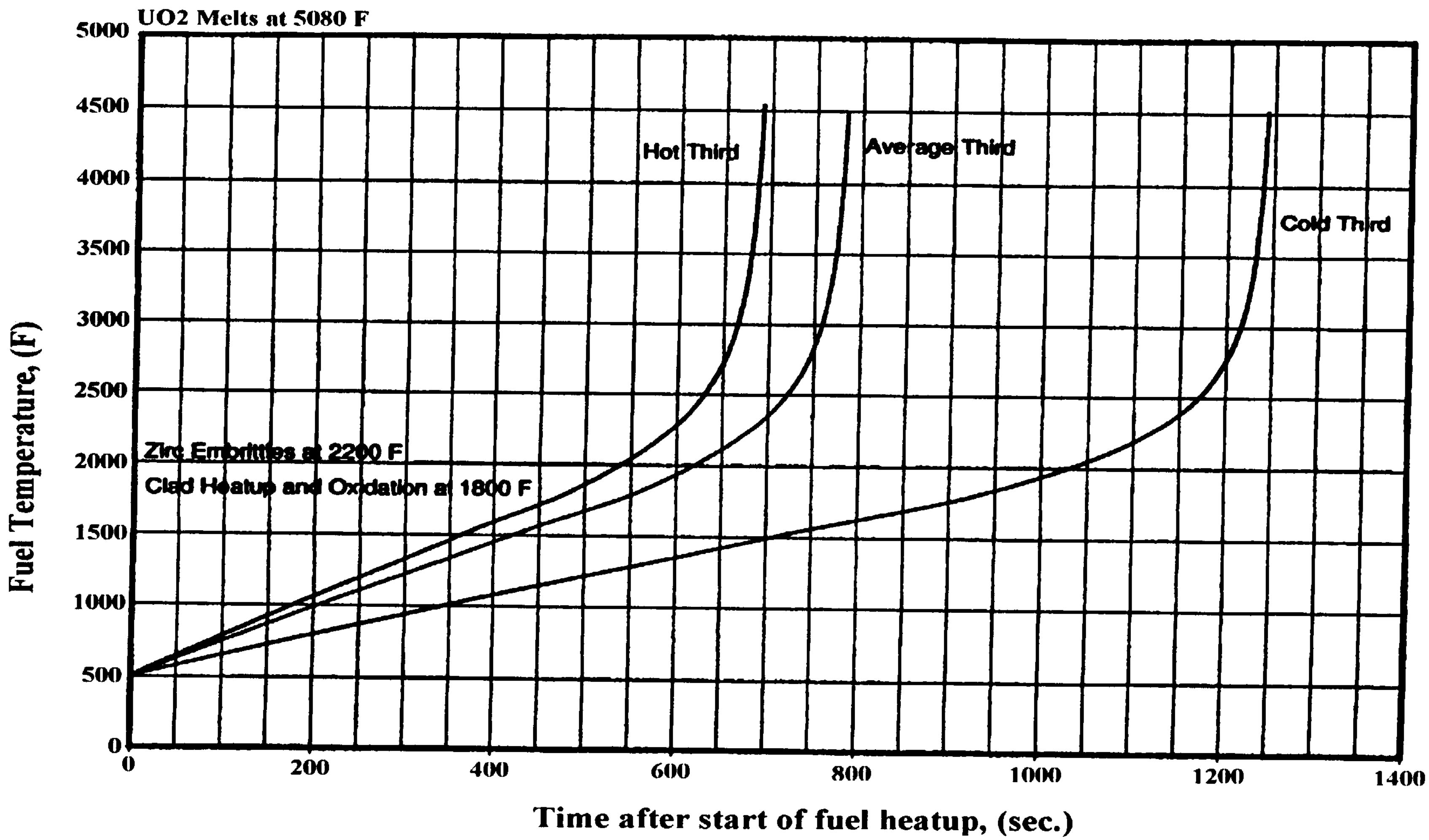


Figure 2

MP2, Decay Heat Fraction = 0.008
(600 min. Post trip from 100% with 36 Month Average Burnup)

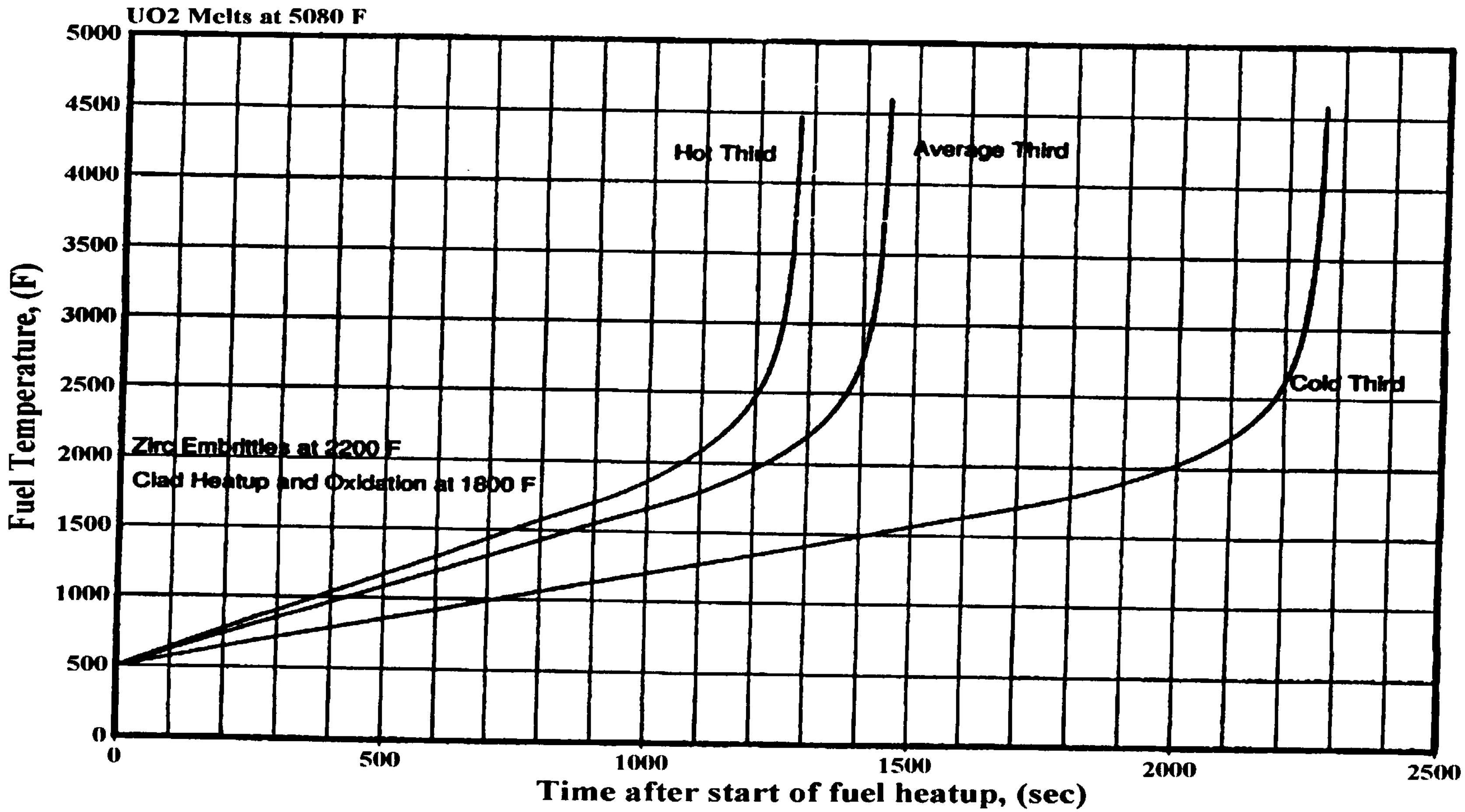


Figure 2
MP3, Decay Heat Fraction = 0.023
(15 min. Post trip from 100% with 36 Month Average Burnup)

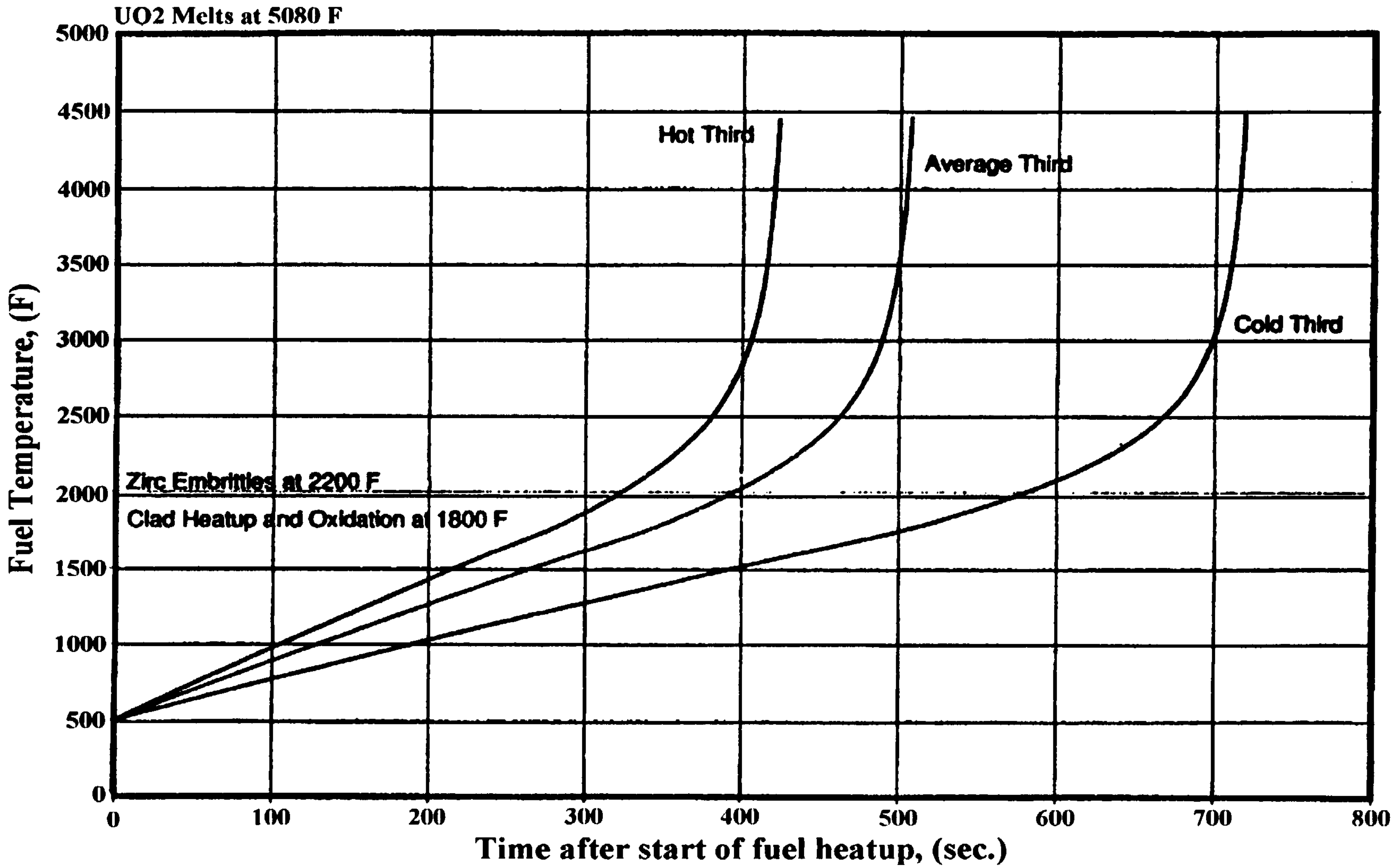


Figure 2

MP3, Decay Heat Fraction = 0.017

(45 min. Post trip from 100% with , 36 Month Average Burnup)

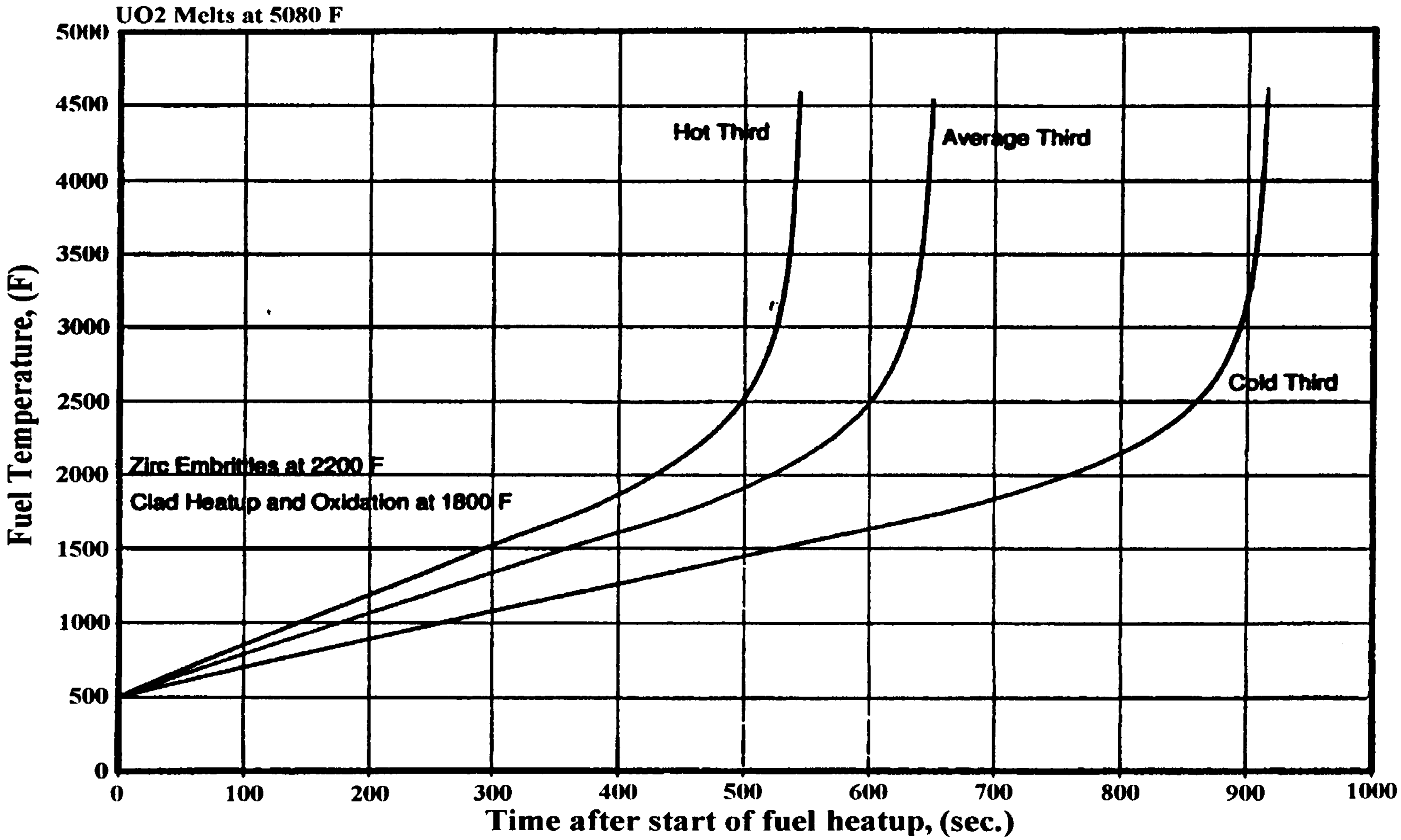


Figure 2
MP3, Decay Heat Fraction = 0.013
(105 min. Post trip from 100% with 36 Month Average Burnup)

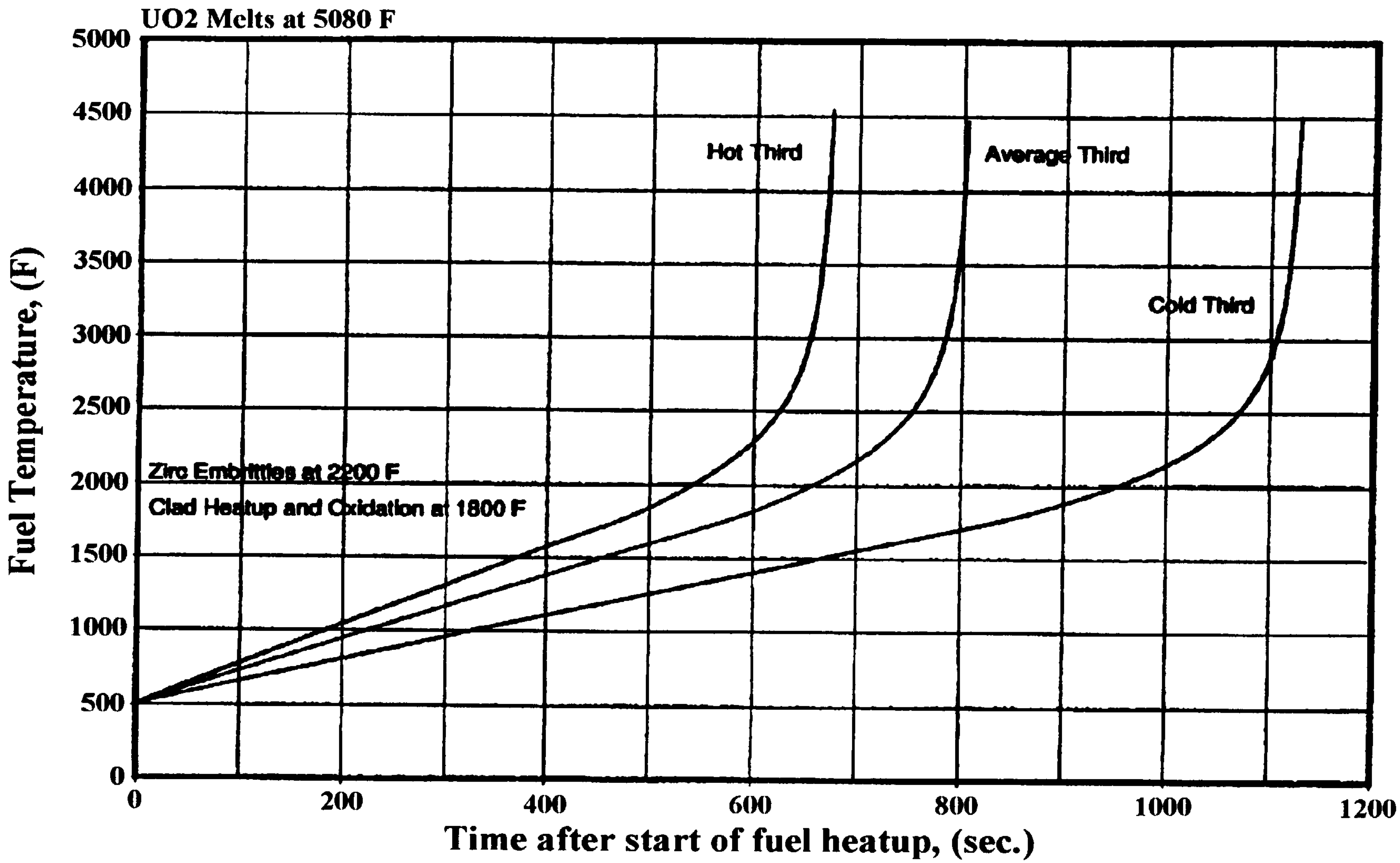
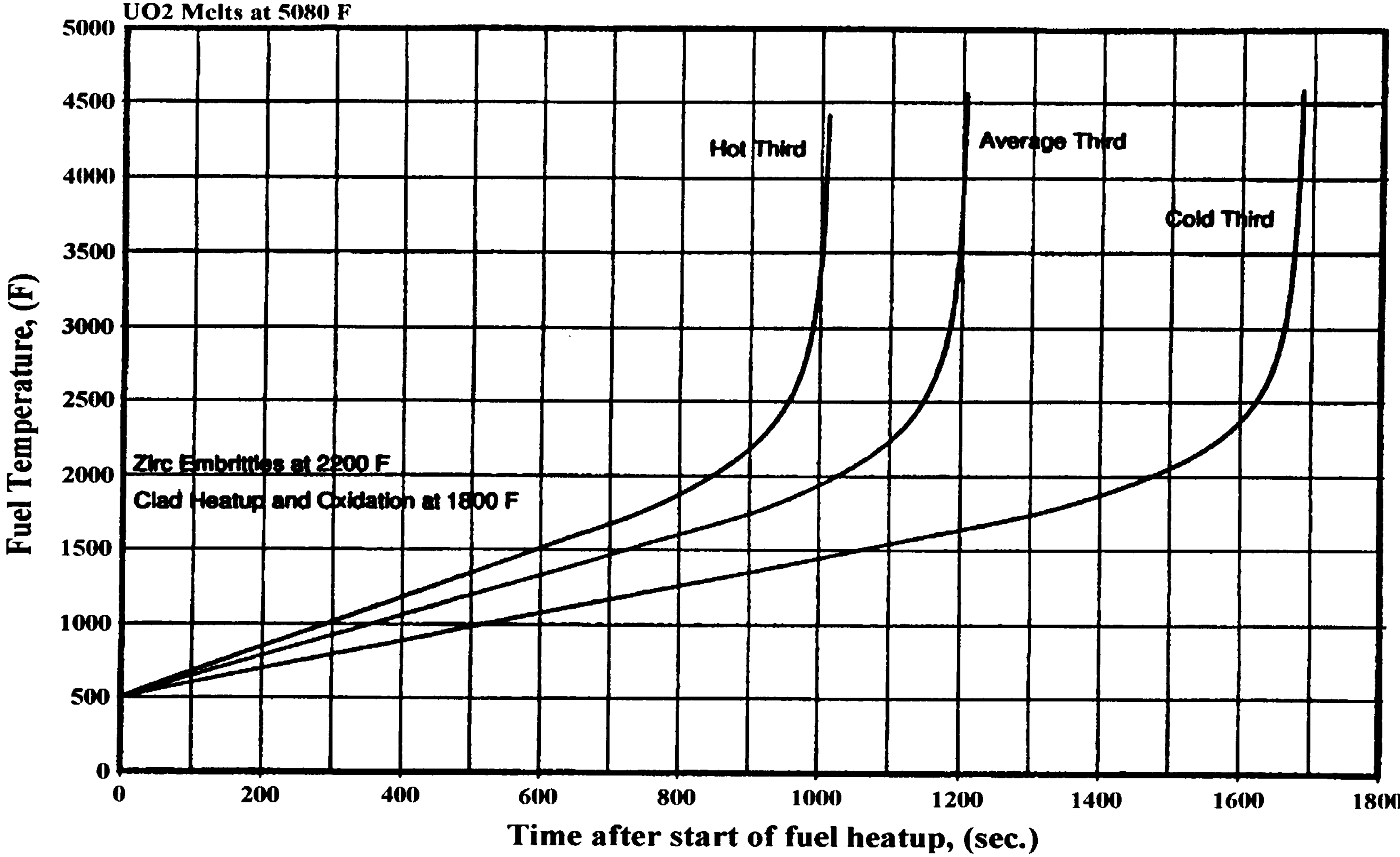


Figure 2
MP3, Decay Heat Fraction = 0.008
(600 min. Post trip from 100% with 36 Month Average Burnup)



6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: Scott McCain   Date: 9/11/00   Department: EPSD   Ext.: 3757

Document No.: MP-26-EPI-FAP12 -003   Rev. No.: 000   Minor Rev.:

Title: Thermal Hydraulic Evaluations

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Convert to Master Manual format, implement EPSD document streamline initiative, and address CRs.

Continued ☐

C

Instructions:

None

Continued ☐

D

TPC Interim Approval (1) Plant Mngt Staff Member Print/Sign/Date   (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☒ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☒ *Revision* ☐ *Minor Revision* (See DC-GDL01 for guidance) ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☐ Supersedure

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒ Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date   Continued ☐

F

Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	Dept.	✓ if Comments
	☐				☐	☐		
	☐				☐	☐		
Validation	☒	Yehia Khalil	Yehia F. Khalil	9/18/00	☐	☑	NED	
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50.54(q)	☒	M. White	M White	9/12/00	☑	☐	EPSD	
RCD	☒	M. White	M White	9/12/00			EPSD	
Independent	☒	M. White	M White	9/12/00	☐	☐		

G

Safety Evaluation Required ☐ Yes ☒ No   Environmental Review Required ☐ Yes ☒ No

H

1. ☐ **SQR Program Final Review and Approval**

Approval ☐ Disapproval ☐

SQR Qualified Independent Reviewer / Date

Department Head/Responsible Individual

Approval Date

2. ☒ **SORC/PORC/RI/DH Final Review and Approval**

[signature] 9/24/00
Department Head/Responsible Individual / Date

Meeting No.: 00-30

[signature] for
Approval Signature

10/11/00
Approval Date

I

Effective Date: 12/21/00

10/11/00
Approval Date

12/21/06
Effective Date

Barrier Status Determination

1. Determine if a potential or actual barrier failure exists by evaluating the following:

Fuel Challenge

- RCS total injection flow less than Boil off flow.
- Reactor vessel level at or below top of active fuel.

Fuel Failure

- Core Exit Thermocouple temperatures greater than 1200° F.
- Core heatup calculations exceed fuel failure value.
- Containment H_2 concentration increase.

RCS Challenge

- RCS pressure greater than Safety Relief valve setpoint.
- Total loss of feedwater flow (AFW and MFW).

RCS Failure

- Significant RCS inventory loss as indicated by pressurizer level or RVLMS.
- Containment pressure and temperature increase concurrent with RCS inventory loss.
- Significant containment sump level increase with no apparent source other than RCS.

Containment Challenge

- Containment pressure greater than Design pressure.
- Containment temperature greater than Design temperature.
- Containment heat removal not operating when required (Containment Spray, CAR)

Containment Failure

NOTE

Containment external radiation levels will increase following fuel failure and/or initiation of containment sump recirculation. Assessment of containment failure should account for these factors.

- Increased radiation levels outside containment due to radioactive releases to the environment.
- Rapid, unexplained containment pressure decrease.

2. Report results to the MTSC.

Prepared by: ______________________ ______________________ ______________________
Signature Print Date

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: Scott McCain Date: 9/11/00 Department: EPSD Ext.: 3757

Document No.: MP-26-EPI-FAP12 -004 Rev. No.: 000 Minor Rev.:

Title: Thermal Hydraulic Evaluations

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Convert to Master Manual format, implement EPSD document streamline initiative, and address CRs.

Continued ☐

C

Instructions:

None

Continued ☐

D

TPC Interim Approval

(1) Plant Mngt Staff Member Print/Sign/Date

(2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☒ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☒ *Revision* ☐ *Minor Revision* (See DC-GDL01 for guidance) ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☐ Supersedure

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒

Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

F

Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	Dept.	✓ if Comments
	☐				☐	☐		
	☐				☐	☐		
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Writer's Guide	☒	M. Maryeski	M Maryeski	9/19/00	☐	☑	SPG	✓
50.54(q)	☒	M. White	M White	9/12/00	☒	☐	EPSD	
RCD	☒	M. White	M White	9/12/00			EPSD	
Independent	☒	M. White	M White	9/12/00	☐	☐		

G

Safety Evaluation Required ☐ Yes ☒ No Environmental Review Required ☐ Yes ☒ No

H

1. ☐ SQR Program Final Review and Approval

Approval ☐ Disapproval ☐

SQR Qualified Independent Reviewer / Date

Department Head/Responsible Individual

Approval Date

2. ☒ SORC/PORC/RI/DH Final Review and Approval

[signature] 9/26/00
Department Head/Responsible Individual / Date

Meeting No.: 00-30

[signature] for
Approval Signature

10/11/00
Approval Date

I

Effective Date: 12/21/00

MP-05-DC-SAP01-001
Rev. 002-01
Page 1 of 1

10/11/00	12/21/00
Approval Date	Effective Date

Containment Failure Time Estimate

1. Obtain recent containment pressure trend data (OFIS Display A8) and perform a linear extrapolation to determine the pressure increase rate.

   Clock Time$_1$ (T_1) ____________ Pressure$_1$ (P_1) ____________psia

   Clock Time$_2$ (T_2) ____________ Pressure$_2$ (P_2) ____________psia
   ($T_2 > T_1$)

   $$DP/DT = (P_2 - P_1)/(T_2 - T_1) = \frac{(\quad)-(\quad)}{(\quad)-(\quad)} = \frac{(\quad)(psi)}{(\quad)(min)}$$

2. Determine time to containment failure using values from Table 1 below:

Table 1		
Pressure (psia)	MP2	MP3
P_{fail} (lower bound)	116.7	111.9
P_{fail} (median)	164.7	132.4

$$\Delta t = (P_{fail} - P_2)/(DP/DT) = \frac{(\quad)-(\quad)}{(\quad)} = \frac{(\quad)(min)}{}$$

Δt = ______ minutes

3. T_2 (from step 1) + Δt (from step 2) = T_{fail} (Clock Time at containment failure)

   $$T_{fail} = T_2 + \Delta t = (\_\_\_\_\_\_) + (\_\_\_\_\_\_) = \_\_\_\_\_\_\_ \text{ min}$$

   T_{fail} = ______ minutes

4. Report results to MTSC.

Prepared by: ____________________ ____________________ ____________

Signature Print Date

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: Scott McCain Date: 9/11/00 Department: EPSD Ext.: 3757

Document No.: MP-26-EPI-FAP12 – 005 Rev. No.: 000 Minor Rev.:

Title: Thermal Hydraulic Evaluations

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Convert to Master Manual format, implement EPSD document streamline initiative, and address CRs.

Continued ☐

C

Instructions:

None

Continued ☐

D

TPC Interim Approval (1) Plant Mngt Staff Member Print/Sign/Date (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☒ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☒ *Revision* ☐ *Minor Revision* (See DC-GDL01 for guidance) ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☐ Supersedure

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒ Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

F

Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	Dept.	✓ if Comments
	☐				☐	☐		
	☐				☐	☐		
Validation	☒	Yehia Khalil	Yehia F. Khalil	9/18/00	☐	☑	NED	
Writer's Guide	☒	M. Maryeski	M Maryeski	9/19/00	☐	☑	SPG	✓
50.54(q)	☒	M. White	M White	9/12/00	☒	☐	EPSD	
RCD	☒	M. White	M White	9/12/00			EPSD	
Independent	☒	M. White	M White	9/12/00	☐	☐		

G

Safety Evaluation Required ☐ Yes ☒ No Environmental Review Required ☐ Yes ☒ No

H

1. ☐ SQR Program Final Review and Approval

Approval ☐ Disapproval ☐

SQR Qualified Independent Reviewer / Date

Department Head/Responsible Individual

Approval Date

2. ☒ SORC/PORC/RI/DH Final Review and Approval

[signature] 9/26/00
Department Head/Responsible Individual / Date

Meeting No.: 00-30

[signature] for
Approval Signature

10/11/00
Approval Date

I

Effective Date: 12/21/00

MP-05-DC-SAP01-001
Rev. 002-01
Page 1 of 1

10/11/06 | 12/21/06
Approval Date | Effective Date

Core Cooling Water Inventory

Section A: Secondary Water Supplies

1. Obtain Tank Volume Data (%) from OFIS point listed in the table below:

Secondary System Water Supplies AFW supply volumes (gal); OFIS Display shown in parenthesis		
Tank	**MP2 V_{full}**	**MP3 V_{full}**
DWST	N/A	340,000 (A13)
CST	250,000 (A6)	200,000 (A13)

2. Enter Data from OFIS and above into the formula and calculate Available Volume.

NOTE

CST may be used as an alternate water supply for Unit 3.

* Calculations subtract 5% of rated tank volume to determine useable volume.

$$\text{Available Volume} = \frac{\text{Level (\%)}}{100} \times \left[V_{full} - \left(0.05^{*} \times V_{full}\right)\right]$$

$$\underline{\qquad\qquad} V_{gal} = \frac{\underline{\qquad\qquad}(\%)}{100} \times \left[\underline{\qquad\qquad} V_{full} - (0.05^{*} \times \underline{\qquad\qquad} V_{full})\right]$$

3. Determine flow rate from tank (AFW flow) = _____ gpm

4. Estimate remaining time to deplete tank = $\frac{V_{gal}}{\text{(AFW flow)}}$ = _______ min.

5. Report results to MTSC.

Prepared by: ____________________ ____________________ ____________________
Signature | Print | Date

Section B: Primary Coolant System Water Supplies

1. Obtain RWST Volume Data (%) from OFIS Display A7 and the table below:

RWST Volumes (gal)		
Tank Volume	MP2	MP3
Tank Full (V_{full})	475,000	1,200,000
At Sump Switch (V_{sw})	47,500	562,800

2. Enter Data from OFIS in formula and calculate Available Volume.

$$\frac{\text{Level}(\%)}{100} * (V_{full}) = V_{avl.}$$

$$\frac{\_\_\_\_\_\_(\%)}{100} * (\_\_\_\_\_\_\_\_\_\_ V_{full}) = \_\_\_\_\_\_\_\_\_\_ V_{avl.}$$

NOTE

For Unit 3, OFIS indicates "0" gpm charging flow with SI aligned.

3. Determine total flow rate from tank using the table below:

	MP2	MP3	
Charging (MP3 only)	N/A	A5	gpm
HPSI/SI	A13	A13	gpm
LPSI/RHR	A13	A5	gpm
Spray	A13	A13	gpm
Total			gpm

4. Estimate remaining time to switchover to sump recirculation:

$$\text{Remaining time to switch} = \frac{V_{avl.} - V_{SW}}{\text{Total Flow}} = \_\_\_\_\_\_\_\_\_\_ \text{min.}$$

$$\text{Remaining time to switch} = \frac{\_\_\_\_\text{gal.} - \_\_\_\_\text{gal.}}{\text{gpm}} = \_\_\_\_\_\_\_\_\_\_ \text{min.}$$

5. Report results to MTSC.

Prepared by: ______________________ ______________________ ______________________

Signature Print Date

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: Scott McCain Date: 9/11/00 Department: EPSD Ext.: 3757

Document No.: MP-26-EPI-FAP13 Rev. No.: 000 Minor Rev.:

Title: News Releases and Rumor Control

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Convert to Master Manual format, implement EPSD document streamline initiative, and address CRs.

Continued ☐

C

Instructions:

None

Continued ☐

D

TPC Interim Approval (1) Plant Mngt Staff Member Print/Sign/Date (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☒ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☒ *Revision* ☐ *Minor Revision* (See DC-GDL01 for guidance) ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☐ Supersedure

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒ Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

F

Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	Dept.	✓ if Comments
	☐				☐	☐		
	☐				☐	☐		
Validation	☒	S. Mazzola	Steve Mazzola	9/21/00	☐	☑	EPSD	✓
Writer's Guide	☒	M. Maryeski	M Maryeski	9/21/00	☐	☑	SPG	✓
50.54(q)	☒	~~M. Birch~~ S. Mazzola	Steve Mazzola	9/21/00	☐	☒	EPSD	
RCD	☒	S. Mazzola	Steve Mazzola	9/21/00			EPSD	
Independent	☒	M. Birch	Mike Birch	9/21/00	☐	☑	EPSD	✓

G

Safety Evaluation Required ☐ Yes ☒ No **Environmental Review Required** ☐ Yes ☒ No

H

1. ☐ SQR Program Final Review and Approval

Approval ☐ Disapproval ☐

SQR Qualified Independent Reviewer / Date

Department Head/Responsible Individual

Approval Date

2. ☒ SORC/PORC/RI/DH Final Review and Approval

9/24/00
Department Head/Responsible Individual / Date

Meeting No.: 00-30

Approval Signature

10/11/00
Approval Date

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Effective Date: 12/21/00

Functional Administrative Procedure

Millstone Station

News Releases

MP-26-EPI-FAP13

Rev. 000

Approval Date: 10/11/00

Effective Date: 12/21/00

STOP THINK ACT REVIEW

TABLE OF CONTENTS

1. PURPOSE

1.1 Objective

This procedure provides guidance to the Manager of Public Information and the Nuclear News Manager for preparing and issuing news releases during a declared emergency.

1.2 Applicability

NA

1.3 Supporting Documents

NA

1.4 Discussion

This section includes a discussion on the major activities associated with News Releases.

1.4.1 News releases are normally prepared by the MPI at the site and the technical content is reviewed by the ADEOF. The Nuclear News Manager approves news releases for all events until the EOF is activated. After EOF activation, the EOF DSEO approves all news releases.

1.4.2 The Station Duty Officer is the public information point of contact in the affected unit control room.

1.4.3 The news release is forwarded to the NNM via electronic mail or telefax. The NNM obtains input from the Executive Spokesperson and the State Public Information Organization. The news release is formatted and issued by the NNM.

1.4.4 Definitions and abbreviation are contained in Attachment 1. Responsibilities are contained in Attachment 2.

2. INSTRUCTIONS

2.1 Preparing News Releases

NOTE

News releases prepared using only official and verifiable information and if possible, without using technical jargon or acronyms.

2.1.1 Prepare news release for the following, as applicable:

- An initial emergency classification of Unusual Event or higher
- A change in plant status
- A change in emergency classification
- The Joint Media Center has been activated
- A Millstone related rumor or inquiry trend is identified

2.1.2 Refer To and review the samples of prepared news releases (Attachments 3-10) for the following events, as applicable:

- UNUSUAL EVENT - (No Release or Small Unplanned Release)
- ALERT
- SITE AREA EMERGENCY
- GENERAL EMERGENCY
- Status Report
- Joint Media Center Activation
- Event Termination to Recovery

2.1.3 Develop a chronology of key events for complex or long-term emergencies.

2.1.4 Develop and issue the following information within a news release, as appropriate:

- A background emergency response
- General plant information
- Radiation information
- Insurance and electrical rates
- Management information

2.1.5 Include the following information in the news release:

- Date and time statement is issued
- Release number (ordered sequentially)
- Name and phone number for media contact
- Unit affected
- Emergency classification
- Status of radiological conditions
- Status of plant
- Description of emergency classification, including previously declared emergency classifications.
- Corrective actions taken
- Off-site assistance requested
- IF JMC has been activated, coordinate with the state and include rumor and inquiry control phone numbers.
- Statement to media on where to obtain additional information.

NOTE

The names of injured or contaminated personnel shall not be released under any circumstances.

2.1.6 Exclude information on the extent of personnel injuries or contamination until medically diagnosed and confirmed.

2.1.7 DO NOT provide estimated or projected dose measurements, provide only actual radiation dose measurement (if at all).

2.1.8 Submit news release to the ADEOF for technical review.

2.1.9 Submit news release to the EOF DSEO for approval.

2.2 Distributing News Releases

NOTE

Only the Executive Spokesperson or Corporate Officials are quoted or referenced.

Information originating from sources other than the company will not be released without ADEOF review and DSEO approval.

2.2.1 Determine news release distribution.

2.2.2 Distribute news releases to the Nuclear News Manager in the CT State EOC via e-mail, or fax if needed.

2.2.3 Distribute news releases via preprogrammed fax machine. IF the Joint Media Center has not been activated AND operation is from the EOF, Refer To Attachment 11, "SNET FAXWORKS Instructions," to distribute news releases.

3. SUMMARY OF CHANGES

3.1 Original issue

Attachment 1
Definitions and Abbreviations

(Sheet 1 of 1)

Definitions

N/A

Abbreviations

ADEOF - Assistant Director Emergency Operations Facility

DSEO - Director of Station Emergency Operations

EAS - Emergency Alert System

MRCA - Manager of Radiological Consequence Assessment

Attachment 2
Responsibilities

(Sheet 1 of 1)

1. Manager of Public Information (MPI)

   The Manager of Public Information is responsible for preparing news releases.

2. Nuclear News Manager (NNM)

   The Nuclear News Manager is responsible for obtaining news release input from the Executive Spokesperson and the State Public Information Organization, approving news releases until the EOF is activated and formatting and issuing news releases.

3. Assistant Director of the Emergency Operations Facility (ADEOF)

   The ADEOF is responsible for reviewing the technical content of news releases.

4. Director of Station Emergency Operations (DSEO)

   The DSEO is responsible for approving news releases, once the EOF is activated.

Attachment 3
Sample News Release - UNUSUAL EVENT (No Release)

(Sheet 1 of 1)

Release Number: _______ **Date:** ________ **Time:** ________ **Information as of:**________

Contact: ____________________________________ **Phone: (860)** __________________

An UNUSUAL EVENT was declared at **(time & date)** by operators of the Millstone Nuclear Power Station **(Unit Number)** in Waterford Connecticut.

The UNUSUAL EVENT was declared when **(give plant conditions describing the event). (Give details on the function of the equipment discussed above, including what system it is part of.)** The reactor **(has/has not)** been shut down.

There has been no release of radioactivity from the plant as a result of this incident.

(Include the following only if applicable:)

Specialists from the company are at the plant and are working **(to correct/have corrected)** the plant's condition. Local, state, and federal officials have been notified.

An UNUSUAL EVENT is the lowest of the four Nuclear Regulatory Commission emergency classification levels. It involves a minor problem at the plant.

Additional information about developments at the plant will be provided as soon as it is available.

* * * *

Attachment 4
Sample News Release - UNUSUAL EVENT (Small Unplanned Release)

(Sheet 1 of 1)

Release Number: _______ **Date:** ________ **Time:** ________ **Information as of:**________

Contact: ___________________________________ **Phone: (860)** __________________

An UNUSUAL EVENT was declared at **(time & date)** by operators of the Millstone Nuclear Power Station **(Unit Number)** in Waterford Connecticut.

The UNUSUAL EVENT was declared when **(give plant conditions describing the event). (Give details on the function of the equipment discussed above, including what system it is part of.)** The reactor **(has/has not)** been shut down.

This event resulted in a small release of radioactivity, temporarily increasing levels slightly above those of natural background radiation levels. This dose is slightly less than the dose that an individual would receive from **(complete if applicable)**

(Include the following only if applicable:)

Specialists from the company are at the plant and are working **(to correct/have corrected)** the plant's condition. Local, state, and federal officials have been notified.

An UNUSUAL EVENT is the lowest of the four Nuclear Regulatory Commission emergency classification levels. It involves a minor problem at the plant and may result in a very small radiation release.

Additional information about developments at the plant will be provided as soon as it is available.

* * * * *

Attachment 5
Sample News Release - ALERT

(Sheet 1 of 1)

Release Number: _______ **Date:** ________ **Time:** ________ **Information as of:**________

Contact: ____________________________________ **Phone: (860)** _________________

An ALERT was declared at **(time & date)** by operators of the Millstone Nuclear Power Station **(Unit Number)** in Waterford Connecticut.

The ALERT was declared when **(give plant conditions). (Give details on the function of the equipment discussed above, including what system it is part of.)** The reactor **(has/has not)** been shut down.

There has been no release of radioactivity from the plant as a result of this incident.

-OR-

This event is expected to result in a release of a small amount of radioactivity, increasing radiation levels slightly above those of natural background levels. Exposure to this release would result in a dose that is equivalent to the dose an individual would receive from **(complete if applicable)**. Radiation field monitoring teams are monitoring the release at this time. **(Give actual radiation dose levels at the site boundary - use millirem.)**

Specialists from the company have set up an emergency operations center at the plant and plant personnel **(are working to correct/have corrected)** the condition. Nonessential plant personnel **(Give status on dismissal or evacuation)**. State, local, and federal officials have been notified.

An ALERT is the second lowest of the four Nuclear Regulatory Commission emergency classification levels and involves a relatively minor event.

Additional information about developments at the plant will be provided as soon as it is available.

* * * * *

Attachment 6
Sample News Release - SITE AREA EMERGENCY

(Sheet 1 of 2)

Release Number: _______ **Date:** ________ **Time:** ________ **Information as of:**________

Contact: ____ **Phone: (860)** ________________

A SITE AREA EMERGENCY was declared at **(time & date)** by operators of the Millstone Nuclear Power Station **(Unit Number)** in Waterford Connecticut.

The SITE AREA EMERGENCY was declared when **(give plant conditions). (Give details on the function of the equipment discussed above, including what system it is part of.)** The reactor **(has/has not)** been shut down.

There has been no release of radioactivity from the plant as a result of this incident.

-OR-

This event is expected to result in a release of a small amount of radioactivity, increasing radiation levels slightly above those of natural background levels. Exposure to this release would result in a dose that is equivalent to the dose an individual would receive from **(complete if applicable)**. Radiation field monitoring teams are monitoring the release at this time. **(Give actual radiation dose levels at the site boundary - use millirem.)**

Specialists from the company have set up an emergency operations center at the plant and are working to return the plant to a stable condition. Local, state, and federal officials have been notified. The State Emergency Operations Center at the Hartford Armory **(has been/is being)** activated.

A SITE AREA EMERGENCY is the third highest of the four Nuclear Regulatory Commission emergency classification levels and involves a relatively serious problem at the plant. A small radioactive release is possible, however, the consequences will be limited to the plant's site boundary.

The company has asked the public not to call the plant site. **(once rumor control at the State EOC has been activated)** Members of the general public with specific inquiries may call **(860-XXX-XXXX)**.

Connecticut residents should listen to radio or TV stations for Emergency Alert System messages from the Connecticut Office of Emergency Management. Primary statewide radio stations are WTIC (1080 AM or 96.5 FM) and WDRC (1360 AM or 102.9 FM). Primary TV stations are WFSB (Channel 3), WTNH (Channel 8), or WVIT (Channel 30). Emergency information is also available in the first few yellow pages in the telephone books for residents within a 10-mile radius of the plant.

Attachment 6
Sample News Release - SITE AREA EMERGENCY

(Sheet 1 of 2)

NOTICE TO MEDIA: NO MEDIA OR PUBLIC INFORMATION IS AVAILABLE AT THE NUCLEAR PLANT. A Joint Media Center **(has been/is being)** established with the State of Connecticut at the Hartford Armory, 360 Broad Street, Hartford, Connecticut as the single source of information about the emergency. Members of the media should direct their requests for information to the Joint Media Center.

The company will continue to report details about developments at the plant as soon as they are available.

* * * * *

Attachment 7
Sample News Release - GENERAL EMERGENCY

(Sheet 1 of 2)

Release Number: _______ **Date:** ________ **Time:** ________ **Information as of:** ________

Contact: ______________________________________ **Phone: (860)** ________________

A GENERAL EMERGENCY was declared at **(time & date)** by operators of the Millstone Nuclear Power Station **(Unit Number)** in Waterford Connecticut.

The GENERAL EMERGENCY was declared when **(give plant conditions). (Give details on the function of the equipment discussed above, including what system it is part of.)** The reactor **(has/has not)** been shut down.

There has been no release of radioactivity from the plant as a result of this incident.

-OR-

This event is expected to result in the release of radioactivity, increasing radiation levels above those of natural background levels. Exposure to this release would result in a dose that is equivalent to the dose an individual would receive from **(complete if applicable)**. Radiation field monitoring teams are monitoring the release at this time. **(Give actual radiation dose levels at the site boundary - use millirem.)**

Specialists from the company have set up an emergency operations center at the plant and are working to return the plant to a stable condition. Local, state, and federal officials have been notified. The State Emergency Operations Center at the Hartford Armory **(has been/is being)** activated.

A GENERAL EMERGENCY is the most serious of four Nuclear Regulatory Commission emergency classification levels. It could involve serious damage to the plant's safety systems and may result in the release of radioactive materials to an area beyond the plant's boundaries.

The company has asked the public not to call the plant site. **(once rumor control at the State EOC has been activated)** Members of the general public with specific inquiries may call **(860-XXX-XXXX)**

Connecticut residents should listen to radio or TV stations for Emergency Alert System messages from the Connecticut Office of Emergency Management. Primary statewide radio stations are WTIC (1080 AM or 96.5 FM) and WDRC (1360 AM or 102.9 FM). Primary TV stations are WFSB (Channel 3), WTNH (Channel 8), or WVIT (Channel 30). Emergency information is also available in the yellow pages in the telephone books for residents within a 10-mile radius of the plant.

Attachment 7
Sample News Release - GENERAL EMERGENCY

(Sheet 2 of 2)

NOTICE TO MEDIA: NO MEDIA OR PUBLIC INFORMATION IS AVAILABLE AT THE NUCLEAR PLANT. A Joint Media Center **(has been/is being)** established with the State of Connecticut at the Hartford Armory, 360 Broad Street, Hartford, Connecticut as the single source of information about the emergency. Members of the media should direct their requests for information to the Joint Media Center.

The company will continue to report details about developments at the plant as soon as they are available.

* * * * *

Attachment 8
Sample News Release - STATUS Report

(Sheet 1 of 1)

Release Number: _______ **Date:** ________ **Time:** ________ **Information as of:** ________

Contact: ____________________________________ **Phone: (860)** ________________

A **(classification level)** remains in effect at the Millstone Nuclear Power Station **(Unit Number)** in Waterford Connecticut. The **(classification level)** was declared at **(time & date)**.

The **(classification level)** was declared when **(give plant conditions). (Give details on the function of the equipment discussed above, including what system it is part of.)** The reactor **(has/has not)** been shut down.

Specialists from the company have set up special emergency operations centers at the plant and are working to return the plant to a stable condition. Local, state, and federal officials have been notified. The State Emergency Operations Center (EOC) at the Hartford Armory **(has/has not)** activated.

Additional information about developments at the plant will be released as soon as it is available.

(If applicable:)

Connecticut residents should listen to radio or TV stations for Emergency Alert System messages from the Connecticut Office of Emergency Management. Primary statewide radio stations are WTIC (1080 AM or 96.5 FM) and WDRC (1360 AM or 102.9 FM). Primary TV stations are WFSB (Channel 3), WTNH (Channel 8), or WVIT (Channel 30). Emergency information is also available in the yellow pages in the telephone books for residents within a 10-mile radius of the plant.

NOTICE TO MEDIA: NO MEDIA OR PUBLIC INFORMATION IS AVAILABLE AT THE NUCLEAR PLANT. A Joint Media Center **(has been/is being)** established with the State of Connecticut at the Hartford Armory, 360 Broad Street, Hartford, Connecticut as the single source of information about the emergency. Members of the media should direct their requests for information to the Joint Media Center.

* * * * *

Attachment 9
Sample News Release - Joint Media Center Activated

(Sheet 1 of 1)

Release Number: _______ **Date:** ________ **Time:** ________ **Information as of:**________

Contact: ______________________________________ **Phone: (860)** __________________

Joint Media Center Activated

Officials from the company and the State of Connecticut have activated a Joint Media Center in Hartford to serve as a single source of information regarding the emergency at the Millstone Nuclear Power Station **(Unit Number)** in Waterford Connecticut.

NO MEDIA OR PUBLIC INFORMATION IS AVAILABLE AT THE NUCLEAR PLANT. Members of the media should direct their requests for information to the Joint Media Center.

The Joint Media Center is located at the Hartford Armory, 360 Broad Street, Hartford, Connecticut. Access to the center will be restricted to media representatives bearing proof of their affiliations.

If you wish to speak to a Corporate media representative at the Joint Media Center, please call the phone number listed above. NOTE: THIS NUMBER IS FOR MEDIA USE ONLY AND SHOULD NOT BE DISSEMINATED TO THE PUBLIC. Separate phone numbers have been issued for use by the public and are contained in news releases.

* * * * *

Attachment 10
Sample News Release - Event Terminated

(Sheet 1 of 1)

Release Number: _______ **Date:** ________ **Time:** ________ **Information as of:** ________

Contact: ____________________________________ **Phone: (860)** __________________

Emergency ended at the Millstone Nuclear Power Station **(Unit Number)** in Waterford Connecticut.

The **(classification level)** declared at **(time& date)** has been terminated.

The **(classification level)** was declared when **(give plant conditions). (Give details on the status of the equipment discussed above)**

The plant is shut down and remains in a stable condition. The radioactive release has been terminated, and there is no potential for any further releases.

The company's emergency response organizations at the plant have been disbanded, and a recovery organization is in place to oversee the restoration of the plant to its normal operating condition. The plant is expected to remain shut down until **(date)**.

NOTICE TO MEDIA: News information regarding Millstone or the nuclear event will no longer be available at the Joint Media Center in Hartford. If you wish to speak to an Corporate media representative, please call the phone number listed above.

* * * * *

Attachment 11
SNET FAXWORKS Instructions

(Sheet 1 of 1)

These instructions demonstrate how to send a fax broadcast via SNET FAXWORKS from a fax machine to either a distribution list or a group of fax numbers that have not been entered into the SNET FAXWORKS computer.

1. **Dial 1-202-216-1821** from the fax telephone handset to hear the voice instructions.
2. Enter the seven digit SNET FAXWORKS password (7972657), followed by the star key (*).
3. To send a fax **PRESS [1]**.
4. You will then be given the following list of choices regarding the delivery time of the fax:
   - To send the fax **immediately:**..**PRESS [1]**
   - To send the fax **overnight (Between 11 p.m. and 7 a.m. EST):** ....**PRESS [2]**
   - To **schedule delivery** at a specific time within a 24-hour period:......................**PRESS [3]**

     Enter the military time you want the fax to go out (4 pm is 16:00 in military time).
   - To send to a SNET FAXWORKS Mailbox: ....**PRESS [4]**
5. You will then be asked to enter the **distribution list number** or the **fax number (including area code)** you want to send out to, followed by the star key [*]. You can enter in as many lists or fax numbers as you would like, but they need to be entered in one at a time, pressing the star key after each entry (i.e., 001*, 003*, 860-555-1212*, 005*, 704-555-9898*).

   Choose from the following lists for SNET FAXWORKS distribution list numbers:
   - 001 - Local Media
   - 002 - CT State-wide
   - 003 - Government
   - 004 - Local & Government (Lists 001 & 003)
   - 005 - All lists (Lists 001, 002, & 003)
6. When you have completed entering the lists or destination number that you want to send to: **PRESS THE POUND KEY [#]**.
7. **Wait for the fax tone and press start** on the fax machine. The document will start going through the fax machine and you may hang up the receiver.

FOR HELP CALL THE SNET FAXWORKS CUSTOMER SERVICE DEPARTMENT AT 1-800-345-4329.

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: Scott McCain   Date: 9/11/00   Department: EPSD   Ext.: 3757

Document No.: MP-26-EPI-FAP14   Rev. No.: 000   Minor Rev.:

Title: Recovery

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Convert to Master Manual format, implement EPSD document streamline initiative, and address CRs.

Continued ☐

C

Instructions:

None

Continued ☐

D

TPC Interim Approval

(1) Plant Mngt Staff Member Print/Sign/Date   (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☒ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☒ *Revision* ☐ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☐ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒

Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date   Continued ☐

F

Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	SQR Qualified Dept.	✔ if Comments
	☐				☐	☐		
	☐				☐	☐		
Validation	☒	S. Hook	[illegible]	9/14/00	☐	☑	EPSD	
Writer's Guide	☒	M. Maryeski	M Maryeski	9/13/00	☐	☑	SRS	✓
50.54(q)	☒	K. Burgess	K Burgess	9/12/00	☒	☐	EPSD	✓
RCD	☒	K. Burgess	K Burgess	9/12/00			EPSD	✓
Independent	☒	K. Burgess	K Burgess	9/14/00	☐	☐	EPSD	✓

G

Safety Evaluation Required ☐ Yes ☒ No   **Environmental Review Required** ☐ Yes ☒ No

H

1. ☐ **SQR Program Final Review and Approval**

Approval ☐ Disapproval ☐

SQR Qualified Independent Reviewer / Date

Department Head/Responsible Individual

Approval Date

2. ☒ **SORC/PORC/RI/DH Final Review and Approval**

[illegible] 9/26/00
Department Head/Responsible Individual / Date

Meeting No.: 00-30

[illegible]
Approval Signature

10/11/00
Approval Date

I

Effective Date: 12/21/00

Functional Administrative Procedure

Millstone Station

Recovery

MP-26-EPI-FAP14

Rev. 000

Approval Date: 10/11/00

Effective Date: 12/21/00

STOP ACT REVIEW

Table of Contents

1. PURPOSE

1.1 Objective

This procedure provides guidance to the Director of Station Emergency Operations (DSEO) and the Director of Recovery Operations (DRO) for directing the transition into the Recovery phase of an event and performing associated activities. It also provides guidance to other individuals who will perform supporting functions during Recovery.

1.2 Applicability

While in a declared emergency, conditions have stabilized and the DSEO is prepared to terminate the emergency in accordance with EPI-FAP06, "Classification and PARs."

1.3 Supporting Documents

EPI-FAP06, "Classification and PARs"

EPI-FAP07, "Notifications and Communications"

1.4 Discussion

Recovery takes place after the emergency phase of an accident has occurred, the plant is in a relatively stable condition, and the emergency has been terminated by the Director of Station Emergency Operations. Recovery actions may require normal resources to recover the plant or extensive resources which could require months of support.

Members of the Recovery Organization are chosen based on their experience, managerial skills, and the needs of the plant. Conditions are evaluated to determine what repairs need to be performed, and when normal operations may be restored.

The Director of Recovery Operations will ensure that all work performed during Recovery is in accordance with approved station procedures unless specific actions have been approved by SORC.

Recovery Goals

- Assess the on and off site consequences of the emergency.
- Perform cleanup and repair to return plant to pre-event conditions.
- Investigate the causes of the event and plan actions to prevent reoccurrence.

Federal Response

- The NRC and/or FEMA will coordinate support from multiple federal government agencies.
- Federal Agencies may request resources (space, phones and so forth) be provided to aid in their recovery efforts.

Definitions and abbreviation are contained in Attachment 1.

Responsibilities are contained in Attachment 2.

Attachment 3 illustrates the recovery process.

2. INSTRUCTIONS

2.1 Transition and Recovery Following an Unusual Event

2.1.1 Director of Station Emergency Operations:

NOTE

An Event Summary Report is required within 24 hours of terminating an Unusual Event.

For an Unusual Event, the Incident Report Form may be considered the Event Summary Report for purposes of termination notification.

a. Designate a Director of Recovery Operations by contacting the Station Director (or designee).

b. Direct the completion and transmission of an Incident Report Form, per EPI-FAP07, "Notifications and Communications," to signify termination of the Unusual Event.

c. Announce the following (or similar) message to plant personnel over the public address system:

Attention all personnel, attention all personnel. The Unusual Event has been terminated and Recovery has been initiated. I repeat, the Unusual Event has been terminated and Recovery has been initiated.

Include any instructions for restrictions on areas or activities that still exist.

d. Ensure any reportable event(s) is/are captured and reported as required.

2.1.2 Director of Recovery Operations:

a. Convene an event review meeting as soon as practical following termination from the Unusual Event.

b. Start the investigation and corrective action process per plant procedures.

2.2 Transition Following an Alert or Higher Classification

NOTE

As conditions improve and additional personnel and resources become available, certain Recovery activities may be initiated before terminating the emergency.

2.2.1 Determine appropriate Emergency Response Facilities staffing and maintain until a Recovery Organization has been identified and activated.

NOTE

Detailed plans and procedures are not required to be developed before event termination and entry into Recovery. However, a Recovery Plan Outline should be completed and the recovery organization management positions identified and ready for staffing.

For events at an Alert classification, SERO personnel may be adequate to perform any necessary Recovery actions before returning to a normal organization.

For events at the Site Area Emergency or General Emergency classification level, the basic Recovery Organization staffing described in Attachment 2 should be used as guidance. Additional positions may be assigned to perform specific recovery activities.

2.2.2 Direct the ADTS, the ADEOF, and the Executive Spokesperson to review Attachments 4 through 7, as applicable, and convene a meeting of key plant SERO personnel to perform the following:

a. Review existing conditions and ongoing activities.

b. Determine the Onsite, Offsite, and Public Information Recovery Organization staffing requirements.

c. Outline the issues to be resolved and develop an Issues/Strategies Package using EPI-FAP14-001, "Recovery Issue/Strategies Form," to form the basis for the Recovery Plan.

2.2.3 Convene a joint conference with the ADTS, ADEOF, and the Executive Spokesperson to review and approve the following:

a. The recovery issues and strategies.

b. The Recovery Organization staffing requirements.

c. The recovery plan outline

2.2.4 Conduct a formal discussion with regulatory and State authorities to ensure coordination and agreement are met for entry into Recovery.

2.2.5 Discuss conditions with the Chief Nuclear Officer.

2.2.6 Contact and stage all Recovery Organization personnel used to relieve the SERO (organize relief and/or turnover of responsibilities through the SERO and Recovery Managers).

2.2.7 Direct the completion and transmission of an Incident Report Form, per EPI-FAP07, "Notifications and Communications," to signify termination of the emergency.

2.2.8 Make an announcement of the following message (or similar message) to plant personnel over the public address system:

Attention all personnel, attention all personnel. The emergency has been terminated and Recovery has been entered. I repeat, the emergency has been terminated and Recovery has been entered. [Name of DRO] has taken over as the Director of Recovery operations. Assigned Recovery Organization personnel are to relieve the SERO at this time.

Include any instructions for restrictions on areas or activities that still exist.

2.3 Recovery Following an Alert or Higher Classification

NOTE

Select emergency response facilities or portions thereof may be used for some time after event termination while in Recovery (for example, the JMC, Communications portions of the EOF, etc.).Steps should be taken to restore each facility to a state of readiness as soon as possible following termination of the emergency.

2.3.1 Terminate the use of emergency exposure controls.

a. Revert to non-emergency (10 CFR 20) limits and controls for repair activities conducted during Recovery.

b. Refer To existing plant exposure control procedures for guidance.

2.3.2 Terminate the use of other Emergency Procedures (e.g., MP-26-EPI-FAPs).

a. Ensure existing plant procedures or procedures developed for specific tasks are used for plant repair activities during Recovery.

b. Ensure SORC approves any special procedures developed for Recovery activities.

NOTE

Attachment 8, "Event Summary Report Format," illustrates the format and content of the Event Summary Report.

2.3.3 Within eight (8) hours of entering Recovery, complete and transmit an approved Event Summary Report to offsite authorities.

2.3.4 Convene an event review meeting as soon as practical following entry into Recovery and begin the investigation and corrective action process per plant procedures.

2.3.5 Maintain a log of specific recovery actions taken such as the following:

- Specific actions taken per this procedure.
- Communication with offsite authorities related to the emergency and/or Recovery.
- Any meetings held to discuss conduct or closeout of the Recovery Phase.

2.3.6 Ensure any event(s) is/are reported as required.

2.3.7 Ensure communications are established and maintained with the following:

- Senior corporate officials.
- Legal, Financial, Insurance, and Purchasing Departments.
- INPO, NEI, and ANI

2.3.8 Approve any reports, including press releases provided to offsite authorities.

2.4 Exit from Recovery

2.4.1 Director of Recovery Operations - Unusual Event Classifications:

a. Terminate the Recovery Phase for an Unusual Event when the following has occurred:

1) Corrective items are assigned to the responsible organizations.

2) Plant conditions warrant exiting the Recovery Phase.

3) Offsite agencies have been notified of the exit from Recovery.

b. Log termination of the Recovery phase.

c. Send all documentation to Emergency Planning.

2.4.2 Director of Recovery Operations - Alert or higher classification:

a. Terminate the Recovery Phase for an Alert or higher classification when the following has occurred:

1) Corrective items are assigned to the responsible organizations.

2) Plant conditions warrant exiting the Recovery Phase.

3) Onsite and offsite organizations involved with Recovery have been apprised of the existing conditions and the anticipated termination of activities.

4) The news media has been informed of the Recovery phase termination.

5) Necessary revisions of the Emergency Plan and Implementing Procedures have been identified to the Emergency Planning.

b. Log termination of the Recovery phase.

c. Send all documentation to Emergency Planning.

3. SUMMARY OF CHANGES

3.1 Original issue

Attachment 1
Definitions and Abbreviations
(Sheet 1 of 1)

Definitions

NA

Abbreviations

ADEOF - Assistant Director Emergency operations Facility

ADTS - Assistant Director Technical Support

ANI - American Nuclear Insurers

DRO - Director of Recovery Operations

DSEO - Director of Station Emergency Operations

INPO - Institute of Nuclear Power Operations

NEI - Nuclear Energy Institute

SERO - Station Emergency Response Organization

Attachment 2
Responsibilities
(Sheet 1 of 6)

1. <u>The Chief Nuclear Officer</u>

   A. Provides overall authority and responsibility for coordinating the station Recovery Operations with the rest of the Nuclear Group.

   B. Supervises:

      - Director of Recovery Operations

   C. Principal Working Relationships:

      - Corporate Senior Management
      - Director of Recovery Operations
      - Nuclear Vice Presidents

2. <u>The Director of Recovery Operations</u>

   A. Has overall responsibility for directing station Recovery operations.

      - Establishes command of station Recovery operations.
      - Plans Recovery operations and implements actions through appropriate managers.

   B. Reports to the Chief Nuclear Officer

   C. Supervises:

      - Manager of Technical Support
      - Manger of Plant Operations
      - Manager of Radiation Control and Radwaste Operations
      - Manager of Engineering Support
      - Manager of Nuclear Regulatory Affairs
      - Manager of Public Information
      - Millstone's Representative in the State EOC and Joint Media Center

D. Principle Working Relationships:

- Chief Nuclear Officer
- Advisory Support Staff
- Recovery Managers

3. The Recovery Operations Manager of Technical Support

A. Performs reactor core physics and thermal hydraulic systems analysis for reconstructing event timeline.

- Provides technical support services to the Recovery Operations.
- Performs reactor systems analysis.
- Provides post accident data analysis, timeline for the accident, etc.
- Provides a central facility for collecting, retaining, and retrieving data.
- Develops Recovery procedures, modifies existing plant procedures, systems, and equipment.
- Determines Recovery activities needed to be documented in accordance with the QA Program.

B. Reports to the Director of Recovery Operations.

C. Supervises personnel assigned to technical support activities.

D. Principle Working Relationships:

- Director of Recovery Operations
- Manager Plant Operations and Recovery Managers
- Reactor Engineering

Attachment 2
Responsibilities

(Sheet 3 of 6)

4. The Recovery Operations Manager of Plant Operations

   A. Provides interface between station and unit operations staff and the Recovery Operations.

      - Supervises and maintains station support staff.
      - Maintains station security operations.
      - Implements maintenance and repair operations with station staff as assigned by the Director of Recovery Operations.
      - Coordinates SORC activities as necessary.

   B. Reports to the Director of Recovery Operations.

   C. Supervises affected unit operations staff.

   D. Principle Working Relationships:

      - Director of Recovery Operations
      - Plant Operations staff
      - Other Recovery Operations Managers

5. The Recovery Operations Manager of Radiation Control and Radwaste Operations

   A. Supervises and maintains radiological control of recovery operations.

      - Maintains Field Survey Team, Environmental Sampling Teams, and data assessment operations as long as necessary to support the state and local communities.
      - Develops and implements procedures to sample, process, and control liquid, gaseous, and solid radioactive waste discharge and disposal.
      - Ensures personnel exposure is kept ALARA during recovery both in system design and operation.
      - Develops and performs evaluations of Health Physics equipment and procedures for Recovery.

- Performs special personnel dosimetry evaluations and provides specialized dosimeters.
- Develops decontamination plans.
- Assists the State DEP in determining total integrated population dose.

B. Reports to the Director of Recovery Operations

C. Supervises Radiation Control and Radwaste Operations Staff

D. Principle Working Relationships:

- Director of Recovery Operations
- Manger Plant Operations and Recovery Operation Managers
- State DEP

6. <u>The Recovery Operations Manager of Engineering Support</u>

A. Provides necessary civil, mechanical, and electrical engineering support for Recovery and provides other recovery support such as project schedules, management, cost control, construction, resources and purchasing, legal, and insurance services.

- Develops procedures and design for required civil, mechanical, and electrical engineering modifications.
- Schedules Recovery Operations and ensures prompt execution.
- Performs construction engineering activities.
- Arranges for purchasing, legal, and insurance assistance, as necessary.
- Coordinates Recovery staff meetings.
- Tabulates, expedites, and closes commitment lists.

B. Reports to the Director of Recovery Operations

C. Supervises the Engineering Staff

D. Principle Working Relationships:

- Director of Recovery Operations
- Nuclear Engineering Department
- NSSS/AE
- Other Recovery Operations Managers

7. <u>The Recovery Operations Manager of Public Information</u>

A. Coordinates and prepares media information releases and supports Millstone's Representative in the Joint Media Center.

- Obtains technical information from Recovery managers.
- Prepares media information releases.
- Provides assistance in the preparation of materials for news conferences, as necessary.

B. Reports to the Director of Recovery Operations

C. Supervises assigned staff

D. Principle Working Relationships:

- Director of Recovery Operations
- Millstone's Representative in the Joint Media Center
- Systems Communications personnel

8. <u>The Recovery Operations Manager of Nuclear Regulatory Affairs</u>

A. Manages interface and submittals to regulatory agencies.

- Provides regulatory interface with the NRC, State, etc.
- Coordinates the preparation of documents for submittal to regulatory agencies

B. Reports to the Director of Recovery Operations.

C. Supervises the Licensing staff

D. Principle Working Relationships:

- Director of Recovery Operations
- Regulatory agencies
- Other Recovery Operations Managers

9. Advisory Support

A. Industry specialists and experts who provide advisory support to the Recovery Operations and appointed, as necessary, by the Directory of Recovery Operations.

B. Reports to the Director of Recovery Operations

10. The Millstone Representative in the State EOC and Joint Media Center

A. Provides advisory support to the state and local communities resolving FEMA questions and concerns and local town questions and needs.

- Consults with the State and responds to questions and concerns from the following:
  - ◆ FEMA
  - ◆ State
  - ◆ Local communities
- Responds as official media spokesperson for Millstone Station

B. Reports to the Director of Recovery Operations

Attachment 3
Illustrated Recovery Process

(Sheet 1 of 1)

Emergency Event	• Emergency Plan is implemented. • Actions are taken to return the plant to a safe condition.
Transition	• Selected facilities are maintained at full or partial staffing. • The DSEO, ADTS, ADEOF, and Executive Spokesperson prepare a Recovery Issues/Strategies Package. • A Recovery Plan Outline is developed. • A DRO is designated. • Organizational requirements are determined. • Personnel are on stand-by to assume the identified recovery positions.
Recovery	• An Event Summary Report is developed and issued. • A Root Cause Investigation is conducted and action items identified • A detailed Recovery Plan is developed and implemented. • Activities to restore the plant to pre-incident conditions are conducted.
Post Recovery	• A Detailed Incident Report is developed and issued. • Records are collected and retained.

The above arrows represent points in time in the chronology of a classified emergency:

❶ The initiating state of emergency no longer exists.

❷ Formal termination of the emergency occurs (Notification of termination to Federal, State and Local Officials by the DSEO).

- Emergency dose limits and special exceptions to procedures no longer apply.
- Organizational titles are changed to reflect the new status.

❸ Post Recovery and Exit.

Attachment 4
Recovery Plan Outline
(Sheet 1 of 1)

SECTION I. RECOVERY ORGANIZATION

A. Organization Structure

B. Assignment of authorities/responsibilities

SECTION II. ONSITE RECOVERY PLAN

A. Major Goals

B. Issues and Strategies

SECTION III. OFFSITE RECOVERY PLAN

A. Major Goals

B. Issues and Strategies

SECTION IV. PUBLIC INFORMATION RECOVERY PLAN

A. Major Goals

B. Issues and Strategies

Attachment 5
Onsite Recovery Issues/Strategies Guide
(Sheet 1 of 3)

A. **Present Activities Being Performed by Plant Staff (Onsite SERO)**

- Identify ongoing activities and determine the need to continue

B. **Equipment Status Verifications**

- Perform/Document secured lineups
- List/Identify inoperable equipment
- Hang appropriate tagouts
- Document temporary repairs/lineup
- Obtain appropriate samples to verify core or spent fuel status

C. **Stabilization of Plant for Long Term Cooling**

- Identify present cooling lineup(s)
- Document available back-up cooling lineup(s)
- Confirm condition of RHR/CCW/ESW/CVCS/Cont. Spray/Spent Fuel Pool Cooling
- Develop a plan to transition to long term cooling if required

D. **System Repairs and Restorations**

- Prioritize out-of-service equipment for restoration
- Plan restoration process by milestones
- Determine testing to increase/ensure equipment reliability
- Determine long term resolution of temporary repairs
- Examine options for temporary systems
- Obtain industry expertise (such as INPO, Westinghouse, CE) as necessary
- Ensure proper QA on any repairs made during the emergency

Attachment 5
Onsite Recovery Issues/Strategies Guide

(Sheet 2 of 3)

E. Radiological Controls and Area Decontamination

- Perform comprehensive surveys of onsite areas
- Establish additional survey and sampling frequency requirements
- Determine if additional monitoring equipment is required
- Develop a decon plan based on prioritized recovery of plant areas
- Commence Bioassay program
- Contract for large volume decontamination equipment/expertise
- Identify State DEP requirements, if any, on reentry into plant areas, radwaste treatment, and radwaste releases.
- Identify State DOT requirements, if any, on radwaste transportation.

F. Water Management

- Identify sources, volumes and activity of water inventories
- Prioritize clean-up
- Verify/evaluate condition of existing clean-up systems
- Establish tagouts/controls to preclude inadvertent discharges
- Evaluate need to contract portable filtering systems/expertise
- Establish berms and restraints for control and mitigation of spills
- Evaluate need for additional onsite waste storage capability
- Evaluate need for additional burial space for waste

Attachment 5
Onsite Recovery Issues/Strategies Guide

(Sheet 3 of 3)

G. Logistics (Use guidelines for Forced Outage Scheduling)

- Identify manpower needs
- Obtain damage control equipment, as necessary
- Consider use of outside specialist (INPO, Westinghouse, CE)
- Set up training for off normal conditions (ALARA)
- Consider restricting site access
- Order extra HP supplies to support recovery
- Evaluate the need for additional security (crowd control)
- Evaluate the need for remote technology for inspections and cleanup
- Evaluate the need for additional communications capabilities
- Evaluate logistic and legal constraints on the continued operation of the unaffected unit.

H. Documentation

- Initiate actions to complete any required NRC reports as required
- Develop onsite portions of Detailed Incident Report
- Develop onsite Recovery Plan (short/long term)
- Develop special procedures to perform tasks outside the scope of normal procedures

Attachment 6
Offsite Recovery Issues/Strategies Guide

(Sheet 1 of 1)

A. Present Activities Being Performed by EOF Staff

- Identify ongoing activities and determine the need to continue

B. Radiological

- Evaluate the need for an environmental sampling program
- If required, estimate total population dose
- Evaluate clean-up requirements
- Evaluate the need to bring in outside expertise for radiological monitoring

C. Support to Offsite Authorities

- Evaluate outstanding requests from offsite authorities
- Apprise offsite authorities of onsite conditions and activities
- Determine if support for State/Local relocation and reentry activities is desired.

D. Corporate Interface

- Apprise corporate management of conditions and activities
- Provide information to legal organization as requested
- Identify issues applicable to HR and Employee Assistance

E. Logistics

- Identify manpower needs to support offsite recovery activities
- Identify all non-Millstone personnel and activities currently in place
- Review equipment and material needs for EOF recovery activities
- Assist onsite and Public Information organizations in obtaining offsite support
- Evaluate the need for additional communications capabilities

F. Documentation

- Develop offsite portions of Detailed Incident Report
- Develop offsite Recovery Plan (short/long term)

Attachment 7
Public Information Recovery Issues/Strategies Guide

(Sheet 1 of 1)

A. Present Activities Being Performed by State Armory/JMC Staff

- Identify ongoing activities and determine the need to continue

B. Offsite Interface

- Identify activities needed to keep offsite authorities apprised of Millstone Public Information activities
- Determine the need for Media Center representation. Consider using Media Center representation as necessary for the periodic briefing on recovery operations.
- Established a rumor control system , as necessary.
- Ensure there is an internal corporate communication system for all Regional System Offices, Customer Services Centers, and employee information hotline.

C. Documentation

- Develop the Public Information portion of the Recovery plan

Attachment 8
Event Summary Report Format
(Sheet 1 of 1)

[*Date*]
[*Time*]

To: [*Offsite Authority*] (as a minimum, IRF locations and the NRC)

From: [*Name*] (Directory of Recovery Operations)

Subject: Event Summary Report of Emergency Declared at Millstone Station

---

The Millstone Station has terminated from emergency status at [*time*] and entered into Recovery.

The following is a review of events and items pertaining to the [*Emergency*] reported on [*date*].

[*Provide a narrative of the event*] (describe the event giving the facts of the emergency including as a minimum:)

1. Time and description of initiating events and any upgrades in classification (i.e., "On July 4, 2004, at 0640 hours a bomb threat was received at....."). Include information on personnel injuries and status. **(DO NOT INCLUDE NAME(S) OF VICTIMS UNLESS THE FAMILY HAS BEEN NOTIFIED).**
2. Initial notifications to offsite authorities, to include time, location and mode of notification (That is: fax, radio, telephone, etc.).
3. Requests for offsite assistance, including time and type.
4. The magnitude of any radiological release and Protective Action Recommendation information as applicable.
5. Telephone numbers which people can call to obtain any additional information (such as the Corporate Communications, Rumor Control or Joint Media Center).

Approval: [*Signature*]

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: Scott McCain Date: 9/11/00 Department: EPSD Ext.: 3757

Document No.: MP-26-EPI-FAP14—001 Rev. No.: 000 Minor Rev.:

Title: Recovery

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Convert to Master Manual format, implement EPSD document streamline initiative, and address CRs.

Continued ☐

C

Instructions:

None

Continued ☐

D

TPC Interim Approval (1) Plant Mngt Staff Member Print/Sign/Date (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☒ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☒ *Revision* ☐ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☐ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒

Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

F

Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	Dept.	✔ if Comments
	☐				☐	☐		
	☐				☐	☐		
Validation	☒	S. Hook	S Hook	9/14/00	☐	☑	EPSD	
Writer's Guide	☒	M. Maryeski	M Maryeski	9/13/00	☐	☑	SPS	✓
50.54(q)	☒	K. Burgess	K Burgess	9/12/00	☒	☐	EPSD	✓
RCD	☒	K. Burgess	K Burgess	9/12/00			EPSD	✓
Independent	☒	K. Burgess	K Burgess	9/14/00	☐	☐	EPSD	✓

G

Safety Evaluation Required ☐ Yes ☒ No **Environmental Review Required** ☐ Yes ☒ No

H

1. ☐ **SQR Program Final Review and Approval**

Approval ☐ Disapproval ☐

SQR Qualified Independent Reviewer / Date

Department Head/Responsible Individual

Approval Date

2. ☒ **SORC/PORC/RI/DH Final Review and Approval**

S Hook 9/24/00

Department Head/Responsible Individual / Date

Meeting No.: 00-30

Approval Signature

10/11/00

Approval Date

Effective Date: 12/21/00

10-11-00 12-19-00 12-19-00

Approval Date

12-21-00

Effective Date

Recovery Issue/Strategies Form

Area	Owner	Safety Rel.	Priority	Duration	Task-hours

Description of Issue

Resources Needed

Use this form to document major items to be addressed during Recovery.

Area:	Onsite / Offsite / Public Information	
Owner:	Responsible individual or organization	
Safety Related:	Yes or No	
Priority:	1 = Immediate (24 hr.)	2 = Short Term (1 Week)
	3 = Intermediate (1 Month)	4 = Long Term (> 1 Month)
Duration:	Estimated Calendar Duration	
Task-hours:	Estimated Total Project Hours	

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A Initiated By: Scott McCain Date: 9/11/00 Department: EPSD Ext.: 3757

Document No.: MP-26-EPI-FAP15 Rev. No.: 000 Minor Rev.:

Title: Common Forms

B **Reason for Request** (attach commitments, CRs, ARs, OEs etc)

Convert to Master Manual format, implement EPSD document streamline initiative, and address CRs.

Continued ☐

C **Instructions:**

None

Continued ☐

D **TPC Interim Approval** (1) Plant Mngt Staff Member Print/Sign/Date (2) SM/SRO/CFH on Unit Print/Sign/Date

E **Procedure Request/Feedback Disposition**

Priority: ☒ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☒ *Revision* ☐ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☐ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒

Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

F

Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	SQR Qualified Dept.	✓ if Comments
	☐				☐	☐		
	☐				☐	☐		
Validation	☒	T. Rigney	T. Rigney	10/5/00	☐	☑	EPSD	✓
Writer's Guide	☒	M. Maryeski	M Maryeski	9/22/00	☐	☑	SPG	✓
50.54Q	☒	T. Rigney	T. Rigney	9/21/00	☐	☑	EPSD	
RCD	☒	T. Rigney	T. Rigney	9/22/00			EPSD	
Independent	☒	T. Rigney	T. Rigney	10/5/00	☐	☑	EPSD	✓

G Safety Evaluation Required ☐ Yes ☒ No Environmental Review Required ☐ Yes ☒ No

H 1. ☐ SQR Program Final Review and Approval

Approval ☐ Disapproval ☐

SQR Qualified Independent Reviewer / Date

Department Head/Responsible Individual

Approval Date

2. ☒ SORC/PORC/RI/DH Final Review and Approval

S Acock 9/26/00

Department Head/Responsible Individual / Date

Meeting No.: 00-30

[signature] for

Approval Signature

10/11/00

Approval Date

I **Effective Date:** 12/21/00

MP-05-DC-SAP01-001
Rev. 002-01

Functional Administrative Procedure

Millstone Station

Common Forms

MP-26-EPI-FAP15

Rev. 000

Approval Date: 10/11/00

Effective Date: 12/21/00

STOP THINK ACT REVIEW

TABLE OF CONTENTS

1. <u>PURPOSE</u>

1.1 Objective

This procedure provides a common point of reference to forms utilized by multiple SERO personnel. Multiple copies of the forms are available in position notebooks contained in each facility procedure tub for use by SERO personnel during a station event.

1.2 Applicability

The SERO has been activated.

1.3 Supporting Documents

EPI-FAP01, "Control Room Emergency Operations"

EPI-FAP02, "TSC Activation and Operations"

EPI-FAP03, "OSC Activation and Operation"

EPI-FAP04, "Emergency Operations Facility Activation and Operations"

1.4 Discussion

A number of forms are utilized by multiple SERO personnel during the course of a station event. This "common forms" procedure was created to provide a single point of reference for commonly used forms and ease the burden for review, revision, and control. Multiple copies of the forms will be available to SERO personnel in each of the facility procedure bins. This will allow SERO personnel to retrieve their position checklist and the appropriate number of applicable forms as they report to their assigned facilities.

Responsibilities are contained in Attachment 1.

2. INSTRUCTIONS

2.1 Refer To and complete the following form(s), as applicable:

- EPI-FAP15-001, "DSEO/ADTS Briefing Sheet"
- EPI-FAP15-002, "RMT Instrument, Battery, and Source Check Sheet"
- EPI-FAP15-003, "Radiation Monitoring Point Data Sheet"
- EPI-FAP15-004, "Plant Parameter Data Requested/Provided"
- EPI-FAP15-005, "Personnel Contamination Status"
- EPI-FAP15-006, "OFIS Instructions"
- EPI-FAP15-007, "Critical Parameter Data Sheet-MP1"
- EPI-FAP15-008, "Critical Parameter Data Sheet-MP2"
- EPI-FAP15-009, "Critical Parameter Data Sheet-MP3"
- EPI-FAP15-010, "Emergency Team Briefing Sheet"
- EPI-FAP15-011, "Fitness for Duty Questionnaire"
- EPI-FAP15-012, "SERO Log Sheet"
- EPI-FAP15-013, "EOF Air Handling and High Radiation Filtration System"

2.2 If an action is not appropriate under existing conditions or was not necessary for the event, enter N/A when completing the documentation for submittal.

3. SUMMARY OF CHANGES

Original issue

Attachment 1
Responsibilities

(Sheet 1 of 1)

1. SERO personnel are responsible for obtaining and completing the necessary forms to complete tasks identified in their respective position checklists.

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: Scott McCain Date: 9/11/00 Department: EPSD Ext.: 3757

Document No.: MP-26-EPI-FAP15 — 001 Rev. No.: 000 Minor Rev.:

Title: Common Forms

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Convert to Master Manual format, implement EPSD document streamline initiative, and address CRs.

Continued ☐

C

Instructions:

None

Continued ☐

D

TPC Interim Approval (1) Plant Mngt Staff Member Print/Sign/Date (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☒ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☒ *Revision* ☐ *Minor Revision* (See DC-GDL01 for guidance) ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☐ Supersedure

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒ Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

F

Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	SQR Qualified Dept.	✓ if Comments
	☐				☐	☐		
	☐				☐	☐		
Validation	☒	T. Rigney	T. Rigney	10/5/00	☐	☑	EPSD	✓
Writer's Guide	☒	M. Maryeski	M Maryeski	9/22/00	☐	☑	SPG	✓
50.54Q	☒	T. Rigney	T. Rigney	9/21/00	☐	☑	EPSD	
RCD	☒	T. Rigney	T. Rigney	9/20/00			EPSD	
Independent	☒	T. Rigney	T. Rigney	10/5/00	☐	☑	EPSD	✓

G

Safety Evaluation Required ☐ Yes ☒ No Environmental Review Required ☐ Yes ☒ No

H

1. ☐ SQR Program Final Review and Approval

Approval ☐ Disapproval ☐

SQR Qualified Independent Reviewer / Date

Department Head/Responsible Individual

Approval Date

2. ☒ SORC/PORC/RI/DH Final Review and Approval

S. Booth 9/26/00

Department Head/Responsible Individual / Date

Meeting No.: 00-30

Approval Signature

10/11/00

Approval Date

I

Effective Date: 12/21/00

10/11/00
Approval Date

12/21/00
Effective Date

DSEO/ADTS Briefing Sheet

1) Classification

Time Declared: ________

EAL No: ________

❑ General Emergency ❑ Alpha ❑ Bravo

❑ Site Area Emergency (Charlie-Two)

❑ Alert (Charlie-One)

Basis: ________

2) Fission Product Barrier Status

	FUEL	RCS	CTMT
Intact:	❑	❑	❑
Potential Loss:	❑	❑	❑
Loss:	❑	❑	❑

3) Onsite Protective Actions

❑ None

❑ Early Dismissal: ❑ No ❑ Yes

❑ Local Area(s) Evacuated: ❑ No ❑ Yes

❑ Evacuation/Accountability: ❑ No ❑ Yes

Status: ________

❑ Search & Rescue: ❑ No ❑ Yes

Status: ________

❑ Potassium Iodide Issued: ❑ No ❑ Yes

4) Personnel Status

❑ None

Injuries (No.____): ❑ No ❑ Yes

Contamination(s): ❑ No ❑ Yes

Over Exposure(s): ❑ No ❑ Yes

Emerg Exposures Authorized: ❑ No ❑ Yes

Details (names of injured, status of family notification):

____

5) Unit Status

❑ On-Line ❑ At Power: ____%

❑ Off-Line ❑ Cooling Down

❑ Cold Shutdown

Time of Rx Shutdown: ________

❑ Stable ❑ Degrading ❑ Improving

Systems/Equipment Affected: ________

Equipment Out of Service: ________

Teams Dispatched/Corr Actions/Priorities: ________

Outstanding Actions: ________

EOPs in Use: ________

Security Controls in Effect: ________

§50.54(x) Invoked: ❑ No ❑ Yes

Time NRC Notified: ________

6) Notifications	(last issued)
❑ State/Local	Time: ________
❑ NRC	Time: ________
❑ News Release	Time: ________

7) Radiological Release

❑ None

❑ Potential ❑ Ongoing ❑ Terminated

Time Started:	____________
Projected Duration:	____________ hours
Time Stopped:	____________
Max Offsite Dose Rate:	____________ mR/hr

8) Offsite Assistance Requested

❑ None

❑ Ambulance ❑ Fire ❑ Police

❑ Other: ____________________

9) PARs **(General Emergency Only)**

Current Wind Direction (° from):____________

Millstone Recommendations

Zone	Community	PAR	
A	Waterford (A-1)	**E**	**S**
	East Lyme (A-2)		
B	East Lyme (B-1)	**E**	**S**
	Waterford (B-2)	**E**	**S**
	New London (B-3)	**E**	**S**
C	East Lyme (C-1)	**E**	**S**
	Montville (C-2)	**E**	**S**
	Waterford (C-3)	**E**	**S**
D	Old Lyme (D-1)	**E**	**S**
	Lyme (D-2)	**E**	**S**
E	Ledyard (E-1)	**E**	**S**
	Groton (E-2)	**E**	**S**
F	Fishers Island	**E**	**S**
N/A	Plum Island	**E**	**S**

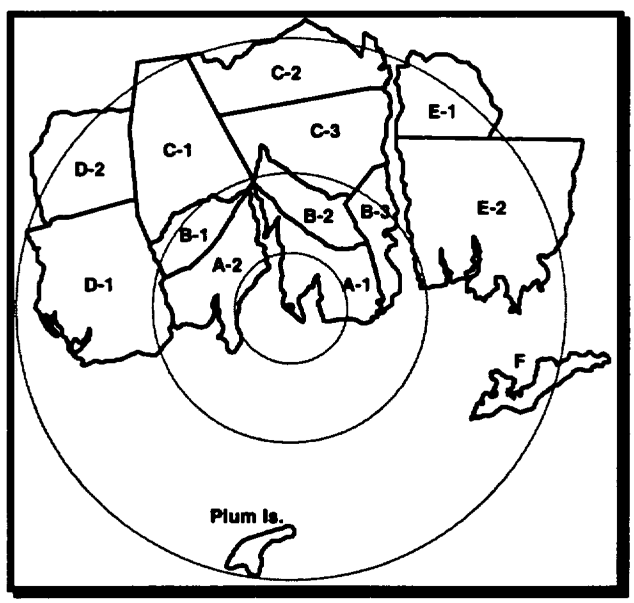
(Circle the Affected Communities)

State Directives

Evacuate:	A	B	C	D	E	F
Shelter:	A	B	C	D	E	F

(Circle the Affected Zones)

Notes: ____________________



Prepared by: ____________________ ________ ________

Name Time Date

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: Scott McCain Date: 9/11/00 Department: EPSD Ext.: 3757

Document No.: MP-26-EPI-FAP15 -002 Rev. No.: 000 Minor Rev.:

Title: Common Forms

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Convert to Master Manual format, implement EPSD document streamline initiative, and address CRs.

Continued ☐

C

Instructions:

None

Continued ☐

D

TPC Interim Approval (1) Plant Mngt Staff Member Print/Sign/Date (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☒ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☒ *Revision* ☐ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☐ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒

Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

F

Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	Dept.	✓ if Comments
	☐				☐	☐		
	☐				☐	☐		
Validation	☒	T. Rigney	T. Rigney	10/5/00	☐	☑	EPSD	✓
Writer's Guide	☒	M. Maryeski	M Maryeski	9/22/00	☐	☑	SPG	✓
50.54Q	☒	T. Rigney	T. Rigney	9/21/00	☐	☑	EPSD	
RCD	☒	T. Rigney	T. Rigney	9/22/00			EPSD	
Independent	☒	T. Rigney	T. Rigney	10/5/00	☐	☑	EPSD	✓

G

Safety Evaluation Required ☐ Yes ☒ No Environmental Review Required ☐ Yes ☒ No

H

1. ☐ SQR Program Final Review and Approval

Approval ☐ Disapproval ☐

SQR Qualified Independent Reviewer / Date

Department Head/Responsible Individual

Approval Date

2. ☒ SORC/PORC/RI/DH Final Review and Approval

9/26/00

Department Head/Responsible Individual / Date

Meeting No.: 00-30

Approval Signature

10/11/00

Approval Date

I

Effective Date:

MP-05-DC-SAP01-001
Rev. 002-01
Page 1 of 1

10/11/00
Approval Date

12/21/00
Effective Date

RMT Instrument, Battery, and Source Check Sheet

Instructions: Complete and return to the MRCA/MRDA

1. Team # ____________ Date ____________ Time ____________

2. RMT Member ____

3. Battery Checks: (as applicable for on-site or off-site)

Instrument	Operable	Replaced
Dose Rate Meter (ASP-1/HP-270 Offsite only)	❑	❑
Ion Chamber Survey Meter (R0-2A)	❑	❑
Count Rate Meter (E-140)	❑	❑
DIG-5	❑	❑

4. Source Check: (as applicable for on-site or off-site[1])

Instrument	Inst #/Cal Due Date	Operable	Replaced
Dose Rate Meter (ASP-1/HP-270 Offsite only)	____________	❑	❑
Ion Chamber Survey Meter (R0-2A)	____________	❑	❑
Count Rate Meter (E-140)	____________	❑	❑
DIG-5	____________	❑	❑

5. Radio Test:

   Radio Operable:______________________

6. Air Sampler Test:

   Air Sampler Operable(1.9-2.1 cfm):__________

Prepared by: ______________________ ______________________ ____________

Signature   Print   Date

[1] Sources for RMT kits are stored in the equipment lockers.

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: Scott McCain   Date: 9/11/00   Department: EPSD   Ext.: 3757

Document No.: MP-26-EPI-FAP15 – 003   Rev. No.: 000   Minor Rev.:

Title: Common Forms

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Convert to Master Manual format, implement EPSD document streamline initiative, and address CRs.

Continued ☐

C

Instructions:

None

Continued ☐

D

TPC Interim Approval

(1) Plant Mngt Staff Member Print/Sign/Date   (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☒ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☒ *Revision* ☐ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☐ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID

☐ Edit Corr.:⇒
Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date   Continued ☐

F

Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	Dept.	✓ if Comments
	☐				☐	☐		
	☐				☐	☐		
Validation	☒	T. Rigney	T. Rigney	10/5/00	☐	☑	EPSD	✓
Writer's Guide	☒	M. Maryeski	M Maryeski	9/22/00	☐	☑	SPG	✓
50.54Q	☒	T. Rigney	T. Rigney	9/21/00	☐	☑	EPSD	
RCD	☒	T. Rigney	T. Rigney	9/22/00			EPSD	
Independent	☒	T. Rigney	T. Rigney	10/5/00	☐	☑	EPSD	✓

G

Safety Evaluation Required ☐ Yes ☒ No   **Environmental Review Required** ☐ Yes ☒ No

H

1. ☐ **SQR Program Final Review and Approval**

Approval ☐ Disapproval ☐

SQR Qualified Independent Reviewer / Date

Department Head/Responsible Individual

Approval Date

2. ☒ **SORC/PORC/RI/DH Final Review and Approval**

9/26/00
Department Head/Responsible Individual / Date

Meeting No.: 00-30

Approval Signature

10/11/00
Approval Date

I

Effective Date: 12/21/00

10/11/00
Approval Date

12/21/00
Effective Date

Radiation Monitoring Point Data Sheet

Location: ______________________ **Name(s)** ______________________ ______________________

Area Radiation Dose Rate (mR/hr)					Air Sample Iodine Cartridge						Reported
Sample Location	Overhead Window Open ($\gamma + \beta$)	Waist Window Closed (γ only)	Units (mR/hr or Rem/hr)	Sample Time (Note 2)	Time When Counted (Note 2)	Total Sample Time (min)	Flow Rate of Air Sample (cfm) (Note 1)	Background in cpm (Notes 3, 4)	Iodine Filter Gross cpm (Note 3)	Particulate Filter (gross cpm)	To; Time (Note 5)

NOTES:

1. If flow rate is *not* between 1.9 and 2.1 CFM, notify the MRCA/MRDA. If MRCA/MRDA is not available, obtain another air sampler and collect a sample with flowrate between 1.9 and 2.1 CFM.
2. Enter time in military units; for air samples, use 11 minute sample at 2.0 CFM (1.9-2.1 CFM) unless a rapid assessment is required.
3. The normal count time is 1 minute. To conduct a 0.4-minute (24 second) count for rapid assessment, SET DIG-5 to "0.4" time setting, multiplier to "X1," and preset time to "minutes." Multiply all counts obtained on "0.4" time setting by 2.5 to convert to CPM. IF the E-140 goes off-full scale, SET to "X100" scale when using a DIG-5 scaler.
4. IF background is greater than 300 CPM AND sample gross count rate is less than twice the background, move to a low background area and recount sample or request instructions from MRCA/MRDA.
5. Record the name of the person contacted. ______________________
6. Obtain instruction from the MRDA/MRCA on the disposition of used samples.

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: Scott McCain Date: 9/11/00 Department: EPSD Ext.: 3757

Document No.: MP-26-EPI-FAP15 -004 Rev. No.: 000 Minor Rev.:

Title: Common Forms

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Convert to Master Manual format, implement EPSD document streamline initiative, and address CRs.

Continued ☐

C

Instructions:

None

Continued ☐

D

TPC Interim Approval (1) Plant Mngt Staff Member Print/Sign/Date (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☒ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☒ *Revision* ☐ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☐ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒

Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

F

Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	Dept.	✓ If Comments
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	☐				☐	☐		
Validation	☒	T. Rigney	T. Rigney	10/5/00	☐	☑	EPSD	
Writer's Guide	☒	M. Maryeski	M Maryeski	9/22/00	☐	☑	SPG	✓
50.54Q	☒	T. Rigney	T. Rigney	9/21/00	☐	☑	EPSD	
RCD	☒	T. Rigney	T. Rigney	9/22/00			EPSD	
Independent	☒	T. Rigney	T. Rigney	10/5/00	☐	☑	EPSD	✓

G

Safety Evaluation Required ☐ Yes ☒ No **Environmental Review Required** ☐ Yes ☒ No

H

1. ☐ SQR Program Final Review and Approval

Approval ☐ Disapproval ☐

SQR Qualified Independent Reviewer / Date

Department Head/Responsible Individual

Approval Date

2. ☒ SORC/PORC/RI/DH Final Review and Approval

[signature] 9/26/00

Department Head/Responsible Individual / Date

Meeting No.: 00-30

[signature] for

Approval Signature

10/11/00

Approval Date

I

Effective Date: 12/21/00

10/11/00
Approval Date

12/21/00
Effective Date

Plant Parameter Data Requested/Provided

Unit: ____________________ Date: ________________

Description/Plant ID	Data	Time	Description/Plant ID	Data	Time

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: Scott McCain Date: 9/11/00 Department: EPSD Ext.: 3757

Document No.: MP-26-EPI-FAP15 -005 Rev. No.: 000 Minor Rev.:

Title: Common Forms

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Convert to Master Manual format, implement EPSD document streamline initiative, and address CRs.

Continued ☐

C

Instructions:

None

Continued ☐

D

TPC Interim Approval (1) Plant Mngt Staff Member Print/Sign/Date (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☒ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☒ *Revision* ☐ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☐ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒

Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

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Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	SQR Qualified Dept.	✓ If Comments
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	☐				☐	☐		
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Writer's Guide	☒	M. Maryeski	M Maryeski	9/22/00	☐	☑	SPG	✓
50.54Q	☒	T. Rigney	T. Rigney	9/21/00	☐	☑	EPSD	
RCD	☒	T. Rigney	T. Rigney	9/22/00			EPSD	
Independent	☒	T. Rigney	T. Rigney	10/5/00	☐	☑	EPSD	✓

G

Safety Evaluation Required ☐ Yes ☒ No **Environmental Review Required** ☐ Yes ☒ No

H

1. ☐ **SQR Program Final Review and Approval**

Approval ☐ Disapproval ☐

SQR Qualified Independent Reviewer / Date

Department Head/Responsible Individual

Approval Date

2. ☒ **SORC/PORC/RI/DH Final Review and Approval**

[signature] 9/26/00

Department Head/Responsible Individual / Date

Meeting No.: 00-30

[signature] for

Approval Signature

10/11/00

Approval Date

I

Effective Date: 12/21/00

10/11/00
Approval Date

12/21/00
Effective Date

Personnel Contamination Status

RMT Members: ______________________________ Date: ______________

____

Name	Employee ID Number	Contamination Levels	Assigned Work Area

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: Scott McCain Date: 9/11/00 Department: EPSD Ext.: 3757

Document No.: MP-26-EPI-FAP15 -006 Rev. No.: 000 Minor Rev.:

Title: Common Forms

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Convert to Master Manual format, implement EPSD document streamline initiative, and address CRs.

Continued ☐

C

Instructions:

None

Continued ☐

D

TPC Interim Approval (1) Plant Mngt Staff Member Print/Sign/Date (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☒ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☒ *Revision* ☐ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☐ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒ Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

F

Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	Dept.	✓ if Comments
	☐				☐	☐		
	☐				☐	☐		
Validation	☒	T. Rigney	T. Rigney	10/5/00	☐	☑	EPSD	✓
Writer's Guide	☒	M. Maryeski	M Maryeski	9/22/00	☐	☑	SPG	✓
50.54Q	☒	T. Rigney	T. Rigney	9/21/00	☐	☑	EPSD	
RCD	☒	T. Rigney	T. Rigney	9/21/00			EPSD	
Independent	☒	T. Rigney	T. Rigney	10/5/00	☐	☑	EPSD	✓

G

Safety Evaluation Required ☐ Yes ☒ No **Environmental Review Required** ☐ Yes ☒ No

H

1. ☐ **SQR Program Final Review and Approval**

Approval ☐ Disapproval ☐

SQR Qualified Independent Reviewer / Date

Department Head/Responsible Individual

Approval Date

2. ☒ **SORC/PORC/RI/DH Final Review and Approval**

9/26/00

Department Head/Responsible Individual / Date

Meeting No.: 00-30

Approval Signature

10/11/00

Approval Date

I

Effective Date: 12/21/00

10|11|00
Approval Date

12|21|00
Effective Date

OFIS Instructions

Section A: TSO Equipment Start Up Steps

❑ From LAN based Personal Computer

1. Ensure the computer and monitor are on.
2. At the "Novell Netware" screen, enter your identification and password.
3. At the initial Windows screen, locate and open either the "IBM Extra" or the "Connect to the Mainframe" icon.
4. Navigate to the "Application" entry.
5. Enter **CICSNPRX**.
6. Press the ENTER key.
7. Refer to Section B and perform the following for the assigned SERO position:
   a) At the log-on prompt (LOGONID) enter the logon ID.
   b) Press the TAB key.
   c) At the password prompt (PASSWORD) enter the password.
   d) Press the ENTER key.
8. Press the "Pause/Break" key to clear the screen.
9. Type "OFIS," and press the ENTER key.
10. Press the function key for the appropriate Unit:

    F1 - Unit 1   F2 - Unit 2   F3 - Unit 3

❑ From Mainframe Terminal

1. Ensure the terminal and monitor are on.
2. Enter **CICSOFIS**.
3. Press the ENTER key.
4. Refer to Section B and perform the following for the assigned SERO position:
   a) Enter the logon ID.
   b) Press the ENTER key.
   c) Enter the password.
   d) Press the ENTER key.
5. Press the "Clear" key to clear the screen.
6. Type "OFIS," and press the ENTER key.
7. Press the "PF" key for the appropriate Unit:

   PF-1 - Unit 1PF-2 - Unit 2PF-3 - Unit 3

Section B: TSO Equipment Log On Identification and Passwords

The following computer IDs and Passwords are only for use when supporting Millstone Emergency Plan functions.

Emergency Function	Computer ID and Password
Director of Station Emergency Operations	MP840ZA - OPERAT
Manager of On-site Resources	MP840ZB - RESOUR
Manager of Communications	MP840ZD - COMMUN
Manager of Rad Consequences Assessment	MP840ZE - RADIOL
Manager of Security	MP840ZF - SECURI
Technical Assistant (JMC)	**later**
U1 Manager of Control Room Ops/STA	MP840ZG - OPERAT
U2 Manager of Control Room Ops/STA	MP840ZH - OPERAT
U3 Manager of Control Room Ops/STA	MP840ZP - OPERAT
U2 Manager of Tech Support/TSC Staff	MP840ZJ - SUPPOR
U3 Manager of Tech Support/TSC Staff	MP840ZQ - SUPPOR
General Use	MP840ZK - STASTA
General Use	MP840ZL - STASTA
General Use	MP840ZR - STASTA
U2 Control Room Data Coordinator	MP840ZN - MP2DATA
U3 Control Room Data Coordinator	MP840ZS -MP3DATA
Manager of Rad Dose Assessment	MP840ZO -DRAGON
Chemistry Technicians	BE091DZ or BE091EZ - DRAGON

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: Scott McCain Date: 9/11/00 Department: EPSD Ext.: 3757

Document No.: MP-26-EPI-FAP15 - 007 Rev. No.: 000 Minor Rev.:

Title: Common Forms

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Convert to Master Manual format, implement EPSD document streamline initiative, and address CRs.

Continued ☐

C

Instructions:

None

Continued ☐

D

TPC Interim Approval

(1) Plant Mngt Staff Member Print/Sign/Date   (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☒ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☒ *Revision* ☐ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☐ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒

Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date   Continued ☐

F

Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	Dept.	✓ if Comments
	☐				☐	☐		
	☐				☐	☐		
Validation	☒	T. Rigney	T. Rigney	10/5/00	☐	☑	EPSD	✓
Writer's Guide	☒	M. Maryeski	M Maryeski	9/22/00	☐	☑	SPG	✓
50.54Q	☒	T. Rigney	T. Rigney	9/21/00	☐	☑	EPSD	
RCD	☒	T. Rigney	T. Rigney	9/22/00			EPSD	
Independent	☒	T. Rigney	T. Rigney	10/5/00	☐	☑	EPSD	✓

G

Safety Evaluation Required ☐ Yes ☒ No   **Environmental Review Required** ☐ Yes ☒ No

H

1. ☐ **SQR Program Final Review and Approval**

Approval ☐ Disapproval ☐

SQR Qualified Independent Reviewer / Date

Department Head/Responsible Individual

Approval Date

2. ☒ **SORC/PORC/RI/DH Final Review and Approval**

[signature] 9/26/00

Department Head/Responsible Individual / Date

Meeting No.: 00-30

[signature] for

Approval Signature

10/11/00

Approval Date

I

Effective Date: 12/21/00

10/11/00
Approval Date

12/21/00
Effective Date

Critical Parameter Data Sheet - MP1

PARAMETER (EAL Threshold)		TIME								
Barrier Affected	*Computer ID									
MP1 Kaman Hi Range Monitor Reading (0.07/0.7/2 μCi/cc)	RM1705-19A-1004									
MP1 Kaman Stack Gas	RM1705-18A-1003									
SFP Level										
SFP Temperature										

*Note: If these specific data points are not available, others that measure an equivalent parameter may be utilized.

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: Scott McCain Date: 9/11/00 Department: EPSD Ext.: 3757

Document No.: MP-26-EPI-FAP15 - 008 Rev. No.: 000 Minor Rev.:

Title: Common Forms

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Convert to Master Manual format, implement EPSD document streamline initiative, and address CRs.

Continued ☐

C

Instructions:

None

Continued ☐

D

TPC Interim Approval (1) Plant Mngt Staff Member Print/Sign/Date (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☒ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☒ *Revision* ☐ *Minor Revision* (See DC-GDL01 for guidance) ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☐ Supersedure

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒ Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

F

Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	Dept.	✓ if Comments
	☐				☐	☐		
	☐				☐	☐		
Validation	☒	T. Rigney	T. Rigney	10/5/00	☐	☑	EPSD	✓
Writer's Guide	☒	M. Maryeski	M Maryeski	9/22/00	☐	☑	SPG	✓
50.54Q	☒	T. Rigney	T. Rigney	9/21/00	☐	☑	EPSD	
RCD	☒	T. Rigney	T. Rigney	9/21/00			EPSD	
Independent	☒	T. Rigney	T. Rigney	10/5/00	☐	☑	EPSD	✓

G

Safety Evaluation Required ☐ Yes ☒ No **Environmental Review Required** ☐ Yes ☒ No

H

1. ☐ **SQR Program Final Review and Approval**

Approval ☐ Disapproval ☐

SQR Qualified Independent Reviewer / Date

Department Head/Responsible Individual

Approval Date

2. ☒ **SORC/PORC/RI/DH Final Review and Approval**

[signature] 9/26/00
Department Head/Responsible Individual / Date

Meeting No.: 00-30

[signature]
Approval Signature

10/11/00
Approval Date

I

Effective Date: 12/21/00

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Rev. 002-01
Page 1 of 1

10/11/00
Approval Date

Critical Parameter Data Sheet - MP2

12/21/00
Effective Date

PARAMETER (EAL Threshold)		TIME								
Barrier Affected	***Computer ID**									
RCS Subcooling (30° F) - RCS	CETHSUB - 313									
RVLMS Reading (0%) - Fuel	RXLVL-A - 310									
	RXLVL-B - 311									
Core Exit Thermocouple Reading (800°/1300° F) - Fuel, CTMT	INTAMX - 324									
RM-8240/8241 (300/5/1200 R/hr) - Fuel, RCS, CTMT	R8240 - 1002									
	R8241 - 1003									
CTMT Pressure (10 psig) - CTMTPTR *Offsite Releases*	CTMTPR - 801									
MP2 Kaman Vent Monitor Reading (0.02/0.2/2 μCi/cc) - *Offsite Releases*	RIC8168 - 1005									
MSL Monitor (RM-4299A/B/C) Reading	R4299A - 1012									
(0.03/0.3/2R/hr) * (R4299A, B, C - 1012, 1013, 1014) - *Offsite Releases*	R4299B - 1013									
	R4299C - 1014									
MP1 Kaman Hi-Range Stack Monitor Reading (0.07/0.7/2 μCi/cc)*(RU1-1004) *Offsite Releases*	RU1 - 1004									

*Note: If these specific data points are not available, others that measure an equivalent parameter may be utilized.

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: Scott McCain Date: 9/11/00 Department: EPSD Ext.: 3757

Document No.: MP-26-EPI-FAP15 -009 Rev. No.: 000 Minor Rev.:

Title: Common Forms

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Convert to Master Manual format, implement EPSD document streamline initiative, and address CRs.

Continued ☐

C

Instructions:

None

Continued ☐

D

TPC Interim Approval (1) Plant Mngt Staff Member Print/Sign/Date (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☒ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☒ *Revision* ☐ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☐ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒

Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

F

Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	Dept.	✓ If Comments
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	☐				☐	☐		
Validation	☒	T. Rigney	T. Rigney	10/5/00	☐	☑	EPSD	✓
Writer's Guide	☒	M. Maryeski	M Maryeski	9/22/00	☐	☑	SPG	✓
50.59	☒	T. Rigney	T. Rigney	9/21/00	☐	☑	EPSD	
RCD	☒	T. Rigney	T. Rigney	9/22/00			EPSD	
Independent	☒	T. Rigney	T. Rigney	10/5/00	☐	☑	EPSD	✓

G

Safety Evaluation Required ☐ Yes ☒ No Environmental Review Required ☐ Yes ☒ No

H

1. ☐ SQR Program Final Review and Approval

Approval ☐ Disapproval ☐

SQR Qualified Independent Reviewer / Date

Department Head/Responsible Individual

Approval Date

2. ☒ SORC/PORC/RI/DH Final Review and Approval

9/26/00

Department Head/Responsible Individual / Date

Meeting No.: 00-30

Approval Signature

10/11/00

Approval Date

I

Effective Date: 12/21/00

MP-05-DC-SAP01-001
Rev. 002-01
Page 1 of 1

10/11/00
Approval Date

12/21/00
Effective Date

Critical Parameter Data Sheet - MP3

PARAMETER (EAL Threshold)		TIME								
Barrier Affected	**Computer ID**									
RCS Subcooling (32° F/115° F Adverse CTMT) - RCS	*CVSUBC00L-358									
RVLMS (19%) Plenum - Fuel	*CVPLENLVLA/B-305/306									
Core Exit TC Temperature (718°/1200° F) - Fuel	*CVCETMX-307									
RE-04A/05A Reading (500/5/2000 R/hr) - Fuel, RCS, CTMT	*RMS-R04A/R05A-1001/1002									
CTMT Pressure (60 PSIA) - CTMT	*CVCTPRESS-801									
MP3 Kaman Vent Mon (RE-10A) Reading (.01/.1/.8 µCi/cc) - *Offsite Releases*	*CVHVR 10A1/10B-1013/1014									
MP1 Kaman Hi - Range Monitor Reading (.07/.7/2 µCi/cc) - *Offsite Releases*	*RM1705-19A-1004									
MP3 SLCRS Hi Range Monitor Reading - *Offsite Releases*	CVHVR19A1-1015									

*Note: If these specific data points are not available, others that measure the parameter may be utilized.

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: Scott McCain Date: 9/11/00 Department: EPSD Ext.: 3757

Document No.: MP-26-EPI-FAP15 — 010 Rev. No.: 000 Minor Rev.:

Title: Common Forms

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Convert to Master Manual format, implement EPSD document streamline initiative, and address CRs.

Continued ☐

C

Instructions:

None

Continued ☐

D

TPC Interim Approval (1) Plant Mngt Staff Member Print/Sign/Date (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☒ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☒ *Revision* ☐ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☐ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒ Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

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Writer's Guide	☒	M. Maryeski	M Maryeski	9/22/00	☐	☑	SPG	✓
50.59	☒	T. Rigney	T. Rigney	9/21/00	☐	☑	EPSD	
RCD	☒	T. Rigney	T. Rigney	9/20/00			EPSD	
Independent	☒	T. Rigney	T. Rigney	10/5/00	☐	☑	EPSD	✓

G

Safety Evaluation Required ☐ Yes ☒ No **Environmental Review Required** ☐ Yes ☒ No

H

1. ☐ **SQR Program Final Review and Approval**

Approval ☐ Disapproval ☐

SQR Qualified Independent Reviewer / Date

Department Head/Responsible Individual

Approval Date

2. ☒ **SORC/PORC/RI/DH Final Review and Approval**

[signature] 9/26/00

Department Head/Responsible Individual / Date

Meeting No.: 00-30

[signature]

Approval Signature

10/11/00

Approval Date

I

Effective Date: 12/21/00

10/11/00
Approval Date

12/21/00
Effective Date

Emergency Team Briefing Sheet

This Briefing form replaces AWOs and augments RWPs. Normal station safety tagging processes remain in effect.

Goal: Teams deployed within 15 minutes of request (assess, repair, search and rescue)

Team #:	Date:	Time of Request:

Task Description: ______________________

____

____

Briefings: ☐ OPS ☐ RAD ☐ Security ☐ Other: ______

☐ 1. IF no constraints, provide general brief on the following:

- RCA entry or radiation release
- Security threat
- Chemical release or fire
- Other (weather, structural)
- General (task, MTSC review, communications, etc.)

Team: Lead: ______________ ______________

______________ ______________

Facility Contact Name: ______________

Radio Channel: ______________ **Facility Phone:** ______________

Team field phone #: ______________

Contact Every ________ **minutes OR as situation changes**

Team deployment authorized: ☐ ADTS ☐ CR DSEO

Time team deployed: ______________

☐ 2. Verify team safely returned or re-deployed when task was finished.

☐ 3. Perform debrief using Emergency Team Debriefing Sheet.

Emergency Team Radiological Briefing

Team #:	Date:	Time of Request:

Instructions: The following is required if conditions are constrained or RWP or RCA entry is necessary.

☐ Enter information, N/A, or line out if provided by electronic dosimetry log.

Name	**EID**	**Dosimetry #s**

☐ Call Back Dose Rate ____________________

☐ Turn Back Dose Rate ____________________

☐ Exposure Limit ____________________

☐ HP Tech Required Yes / No ____________________

☐ Meter Type ____________________

☐ High Range Dosimetry ____________________

☐ Protective Clothing ____________________

☐ Respiratory Protection ____________________

☐ Special Equipment ____________________

☐ Other: (KI) ____________________

Special Instructions:

Emergency Team Debriefing Sheet

Team #:	Date:	Time of Return:

CONDITIONS AS FOUND:

TASKS PERFORMED:

CURRENT STATUS/WORK TO BE COMPLETED:

RECOMMENDED ACTION/OTHER COMMENTS:

Debriefed by:	**Time:**

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: Scott McCain Date: 9/11/00 Department: EPSD Ext.: 3757

Document No.: MP-26-EPI-FAP15-011 Rev. No.: 000 Minor Rev.:

Title: Common Forms

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Convert to Master Manual format, implement EPSD document streamline initiative, and address CRs.

Continued ☐

C

Instructions:

None

Continued ☐

D

TPC Interim Approval (1) Plant Mngt Staff Member Print/Sign/Date (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☒ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☒ *Revision* ☐ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☐ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒ Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

F

Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	Dept.	✓ if Comments
	☐				☐	☐		
	☐				☐	☐		
Validation	☒	T. Rigney	T. Rigney	10/5/00	☐	☑	EPSD	✓
Writer's Guide	☒	M. Maryeski	M Maryeski	9/22/00	☐	☑	SPG	✓
50.54Q	☒	T. Rigney	T. Rigney	9/21/00	☐	☑	EPSD	
RCD	☒	T. Rigney	T. Rigney	9/22/00			EPSD	
Independent	☒	T. Rigney	T. Rigney	10/5/00	☐	☑	EPSD	✓

G

Safety Evaluation Required ☐ Yes ☒ No **Environmental Review Required** ☐ Yes ☒ No

H

1. ☐ **SQR Program Final Review and Approval**

Approval ☐ Disapproval ☐

SQR Qualified Independent Reviewer / Date

Department Head/Responsible Individual

Approval Date

2. ☒ **SORC/PORC/RI/DH Final Review and Approval**

[signature] 9/26/00

Department Head/Responsible Individual / Date

Meeting No.: 00-30

[signature] for

Approval Signature

10/11/00

Approval Date

I

Effective Date: 12/21/00

MP-05-DC-SAP01-001
Rev. 002-01

10/11/00
Approval Date

12/21/00
Effective Date

Fitness For Duty Questionnaire

1. Request each individual contacted for unscheduled SERO duties to answer the following questions:

- ❑ a) Are you available for unscheduled work? **[❑ YES]** ❑ NO
- ❑ b) Have you consumed any alcoholic beverages within the past five (5) hours? ❑ YES **[❑ NO]**
- ❑ c) Have you taken any medication or drugs, or consumed alcohol, which might affect your ability to perform assigned duties? ❑ YES **[❑ NO]**
- ❑ d) Do you feel able to perform your assigned duties? **[❑ YES]** ❑ NO

❑ 2. IF the responses to all questions are within the bolded boxes, request the individual to report to the EOF.

❑ 3. IF the response to any question is not within a bolded box, contact the next listed individual qualified to fill the position.

4. IF no individual can be found who responds only to bolded boxes, evaluate those individuals contacted as follows:

- ❑ IF the individual responded "YES" to question 1b OR 1c, determine the extent of substance usage.
- ❑ IF the individual states they are able and fit to perform all assigned duties AND the individual's skills are essential to the response effort, take appropriate measures to ensure the safety of the individual, public, fellow employees, and company property and arrange for the individual to report for duty.

❑ 5. IF assistance in evaluating responses is necessary, consult the DSEO to determine the extent and approval of alternative measures.

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: Scott McCain Date: 9/11/00 Department: EPSD Ext.: 3757

Document No.: MP-26-EPI-FAP15 – 012 Rev. No.: 000 Minor Rev.:

Title: Common Forms

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Convert to Master Manual format, implement EPSD document streamline initiative, and address CRs.

Continued ☐

C

Instructions:

None

Continued ☐

D

TPC Interim Approval (1) Plant Mngt Staff Member Print/Sign/Date (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☒ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☒ *Revision* ☐ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☐ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒

Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

F

Reviews		**Print**	**Sign**	**Date**	**SQR Qualified** Yes	No	Dept.	✓ if Comments
	☐				☐	☐		
	☐				☐	☐		
Validation	☒	T. Rigney	T. Rigney	10/5/00	☐	☑	EPSD	✓
Writer's Guide	☒	M. Maryeski	M Maryeski	9/22/00	☐	☑	SPG	✓
50.54Q	☒	T. Rigney	T. Rigney	9/21/00	☐	☑	EPSD	
RCD	☒	T. Rigney	T. Rigney	9/22/00			EPSD	
Independent	☒	T. Rigney	T. Rigney	10/5/00	☐	☑	EPSD	✓

G

Safety Evaluation Required ☐ Yes ☒ No **Environmental Review Required** ☐ Yes ☒ No

H

1. ☐ **SQR Program Final Review and Approval**

Approval ☐ Disapproval ☐

SQR Qualified Independent Reviewer / Date

Department Head/Responsible Individual

Approval Date

2. ☒ **SORC/PORC/RI/DH Final Review and Approval**

[signature] 9/26/00

Department Head/Responsible Individual / Date

Meeting No.: 00-30

[signature] for

Approval Signature

10/11/00

Approval Date

I

Effective Date: 12/21/00

10/11/00
Approval Date

12/21/00
Effective Date

SERO Log Sheet

Name:	Date:
SERO Position:	Page _____ of _____

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: Scott McCain Date: 9/11/00 Department: EPSD Ext.: 3757

Document No.: MP-26-EPI-FAP15-013 Rev. No.: 000 Minor Rev.:

Title: Common Forms

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Convert to Master Manual format, implement EPSD document streamline initiative, and address CRs.

Continued ☐

C

Instructions:

None

Continued ☐

D

TPC Interim Approval (1) Plant Mngt Staff Member Print/Sign/Date (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☒ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☒ *Revision* ☐ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☐ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒

Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

F

Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	Dept.	✓ if Comments
	☐				☐	☐		
	☐				☐	☐		
Validation	☒	T. Rigney	T. Rigney	10/5/00	☐	✓	EPSD	✓
Writer's Guide	☒	M. Maryeski	M Maryeski	9/22/00	☐	✓	SPG	✓
50.54Q	☒	T. Rigney	T. Rigney	9/21/00	☐	✓	EPSD	
RCD	☒	T. Rigney	T. Rigney	9/22/00			EPSD	
Independent	☒	T. Rigney	T. Rigney	10/5/00	☐	✓	EPSD	✓

G

Safety Evaluation Required ☐ Yes ☒ No Environmental Review Required ☐ Yes ☒ No

H

1. ☐ SQR Program Final Review and Approval

Approval ☐ Disapproval ☐

SQR Qualified Independent Reviewer / Date

Department Head/Responsible Individual

Approval Date

2. ☒ SORC/PORC/RI/DH Final Review and Approval

[signature] 9/26/00

Department Head/Responsible Individual / Date

Meeting No.: 00-30

[signature] for

Approval Signature

10/11/00

Approval Date

I

Effective Date: 12/21/00

10/11/00
Approval Date

12/21/00
Effective Date

EOF Air Handling and High Radiation Filtration System

Section A: System Activation

☐ 1. Refer To Section C, "System Panel," and verify Air Handling and High Radiation Filtration System operating in normal mode, as follows:

- "NORMAL HVAC CONDITIONS" indicator light is lit.
- IF the "NORMAL HVAC CONDITION" indicator light is *not* lit, perform the following:
  a) Set the "POWER" switch to "ON."
  b) Press "START" button.
- Ensure 2, 3, 4, 5 dampers are in the "NORMAL" position.
- IF the EOF is activated during Off Normal Hours, set the "NITE OVERRIDE" switch to "OVERRIDE."

☐ 2. IF directed by the MRDA, activate the High Radiation Filtration System, as follows:

- Depress black vent valve located outside of each inner airlock door.
- Close all inner and outer airlock doors.
- IF Alarm 10-"Low Pressure" on the Simplex Fire Protection Panel is activated, request Security (CAS or SAS) reset the alarm and allow approximately 15 to 30 seconds for filtration dampers to reposition.
- Set "HI RADIATION" switch to "HI RADN."
- Acknowledge applicable zones on the Simplex Fire Protection Panel.
- Verify the following:
  a) Dampers 2, 3, 4, and 5 are in the high radiation position and fan 4 is rotating.
  b) Airlock door inflatable gaskets have inflated and local door pressure gauges indicate between 15 to 20 psig.
  c) "GREEN" airlock door indicator light, located at each airlock door, is lit for all airlock doors that have been closed.
- IF a "RED" airlock door indicator is lit, close the associated air lock door.

☐ 3. IF EOF alarm systems activate during High Radiation Filtration System activation, determine cause of alarms and request corrective assistance, as necessary.

Section A: System Activation

☐ 4. IF loss of normal AC power occurs, reactivate the Air Handling and High Radiation Filtration System when backup power to the EOF is obtained and perform the following:

a) Verify one of the following conditions has occurred:

- Normal AC power has been restored.
- EOF emergency diesel generator is running.

b) Press "START" button.

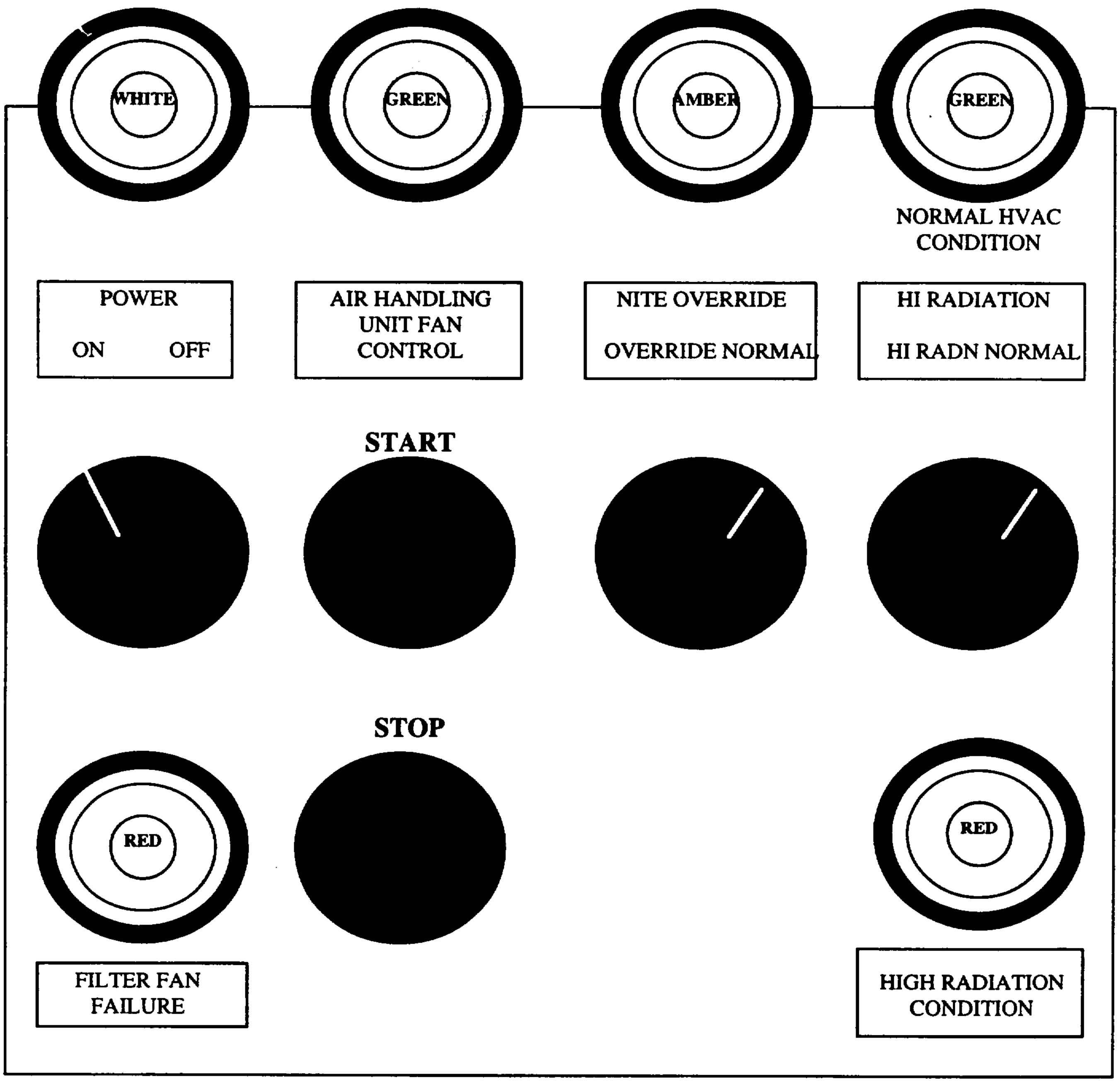
c) Verify dampers 2, 3, 4, and 5 are in the high radiation position and fan 4 is rotating.

Section B: System Deactivation

☐ 1. Set "HI RADIATION" switch to "NORMAL" and allow approximately 15 to 30 seconds for filtration dampers to deposition.

☐ 2. Verify dampers 2, 3, 4, and 5 are in the "NORMAL" position.

Section C: High Radiation Filtration System Panel



Section D: System Parameters

System Component	System Status		
	DAY 0500 to 1700	NITE 1700 to 0500	HI RADIATION
POWER	ON	ON	ON
FAN #1 (Air Hand Unit)	ON	ON	ON
FAN #2 (Intake)	ON	OFF	ON
FAN #3 (Exhaust)	ON	OFF	ON
D-2	OPEN	CLOSED	CLOSED
D-3, 4, 5	CLOSED	CLOSED	OPEN
FAN #4	OFF	OFF	ON
FILTER HEATER	OFF	OFF	ON
HTG. SETPOINT	68°	55°	68°
CLG. SETPOINT	78°	OFF	78°

* Approximate times - system may be overridden.

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG# ~~N/A~~ 001218-122401

A Initiated By: B. Tarallo Date: 12/6/00 Department: EPSD Ext.: 2490

Document No.: EPAP 1.15 Rev. No.: 006 Minor Rev.: 03

Title: Management Program for Maintaining Emergency Preparedness

B **Reason for Request** (attach commitments, CRs, ARs, OEs etc)

Modify Attachment 5

Continued ☐

C **Instructions:**

Continued ☐

D **TPC Interim Approval** (1) Plant Mngt Staff Member Print/Sign/Date (2) SM/SRO/CFH on Unit Print/Sign/Date

E **Procedure Request/Feedback Disposition**

Priority: ☑ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☐ *Revision* ☑ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☐ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒ Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

F

Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	Dept.	✔ If Comments
	☐				☐	☐		
	☐				☐	☐		
	☐				☐	☐		
	☐				☐	☐		
	☐				☐	☐		
RCD	☒	KR Burgess	KR Burgess	12/6/00			EPSD	
Independent	☒	KR Burgess	KR Burgess	12/6/00	☒	☐	EPSD	

G Safety Evaluation Required ☐ Yes ☒ No Environmental Review Required ☐ Yes ☒ No

H 1. ☒ SQR Program Final Review and Approval

Approval ☒ Disapproval ☐

KR Burgess 12/6/00
SQR Qualified Independent Reviewer / Date

Paul A. Blasioli
Department Head/Responsible Individual

12/15/00
Approval Date

2. ☐ SORC/PORC/RI/DH Final Review and Approval

Department Head/Responsible Individual / Date

Meeting No.:

Approval Signature

Approval Date

I **Effective Date:** 12/21/00

MILLSTONE NUCLEAR POWER STATION

EMERGENCY PREPAREDNESS ADMINISTRATIVE PROCEDURE

Management Program for Maintaining Emergency Preparedness

EPAP 1.15

Rev. 006–03

This procedure describes sources of information, responsibilities, organization, and actions necessary to maintain the Millstone Station Emergency Plan.

STOP THINK ACT REVIEW

Approval Date: 12/15/00

Effective Date: 12/21/00

Level of Use
Information

Management Program for Maintaining Emergency Preparedness

TABLE OF CONTENTS

ATTACHMENTS AND FORMS

1. INSTRUCTIONS

1.1 Station Personnel

Additional personnel may be required to support the SERO in an emergency. These personnel are integrated into the organization as required by SERO Position Owners 02

Station personnel may also be required to participate in station evacuation drills. Advance notification will be provided via station information notices.

– End of Section 1.1 –

1.2 Responsibilities of the Emergency Planning Process Owner for Maintaining Emergency Preparedness (02)

The Emergency Planning Process Owner (EPPO) has overall responsibility for the Nuclear Emergency Preparedness Program and is the Chair of the Emergency Preparedness Curriculum Advisory Committee. Responsibilities are defined in Emergency Planning Services documents and NGP 2.04, "Nuclear Incidents Response and Recovery." (02)

EPPO

1.2.1 RESPOND to emergency preparedness audits and evaluations. (02)

1.2.2 IMPLEMENT SERO on–call schedules and performance reports.

1.2.3 DEVELOP and CONDUCT station Emergency Planning drills and exercises.

1.2.4 Biennially REVIEW station procedures in accordance with the NUQAP, MP–02–OST–BAP01, "Quality Assurance Program Topical Report," and MP–05–DC–SAP01, "Administration of Manuals, Procedures, Guidelines, Handbooks, and Forms," and REVIEW additional changes for impact on the Millstone Station Emergency Plan. (02)

1.2.5 COORDINATE the development and distribution of emergency preparedness documents.

1.2.6 ESTABLISH SERO position owners and DOCUMENT in Attachment 5. (02)

1.2.7 PROVIDE SERO qualification status to SERO position owners on a routine basis. (02)

1.2.8 PROVIDE listing of SERO members personal information to SERO position owners for verification on a routine basis. (02)

1.2.9 At least quarterly, PROVIDE SERO Roster to SERO organization.

1.2.10 REVIEW the development of emergency preparedness training curriculum.

1.2.11 ENSURE station personnel correct identified emergency preparedness conditions adverse to quality and areas for improvement.

1.2.12 Refer To Attachment 2, "Summary of Department Responsibilities for Facilities, Equipment, and Material Maintenance," and ENSURE responsible process owners maintain emergency response in a state of readiness at all times. 02

1.2.13 Refer To EPAP 1.15–001, "SERO Training and Qualification Record," and COORDINATE completion of qualifications for each new SERO member.

1.2.14 ENSURE Millstone Station Emergency Plan and associated procedures are maintained.

1.2.15 Refer To Attachment 6, "Roles and Responsibilities for Emergency Preparedness Dose Assessment," and ENSURE responsibilities are carried out.

1.2.16 REVIEW emergency planning and response information forwarded from Station Management for possible adoption.

1.2.17 COORDINATE with off–site agencies and local officials, and ENSURE off–site Emergency Plan Program is maintained and areas of responsibility are effectively carried out.

– End of Section 1.2 –

1.3 Station Management Actions for Maintaining Emergency Preparedness

CNO

1.3.1 ASSIGN Senior Management to DSEO position.

NOTE

Minimum staffing is two persons in any position in order to support extended event periods with at least two shifts (12 hours each). It is recommended that for on–call and subject–to–call positions, a fifth individual be qualified to quickly fill any unexpected team vacancies.

SERO Position Owners

1.3.2 MAINTAIN a "4 team" rotation for SERO duty (i.e., red, white, blue, gold). 02

1.3.3 IF vacancies exist, ENSURE weekly rotation coverage is provided by remaining position holders during reduced staffing periods.

1.3.4 ENSURE adequate station support is provided for emergency preparedness functions.

1.3.5 AUTHORIZE the conduct of drills and exercises.

1.3.6 ENSURE personnel within reporting chain who are assigned to SERO maintain their SERO qualifications.

1.3.7 Refer To and COMPLETE EPAP 1.15–001, "SERO Training and Qualification Record," to initiate assignment of personnel in your reporting chain to the SERO.

1.3.8 Refer To and COMPLETE EPAP 1.15–002, "SERO Removal Form," to initiate removal of SERO personnel in your reporting chain.

1.3.9 Refer to Attachment 5, "SERO Qualifications and Reporting Location," and REVIEW for assigned SERO position owners. 02

1.3.10 REVIEW and FORWARD to the EPPO, industry or regulatory information regarding any aspect of emergency planning or emergency response including but not limited to the following: 02

- Information from utility self–assessments
- NRC communications and proposed regulations
- Results of technical studies and assessments
- Information from ongoing research programs
- Lessons learned from training and drills

MPOs

1.3.11 ENSURE personnel are provided to support emergency preparedness activities. 02

1.3.12 REVIEW drill critiques and ENSURE applicable corrective actions are implemented.

1.3.13 Refer To Attachment 2, "Summary of Department Responsibilities for Facilities, Equipment, and Material Maintenance," and PROVIDE a point of contact to the EPPO for listed organizations. 02

Process Owners and Team Leads

1.3.14 Refer To Attachment 2 and PERFORM the following: 02

a. ASSIGN personnel to perform applicable actions.

b. VERIFY actions are scheduled and documented as complete via one of the following:

- AITTS
- PMMS
- Automated work order
- Completion of inventory from RPM 4.8.5, "Emergency Radiological Equipment Maintenance and Inspection." (copy to EPSD)
- Attachment 3, "Emergency Response Facility Readiness Check Report Form"

c. VERIFY emergency equipment and instruments are operationally available at least once each quarter and after each use.

1.3.15 ENSURE personnel are briefed on extent of drill participation.

1.3.16 IF requested by SERO Team DSEOs, ASSIGN personnel to SERO.

1.3.17 ENSURE the department list of SERO members in NUTIMS is current.

1.3.18 IF a SERO vacancy occurs, NOTIFY the following:

a. Team DSEO

b. MPOs 02

c. Remaining SERO members for the position

d. EPPO 02

1.3.19 PROVIDE personnel to participate in emergency response scenario development, drills, and exercises.

1.3.20 MAINTAIN SERO on–call independent rotation schedules for the following positions:

- Electricians
- Mechanics
- RMTs
- GES
- I&C Technicians

Team DSEO

1.3.21 OVERSEE team activities including the following:

- Training attendance and continuing training
- Drill schedules
- Drill and exercise participation

1.3.22 ENSURE SERO on–call position rotation schedules are developed.

1.3.23 RESOLVE SERO staffing issues.

SERO Position Owners

1.3.24 MAINTAIN SERO position activities as follows: 02

a. ASSIGN personnel to owned positions.

b. COORDINATE with the following to fill existing or potential vacancies:

- Team DSEO
- Emergency Planning Services Department 02
- Training

c. ENSURE position holders maintain qualifications.

d. Refer To EPAP 1.15–002 and AUTHORIZE removal of individuals from SERO.

e. NOTIFY other position holders of actual or pending vacancies and ESTABLISH formal rotation of duty to compensate for vacancy.

f. MAINTAIN position staffing.

Radiological Engineering Supervisor (SAB)

1.3.25 Refer To Attachment 6, "Roles & Responsibilities for Emergency Preparedness Dose Assessment," and ENSURE areas of responsibility are carried out.

RDAC

1.3.26 Refer To and IMPLEMENT Attachment 7, "Radiological Dose Assessment Committee at NU."

– End of Section 1.3 –

1.4 SERO Personnel

It is the expectation of management that the SERO pager remain on, operable, and monitored so that emergency pager messages may be received and responded to appropriately.

If an emergency event occurs, pagers will display the following:

- Affected unit
- NRC classification
- State posture code
- Major EAL heading

1.4.1 Refer To Attachment 5, "SERO Qualifications and Reporting Location,"and IDENTIFY reporting location.

1.4.2 IF pager fails to operate properly, OBTAIN a replacement from one of the following:

- During normal working hours, REQUEST EPPO provide replacement pager. |02
- After normal working hours, REQUEST Security Shift Supervisor provide replacement pager from NAP Security Office.

1.4.3 NOTIFY EPPO of any changes to the following: |02

- Work extension
- Pager number
- Home phone number
- Employment status

1.4.4 Refer To Attachment 5 and NTP 7.212, "Training Program Description," and MAINTAIN job specific and SERO qualifications current.

On−Call and Subject to Call SERO Members

1.4.5 Refer To Attachment 5 and MAINTAIN qualifications and proficiency for initial qualification of emergency response duties as follows:

- Refer To NTP 7.212, "Training Program Description," and COMPLETE SERO Training.
- COMPLETE respirator qualifications required by SERO position.
- COMPLETE radworker qualifications required by position.
- MAINTAIN "Fitness for Duty" program requirements.
- MAINTAIN station access required by assigned position.
- MAINTAIN job specific requirements including license or certification, as appropriate.

1.4.6 MAINTAIN qualifications and proficiency for annual requalification by performing one of the following:

NOTE

Exceptions to participation in drills may be made by Team DSEO in consultation with EP Management on a case by case basis.

- PERFORM as the designated responder (not a called−in back−up) in at least one drill annually in accordance with Attachment 5.
- PERFORM as one of the following for related position:
    - Drill controller
    - Evaluator
    - Position coach or mentor

1.4.7 Refer To EPAP 1.15–002, "SERO Removal Form," and COMPLETE all information including the following:

- Individual being removed
- Replacement named to fill vacancy
- Approval and concurrences, as appropriate

– End of Section 1.4 –

1.5 **On–Call Positions**

NOTE

Weekly on–call duty assignment turnover will be completed on Tuesday by 10:00 A. M.

On–Call and On–Duty SERO Positions

1.5.1 PERFORM the following while on–call and on–duty:

- ADHERE to the fitness for duty policies.
- REMAIN within 60 minutes travel time of reporting location.

NOTE

Once the Emergency Response Facilities are staffed and operational, SERO members shall not call back into the Emergency Notification and Response System.

- ACKNOWLEDGE initial pager activations.

1.5.2 IF *not* available for duty, PERFORM the following:

a. CONTACT another qualified individual and TRANSFER duty to the individual, ensuring an understanding of the exact date and time of relief.

b. IF *not* able to obtain a replacement, PERFORM the following:

- During normal working hours, CONTACT SERO Team DSEO.
- After normal working hours, NOTIFY the Unit 3 Control Room Shift Technician.

On-Call and Not On-Duty SERO Positions

1.5.3 IF on-call and *not* on-duty, PERFORM the following:

NOTE

1. The approximate 10 minute wait to acknowledge pager activations is to allow for initial calls by on-call and on-duty responders to access the system.
2. Once the Emergency Response Facilities are staffed and operational, SERO members shall not call back into the Emergency Notification and Response System.

a. IF fit for duty AND within 60 minutes travel time of reporting location, ACKNOWLEDGE initial pager activations after waiting approximately 10 minutes.

b. IF *not* fit for duty and contacted by the MOR, COMPLY with the instructions provided.

1.5.4 Using SERO call-in card instructions, PERFORM the following to acknowledge pager activations: 02

NOTE

1. For open positions, the caller will be instructed to report. For filled positions, subsequent callers will be directed to remain available.
2. Do not hang up until the system has disconnected. 02
3. If a position is not acknowledged, the vendor will automatically page and dial the home telephone number of all personnel assigned to a position until the position is filled.

a. IF a real event notification is received (not a test, drill, or exercise), DIAL the toll-free telephone number and COMPLY with the instructions provided.

1) ENTER individual identification (PIN) code.

2) IF position is open, LISTEN to the information and RESPOND appropriately. 02

3) IF position is *not* open, REMAIN available to respond.

b. IF a real event notification is received (not a test, drill, or exercise) AND acknowledgement can *not* be made via telephone, REPORT to assigned emergency response facility.

NOTE
If Unit Event codes are received, the ENRS is not available to provide any information to callers. EPAP 1.15−003 provides information on unit event backup codes.

c. IF a unit event code (e.g., ID 101, 201, 301) is received, immediately REPORT to assigned emergency response facility.

– End of Section 1.5 –

1.6 **Subject to Call Positions**

NOTE

1. Subject to call pager positions are assigned to teams only for training and drill scheduling purposes.
2. The approximate 10 minute wait to acknowledge pager activations is to allow for initial calls by on–call and on–duty responders to access the system.
3. Once the Emergency Response Facilities are staffed and operational, SERO members shall not call back into the Emergency Notification and Response System.

1.6.1 IF fit for duty, ACKNOWLEDGE initial pager activations after waiting approximately 10 minutes.

NOTE

1. Subject to call position holders are expected to staff their position as soon as possible. It is not considered acceptable to wait up to 8 hours to fill a position.
2. If a position is vacant, the DSEO may elect to fill the position by appointment until a fully qualified individual is available.
3. All Accident Management Team positions shall be staffed within 90 minutes of notification.

1.6.2 IF *not* fit for duty and contacted by the MOR, COMPLY with the instructions provided.

NOTE

For open positions, the caller will be instructed to report. For filled positions, subsequent callers will be directed to remain available.

1.6.3 Using SERO call–in card, DIAL the toll–free telephone number and COMPLY with the instructions provided.

– End of Section 1.6 –

1.7 **On–Shift Positions**

1.7.1 Refer To Attachment 5 and IDENTIFY reporting location.

1.7.2 WHEN notified of an Alert, Site Area Emergency, or General Emergency, REPORT to the designated reporting location.

– End of Section 1.7 –

1.8 **Drills and Exercises**

> **NOTE**
>
> 1. Drills provide a training opportunity to enhance and maintain effective emergency response capabilities.
> 2. Major objectives of the Millstone Station Emergency Plan are exercised annually. Exercises differ from drills in that the primary result of an exercise is a critical assessment of emergency response capability.
> 3. In order to fully evaluate SERO performance capability, back–up staffing (e.g.,trainees) will normally not be allowed during evaluated drills or exercises.
> 4. "Hands–On/OJT" drills will be conducted when it is determined that additional training or experience will enhance an individual, selected group, facility staff or the SERO's ability to respond to emergency conditions. This training evaluation may take the form of a walkthrough or a tabletop discussion of an evolution or operation. This type of training evaluation is distinct from those described in Section 1.8.1 in that the focus is limited and will generally not include an integrated response.
> 5. Actual emergency plan activations may be credited in place of selected drills if the EPPO deems it appropriate. Generally an Alert or higher level emergency may be substituted for a drill. Such events may also replace an exercise with NRC approval. | 02

EPPO →

1.8.1 Refer To the EP 6 year objectives schedule and CONDUCT the following drills and tests, as appropriate: | 02

- Health Physics Drills
- Radiological Monitoring Drills
- Chemistry Drills
- Medical Emergency Drills
- Communication tests
- Emergency Plan Training Drills

- Exercises
- Off–site public alerting siren tests
- Off–hour Drills
- Assembly and Accountability Drills

1.8.2 REQUEST drill support from other departments, as applicable.

1.8.3 ENSURE Nuclear Training Department conducts fire drills.

1.8.4 CONDUCT formal critique after each of the following:

- Drill
- Series of drills
- Exercise

– End of Section 1.8 –

1.9 Emergency Response Facilities (ERFs) and Equipment

NOTE

1. Each ERF has equipment in place to perform functions assigned in the Millstone Station Emergency Plan. The EPPO is authorized to perform unannounced, periodic walk–through inspections of ERFs. 02
2. Additional facility and equipment responsibilities are detailed in OA–8, "Ownership, Maintenance, and Housekeeping of Site Buildings and Facilities, and Equipment," and Emergency Planning Services Department Instruction EPDI 06, "Emergency Facilities and Equipment."

Station Personnel

1.9.1 Refer To Attachment 2, "Summary of Department Responsibilities for Facilities, Equipment, and Material Maintenance," and ENSURE facilities are maintained, as assigned.

1.9.2 PERFORM equipment check or maintenance at required intervals and after each use.

1.9.3 Refer To Attachment 3, "Emergency Response Facility Readiness Check Report Form," or other appropriate documentation and PROVIDE documentation of completed activities to the EPPO. 02

1.9.4 Promptly REPORT problems to the EPPO.

1.9.5 IF alteration or modification of ERF or equipment is required, NOTIFY the EPPO before alteration or modification is performed. 02

Unit Chemistry Technicians and RAE

1.9.6 Refer To Attachment 4, "Documentation of Testing of Dose Assessment Computer Program," and TEST dose assessment computer program.

– End of Section 1.9 –

1.10 Severe Accident Management

EPPO

1.10.1 Severe accident management (SAM) documents developed for the Millstone units will be owned by the Emergency Planning Services Department. Technical expertise for the contents of the documents will be provided by the Unit Operations Department and the Safety Analysis Branch. 02

1.10.2 Drills requiring implementation of SAM Guidelines (SAM–G) will be conducted as part of the scheduled 6–year objectives for each operating unit. The SAM–G drill objectives shall test and evaluate the unit severe accident management response capabilities. The drill scenario shall be of sufficient complexity and challenge to require the development of multiple SAM strategies. Drill core objectives will be included in accordance with EPDI–07, "Drill and Exercise Manual."

1.10.3 SAM–G training shall be provided on a 6–year frequency for continuing training purposes.

– End of Section 1.10 –

2. REFERENCES

2.1 Developmental Documents

2.1.1 Millstone Nuclear Power Station Emergency Plan

2.1.2 NUREG–0654, Revision 1, "Criteria for Preparation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants"

2.1.3 NUREG–0737, "Clarification of TMI Action Plan Requirements, Supplement 1, Requirements for Emergency Response Capability"

2.1.4 MP–28–MET–PRG, "Meteorological Monitoring"

2.1.5 AR 99016164–01, "Review of Millstone Emergency Plan for impact on Chemistry Technician"

2.1.6 AR 99016508–03, "Nuclear Training Department conducts fire drills"

2.1.7 AR 99016508–06, "Specify off–site responsibilities of Manager EPSD"

2.1.8 AR 00002141–04, "Remove Unit 1 personnel from Station Director Position Owner responsibilities" 01

2.2 Supporting Documents

2.2.1 TQ 1, "Personnel Qualification and Training"

2.2.2 NGP 2.04, "Nuclear Incidents Response and Recovery"

2.2.3 NTP 7.212, "Training Program Description"

2.2.4 RPM 4.8.5, "Emergency Radiological Equipment Maintenance and Inspection."

2.2.5 OA 8, "Ownership, Maintenance, and Housekeeping of Site Buildings and Facilities and Equipment"

2.2.6 NUQAP, MP–02–OST–BAP01, "Quality Assurance Program Topical Report" 02

2.2.7 MP−05−DC−SAP01, "Administration of Manuals, Procedures, Guidelines, Handbooks, and Forms (02)

3. COMMITMENTS

3.1 NU Letter B14268 commits Millstone to have procedures to accommodate the implementation of ERDS. (02)

3.2 NU Letter A06789 commits Millstone to surveille computer hardware (OFIS) quarterly. (02)

3.3 NU Letter A02567 commits Millstone to monitor emergency equipment, including communications. (02)

4. SUMMARY OF CHANGES

Revision 006–03

4.1 Updated the SERO Position Owner for the EOF Shift Technician, and the Category for the Unit 2 and Unit 3 Technical Information Coordinator in Attachment 5, " SERO Qualifications and Reporting Locations."

Revision 006–02

4.2 Updated references to process owner and position owner in Sections 1.2, 1.3, 1.4, and Attachment 5.

4.3 Clarified the biennial procedure review process in Step 1.2.4.

4.4 Added instructions in Section 1.5 for responding to event notifications via pager.

4.5 Added abbreviation for Meteorological Information and Dose Assessment Model (MIDAS) in Attachments 1 and 4. Deleted ADAM.

4.6 Added abbreviations for new Master Process Owners in Attachment 1.

4.7 Replaced EPIP/EPOP with Functional Administrative Procedure (FAP) in Attachment 1.

4.8 Deleted Unit 1 responsibilities for Evacuation Alarm Test in Attachment 2.

4.9 Updated reporting locations for several OSC responders in Attachment 5.

4.10 Added code 666, event is terminated, to EPAP 1.15–003. Moved instructions for acknowledging pager activations via ENRS to section 1.5.

Revision 006–01

4.11 Added AR 00002141 to the references Section 2.

4.12 Deleted all Unit 1 SERO positions in Attachment 5 that are no longer required.

Attachment 1
Emergency Preparedness Abbreviations and Definitions

(Sheet 1 of 1)

1. ADEOF – Assistant Director Emergency Operations Facility
2. ADTS – Assistant Director Technical Support
3. AMRDA – Assistant Manager of Radiological Dose Assessment
4. ENRS – Emergency Notification and Response System. The on–site and off–site notification system including pager and phone communications.
5. EPPO – Emergency Planning Process Owner (02)
6. EPSD – Emergency Planning Services Department
7. ERC – External Resources Coordinator
8. ERDS – Emergency Response Data System
9. IDA – Initial Dose Assessment
10. MIDAS – Meteorological Information and Dose Assessment Model (02)
11. MPO – Master Process Owner
12. RAE – Radiological Assessment Engineer
13. RDAC – Radiological Dose Assessment Committee
14. RES – Radiological Engineering Section
15. SAM–G – Severe Accident Management Guidelines
16. Millstone Station Emergency Plan: The Millstone Station Emergency Plan contains requirements and organizational responsibilities and serves as the license commitment document for emergency preparedness.
17. Emergency Plan Administrative Procedure (EPAP)/Functional Administrative Procedure (FAP): Procedures that implement the Station Emergency Plan. (02)
18. Emergency Preparedness User's Guide (EPUG): A document providing general guidance on how to operate or maintain specific emergency preparedness facilities and equipment such as OFIS, ENRS, and radio communication equipment. EPUGs are not subject to SORC approval. The Emergency Planning Services Department is responsible for maintaining the accuracy of EPUGs.
19. SERO on–call independent rotation: On–call personnel not assigned to a SERO Team (i.e., Mechanics, Electricians, I&C Technicians, Radiological Monitoring Teams, Health Physics Technicians, and Generation Electrical Services personnel). Department supervision will maintain an on–call rotation schedule for these personnel.

Attachment 2
Summary of Department Responsibilities for Facilities, Equipment, and Material Maintenance
(Sheet 1 of 4)

Organization	Item	Task	Freq1	Reference
CL&P Eastern Regional Test Group, Willimantic	Public Alerting System	Inspect and Conduct Testing	Q, A	Eastern Regional Test Group, Procedure 00I 003 EPDI 05
Chemistry	EOF Multi Channel Analyzer	Inspect and Conduct Testing	AN	RPM; ANSI
Computer Services	ERF Computer Hardware, Software, and Connections	Maintenance, Surveillance, and Control	AN	Help Desk DC 11 EPDI 06
Telecommunication Services	Pagers, Radios, ENRS	General Support and Testing	AN	
Nuclear Document Services	FSAR, Tech Specs, Aperture Cards	Maintain Control Copies in ERFs	AN	GRITS
Nuclear Document Services	Unit – Specific Procedures	Maintain Control copies in EOF	AN	Passport
Nuclear Document Services	EOF and TSC Aperture Card Readers	Update and Check	Q	NDM 04
Emergency Planning Services	SERO Notification System	Test and Maintain	M	EPDI 06 C–OP 606
Emergency Planning Services	ERF Phone and Fax Equipment	Perform Operability Check	M,Q	EPDI 06
Emergency Planning Services	ERF Radios	Perform Operability Check	Q	EPDI 06
Emergency Planning Services	ERF Support Equipment, Furniture, and Supplies [✤ Comm. 3.3]	Maintain and Conduct Inventories	Q, AEU	EPDI 06
Emergency Planning Services	ERF Communications	Surveillance	M	EPDI 06
Emergency Planning Services	OFIS	Perform Operability Test	M	EPDI 06

Attachment 2
Summary of Department Responsibilities for Facilities, Equipment, and Material Maintenance
(Sheet 2 of 4)

Organization	Item	Task	Freq[1]	Reference
Health Physics Support	Emergency Response HP Supplies and Equipment	Maintenance, Surveillance, and Calibration	Q, AEU	RPM 4.8.5
Health Physics Support (Respiratory Protection)	Respiratory Protection Equipment	Maintenance	Q	RPM 2.3.5
Motor Pool	RMT Vehicles	Mechanical and Operational Inspection and Maintenance	Q	
RAE, Chemistry Technicians	ERF Dose Assessment Computers	Check Operability	W,M	EPAP 1.15, Att. 4 EPUG 07 EPOP 4432
Nuclear Document Services	Unit – Specific Procedures	Maintain Control Copies in TSC	AN	Passport
Nuclear Document Services/EPSD	Emergency Planning EPIPs/EPOPs	Maintain Document Distribution and Control; Audit	AN	Passport
Unit 2 I&C	Meteorological Equipment	Inspect, Calibrate, and Confirm Operability	W	C–SP–400.2
Security	Station Page and Evacuation Siren	Monitor Outside Speakers when Units Conduct Test.	M/Q	C–OP 605
Security	CR/Security Hot Links	Phone Checks	D	Security Procedure
Site Facilities	Emergency Response Facilities	Building Services (Janitorial, Plumbing, Lighting)	AN	
Emergency Planning Services	Millstone EPlan Resource Book	Update	Q	EPUG 08B

Attachment 2
Summary of Department Responsibilities for Facilities, Equipment, and Material Maintenance

(Sheet 3 of 4)

Organization	Item	Task	Freq[1]	Reference
I&C; SAB	Radiation Monitors	Maintenance and Calibration; Documentation		
U−1 Operations	Meteorological Tower Generator	Test[2]	M	SP 699
U−1 Operations	U−1 PA Speakers	Test	M/Q	C−OP 605
Station Maintenance	Emergency Operations Facility	Electrical and Mechanical Maintenance of HVAC	Q	Vendor Support Provided
U−2 Operations	EOF Airlock	Test[2]	Q	SP 2678C
U−2 Operations	EOF Emergency Diesel Generator	Test[2] Operation	M	SP 2678B OP 2399A
U−2 Operations	EOF Fire Detection System	Test[2] Operation	Q	SP 2678D OP 2399B
U−2 Operations	EOF Vent (RAD) Filter Systems	Test[2]	R	SP 2678A
U−2 Operations	U−2 PA Speakers and Evacuation Alarms	Test	M/Q	C−OP 605
Station Maintenance	Technical Support Center (TSC)	Electrical and Mechanical Maintenance of HVAC	Q	AWO on 3TS−3900J
Station Maintenance	Technical Support Center (TSC)	Emergency Lights	Q	MP 3780AE
U−3 Operations	TSC Emergency Power (TSC)	Test[2]	Q	SP 3666.2
U−3 Operations	TSC Vent (RAD) Filter System	Test[2]	R	SP 3666.1
U−3 Operations	U−3 PA Speakers and Evacuation Alarms	Test	M/Q	C−OP 605

Attachment 2
Summary of Department Responsibilities for Facilities, Equipment, and Material Maintenance

(Sheet 4 of 4)

Organization	Item	Task	Freq[1]	Reference
Unit Engineering (U−1, 2, 3)	Drawings	Maintain Control Copies in ERFs.	AN	Master Control Index
Unit Operations (U−1, 2, 3)	Radio Communications (Waterford, State, Tri−Town)	Test[2]	D	C−OP 600.3
Unit Operations (U−1, 2, 3)	Unit Page, Siren System and Evacuation Alarm	Test[2]	M	C−OP 605
Unit Operations (U−3)	Radiopaging ENRS Daily/Weekly Test	Test[2]	D, W	C−OP 608
Unit Operations (U−3)	Radiopaging ENRS Monthly Test	Test[2]	M	C−OP 606
Unit Chemistry (U−2,3)	PASS	System Surveillance		CP−(2800, 3800)
Wethersfield Data Center	ERDS, OFIS [♣Comm 3.1, 3.2]	General Support and Testing	Q	EPDI 06 EPDP 10

NOTE

1. D = Daily, W = Weekly, M = Monthly, Q = Quarterly, R = Refuel Outage, A = Annual (not to exceed 25% of surveillance period) AN = As Necessary, AEU = After Each Use. All are also as required by drills, audits, revisions, etc.
2. Maintenance, repair, and test follow up is passed to applicable Unit Maintenance Departments.

Attachment 3
Emergency Response Facility Readiness Check Report Form
(Sheet 1 of 1)

Item Titles, Location, or Procedure Checked:		
Name:	Date:	
Items	Results/Corrective Actions	Date/Name/Ext
Example ("ERF Walk Through")		
Hotline from Unit 2 Control Room to EOF is not operational.	Reported to telecommunications on ______. Phone will be checked and repaired.	9/9/99, J. Eprep Ext. 9999

Complete and return to Emergency Planning Services Department.

______________________ Signature

__________ Ext.

__________ Date

Documentation of Testing of Dose Assessment Computer Program

(Sheet 1 of 1)

NOTE

MIDAS is installed in the EOF and IDA is installed in the control rooms. MIDAS, IDA, and other approved dose assessment models such as RASCAL may also be installed on computers in the EOF, TSC, or other ERFs. 02

Radiological Assessment Engineer (RAE)

1. Monthly, VERIFY operability of the Emergency Operations Facility dose assessment computer program and printer and ENSURE results match test case.
2. COMPLETE surveillance log.
3. IF test results are *not* satisfactory, NOTIFY EPSD.

Unit Chemistry Technicians

Unit 3
1. Monthly, VERIFY operability of the Technical Support Center Initial Dose Assessment computer and ENSURE results match test case.

Unit 2
Unit 3
2. Weekly, VERIFY operability of control room initial dose assessment computer program and printer and ENSURE results match test case. 02
3. COMPLETE surveillance log.
4. IF test results are *not* satisfactory, NOTIFY EPSD.

Attachment 5

SERO Qualifications and Reporting Location (3)

(Sheet 1 of 7)

Position	Code	CAT	LOC	RESP	RAD	SERO Position Owners	Drill Requirements	
							Annual Requal Yes/No	Initial (4) Drill/OJT/ Walk-Thru
Assistant Director Emergency Operations Facility	ADEOF	OC	EOF	No	No	MPO Assessment	Yes	Drill
Assistant Manager of Radiological Dose Assessment	AMRDA	STC	EOF	No	No	MPO Operate the Asset	Yes	Drill
Accident Management Team Thermal and Hydraulic Engineer	AMT/ TH	STC	TSC/OSC	No	Yes	MPO Manage the Asset	Yes	OJT
Accident Management Team Lead	AMTL	STC	TSC/OSC	No	Yes	MPO Manage the Asset	Yes	OJT/SAM (8)
Accident Management Team Mechanical Engineer	AMTME	STC	TSC/OSC	No	Yes	MPO Manage the Asset	Yes	OJT
Assistant Radiation Protection Supervisor	ARPS	OC	OSC AA	No	Yes	MPO Support Services	Yes	OJT
Director of Station Emergency Operations	DSEO	OC	EOF	No	No	Chief Nuclear Officer	Yes	Drill
EOF Health Physics Technician	EOFHP	OC	EOF	Yes	Yes	MPO Support Services	Yes	Walk-Thru
EOF Shift Technician	EOFST	OC	EOF	Yes	Yes	MPO Operate the Asset	No	Walk-Thru
External Resource Coordinator	ERC	STC	EOF	No	No	MPO Procure the Asset	Yes	Walk-Thru (5)
Executive Spokesperson	ES	OC	Media Cntr	No	No	Chief Nuclear Officer	Yes	Walk-Thru
Fire Brigade/EMT	FB	OS	OSC AA	Yes	Yes	MPO Support Services	No	Drill (6)
Field Team Data Coordinator	FTDC	STC	EOF	No	No	MPO Operate the Asset	Yes	Walk-Thru
Generations Electrical Services Specialist	GES	OC	OSC AA	No	Yes	MPO Maintain the Asset	No	Walk-Thru

02

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Attachment 5
SERO Qualifications and Reporting Location (3)
(Sheet 2 of 7)

Position	Code	CAT	LOC	RESP	RAD	SERO Position Owners	Drill Requirements	
							Annual Requal- Yes/No	Initial (4) Drill/OJT/ Walk–Thru
Meteorological Assistant	MET	STC	EOF	No	No	MPO Support Services	Yes	Walk–Thru
Manager of Resources	MOR	OC	EOF	No	No	MPO Procure the Asset	Yes	Drill
Manager of Security	MOS	STC	TSC/OSC	No	Yes	MPO Support Services	Yes	Drill
Manager Public Information	MPI	OC	EOF	No	No	MPO Communications	Yes	Drill
Manager Radiological Consequence Assessment	MRCA	OC	TSC/OSC	No	No	MPO Support Services	Yes	Drill
Nuclear News Manager	NNM	OC	Media Cntr	No	No	MPO Communications	Yes	Drill
CBETS Operator	CBETS	STC	OSC AA	No	No	MPO Support Services	Yes	Walk–Thru
Radiological Communicator	RADCOM	STC	EOF OSC AA	No	No	MPO Support Services	Yes	Walk–Thru
Radiological Assessment Engineer	RAE	STC	EOF	No	No	MPO Manage the Asset	Yes	Drill
Radiological Monitoring Team 3 Lead	RMT3	OC	EOF	Yes	Yes	MPO Support Services	Yes	Walk–Thru
Radiological Monitoring Team Driver*	RMTDRV	OC	EOF	Yes	Yes	MPO Assessment	Yes	Walk–Thru
Radiological Monitoring Team 4 Lead	RMT4	OC	EOF	Yes	Yes	MPO Support Services	Yes	Walk–Thru
Radiological Monitoring Team Driver*	RMTDRV	OC	EOF	Yes	Yes	MPO Assessment	Yes	Walk–Thru
Radiological Monitoring Team 5 Lead	RMT5	OC	EOF	Yes	Yes	MPO Support Services	Yes	Walk–Thru

* All RMT Drivers are in one group with three people on call at all times.

02

02

02

Attachment 5
SERO Qualifications and Reporting Location (3)
(Sheet 3 of 7)

Position	Code	CAT	LOC	RESP	RAD	SERO Position Owners	Drill Requirements	
							Annual Requal-Yes/No	Initial (4) Drill/OJT/ Walk–Thru
Radiological Monitoring Team Driver*	RMTDRV	OC	EOF	Yes	Yes	MPO Assessment	Yes	Walk–Thru
NAP Radiological Monitoring Team	RMTA	OC	NAP	Yes	Yes	MPO Support Services	Yes	Walk–Thru
NAP Radiological Monitoring Team	RMTB	OC	NAP	Yes	Yes	MPO Support Services	Yes	Walk–Thru
SAP Radiological Monitoring Team	RMTC	OC	SAP	Yes	Yes	MPO Support Services	Yes	Walk–Thru
SAP Radiological Monitoring Team	RMTD	OC	SAP	Yes	Yes	MPO Support Services	Yes	Walk–Thru
Station Duty Officer	SDO	OS	CR	Yes	Yes	MPO Operate the Asset	No	OJT
Technical Support Center Reactor Engineer	TSCRE	OC	TSC/OSC	No	Yes	MPO Manage the Asset	Yes	Walk–Thru
Technical Assistant	TA	STC	Media Center	No	No	MPO Assessment	Yes	Walk–Thru
Chemistry Technician	CHEM-TECH	OS	CR	Yes	Yes	MPO Operate the Asset	No	Walk–Thru
RMT #1	HPTECH	OS	CR	Yes	Yes	MPO Support Services	No	Walk–Thru
Unit 1 PEO/NCO	U1PEO/NCO	OS	CR	Yes	Yes	MPO Operate the Asset	(1)	(1)
Unit 1 Technical Support Center Shift Manager	U1 TSCSM	STC	TSC/OSC	No	Yes	MPO Operate the Asset	No	OJT

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* All RMT Drivers are in one group with three people on call at all times.

Attachment 5
SERO Qualifications and Reporting Location (3)

(Sheet 4 of 7)

Position	Code	CAT	LOC	RESP	RAD	SERO Position Owners	Drill Requirements	
							Annual Requal- Yes/No	Initial (4) Drill/OJT/ Walk–Thru
Unit 2 Assistant Director Technical Support	U2ADTS	OC	TSC/OSC	No	Yes	MPO Operate the Asset	Yes	Drill
Unit 2 Control Room Data Coordinator	U2CRDC	STC	CR	No	Yes	MPO Training	Yes	Walk–Thru
Unit 2 Electrician	U2ELEC	OC	OSC AA	Yes	Yes	MPO Maintain the Asset	No	Walk–Thru
Unit 2 Instrument & Control Operational Support Center	U2I&C OSC	STC	TSC/OSC	No	Yes	MPO Maintain the Asset	Yes	Drill
Unit 2 Instrument & Control Technician	U2I&C TECH	OC	OSC AA	Yes	Yes	MPO Maintain the Asset	No	Walk–Thru
Unit 2 Mechanic	U2MECH	OC	OSC AA	Yes	Yes	MPO Maintain the Asset	No	Walk–Thru
Unit 2 Manager of Communications	U2MOC	OC	EOF	No	No	MPO Training	Yes	Walk–Thru
Unit 2 Manager of Operational Support Center	U2MOSC	OC	TSC/OSC	No	Yes	MPO Maintain the Asset	Yes	Drill
Unit 2 Manager of Technical Support Center	U2MTSC	OC	TSC/OSC	No	Yes	MPO Manage the Asset	Yes	Drill
Unit 2 Operational Support Center Maintenance Assistant	U2 OSCMA	STC	TSC/OSC	No	Yes	MPO Maintain the Asset	Yes	Drill
Unit 2 PEO	U2PEO	OS	CR	Yes	Yes	MPO Operate the Asset	(1)	(1)
Unit 2 Control Operator	U2CO	OS	CR	Yes	Yes	MPO Operate the Asset	(1)	(1)

02

02

Attachment 5
SERO Qualifications and Reporting Location (3)
(Sheet 5 of 7)

Position	Code	CAT	LOC	RESP	RAD	SERO Position Owners	Drill Requirements	
							Annual Requal- Yes/No	Initial (4) Drill/OJT/ Walk-Thru
Unit 2 STA	U2STA	OS	CR	Yes	Yes	MPO Operate the Asset	(1)	(1)
Unit 2 Technical Information Coordinator	U2TIC	OC	EOF	No	No	MPO Training	Yes	Walk-Thru
Unit 2 Technical Support Center Electrical Engineer	U2 TSCEE	OC	TSC/OSC	No	Yes	MPO Manage the Asset	Yes	OJT
Unit 2 Technical Support Center Mechanical Engineer	U2 TSCME	OC	TSC/OSC	No	Yes	MPO Manage the Asset	Yes	OJT
Unit 2 Technical Support Center Shift Manager	U2 TSCSM	STC	TSC/OSC	No	Yes	MPO Operate the Asset	No	OJT
Unit 3 Assistant Director Technical Support	U3ADTS	OC	TSC/OSC	No	Yes	MPO Operate the Asset	Yes	Drill
Unit 3 Control Room Data Coordinator	U3CRDC	STC	CR	No	Yes	MPO Training	Yes	Walk-Thru
Unit 3 Electrician	U3ELEC	OC	OSC AA	Yes	Yes	MPO Maintain the Asset	No	Walk-Thru
Unit 3 Instrument & Control Operational Support Center	U3I&C OSC	STC	TSC/OSC	No	Yes	MPO Maintain the Asset	Yes	Drill
Unit 3 Instrument & Control Technician	U3I&C TECH	OC	OSC AA	Yes	Yes	MPO Maintain the Asset	No	Walk-Thru
Unit 3 Mechanic	U3MECH	OC	OSC AA	Yes	Yes	MPO Maintain the Asset	No	Walk-Thru

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Attachment 5
SERO Qualifications and Reporting Location (3)
(Sheet 6 of 7)

Position	Code	CAT	LOC	RESP	RAD	SERO Position Owners	Drill Requirements	
							Annual Requal- Yes/No	Initial (4) Drill/OJT/ Walk–Thru
Unit 3 Manager of Communications	U3MOC	OC	EOF	No	No	MPO Training	Yes	Walk–Thru
Unit 3 Manager of Operational Support Center	U3MOSC	OC	TSC/OSC	No	Yes	MPO Maintain the Asset	Yes	Drill
Unit 3 Manager of Technical Support Center	U3MTSC	OC	TSC/OSC	No	Yes	MPO Manage the Asset	Yes	Drill
Unit 3 Operational Support Center Maintenance Assistant	U3 OSCMA	STC	TSC/OSC	No	Yes	MPO Maintain the Asset	Yes	Drill
Unit 3 PEO	U3PEO	OS	CR	Yes	Yes	MPO Operate the Asset	(1)	(1)
Unit 3 Control Operator	U3CO	OS	CR	Yes	Yes	MPO Operate the Asset	(1)	(1)
Unit 3 STA	U3STA	OS	CR	Yes	Yes	MPO Operate the Asset	(1)	(1)
Unit 3 Technical Information Coordinator	U3TIC	OC	EOF	No	No	MPO Training	Yes	Walk–Thru
Unit 3 Technical Support Center Electrical Engineer	U3 TSCEE	OC	TSC/OSC	No	Yes	MPO Manage the Asset	Yes	OJT
Unit 3 Technical Support Center Mechanical Engineer	U3 TSCME	OC	TSC/OSC	No	Yes	MPO Manage the Asset	Yes	OJT
Unit 3 Technical Support Center Shift Manager	U3 TSCSM	STC	TSC/OSC	No	Yes	MPO Operate the Asset	No	OJT
Unit 2 Unit Supervisor	U2US	OS	CR	Yes	Yes	MPO Operate the Asset	(1)	(1)
Unit 3 Unit Supervisor	U3US	OS	CR	Yes	Yes	MPO Operate the Asset	(1)	(1)
Security Guard	SECGRD	OS	POST	Yes	Yes	MPO Support Services	No	OJT
Security Shift Supervisor	SSS	OS	CAS	No	Yes	MPO Support Services	No	OJT

02

02

03

Attachment 5

SERO Qualifications and Reporting Location (3)

(Sheet 7 of 7)

02

Position	Code	CAT	LOC	RESP	RAD	SERO Position Owners	Drill Requirements	
							Annual Requal- Yes/No	Initial (4) Drill/OJT/ Walk–Thru
Manager Radiological Dose Assessment	MRDA	OC	EOF	No	No	MPO Operate the Asset	Yes	Drill
Unit 3 Shift Technician	U3ST	OS	CR	Yes	Yes	MPO Operate the Asset	Yes	OJT
Unit 1 Shift Manager	U1SM	OS	CR	Yes	Yes	MPO Operate the Asset	(1)	(1)
Unit 2 Shift Manager	U2SM	OS	CR	Yes	Yes	MPO Operate the Asset	(1)	(1)
Unit 3 Shift Manager	U3SM	OS	CR	Yes	Yes	MPO Operate the Asset	(1)	(1)
Alarm Station Supervisor	SECSUP	OS	CAS/SAS	Yes	Yes	MPO Support Services	No	OJT
Regulatory Liaison (7)	RL	STC	EOF	No	No	MPO Assessment	No	Walk–Thru
State Emergency Planning Liaison (7)	SEPL	STC	State EOC	No	No	MPO Assessment	No	Walk–Thru
Station Emergency Planning Representative (7)	SEPR	STC	EOF	No	No	MPO Assessment	No	Walk–Thru
Media Center Liaison (7)	MCL	STC	Media Center	No	No	MPO Communications	No	Walk–Thru
Rumor and Inquiry Control Liaison (7)	RICL	STC	Media Center	No	No	MPO Communications	No	Walk–Thru
Technical Briefer (7)	TB	STC	Media Center	No	No	MPO Operate the Asset	No	Walk–Thru
Radiological Briefer (7)	RB	STC	Media Center	No	No	MPO Operate the Asset	No	Walk–Thru

02

(1) Credit will be taken for drill completion when performed as part of Licensed Operator Initial Training (LOIT), Licensed Operator Requalification Training (LORT). Shift Technical Advisor (STA) Program, and Plant Equipment Operator (PEO) Training.
(2) Deleted
(3) Additional qualification requirements are contained in NTP 7.212.
(4) Participation in a drill may satisfy the walk–thru qualifications for initial training.
(5) Walk–thrus include use of any equipment, identification and location of reference materials, and a knowledge of the facility layout. Training, Emergency Planning, or job incumbents qualify for conducting walk–thrus.
(6) Tracked by Fire Training Department.
(7) Supplemental positions not described in the Millstone Station Emergency Plan.
(8) SAM required for initial qualifications

Level of Use Information

STOP THINK ACT REVIEW

Attachment 6
Roles and Responsibilities for Emergency Preparedness Dose Assessment

(Sheet 1 of 2)

Area	EPPO	SAB/RES	
Emergency Plan (Includes Ingestion Pathway Plan)	EPPO shall: • Develop the Emergency Plan • Ensure compliance to regulatory requirements • Request technical support for input and review • Process changes and obtain necessary approvals • Perform necessary 50.54(q) reviews	SAB/RES shall: • Provide radiological technical expertise requested • Provide compliant support • Support the review and approval process	02
Radiological Dose Assessment Committee (RDAC)	EPPO shall: • Chair the committee • Develop a charter • Schedule meetings • Develop meeting minutes for RDAC members and upper management • Provide expertise specific to regulatory compliance • Provide input and make contacts to benchmark against the industry • Process change requests	SAB/RES shall: • Co–chair the committee • Provide input to charter • Provide technical member(s) to the RDAC • Develop technical justification for software / procedure changes • Provide radiological expertise specific to subject matter	02
Procedures	EPPO shall: • Chair CRC • Maintain overall approval or veto of proposed procedures and changes • Ensure compliance to regulatory requirements • Maintain procedures current / schedule biennial reviews if required • Process procedure change requests • Process procedure typing requests • Facilitate writer's guide review by Procedures Group • Perform necessary 50.54(q) reviews • Provide V&V support as necessary • Facilitate scheduling of PORC/SORC by Procedures Group • Set effective implementation dates	SAB/RES shall: • Provide radiological technical content • Write procedure steps • Provide bases documents • Lead V&V process • Provide V&V input and approvals • Support necessary 50.54(q) review • Present technical changes to PORC/SORC for approval	02

Attachment 6
Roles and Responsibilities for Emergency Preparedness Dose Assessment
(Sheet 2 of 2)

Area	EPPO	SAB/RES
Tools and Software	EPPO shall: • Own required tools and software • Be responsible for budgeting new purchases • Fund upgrades and revisions • Ensure compliance to regulatory requirements and intent • Obtain approvals for selected tools and software through RDAC (user) members before committing to a solution/purchase/change • Own Quality Software (QS) and associated documentation	SAB/RES shall: • Produce requirements document specifying needs, acceptance criteria and process bids • Recommend through the RDAC the selection of tools and software • Develop internal software (as necessary or as appropriate) • Provide development support • Provide testing • Provide QS documentation • Provide overall radiological technical support
Scenario Development	EPPO shall: • Define scenario radiological package requirements (Memo of Understanding) • Develop overall scenario • Provide long–range schedule to allow support resource planning • Define deliverable date for completed package • Provide sufficient lead time as defined in the Memo of Understanding for radiological package development	SAB/RES shall: • Provide an experienced technical lead to develop radiological data packages • Provide support to scenario development meetings • Produce radiological data packages fully meeting Memo of Understanding expectations • Provide completed radiological data package by the defined deliverable date

02

02

Radiological Dose Assessment Committee at Northeast Utilities

(Sheet 1 of 1)

1. **Purpose:**

   Ensure a regulatory compliant, effective dose assessment capability is maintained at Millstone facilities. 02

2. **Membership:**

   The following functions shall be represented as members of this committee:

   - Emergency Preparedness – (EPPO) – Chairperson 02
   - Radiological Engineering – (Rad. Engineering Services) – Co–chairperson
   - Station Health Physics
   - Training – (EP Training, Chem/HP training, as available)
   - Computer Support – (Information Technology, as available)
   - Station Chemistry (as available)
   - State Department Environmental Protection (as available)
   - Environmental Services (as available)

3. **Responsibilities:**

   This committee is responsible to provide the technical, regulatory based review and recommendations for all changes to calculations methodologies, procedures, software or other tools as applicable to performing the function of off–site dose assessment during emergency situations.

4. **Meetings:**

   This committee shall meet on a no less frequent basis than once per calendar quarter in order to review functional status. Meeting notes shall be published and maintained on file in the Emergency Planning Services Department.

5. **Authority:**

   This committee will forward recommended assignments to the EPPO to assign work to the appropriate organization in order to maintain the full capability of emergency dose assessment. The assigned members shall be sufficiently conversant in the issues to have acceptance authority for their respective organizations. 02

6. **Disposition of Issues:**

   Issues identified shall be dispositioned through the use of the AITTS assignments. Where disagreement of assignment exist, this issue shall be raised to EP and SAB/RES management for disposition.

Docket Nos. 50-245
50-336
50-423
B18306

Enclosure 2

Millstone Nuclear Power Station, Unit Nos. 1, 2, and 3

Emergency Plan Procedures
EPIP and EPOP Supersedure Memoranda

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: B. Tarallo Date: 11/15/00 Department: EPSD Ext.: 2490

Document No.: EPIP 4400 Rev. No.: 008 Minor Rev.: ~~01~~ 02

Title: **Event Assessment, Classification, and Reportability**

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Replaced by MM-26-EPI-FAP06, Classification and PARs

Continued ☐

C

Instructions:

Continued ☐

D

TPC Interim Approval

(1) Plant Mngt Staff Member Print/Sign/Date

(2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☑ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☐ *Revision* ☑ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☑ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID

☐ Edit Corr.:⇒ Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

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Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	Dept.	✔ if Comments
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Independent	☒	KR Burgess	KR Burgess	12/4/00	☒	☐	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No **Environmental Review Required** ☐ Yes ☒ No

H

1. ☒ **SQR Program Final Review and Approval**

Approval ☒ Disapproval ☐

KR Burgess 12/4/00
SQR Qualified Independent Reviewer / Date

Paul A. Blasioli
Department Head/Responsible Individual

12/7/00
Approval Date

2. ☐ **SORC/PORC/RI/DH Final Review and Approval**

Department Head/Responsible Individual / Date

Meeting No.:

Approval Signature

Approval Date

I

Effective Date: 12/21/00

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: B. Tarallo Date: 11/15/00 Department: EPSD Ext.: 2490

Document No.: EPIP 4400-001 Rev. No.: 005 Minor Rev.: 01

Title: **Millstone Unit 1 Emergency Action Levels**

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Replaced by MM-26-EPI-FAP06-001, Classification and PARs

Continued ☐

C

Instructions:

Continued ☐

D

TPC Interim Approval (1) Plant Mngt Staff Member Print/Sign/Date (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☑ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☐ *Revision* ☑ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☑ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒ Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

F

Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	SQR Qualified Dept.	✔ Comments
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Independent	☒	KRBurgess	KRBurgess	12/4/00	☒	☐	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No **Environmental Review Required** ☐ Yes ☒ No

H

1. ☒ **SQR Program Final Review and Approval**

Approval ☒ Disapproval ☐

KRBurgess 12/4/00
SQR Qualified Independent Reviewer / Date

Paul A. Blasioli
Department Head/Responsible Individual

12/7/00
Approval Date

2. ☐ **SORC/PORC/RI/DH Final Review and Approval**

Department Head/Responsible Individual / Date

Meeting No.:

Approval Signature

Approval Date

I

Effective Date: 12/21/00

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: B. Tarallo Date: 11/15/00 Department: EPSD Ext.: 2490

Document No.: EPIP 4400-002 Rev. No.: ~~005~~ 4 Minor Rev.: 1

Title: Millstone Unit 2 Emergency Action Levels

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Replaced by MM-26-EPI-FAP06-002, Classification and PARs

Continued ☐

C

Instructions:

Continued ☐

D

TPC Interim Approval

(1) Plant Mngt Staff Member Print/Sign/Date   (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☑ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☐ *Revision* ☑ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☑ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒

Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

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Independent	☒	KR Burgess	KRBurgess	12/4/00	☒	☐	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No   **Environmental Review Required** ☐ Yes ☒ No

H

1. ☒ **SQR Program Final Review and Approval**

Approval ☒ Disapproval ☐

KRBurgess 12/4/00
SQR Qualified Independent Reviewer / Date

Paul A. Blasioli
Department Head/Responsible Individual

12/7/00
Approval Date

2. ☐ **SORC/PORC/RI/DH Final Review and Approval**

Department Head/Responsible Individual / Date

Meeting No.:

Approval Signature

Approval Date

I

Effective Date: 12/21/00

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: B. Tarallo   Date: 11/15/00   Department: EPSD   Ext.: 2490

Document No.: EPIP 4400-003   Rev. No.: ~~005~~ 4   Minor Rev.: 02

Title: **Millstone Unit 3 Emergency Action Levels**

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Replaced by MM-26-EPI-FAP06-003, Classification and PARs

Continued ☐

C

Instructions:

Continued ☐

D

TPC Interim Approval

(1) Plant Mngt Staff Member Print/Sign/Date

(2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☑ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☐ *Revision* ☑ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☑ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID

☐ Edit Corr.:⇒

Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date   Continued ☐

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Independent	☒	KR Burgess	KRBurgess	12/4/00	☒	☐	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No   **Environmental Review Required** ☐ Yes ☒ No

H

1. ☒ **SQR Program Final Review and Approval**

Approval ☒ Disapproval ☐

KRBurgess 12/4/00

SQR Qualified Independent Reviewer / Date

Paul A. Blanch

Department Head/Responsible Individual

12/7/00

Approval Date

2. ☐ **SORC/PORC/RI/DH Final Review and Approval**

Department Head/Responsible Individual / Date

Meeting No.:

Approval Signature

Approval Date

I

Effective Date: 12/21/00

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: B. Tarallo Date: 11/15/00 Department: EPSD Ext.: 2490

Document No.: ~~EPOP~~ EPIP 4404 Rev. No.: 006 Minor Rev.: ~~01~~ 03

Title: Notifications and Communications

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Replaced by MM-26-EPI-FAP07, Notifications and Communications

Continued ☐

C

Instructions:

Continued ☐

D

TPC Interim Approval (1) Plant Mngt Staff Member Print/Sign/Date (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☑ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☐ *Revision* ☑ *Minor Revision* (See DC-GDL01 for guidance) ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☑ Supersedure

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒ Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

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Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	Dept.	✔ If Comments
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Independent	☒	KR Burgess	KR Burgess	12/4/00	☒	☐	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No **Environmental Review Required** ☐ Yes ☒ No

H

1. ☒ **SQR Program Final Review and Approval**

Approval ☒ Disapproval ☐

KR Burgess 12/4/00
SQR Qualified Independent Reviewer / Date

Paul A. Blasioli
Department Head/Responsible Individual

12/7/00
Approval Date

2. ☐ **SORC/PORC/RI/DH Final Review and Approval**

Department Head/Responsible Individual / Date

Meeting No.:

Approval Signature

Approval Date

I

Effective Date: 12/21/00

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: B. Tarallo Date: 11/15/00 Department: EPSD Ext.: 2490

Document No.: EPOP 4411 Rev. No.: 007 Minor Rev.: 01

Title: Director of Station Emergency Operations

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Replaced by MM-26-EPI-FAP01—001, Control Room-Director of Station Emergency Operations and MM-26-EPI-FAP04—001, Director of Station Emergency Operations

Continued ☐

C

Instructions:

Continued ☐

D

TPC Interim Approval

(1) Plant Mngt Staff Member Print/Sign/Date (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☐ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☐ *Revision* ☑ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☑ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID

☐ Edit Corr.:⇒

Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

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Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	Dept.	✔ If Comments
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Independent	☒	KR Burgess	KR Burgess	12/4/00	☒	☐	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No **Environmental Review Required** ☐ Yes ☒ No

H

1. ☒ **SQR Program Final Review and Approval**

Approval ☒ Disapproval ☐

KR Burgess 12/4/00
SQR Qualified Independent Reviewer / Date

Paul A. Blasioli
Department Head/Responsible Individual

12/7/00
Approval Date

2. ☐ **SORC/PORC/RI/DH Final Review and Approval**

Department Head/Responsible Individual / Date

Meeting No.:

Approval Signature

Approval Date

I

Effective Date: 12/21/00

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: B. Tarallo Date: 11/15/00 Department: EPSD Ext.: 2490

Document No.: EPOP 4411A Rev. No.: 004 Minor Rev.: ~~01~~ 02

Title: Assistant Director Technical Support

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Replaced by MM-26-EPI-FAP02-001, Assistant Director Technical Support

Continued ☐

C

Instructions:

Continued ☐

D

TPC Interim Approval (1) Plant Mngt Staff Member Print/Sign/Date (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☐ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☐ *Revision* ☑ *Minor Revision* (See DC-GDL01 for guidance) ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☑ Supersedure

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒ Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

F

Reviews		Print	Sign	Date	SQR Qualified Yes	No	Dept.	✔ If Comments
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RCD	☒	KR Burgess	KRBurgess	12/1/00			EPSD	
Independent	☒	KR Burgess	KRBurgess	12/4/00	☒	☐	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No Environmental Review Required ☐ Yes ☒ No

H

1. ☒ SQR Program Final Review and Approval

Approval ☒ Disapproval ☐

KRBurgess 12/4/00
SQR Qualified Independent Reviewer / Date

Paul A. Blanch
Department Head/Responsible Individual

12/11/00
Approval Date

2. ☐ SORC/PORC/RI/DH Final Review and Approval

Department Head/Responsible Individual / Date

Meeting No.:

Approval Signature

Approval Date

I

Effective Date: 12/21/00

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: B. Tarallo Date: 11/15/00 Department: EPSD Ext.: 2490

Document No.: EPOP 4411B Rev. No.: 004 Minor Rev.: ~~01~~ 02

Title: Assistant Director Emergency Operations Facility

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Replaced by MM-26-EPI-FAP04-002, Assistant Director Emergency Operations Facility

Continued ☐

C

Instructions:

Continued ☐

D

TPC Interim Approval

(1) Plant Mngt Staff Member Print/Sign/Date

(2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☐ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☐ Revision ☒ Minor Revision ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☒ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID

☐ Edit Corr.:⇒

Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date

Continued ☐

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Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	Dept.	✔ If Comments
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RCD	☒	KRBurgess	KRBurgess	12/1/00			EPSD	
Independent	☒	KRBurgess	KRBurgess	12/4/00	☒	☐	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No Environmental Review Required ☐ Yes ☒ No

H

1. ☒ SQR Program Final Review and Approval

Approval ☒ Disapproval ☐

KRBurgess 12/4/00

SQR Qualified Independent Reviewer / Date

Paul A. Blasioli

Department Head/Responsible Individual

12/11/00

Approval Date

2. ☐ SORC/PORC/RI/DH Final Review and Approval

Department Head/Responsible Individual / Date

Meeting No.:

Approval Signature

Approval Date

I

Effective Date: 12/21/00

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: B. Tarallo Date: 11/15/00 Department: EPSD Ext.: 2490

Document No.: EPOP 4412 Rev. No.: 003 Minor Rev.: ~~01~~ 02

Title: Evacuation and Assembly

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Replaced by MM-26-EPI-FAP08, Evacuation and Assembly

Continued ☐

C

Instructions:

Continued ☐

D

TPC Interim Approval (1) Plant Mngt Staff Member Print/Sign/Date (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☐ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☐ *Revision* ☑ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☑ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒

Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

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Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	SQR Qualified Dept.	✔ if Comments
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Independent	☒	KR Burgess	KR Burgess	12/4/00	☒	☐	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No Environmental Review Required ☐ Yes ☒ No

H

1. ☒ SQR Program Final Review and Approval

Approval ☒ Disapproval ☐

KR Burgess 12/4/00
SQR Qualified Independent Reviewer / Date

Paul G. Blasioli
Department Head/Responsible Individual

12/11/00
Approval Date

2. ☐ SORC/PORC/RI/DH Final Review and Approval

Department Head/Responsible Individual / Date

Meeting No.:

Approval Signature

Approval Date

I

Effective Date: 12/21/00

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: B. Tarallo   Date: 11/15/00   Department: EPSD   Ext.: 2490

Document No.: EPOP 4413   Rev. No.: 001   Minor Rev.: ~~01~~ 02

Title: Potassium Iodide Tablet Control and Issue

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Replaced by MM-26-EPI-FAP09, Radiation Exposure Controls

Continued ☐

C

Instructions:

Continued ☐

D

TPC Interim Approval   (1) Plant Mngt Staff Member Print/Sign/Date   (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☐ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☐ *Revision* ☒ *Minor Revision* (See DC-GDL01 for guidance) ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☒ Supersedure

☐ TPC ☐ OTC ☐ Place in VOID   ☐ Edit Corr.:⇒ Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date   Continued ☐

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Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	Dept.	✔ If Comments
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Independent	☒	KR Burgess	KRBurgess	12/4/00	☒	☐	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No   **Environmental Review Required** ☐ Yes ☒ No

H

1. ☒ **SQR Program Final Review and Approval**

Approval ☒ Disapproval ☐

KRBurgess 12/4/00
SQR Qualified Independent Reviewer / Date

Paul A. Blasioli
Department Head/Responsible Individual

12/11/00
Approval Date

2. ☐ **SORC/PORC/RI/DH Final Review and Approval**

Department Head/Responsible Individual / Date

Meeting No.:

Approval Signature

Approval Date

I

Effective Date: 12/21/00

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: B. Tarallo Date: 11/15/00 Department: EPSD Ext.: 2490

Document No.: EPOP 4413-001 Rev. No.: 000 Minor Rev.: 01

Title: KI Information Sheet

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Replaced by MM-26-EPI-FAP09, Radiation Exposure Controls

Continued ☐

C

Instructions:

Continued ☐

D

TPC Interim Approval

(1) Plant Mngt Staff Member Print/Sign/Date

(2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☐ Perform Now ☑ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☐ *Revision* ☑ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☑ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID

☐ Edit Corr.:⇒ Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

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Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	SQR Qualified Dept.	✔ if Comments
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Independent	☒	KR Burgess	KR Burgess	12/4/00	☒	☐	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No **Environmental Review Required** ☐ Yes ☒ No

H

1. ☒ **SQR Program Final Review and Approval**

Approval ☒ Disapproval ☐

KR Burgess 12/4/00
SQR Qualified Independent Reviewer / Date

Paul A. Blasioli
Department Head/Responsible Individual

12/11/00
Approval Date

2. ☐ **SORC/PORC/RI/DH Final Review and Approval**

Department Head/Responsible Individual / Date

Meeting No.:

Approval Signature

Approval Date

I

Effective Date: 12/21/00

MP-05-DC-SAP01-001
Rev. 002-01

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: B. Tarallo   Date: 11/15/00   Department: EPSD   Ext.: 2490

Document No.: EPOP 4417   Rev. No.: 004   Minor Rev.: ~~01~~ 02

Title: Manager of Control Room Operations

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Replaced by MM-26-EPI-FAP01-002, Manager of Control Room Operations

Continued ☐

C

Instructions:

Continued ☐

D

TPC Interim Approval

(1) Plant Mngt Staff Member Print/Sign/Date

(2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☐ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☐ *Revision* ☒ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☒ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID

☐ Edit Corr.:⇒

Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date

Continued ☐

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Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	SQR Qualified Dept.	✔ if Comments
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Independent	☒	KR Burgess	KRBurgess	12/4/00	☒	☐	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No **Environmental Review Required** ☐ Yes ☒ No

H

1. ☒ **SQR Program Final Review and Approval**

Approval ☒ Disapproval ☐

KRBurgess 12/4/00

SQR Qualified Independent Reviewer / Date

Paul C. Blasioli

Department Head/Responsible Individual

12/11/00

Approval Date

2. ☐ **SORC/PORC/RI/DH Final Review and Approval**

Department Head/Responsible Individual / Date

Meeting No.:

Approval Signature

Approval Date

I

Effective Date: 12/21/00

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: B. Tarallo   Date: 11/15/00   Department: EPSD   Ext.: 2490

Document No.: EPOP 4419   Rev. No.: 006   Minor Rev.: ~~02~~ 03

Title: Manager of Operational Support Center

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Replaced by MM-26-EPI-FAP03-001, Manager of Operational Support Center

Continued ☐

C

Instructions:

Continued ☐

D

TPC Interim Approval   (1) Plant Mngt Staff Member Print/Sign/Date   (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☐ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☐ *Revision* ☑ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☑ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID   ☐ Edit Corr.:⇒ ____ Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date   Continued ☐

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Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	Dept.	✔ if Comments
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Independent	☒	KR Burgess	KRBurgess	12/4/00	☒	☐	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No   **Environmental Review Required** ☐ Yes ☒ No

H

1. ☒ **SQR Program Final Review and Approval**

Approval ☒ Disapproval ☐

KRBurgess 12/4/00
SQR Qualified Independent Reviewer / Date

Paul A. Blasioli
Department Head/Responsible Individual

12/11/00
Approval Date

2. ☐ **SORC/PORC/RI/DH Final Review and Approval**

Department Head/Responsible Individual / Date

Meeting No.:

Approval Signature

Approval Date

I

Effective Date: 12/21/00

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: B. Tarallo Date: 11/15/00 Department: EPSD Ext.: 2490

Document No.: EPOP 4422 Rev. No.: 004 Minor Rev.: ~~02~~ 03

Title: Manager of Technical Support Center

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Replaced by MM-26-EPI-FAP02-006, Manager of Technical Support Center

Continued ☐

C

Instructions:

Continued ☐

D

TPC Interim Approval (1) Plant Mngt Staff Member Print/Sign/Date (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☐ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☐ Revision ☒ Minor Revision ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☒ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒ Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

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Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	Dept.	✔ if Comments
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Independent	☒	KR Burgess	KR Burgess	12/4/00	☒	☐	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No Environmental Review Required ☐ Yes ☒ No

H

1. ☒ **SQR Program Final Review and Approval**

Approval ☒ Disapproval ☐

KR Burgess 12/4/00
SQR Qualified Independent Reviewer / Date

Paul A. Blasioli
Department Head/Responsible Individual

12/11/00
Approval Date

2. ☐ **SORC/PORC/RI/DH Final Review and Approval**

Department Head/Responsible Individual / Date

Meeting No.:

Approval Signature

Approval Date

I

Effective Date: 12/21/00

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: B. Tarallo Date: 11/15/00 Department: EPSD Ext.: 2490

Document No.: EPOP 4422A Rev. No.: 001 Minor Rev.: ~~01~~ 02

Title: Thermal Hydraulic Evaluation Methods

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Replaced by MM-26-EPI-FAP12, Thermal Hydraulic Evaluation

Continued ☐

C

Instructions:

Continued ☐

D

TPC Interim Approval (1) Plant Mngt Staff Member Print/Sign/Date (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☐ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☐ *Revision* ☑ *Minor Revision* (See DC-GDL01 for guidance) ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☑ Supersedure

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒ Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

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Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	SQR Qualified Dept.	✔ if Comments
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Independent	☒	KR Burgess	KR Burgess	12/4/00	☒	☐	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No Environmental Review Required ☐ Yes ☒ No

H

1. ☒ SQR Program Final Review and Approval

Approval ☒ Disapproval ☐

KR Burgess 12/4/00
SQR Qualified Independent Reviewer / Date

Paul A. Blasioli
Department Head/Responsible Individual

12/11/00
Approval Date

2. ☐ SORC/PORC/RI/DH Final Review and Approval

Department Head/Responsible Individual / Date

Meeting No.:

Approval Signature

Approval Date

I

Effective Date: 12/21/00

MP-05-DC-SAP01-001
Rev. 002-01

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: B. Tarallo Date: 11/15/00 Department: EPSD Ext.: 2490

Document No.: EPOP 4424 Rev. No.: 005 Minor Rev.: 01

Title: Manager of Radiological Consequence Assessment

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Replaced by MM-26-EPI-FAP02-003, Manager of Radiological Consequence Assessment

Continued ☐

C

Instructions:

Continued ☐

D

TPC Interim Approval (1) Plant Mngt Staff Member Print/Sign/Date (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☐ Perform Now ☑ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☐ *Revision* ☒ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☑ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒

Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

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Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	Dept.	✔ if Comments
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Independent	☒	KR Burgess	KRBurgess	12/4/00	☒	☐	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No Environmental Review Required ☐ Yes ☒ No

H

1. ☒ **SQR Program Final Review and Approval**

Approval ☒ Disapproval ☐

KRBurgess 12/4/00
SQR Qualified Independent Reviewer / Date

Paul A Blasioli
Department Head/Responsible Individual

12/11/00
Approval Date

2. ☐ **SORC/PORC/RI/DH Final Review and Approval**

Department Head/Responsible Individual / Date

Meeting No.:

Approval Signature

Approval Date

I

Effective Date: 12/21/00

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: B. Tarallo Date: 11/15/00 Department: EPSD Ext.: 2490

Document No.: EPOP 4425 Rev. No.: 004 Minor Rev.: ~~02~~ 03

Title: Personnel Radiation Exposure Control and Dosimetry Issue During Nuclear Emergencies

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Replaced by MM-26-EPI-FAP09, Radiation Exposure Controls

Continued ☐

C

Instructions:

Continued ☐

D

TPC Interim Approval (1) Plant Mngt Staff Member Print/Sign/Date (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☐ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☐ Revision ☒ Minor Revision ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☒ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒ Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

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Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	Dept.	✔ if Comments
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Independent	☒	KRBurgess	KRBurgess	12/4/00	☒	☐	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No Environmental Review Required ☐ Yes ☒ No

H

1. ☒ SQR Program Final Review and Approval

Approval ☒ Disapproval ☐

KRBurgess 12/4/00
SQR Qualified Independent Reviewer / Date

Paul A. Blasioli
Department Head/Responsible Individual

12/11/00
Approval Date

2. ☐ SORC/PORC/RI/DH Final Review and Approval

Department Head/Responsible Individual / Date

Meeting No.:

Approval Signature

Approval Date

I

Effective Date: 12/21/00

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: B. Tarallo   Date: 11/15/00   Department: EPSD   Ext.: 2490

Document No.: EPOP 4426   Rev. No.: 005   Minor Rev.: ~~00~~ 01

Title: On-Site Emergency Radiological Surveys

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Replaced by MM-26-EPI-FAP01-005, Radiological Monitoring Team #1 and MM-26-FAP15, Common Forms

Continued ☐

C

Instructions:

Continued ☐

D

TPC Interim Approval   (1) Plant Mngt Staff Member Print/Sign/Date   (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☐ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☐ Revision ☑ Minor Revision ☐ Cleanup Rev ☐ Biennial Review ☑ Cancellation ☑ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID   ☐ Edit Corr.:⇒ ________ Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date   Continued ☐

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Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	Dept.	✔ if Comments
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Independent	☒	KR Burgess	KRBurgess	12/4/00	☒	☐	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No   Environmental Review Required ☐ Yes ☒ No

H

1. ☒ **SQR Program Final Review and Approval**

Approval ☒ Disapproval ☐

KRBurgess 12/4/00
SQR Qualified Independent Reviewer / Date

Paul A. Blasioli
Department Head/Responsible Individual

12/11/00
Approval Date

2. ☐ **SORC/PORC/RI/DH Final Review and Approval**

Department Head/Responsible Individual / Date

Meeting No.:

Approval Signature

Approval Date

I

Effective Date: 12/21/00

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: B. Tarallo Date: 11/15/00 Department: EPSD Ext.: 2490

Document No.: EPOP 4426-001 Rev. No.: 004 Minor Rev.: 01

Title: RMT Instrument, Battery, and Source Check Sheet

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Replaced by MM-26-EPI-FAP05-002, RMT Instrument, Battery, and Sourch Check Sheet

Continued ☐

C

Instructions:

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D

TPC Interim Approval (1) Plant Mngt Staff Member Print/Sign/Date (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☐ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☐ *Revision* ☑ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☑ Cancellation ☑ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID

☐ Edit Corr.:⇒
Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

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Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	Dept.	✔ If Comments
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Independent	☒	KR Burgess	KR Burgess	12/4/00	☒	☐	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No **Environmental Review Required** ☐ Yes ☒ No

H

1. ☒ **SQR Program Final Review and Approval**

Approval ☒ Disapproval ☐

KRBurgess 12/4/00
SQR Qualified Independent Reviewer / Date

Paul A. Blasioli
Department Head/Responsible Individual

12/11/00
Approval Date

2. ☐ **SORC/PORC/RI/DH Final Review and Approval**

Department Head/Responsible Individual / Date

Meeting No.:

Approval Signature

Approval Date

I

Effective Date: 12/21/00

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: B. Tarallo Date: 11/15/00 Department: EPSD Ext.: 2490

Document No.: EPOP 4426-002 Rev. No.: 004 Minor Rev.: 01

Title: Radiation Monitoring Point Data Sheet

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Replaced by MM-26-EPI-FAP05-003, Radiation Monitoring Point Data Sheet

Continued ☐

C

Instructions:

Continued ☐

D

TPC Interim Approval

(1) Plant Mngt Staff Member Print/Sign/Date

(2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☐ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☐ *Revision* ☑ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☑ Cancellation ☑ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒

Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

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Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	Dept.	✔ If Comments
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Independent	☒	KR Burgess	KR Burgess	12/4/00	☒	☐	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No **Environmental Review Required** ☐ Yes ☒ No

H

1. ☒ **SQR Program Final Review and Approval**

Approval ☒ Disapproval ☐

KR Burgess 12/4/00
SQR Qualified Independent Reviewer / Date

Paul A. Blasioli
Department Head/Responsible Individual

12/11/00
Approval Date

2. ☐ **SORC/PORC/RI/DH Final Review and Approval**

Department Head/Responsible Individual / Date

Meeting No.:

Approval Signature

Approval Date

I

Effective Date: 12/21/00

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: B. Tarallo Date: 11/15/00 Department: EPSD Ext.: 2490

Document No.: EPOP 4428A Rev. No.: 003 Minor Rev.: ~~02~~ 03

Title: Radiological Dose Assessment Team

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Replaced by MM-26-EPI-FAP04 003, Manager of Radiological Dose Assessment, -004 Assistant Manager of Radiological Dose Assessment, -005 Radiological Assessment Engineer and -006 Field Team Data Coordinator

Continued ☐

C

Instructions:

Continued ☐

D

TPC Interim Approval (1) Plant Mngt Staff Member Print/Sign/Date (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☐ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☐ *Revision* ☑ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☑ Cancellation ☑ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒ ______ Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

F

Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	Dept.	✔ If Comments
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RCD	☒	KR Burgess	KR Burgess	12/1/00			EPSD	
Independent	☒	KR Burgess	KR Burgess	12/4/00	☒	☐	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No **Environmental Review Required** ☐ Yes ☒ No

H

1. ☒ **SQR Program Final Review and Approval**

Approval ☒ Disapproval ☐

KR Burgess 12/4/00
SQR Qualified Independent Reviewer / Date

Paul A. Blasioli
Department Head/Responsible Individual

12/11/00
Approval Date

2. ☐ **SORC/PORC/RI/DH Final Review and Approval**

Department Head/Responsible Individual / Date

Meeting No.:

Approval Signature

Approval Date

I

Effective Date: 12/21/00

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: B. Tarallo   Date: 11/15/00   Department: EPSD   Ext.: 2490

Document No.: EPOP 4428D   Rev. No.: 003   Minor Rev.: ~~00~~ 01

Title: Meteorological Team

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Replaced by MM-26-EPI-FAP04 010, Meteorological Team

Continued ☐

C

Instructions:

Continued ☐

D

TPC Interim Approval

(1) Plant Mngt Staff Member Print/Sign/Date   (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☐ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☐ *Revision* ☒ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☒ Cancellation ☒ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒

Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date   Continued ☐

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Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	Dept.	✔ If Comments
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RCD	☒	KR Burgess	KRBurgess	12/1/00			EPSD	
Independent	☒	KR Burgess	KRBurgess	12/4/00	☒	☐	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No   Environmental Review Required ☐ Yes ☒ No

H

1. ☒ SQR Program Final Review and Approval

Approval ☒ Disapproval ☐

KRBurgess 12/4/00
SQR Qualified Independent Reviewer / Date

Paul G. Blasioli
Department Head/Responsible Individual

12/11/00
Approval Date

2. ☐ SORC/PORC/RI/DH Final Review and Approval

Department Head/Responsible Individual / Date

Meeting No.:

Approval Signature

Approval Date

I

Effective Date: 12/21/00

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: B. Tarallo Date: 11/15/00 Department: EPSD Ext.: 2490

Document No.: EPOP 4428F Rev. No.: 003 Minor Rev.: ~~00~~ 01

Title: **Refined Dose Assessment**

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Replaced by MM-26-EPI-FAP10, Dose Assessment

Continued ☐

C

Instructions:

Continued ☐

D

TPC Interim Approval

(1) Plant Mngt Staff Member Print/Sign/Date

(2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☐ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☐ *Revision* ☑ *Minor Revision* ☐ Cleanup Rev ☑ Biennial Review ☑ Cancellation ☑ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID

☐ Edit Corr.:⇒

Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date

Continued ☐

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Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	SQR Qualified Dept.	✔ If Comments
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RCD	☒	KR Borgess	KR Burgess	12/1/00			EPSD	
Independent	☒	KR Borgess	KR Burgess	12/4/00	☒	☐	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No **Environmental Review Required** ☐ Yes ☒ No

H

1. ☒ **SQR Program Final Review and Approval**

Approval ☒ Disapproval ☐

KR Burgess 12/4/00

SQR Qualified Independent Reviewer / Date

Paul G. Blasioli

Department Head/Responsible Individual

12/11/00

Approval Date

2. ☐ **SORC/PORC/RI/DH Final Review and Approval**

Department Head/Responsible Individual / Date

Meeting No.:

Approval Signature

Approval Date

I

Effective Date: 12/21/00

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: B. Tarallo Date: 11/15/00 Department: EPSD Ext.: 2490

Document No.: EPOP 4428G Rev. No.: 003 Minor Rev.: ~~01~~ 02

Title: Protective Action Recommendations

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Replaced by MM-26-EPI-FAP01-001, Control Room-Director of Station Emergency Operations and MM-26-EPI-FAP04, EOF Activation and Operation

Continued ☐

C

Instructions:

Continued ☐

D

TPC Interim Approval

(1) Plant Mngt Staff Member Print/Sign/Date

(2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☐ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☐ *Revision* ☑ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☑ Cancellation ☑ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒

Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date

Continued ☐

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Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	Dept.	✔ if Comments
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RCD	☒	KR Burgess	KRBurgess	12/1/00			EPSD	
Independent	☒	KR Burgess	KRBurgess	12/4/00	☒	☐	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No **Environmental Review Required** ☐ Yes ☒ No

H

1. ☒ **SQR Program Final Review and Approval**

Approval ☒ Disapproval ☐

KRBurgess 12/4/00

SQR Qualified Independent Reviewer / Date

Paul A. Blasioli

Department Head/Responsible Individual

12/11/00

Approval Date

2. ☐ **SORC/PORC/RI/DH Final Review and Approval**

Department Head/Responsible Individual / Date

Meeting No.:

Approval Signature

Approval Date

I

Effective Date: 12/21/00

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: B. Tarallo Date: 11/15/00 Department: EPSD Ext.: 2490

Document No.: EPOP 4428I Rev. No.: 002 Minor Rev.: ~~00~~ 01

Title: Direction of Environmental Services Field Sampling

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Replaced by MM-26-EPI-FAP04, EOF Activation and Operation

Continued ☐

C

Instructions:

Continued ☐

D

TPC Interim Approval

(1) Plant Mngt Staff Member Print/Sign/Date (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☐ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☐ *Revision* ☒ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☒ Cancellation ☒ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒

Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

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Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	Dept.	✔ if Comments
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RCD	☒	KR Burgess	KR Burgess	12/1/00			EPSD	
Independent	☒	KR Burgess	KR Burgess	12/4/00	☒	☐	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No Environmental Review Required ☐ Yes ☒ No

H

1. ☒ **SQR Program Final Review and Approval**

Approval ☒ Disapproval ☐

KR Burgess 12/4/00
SQR Qualified Independent Reviewer / Date

Paul A. Blasioli
Department Head/Responsible Individual

12/11/00
Approval Date

2. ☐ **SORC/PORC/RI/DH Final Review and Approval**

Department Head/Responsible Individual / Date

Meeting No.:

Approval Signature

Approval Date

I

Effective Date: 12/21/00

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: B. Tarallo   Date: 11/15/00   Department: EPSD   Ext.: 2490

Document No.: EPOP 4428J   Rev. No.: 001   Minor Rev.: ~~00~~ 01

Title: Health Physics Network Communications

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Replaced by MM-26-EPI-FAP04, EOF Activation and Operation

Continued ☐

C

Instructions:

Continued ☐

D

TPC Interim Approval

(1) Plant Mngt Staff Member Print/Sign/Date   (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☐ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☐ *Revision* ☑ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☑ Cancellation ☑ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID

☐ Edit Corr.:⇒ ______
Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date   Continued ☐

F

Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	Dept.	✔ if Comments
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RCD	☒	KR Burgess	KR Burgess	12/1/00			EPSD	
Independent	☒	KR Burgess	KR Burgess	12/4/00	☒	☐	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No   Environmental Review Required ☐ Yes ☒ No

H

1. ☒ SQR Program Final Review and Approval

Approval ☒ Disapproval ☐

KR Burgess 12/4/00
SQR Qualified Independent Reviewer / Date

Paul A. Blasioli
Department Head/Responsible Individual

12/11/00
Approval Date

2. ☐ SORC/PORC/RI/DH Final Review and Approval

Department Head/Responsible Individual / Date

Meeting No.:

Approval Signature

Approval Date

I

Effective Date: 12/21/00

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: B. Tarallo Date: 11/15/00 Department: EPSD Ext.: 2490

Document No.: EPOP 4429 Rev. No.: 005 Minor Rev.: ~~00~~ 01

Title: Radiation Monitoring Team Deployment and Control

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Replaced by MM-26-EPI-FAP04, EOF Activation and Operation

Continued ☐

C

Instructions:

Continued ☐

D

TPC Interim Approval (1) Plant Mngt Staff Member Print/Sign/Date (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☐ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☐ Revision ☑ Minor Revision (See DC-GDL01 for guidance) ☐ Cleanup Rev ☐ Biennial Review ☑ Cancellation ☑ Supersedure

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒ Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

F

Reviews	Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	Dept.	✔ If Comments
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RCD ☒	KR Burgess	KRBurgess	12/1/00			EPSD	
Independent ☒	KR Burgess	KRBurgess	12/4/00	☒	☐	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No Environmental Review Required ☐ Yes ☒ No

H

1. ☒ **SQR Program Final Review and Approval**

Approval ☒ Disapproval ☐

KR Burgess 12/4/00
SQR Qualified Independent Reviewer / Date

Paul C. Blanch
Department Head/Responsible Individual

12/11/00
Approval Date

2. ☐ **SORC/PORC/RI/DH Final Review and Approval**

Department Head/Responsible Individual / Date

Meeting No.:

Approval Signature

Approval Date

I

Effective Date: 12/21/00

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: B. Tarallo Date: 11/15/00 Department: EPSD Ext.: 2490

Document No.: EPOP 4430 Rev. No.: 005 Minor Rev.: ~~00~~ 01

Title: Off-Site Radiological Surveys

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Replaced by MM-26-EPI-FAP04, EOF Activation and Operation

Continued ☐

C

Instructions:

Continued ☐

D

TPC Interim Approval (1) Plant Mngt Staff Member Print/Sign/Date (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☐ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☐ Revision ☑ Minor Revision ☐ Cleanup Rev ☐ Biennial Review ☑ Cancellation ☑ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒ Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

F

Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	Dept.	✔ If Comments
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RCD	☒	KR Burgess	KR Burgess	12/1/00			EPSD	
Independent	☒	KR Burgess	KR Burgess	12/4/00	☒	☐	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No **Environmental Review Required** ☐ Yes ☒ No

H

1. ☒ **SQR Program Final Review and Approval**

Approval ☒ Disapproval ☐

KR Burgess 12/4/00
SQR Qualified Independent Reviewer / Date

Paul A. Blasioli
Department Head/Responsible Individual

12/11/00
Approval Date

2. ☐ **SORC/PORC/RI/DH Final Review and Approval**

Department Head/Responsible Individual / Date

Meeting No.:

Approval Signature

Approval Date

I

Effective Date: 12/21/00

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: B. Tarallo Date: 11/15/00 Department: EPSD Ext.: 2490

Document No.: EPOP 4432 Rev. No.: 003 Minor Rev.: ~~01~~ 02

Title: On-Shift Dose Assessment

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Replaced by MM-26-EPI-FAP10-001, CR IDA - Data Input Information

Continued ☐

C

Instructions:

Continued ☐

D

TPC Interim Approval

(1) Plant Mngt Staff Member Print/Sign/Date

(2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☐ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☐ *Revision* ☑ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☑ Cancellation ☑ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID

☐ Edit Corr.:⇒
Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date

Continued ☐

F

Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	SQR Qualified Dept.	✔ If Comments
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RCD	☒	KR Burgess	KR Burgess	12/1/00			EPSD	
Independent	☒	KR Burgess	KR Burgess	12/4/00	☒	☐	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No

Environmental Review Required ☐ Yes ☒ No

H

1. ☒ **SQR Program Final Review and Approval**

Approval ☒ Disapproval ☐

KR Burgess 12/4/00
SQR Qualified Independent Reviewer / Date

Paul A. Blasioli
Department Head/Responsible Individual

12/11/00
Approval Date

2. ☐ **SORC/PORC/RI/DH Final Review and Approval**

Department Head/Responsible Individual / Date

Meeting No.:

Approval Signature

Approval Date

I

Effective Date: 12/21/00

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: B. Tarallo   Date: 11/15/00   Department: EPSD   Ext.: 2490

Document No.: EPOP 4435   Rev. No.: 002   Minor Rev.: ~~00~~ 01

Title: Containment Curie Leval Estimate

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Replaced by MM-26-EPI-FAP11, Core Damage Assessment

Continued ☐

C

Instructions:

Continued ☐

D

TPC Interim Approval (1) Plant Mngt Staff Member Print/Sign/Date   (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☐ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☐ *Revision* ☑ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☑ Cancellation ☑ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID   ☐ Edit Corr.:⇒ Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date   Continued ☐

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Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	Dept.	✔ if Comments
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RCD	☒	KR Burgess	KRBurgess	12/1/00			EPSD	
Independent	☒	KR Burgess	KRBurgess	12/4/00	☒	☐	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No   **Environmental Review Required** ☐ Yes ☒ No

H

1. ☒ **SQR Program Final Review and Approval**

Approval ☒ Disapproval ☐

KPBurgess 12/4/00
SQR Qualified Independent Reviewer / Date

Paul G. [illegible]
Department Head/Responsible Individual

12/11/00
Approval Date

2. ☐ **SORC/PORC/RI/DH Final Review and Approval**

Department Head/Responsible Individual / Date

Meeting No.:

Approval Signature

Approval Date

I

Effective Date: 12/21/00

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: B. Tarallo Date: 11/15/00 Department: EPSD Ext.: 2490

Document No.: EPOP 4440 Rev. No.: 001 Minor Rev.: ~~01~~ 02

Title: Unit 2 Core Damage Estimate

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Replaced by MM-26-EPI-FAP11, Core Damage Assessment

Continued ☐

C

Instructions:

Continued ☐

D

TPC Interim Approval (1) Plant Mngt Staff Member Print/Sign/Date (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☐ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☐ *Revision* ☑ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☑ Cancellation ☑ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒ Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

F

Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	Dept.	✔ if Comments
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RCD	☒	KR Burgess	KRBurgess	12/1/00			EPSD	
Independent	☒	KR Burgess	KRBurgess	12/4/00	☒	☐	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No **Environmental Review Required** ☐ Yes ☒ No

H

1. ☒ **SQR Program Final Review and Approval**

Approval ☒ Disapproval ☐

KRBurgess 12/4/00
SQR Qualified Independent Reviewer / Date

Paul A. Blanch
Department Head/Responsible Individual

12/11/00
Approval Date

2. ☐ **SORC/PORC/RI/DH Final Review and Approval**

Department Head/Responsible Individual / Date

Meeting No.:

Approval Signature

Approval Date

I

Effective Date: 12/21/00

MP-05-DC-SAP01-001
Rev. 002-01

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: B. Tarallo   Date: 11/15/00   Department: EPSD   Ext.: 2490

Document No.: EPOP 4441   Rev. No.: 001   Minor Rev.: ~~01~~ 02

Title: Unit 3 Core Damage Estimate

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Replaced by MM-26-EPI-FAP11, Core Damage Assessment

Continued ☐

C

Instructions:

Continued ☐

D

TPC Interim Approval

(1) Plant Mngt Staff Member Print/Sign/Date

(2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☐ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☐ *Revision* ☒ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☒ Cancellation ☒ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID

☐ Edit Corr.:⇒

Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date

Continued ☐

F

Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	SQR Qualified Dept.	✔ if Comments
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RCD	☒	KRBurgess	KRBurgess	12/1/00			EPSD	
Independent	☒	KRBurgess	KRBurgess	12/4/00	☒	☐	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No   **Environmental Review Required** ☐ Yes ☒ No

H

1. ☒ **SQR Program Final Review and Approval**

Approval ☒ Disapproval ☐

KRBurgess 12/4/00
SQR Qualified Independent Reviewer / Date

Paul A. Blanch
Department Head/Responsible Individual

12/11/00
Approval Date

2. ☐ **SORC/PORC/RI/DH Final Review and Approval**

Department Head/Responsible Individual / Date

Meeting No.:

Approval Signature

Approval Date

I

Effective Date: 12/21/00

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: B. Tarallo Date: 11/15/00 Department: EPSD Ext.: 2490

Document No.: EPOP 4446 Rev. No.: 002 Minor Rev.: ~~02~~ 03

Title: Site Stack PASS

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Replaced by MM-26-EPI-FAP11, Core Damage Assessment

Continued ☐

C

Instructions:

Continued ☐

D

TPC Interim Approval (1) Plant Mngt Staff Member Print/Sign/Date (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☐ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☐ *Revision* ☒ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☒ Cancellation ☒ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID

☐ Edit Corr.:⇒
Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

F

Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	SQR Qualified Dept.	✔ if Comments
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RCD	☒	KR Burgess	KR Burgess	12/1/00			EPSD	
Independent	☒	KR Burgess	KR Burgess	12/4/00	☒	☐	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No Environmental Review Required ☐ Yes ☒ No

H

1. ☒ SQR Program Final Review and Approval

Approval ☒ Disapproval ☐

KR Burgess 12/4/00
SQR Qualified Independent Reviewer / Date

Paul A. Blasioli
Department Head/Responsible Individual

12/11/00
Approval Date

2. ☐ SORC/PORC/RI/DH Final Review and Approval

Department Head/Responsible Individual / Date

Meeting No.:

Approval Signature

Approval Date

I

Effective Date: 12/21/00

MP-05-DC-SAP01-001
Rev. 002-01
Page 1 of 1

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: B. Tarallo Date: 11/15/00 Department: EPSD Ext.: 2490

Document No.: EPOP 4447 Rev. No.: 003 Minor Rev.: ~~01~~ 02

Title: Unit 2 RX Colant and Liquid Waste PASS

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Replaced by MM-26-EPI-FAP11, Core Damage Assessment

Continued ☐

C

Instructions:

Continued ☐

D

TPC Interim Approval

(1) Plant Mngt Staff Member Print/Sign/Date

(2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☐ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☐ *Revision* ☒ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☒ Cancellation ☐ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID

☐ Edit Corr.:⇒

Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date

Continued ☐

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Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	Dept.	✔ if Comments
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RCD	☒	KR Burgess	KRBurgess	12/1/00			EPSD	
Independent	☒	KR Burgess	KRBurgess	12/4/00	☒	☐	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No **Environmental Review Required** ☐ Yes ☒ No

H

1. ☒ **SQR Program Final Review and Approval**

Approval ☒ Disapproval ☐

KR Burgess 12/4/00

SQR Qualified Independent Reviewer / Date

Paul A. Blasiole

Department Head/Responsible Individual

12/11/00

Approval Date

2. ☐ **SORC/PORC/RI/DH Final Review and Approval**

Department Head/Responsible Individual / Date

Meeting No.:

Approval Signature

Approval Date

I

Effective Date: 12/21/00

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: B. Tarallo Date: 11/15/00 Department: EPSD Ext.: 2490

Document No.: EPOP 4448 Rev. No.: 003 Minor Rev.: ~~00~~ 01

Title: Unit 2 RX Vent and Containment Air PASS

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Replaced by MM-26-EPI-FAP11, Core Damage Assessment

Continued ☐

C

Instructions:

Continued ☐

D

TPC Interim Approval (1) Plant Mngt Staff Member Print/Sign/Date (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☐ Perform Now ☑ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☐ *Revision* ☑ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☑ Cancellation ☑ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒

Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

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Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	Dept.	✔ if Comments
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RCD	☒	KR Borgess	KRBurgess	12/1/00			EPSD	
Independent	☒	KR Borgess	KRBurgess	12/4/00	☒	☐	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No Environmental Review Required ☐ Yes ☒ No

H

1. ☒ **SQR Program Final Review and Approval**

Approval ☒ Disapproval ☐

KRBurgess 12/4/00

SQR Qualified Independent Reviewer / Date

Paul A. Blasioli

Department Head/Responsible Individual

12/11/00

Approval Date

2. ☐ **SORC/PORC/RI/DH Final Review and Approval**

Department Head/Responsible Individual / Date

Meeting No.:

Approval Signature

Approval Date

I

Effective Date: 12/21/00

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: B. Tarallo   Date: 11/15/00   Department: EPSD   Ext.: 2490

Document No.: EPOP 4449   Rev. No.: 004   Minor Rev.: ~~00~~ 01

Title: Unit 3 RX Coolant and Liquid Waste PASS

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Replaced by MM-26-EPI-FAP11, Core Damage Assessment

Continued ☐

C

Instructions:

Continued ☐

D

TPC Interim Approval (1) Plant Mngt Staff Member Print/Sign/Date   (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☐ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☐ *Revision* ☑ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☑ Cancellation ☑ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID   ☐ Edit Corr.:⇒ Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date   Continued ☐

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Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	SQR Qualified Dept.	✔ If Comments
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RCD	☒	KR Burgess	KRBurgess	12/1/00			EPSD	
Independent	☒	KR Burgess	KRBurgess	12/4/00	☒	☐	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No   **Environmental Review Required** ☐ Yes ☒ No

H

1. ☒ **SQR Program Final Review and Approval**

Approval ☒ Disapproval ☐

KRBurgess 12/4/00
SQR Qualified Independent Reviewer / Date

Paul A. Blanch
Department Head/Responsible Individual

12/11/00
Approval Date

2. ☐ **SORC/PORC/RI/DH Final Review and Approval**

Department Head/Responsible Individual / Date

Meeting No.:

Approval Signature

Approval Date

I

Effective Date: 12/21/00

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: B. Tarallo Date: 11/15/00 Department: EPSD Ext.: 2490

Document No.: EPOP 4450 Rev. No.: 003 Minor Rev.: ~~00~~ 01

Title: Unit 3 Vent and Containment Air PASS

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Replaced by MM-26-EPI-FAP11, Core Damage Assessment

Continued ☐

C

Instructions:

Continued ☐

D

TPC Interim Approval

(1) Plant Mngt Staff Member Print/Sign/Date (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☐ Perform Now ☑ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☐ Revision ☑ Minor Revision ☐ Cleanup Rev ☐ Biennial Review ☑ Cancellation ☑ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒

Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

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Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	Dept.	✔ If Comments
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RCD	☒	KR Burgess	KR Burgess	12/1/00			EPSD	
Independent	☒	KR Burgess	KR Burgess	12/4/00	☒	☐	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No Environmental Review Required ☐ Yes ☒ No

H

1. ☒ SQR Program Final Review and Approval

Approval ☒ Disapproval ☐

KR Burgess 12/4/00

SQR Qualified Independent Reviewer / Date

Paul G. Blasioli

Department Head/Responsible Individual

12/11/00

Approval Date

2. ☐ SORC/PORC/RI/DH Final Review and Approval

Department Head/Responsible Individual / Date

Meeting No.:

Approval Signature

Approval Date

I

Effective Date: 12/21/00

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: B. Tarallo Date: 11/15/00 Department: EPSD Ext.: 2490

Document No.: EPOP 4455 Rev. No.: 001 Minor Rev.: ~~00~~ 1

Title: Manager of Public Information

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Replaced by MM-26-EPI-FAP04-012, MPI Checklist

Continued ☐

C

Instructions:

Continued ☐

D

TPC Interim Approval

(1) Plant Mngt Staff Member Print/Sign/Date

(2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☐ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☐ *Revision* ☒ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☒ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒

Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

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Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	Dept.	✔ If Comments
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RCD	☒	KR Burgess	KR Burgess	12/1/00			EPSD	
Independent	☒	KR Burgess	KR Burgess	12/4/00	☒	☐	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No **Environmental Review Required** ☐ Yes ☒ No

H

1. ☒ **SQR Program Final Review and Approval**

Approval ☒ Disapproval ☐

KR Burgess 12/4/00
SQR Qualified Independent Reviewer / Date

Paul A. Blanch
Department Head/Responsible Individual

12/11/00
Approval Date

2. ☐ **SORC/PORC/RI/DH Final Review and Approval**

Department Head/Responsible Individual / Date

Meeting No.:

Approval Signature

Approval Date

I

Effective Date: 12/21/00

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: B. Tarallo Date: 11/15/00 Department: EPSD Ext.: 2490

Document No.: EPOP 4455A Rev. No.: 001 Minor Rev.: ~~00~~ 1

Title: Nuclear News Manager

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Replaced by MM-26-EPI-FAP05-003, NNM Checklist

Continued ☐

C

Instructions:

Continued ☐

D

TPC Interim Approval

(1) Plant Mngt Staff Member Print/Sign/Date

(2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☐ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☐ *Revision* ☒ *Minor Revision* (See DC-GDL01 for guidance) ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☒ Supersedure

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒ Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

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Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	Dept.	✔ If Comments
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RCD	☒	KR Burgess	KRBurgess	12/1/00			EPSD	
Independent	☒	KR Burgess	KRBurgess	12/4/00	☒	☐	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No **Environmental Review Required** ☐ Yes ☒ No

H

1. ☒ **SQR Program Final Review and Approval**

Approval ☒ Disapproval ☐

KRBurgess 12/4/00
SQR Qualified Independent Reviewer / Date

Paul A. Blanch
Department Head/Responsible Individual

12/11/00
Approval Date

2. ☐ **SORC/PORC/RI/DH Final Review and Approval**

Department Head/Responsible Individual / Date

Meeting No.:

Approval Signature

Approval Date

I

Effective Date: 12/21/00

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: B. Tarallo Date: 11/15/00 Department: EPSD Ext.: 2490

Document No.: EPOP 4455C Rev. No.: 001 Minor Rev.: ~~02~~ 3

Title: Technical Assistant

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Replaced by MM-26-EPI-FAP05-002, TA Checklist

Continued ☐

C

Instructions:

Continued ☐

D

TPC Interim Approval

(1) Plant Mngt Staff Member Print/Sign/Date

(2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☐ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☐ *Revision* ☒ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☒ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒

Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date

Continued ☐

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Reviews		Print	Sign	Date	SQR Qualified Yes	No	Dept.	✔ If Comments
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RCD	☒	KR Burgess	KR Burgess	12/1/00			EPSD	
Independent	☒	KR Burgess	KR Burgess	12/4/00	☒	☐	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No **Environmental Review Required** ☐ Yes ☒ No

H

1. ☒ **SQR Program Final Review and Approval**

Approval ☒ Disapproval ☐

KR Burgess 12/4/00

SQR Qualified Independent Reviewer / Date

Paul U. Blasioli

Department Head/Responsible Individual

12/11/00

Approval Date

2. ☐ **SORC/PORC/RI/DH Final Review and Approval**

Department Head/Responsible Individual / Date

Meeting No.:

Approval Signature

Approval Date

I

Effective Date: 12/21/00

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: B. Tarallo   Date: 11/15/00   Department: EPSD   Ext.: 2490

Document No.: EPOP 4455D   Rev. No.: 001   Minor Rev.: ~~00~~ 1

Title: **News Releases**

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Replaced by MM-26-EPI-FAP13, News Releases and Rumor Control

Continued ☐

C

Instructions:

Continued ☐

D

TPC Interim Approval

(1) Plant Mngt Staff Member Print/Sign/Date   (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☐ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☐ *Revision* ☒ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☒ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID   ☐ Edit Corr.:⇒

Plant Mngt Staff Member - Approval

Comments:

RI/DPC   Print Name and Date   Continued ☐

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Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	Dept.	✔ If Comments
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RCD	☒	KR Borgess	KR Burgess	12/1/00			EPSD	
Independent	☒	KR Burgess	KR Burgess	12/4/00	☒	☐	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No   **Environmental Review Required** ☐ Yes ☒ No

H

1. ☒ **SQR Program Final Review and Approval**

Approval ☒ Disapproval ☐

KR Burgess 12/4/00
SQR Qualified Independent Reviewer / Date

Paul G. Blasioli
Department Head/Responsible Individual

12/11/00
Approval Date

2. ☐ **SORC/PORC/RI/DH Final Review and Approval**

Department Head/Responsible Individual / Date

Meeting No.:

Approval Signature

Approval Date

I

Effective Date: 12/21/00

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: B. Tarallo Date: 11/15/00 Department: EPSD Ext.: 2490

Document No.: EPOP 4455F Rev. No.: 001 Minor Rev.: ~~00~~ 01

Title: Rumor and Inquiry Control

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Replaced by MM-26-EPI-FAP13, News Releases and Rumor Control

Continued ☐

C

Instructions:

Continued ☐

D

TPC Interim Approval (1) Plant Mngt Staff Member Print/Sign/Date (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☐ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☐ *Revision* ☒ *Minor Revision* (See DC-GDL01 for guidance) ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☒ Supersedure

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒ Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

F

Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	Dept.	✔ If Comments
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RCD	☒	KR Burgess	KR Burgess	12/1/00			EPSD	
Independent	☒	KR Burgess	KR Burgess	12/4/00	☒	☐	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No Environmental Review Required ☐ Yes ☒ No

H

1. ☒ SQR Program Final Review and Approval

Approval ☒ Disapproval ☐

KR Burgess 12/0/00
SQR Qualified Independent Reviewer / Date

Paul A. Blasioli
Department Head/Responsible Individual

12/11/00
Approval Date

2. ☐ SORC/PORC/RI/DH Final Review and Approval

Department Head/Responsible Individual / Date

Meeting No.:

Approval Signature

Approval Date

I

Effective Date: 12/21/00

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: B. Tarallo Date: 11/15/00 Department: EPSD Ext.: 2490

Document No.: EPOP 4460 Rev. No.: 003 Minor Rev.: ~~02~~ 3

Title: **Manager of Communications**

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Replaced by MM-26-EPI-FAP04-013, MOC Checklist

Continued ☐

C

Instructions:

Continued ☐

D

TPC Interim Approval

(1) Plant Mngt Staff Member Print/Sign/Date

(2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☐ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☐ *Revision* ☒ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☒ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID

☐ Edit Corr.:⇒

Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date

Continued ☐

F

Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	Dept.	✔ If Comments
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RCD	☒	KR Burgess	KR Burgess	12/1/00			EPSD	
Independent	☒	KR Burgess	KR Burgess	12/4/00	☒	☐	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No **Environmental Review Required** ☐ Yes ☒ No

H

1. ☒ **SQR Program Final Review and Approval**

Approval ☒ Disapproval ☐

KR Burgess 12/4/00
SQR Qualified Independent Reviewer / Date

Paul D. Blanch
Department Head/Responsible Individual

12/11/00
Approval Date

2. ☐ **SORC/PORC/RI/DH Final Review and Approval**

Department Head/Responsible Individual / Date

Meeting No.:

Approval Signature

Approval Date

I

Effective Date: 12/21/00

MP-05-DC-SAP01-001
Rev. 002-01

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: B. Tarallo   Date: 11/15/00   Department: EPSD   Ext.: 2490

Document No.: EPOP 4465   Rev. No.: 005   Minor Rev.: ~~05~~ 04 KB 12/20/00

Title: Technical Information Coordinator

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Replaced by MM-26-EPI-FAP04-014, TIC Checklist

Continued ☐

C

Instructions:

Continued ☐

D

TPC Interim Approval

(1) Plant Mngt Staff Member Print/Sign/Date

(2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☐ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☐ *Revision* ☒ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☒ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒

Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date   Continued ☐

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Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	SQR Qualified Dept.	✔ If Comments
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Independent	☒	KR Burgess	KRBurgess	12/4/00	☒	☐	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No   **Environmental Review Required** ☐ Yes ☒ No

H

1. ☒ **SQR Program Final Review and Approval**

Approval ☒ Disapproval ☐

KR Burgess 12/4/00
SQR Qualified Independent Reviewer / Date

Paul A. Blas[illegible]
Department Head/Responsible Individual

12/11/00
Approval Date

2. ☐ **SORC/PORC/RI/DH Final Review and Approval**

Department Head/Responsible Individual / Date

Meeting No.:

Approval Signature

~~12/01/00~~ KB 12/20/00
Approval Date

I

Effective Date: 12/21/00

MP-05-DC-SAP01-001
Rev. 002-01
Page 1 of 1

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: B. Tarallo Date: 11/15/00 Department: EPSD Ext.: 2490

Document No.: EPOP 4470 Rev. No.: 004 Minor Rev.: ~~02~~ 03 KS 12/1/00

Title: Control Room Data Coordinator

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Replaced by MM-26-EPI-FAP01-007, Control Room Data Coordinator

Continued ☐

C

Instructions:

Continued ☐

D

TPC Interim Approval (1) Plant Mngt Staff Member Print/Sign/Date (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☐ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☐ *Revision* ☒ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☒ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒ Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

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Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	SQR Qualified Dept.	✔ if Comments
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Independent	☒	KR Burgess	KR Burgess	12/4/00	☒	☐	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No **Environmental Review Required** ☐ Yes ☒ No

H

1. ☒ **SQR Program Final Review and Approval**

Approval ☒ Disapproval ☐

KR Burgess 12/4/00
SQR Qualified Independent Reviewer / Date

Paul A. Blasioli
Department Head/Responsible Individual

12/11/00
Approval Date

2. ☐ **SORC/PORC/RI/DH Final Review and Approval**

Department Head/Responsible Individual / Date

Meeting No.:

Approval Signature

Approval Date

I

Effective Date: 12/21/00

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: B. Tarallo Date: 11/15/00 Department: EPSD Ext.: 2490

Document No.: EPOP 4475 Rev. No.: 004 Minor Rev.: ~~02~~ 03
03 12/20/00

Title: Manager of Resources or External Resources Coordinator

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Replaced by MM-26-EPI-FAP04-011, Manager of Resources or External Resources Coordinator

Continued ☐

C

Instructions:

Continued ☐

D

TPC Interim Approval (1) Plant Mngt Staff Member Print/Sign/Date (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☐ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☐ *Revision* ☒ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☒ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒

Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

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Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	Dept.	✔ if Comments
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Independent	☐	KR Burgess	KR Burgess	12/4/00	☒	☐	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No Environmental Review Required ☐ Yes ☒ No

H

1. ☒ **SQR Program Final Review and Approval**

Approval ☒ Disapproval ☐

KR Burgess 12/4/00
SQR Qualified Independent Reviewer / Date

Paul E. Blasidei
Department Head/Responsible Individual

12/11/00
Approval Date

2. ☐ **SORC/PORC/RI/DH Final Review and Approval**

Department Head/Responsible Individual / Date

Meeting No.:

Approval Signature

Approval Date

I

Effective Date: 12/21/00

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: B. Tarallo Date: 11/15/00 Department: EPSD Ext.: 2490

Document No.: EPOP 4480 Rev. No.: 003 Minor Rev.: ~~00~~ 01 SS 12/20/00

Title: Manager of Security

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Replaced by MM-26-EPI-FAP02-011, Manager of Security

Continued ☐

C

Instructions:

Continued ☐

D

TPC Interim Approval (1) Plant Mngt Staff Member Print/Sign/Date (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☐ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☐ *Revision* ☒ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☒ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒ Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

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Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	Dept.	✔ If Comments
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Independent	☒	KR Burgess	KR Burgess	12/4/00	☒	☐	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No **Environmental Review Required** ☐ Yes ☒ No

H

1. ☒ **SQR Program Final Review and Approval**

Approval ☒ Disapproval ☐

KRBurgess 12/4/00
SQR Qualified Independent Reviewer / Date

Paul A. Blasioli
Department Head/Responsible Individual

12/11/00
Approval Date

2. ☐ **SORC/PORC/RI/DH Final Review and Approval**

Department Head/Responsible Individual / Date

Meeting No.:

Approval Signature

Approval Date

I

Effective Date: 12/21/00

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: B. Tarallo Date: 11/15/00 Department: EPSD Ext.: 2490

Document No.: EPOP 4490 Rev. No.: 001 Minor Rev.: ~~00~~ 01 ff 12/21/00

Title: Implementation of Recovery Operations

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Replaced by MM-26-EPI-FAP14, Recovery

Continued ☐

C

Instructions:

Continued ☐

D

TPC Interim Approval (1) Plant Mngt Staff Member Print/Sign/Date (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☐ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☐ *Revision* ☒ *Minor Revision* (See DC-GDL01 for guidance) ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☒ Supersedure

☐ TPC ☐ OTC ☐ Place in VOID ☐ Edit Corr.:⇒ ______ Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date Continued ☐

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Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	Dept.	✔ if Comments
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Independent	☒	KR Burgess	KRBurgess	12/4/00	☒	☐	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No **Environmental Review Required** ☐ Yes ☒ No

H

1. ☒ **SQR Program Final Review and Approval**

Approval ☒ Disapproval ☐

KR Burgess 12/4/00
SQR Qualified Independent Reviewer / Date

Paul G. Blasioli
Department Head/Responsible Individual

12/11/00
Approval Date

2. ☐ **SORC/PORC/RI/DH Final Review and Approval**

Department Head/Responsible Individual / Date

Meeting No.:

Approval Signature

Approval Date

I

Effective Date: 12/21/00

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: B. Tarallo Date: 11/15/00 Department: EPSD Ext.: 2490

Document No.: NUC EPOP 4428E Rev. No.: 002 Minor Rev.: ~~02~~ 03

Title: Post Accident Release Rate

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Replaced by MM-26-EPI-FAP11, Core Damage Assessment

Continued ☐

C

Instructions:

Continued ☐

D

TPC Interim Approval

(1) Plant Mngt Staff Member Print/Sign/Date

(2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☐ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☐ *Revision* ☑ *Minor Revision* ☐ Cleanup Rev ☐ Biennial Review ☑ Cancellation ☑ Supersedure

See DC-GDL01 for guidance

☐ TPC ☐ OTC ☐ Place in VOID

☐ Edit Corr.:⇒

Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date

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Independent	☒	KR Burgess	KR Burgess	12/4/00	☒	☐	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No **Environmental Review Required** ☐ Yes ☒ No

H

1. ☒ **SQR Program Final Review and Approval**

Approval ☒ Disapproval ☐

KR Burgess 12/4/00
SQR Qualified Independent Reviewer / Date

Paul G. Bowser
Department Head/Responsible Individual

12/11/00
Approval Date

2. ☐ **SORC/PORC/RI/DH Final Review and Approval**

Department Head/Responsible Individual / Date

Meeting No.:

Approval Signature

Approval Date

I

Effective Date: 12/21/00

6/27/00
Approval Date

6/30/00
Effective Date

Document Action Request

SPG#

A

Initiated By: B. Tarallo   Date: 11/15/00   Department: EPSD   Ext.: 2490

Document No.: NUC EPOP 4455B   Rev. No.: 001   Minor Rev.: ~~00~~ 1

Title: Executive Spokesman

B

Reason for Request (attach commitments, CRs, ARs, OEs etc)

Replaced by MM-26-EPI-FAP05-001, ES Checklist

Continued ☐

C

Instructions:

Continued ☐

D

TPC Interim Approval   (1) Plant Mngt Staff Member Print/Sign/Date   (2) SM/SRO/CFH on Unit Print/Sign/Date

E

Procedure Request/Feedback Disposition

Priority: ☐ Perform Now ☐ Perform Later - See Comments ☐ Rejected - See Comments

Activity: ☐ *Revision* ☒ *Minor Revision* (See DC-GDL01 for guidance) ☐ Cleanup Rev ☐ Biennial Review ☐ Cancellation ☒ Supersedure

☐ TPC ☐ OTC ☐ Place in VOID   ☐ Edit Corr.:⇒ ______ Plant Mngt Staff Member - Approval

Comments:

RI/DPC Print Name and Date   Continued ☐

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Reviews		Print	Sign	Date	SQR Qualified Yes	SQR Qualified No	SQR Qualified Dept.	✔ if Comments
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RCD	☒	KR Burgess	KRBurgess	12/1/00			EPSD	
Independent	☒	KR Burgess	KRBurgess	12/4/00	☒	☐	EPSD	

G

Safety Evaluation Required ☐ Yes ☒ No   **Environmental Review Required** ☐ Yes ☒ No

H

1. ☒ **SQR Program Final Review and Approval**

Approval ☒ Disapproval ☐

KRBurgess 12/4/00
SQR Qualified Independent Reviewer / Date

Paul G. Blasioli
Department Head/Responsible Individual

12/11/00
Approval Date

2. ☐ **SORC/PORC/RI/DH Final Review and Approval**

Department Head/Responsible Individual / Date

Meeting No.:

Approval Signature

Approval Date

I

Effective Date: 12/21/00