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Waterford 3

W3F1-2003-0045
A4.05
PR

June 12, 2003

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

Subject: Waterford 3 SES
Docket No. 50-382
License No. NPF-38
Emergency Plan Implementing Procedures

Gentlemen:

In accordance with Appendix E of 10CFR50 and 10CFR50.4(b)(5), Entergy is submitting a revision and changes to Waterford 3 Emergency Plan Implementing Procedures. These revised and changed procedures were reviewed in accordance with 10CFR50.54(q) requirements and were determined not to decrease the effectiveness of the Emergency Plan.

The following procedures are included in this submittal:

1. EP-002-051 (Revision 10), Offsite Dose Assessment (Computerized). This revision added a NOTE to address the current Condenser Vacuum Pump flow rates.
2. EP-002-061 (Revision 9, Change 2), Emergency Environmental Monitoring. This change deleted reference to Health Physics (HP) procedures HP-002-351 and HP-002-353 because HP no longer uses the manual reader and the automatic reader operation information is contained in HP-001-221. Added HP-001-221 to reference section. Deleted attachments (7.5-7.8) that are duplicates of the information contained in the Offsite Dose Calculation Manual (ODCM) (UNT-005-014) to prevent information discrepancies.
3. EP-003-040 (Revision 22, Change 2), Emergency Equipment Inventory. This change deleted reference to attachments (7.5-7.8) from EP-002-061, Emergency Environmental Monitoring, that are duplicates of the information contained in the ODCM (UNT-005-014) to prevent information discrepancies.

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This letter does not contain any commitments. Should you have any questions concerning these procedures, please contact J.J. Lewis, Emergency Planning Manager, at (504) 739-6624.

Very truly yours,



K.J. Peters

Director, Nuclear Safety Assurance

KJP/GCS/ssf

Attachments:

EP-002-051, Revision 10

EP-002-061, Revision 9, Change 2

EP-003-040, Revision 22, Change 2

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cc:

(w/Attachments)

Emergency Response Coordinator, NRC Region IV

Senior EP Inspector – DRS, NRC Region IV

(w/o Attachments)

N. Kalyanam (NRC-NRR)

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**ATTACHMENTS TO
W3F1-2003-0045**

**EP-002-051, Revision 10
(Offsite Dose Assessment (Computerized))**

**EP-002-061, Revision 9, Change 2
(Emergency Environmental Monitoring)**

**EP-003-040, Revision 22, Change 2
(Emergency Equipment Inventory)**

REQUEST/APPROVAL PAGE

SAFETY RELATED

Required Review Level (check one)



PORC



QUALIFIED REVIEWER

PROCEDURE NUMBER: EP-002-051 REVISION: 10 CHANGE: 0 DEVIATION: N/ATITLE: Offsite Dose Assessment (Computerized)EFFECTIVE DATE/MILESTONE: N/A

(N/A if Same as Approval Date)

PROCEDURE OWNER: Emergency Planning Manager

(Position Title)

PREPARER (Print Name / Initial): Marc Van Der Horst 1 mcv DATE: 4/29/03

ACTION:



New Procedure



Deletion



Revision



Change

EC? ☐

N/A

(Applicable W2.109 Step Numbers)



Deviation

Expiration Date/Milestone: N/A

Temporary Procedure

Applicable Conditions: N/A

DESCRIPTION AND JUSTIFICATION OF CHANGE: NOTE added to address the current Condenser Vacuum Pump flow rates.

☐ Request/Approval Page Continuation Sheet(s) attached.EC SUPERVISOR APPROVAL: N/A DATE: 50.59 REVIEWER Required? ☐ REVIEW: N/A DATE: ☒ PROGRAMMATICALLY EXCLUDED PORC Mtg. No.: 03-003 DATE: 50.54 REVIEWER Required? ☐ REVIEW: Ricky Dube DATE: 5/5/03TECHNICAL REVIEWER REVIEW: Ricky Dube DATE: 5/5/03Change Notice (CN)? ☐CHANGE NOTICE (CN) SUPERVISOR APPROVAL: N/A DATE: CHANGE NOTICE (CN) ON-SHIFT SM/CRS APPROVAL: N/A DATE:

2 Week Final Approval

QUALIFIED REVIEWER Required? ☒ REVIEW: G.S. Kennedy DATE: 5/15/03GROUP/DEPT. HEAD REVIEW ☐ or APPROVAL ☒ 2nd Kennedy DATE: 6/3/03GM, PLANT OPERATIONS REVIEW ☐ or APPROVAL ☐ N/A DATE: VICE PRESIDENT, OPERATIONS APPROVAL: N/A DATE:

W2.109, Rev. 4

CONTROLLEDCOPY No. FEK

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Revision 10

Informational Use

1.0 PURPOSE

NOTE

Control Room personnel use Attachment 7.1 of EP-002-050 (either Personal Computer or Nomogram drawing section) to estimate offsite doses. This is a very conservative method and should only be used by Control Room personnel in the initial stages of an event.

- 1.1 To provide a method for projecting offsite doses following a major accidental release of radioactive material, for recommending offsite protective actions, and for long-term continuous updating of the offsite doses using the dose assessment computer program.

2.0 REFERENCES

- 2.1 EP-002-050, Offsite Dose Assessment (Manual)
- 2.2 Waterford 3 Final Safety Analysis Report (FSAR)
- 2.3 Waterford 3 Environmental Report (ER)

3.0 RESPONSIBILITIES

- 3.1 The Radiological Assessment Coordinator, Dose Assessment Coordinator, Field Team Controller, or Health Physics Coordinator is responsible for implementing this procedure.

4.0 INITIATING CONDITIONS

4.1 Any of the following emergencies has been declared:

4.1.1 Alert

4.1.2 Site Area Emergency

4.1.3 General Emergency

AND

4.1.4 A release of radioactive material to the atmosphere has occurred or has the potential to occur.

4.2 As determined by the Radiological Assessment Coordinator, Dose Assessment Coordinator, EOF Director, Field Team Controller or Health Physics Coordinator or the Emergency Coordinator.

5.0 PROCEDURE

NOTE

A weather forecast should be obtained for the next 12 hours in accordance with the methods in Attachment 7.6 of EP-002-050. Obtain forecasts periodically, thereafter, on a frequency determined by the Health Physics Coordinator/Radiological Assessment Coordinator.

5.1 Equipment Startup

5.1.1 Turn on the Computer.

5.1.2 Turn on the Monitor.

5.1.3 Turn on the Printer.

5.1.4 Prior to entering the dose assessment program, verify the system will display the following prompt:

5.1.4.1 Is the Printer Available (Y/N)?

5.1.5 Respond to the prompt as follows:

A. If the printer is available, then type 'Y' (There is no need to press 'Enter') and the system will run the dose assessment program with the printer functions enabled.

OR

B. If the printer is not available, then type "N"or, press the ENTER key and the system will run the dose assessment program without enabling the printer functions.

5.2 Dose Assessment

5.2.1 Perform computerized dose assessment in accordance with the following steps:

5.2.1.1 Obtain 15 minute-averaged meteorological data from the PMC Satellite Display System (SDS) terminals by selecting NSSS from the menu screen.

A. Select ERFS mimic display, then select "MARMOND1".

- B. Meteorological data from the back-up tower should be used only if the required information is not available from the primary tower. If data from neither tower is available, then contact the National Weather Service in accordance with EP-002-050, Attachment 7.6.
- C. Meteorological data can also be obtained from the PMC group "Group Display METDATA". Use 15-minute averaged meteorological data, when available. If 15-minute averaged data is not available, then use instantaneous values.

5.2.1.2 Use the PMC Satellite Display System (SDS) terminal to obtain Radiation Monitoring Data by selecting NSSS.

- A. Select ERFS mimic display, then select "MARMOND2".

NOTE

For Condenser Vacuum Pump flow rates, use the following:

1. There are three (3) Condenser Vacuum Pumps, each with a maximum design flow rate of 70 cfm, and the exhaustor fan flow rate is 1500 cfm.
2. Normal operation is two (2) pumps running + exhaustor fan = 1,640 cfm.
3. Three (3) pumps running + exhaustor fan = 1,710 cfm

5.2.2 Perform the dose assessment program by responding to the display prompts and pressing the 'ENTER' key after each of the following response.

- 5.2.2.1 Select the appropriate Emergency Dose Calculations.
- 5.2.2.2 Enter your name.
- 5.2.2.3 Enter the date.
- 5.2.2.4 Enter the time.
- 5.2.2.5 Enter the appropriate Meteorological Data (wind speed, wind direction and temperature differential).
- 5.2.2.6 Enter the exposure duration in hours.
- 5.2.2.7 Select the appropriate dose projections based on plant monitoring data.

NOTE

Cladding Barrier Failure may exist if any of the following are met. This information is normally obtained from the Engineers.

Chemistry results indicate > 300 uCi/ml Dose Equivalent I-131?

OR

Has the level in the upper plenum, as measured by the RVLMS, been equal to 0%?

OR

Have the CET (Core Exit Thermocouple) temperatures exceeded 700° F?

OR

Do Containment dose rates indicate "Initial Clad Failure" (See EP-002-090)?

5.2.2.8 Select the appropriate Cladding Barrier Status.

5.2.3 The following display prompt may appear during the operation of the program:

C:\DOSECODE >

5.2.3.1 This prompt indicates that the computer has exited the dose assessment program and returned to the operating system.

5.2.3.2 To restart the dose assessment program from this point, type GOCODE.

5.2.3.3 If the dose assessment program does not run when GOCODE is entered, then proceed with one of the following:

A. Insert a dose assessment program backup disk into the disk drive slot on the front of the computer and perform the following.

- Type "A:\".
- At the "A" prompt, type "cd dosecode". At the "A:\dosecode" prompt, type "gocode".
- Proceed in accordance with steps 5.1.4 and 5.2.2 above.

OR

B. Insert a dose assessment program backup disk into the disk drive slot on the front of the computer and perform the following:

- From Windows, open File Manager.
- In the Dosecode directory, double click on "gocode.bat".
- Proceed in accordance with steps 5.1.4 and 5.2.2 above.

OR

5.2.3.4 If unable to proceed in accordance with steps 5.1.4 and 5.2.2, then the manual methods of dose assessment must be initiated.

5.2.4 When there is a significant change in the monitor reading ($\pm 20\%$ of instrument decade) or wind speed (next tabulated value in Attachment 7.6 of EP-002-050) or wind direction $\pm 5^\circ$ or a change in stability class, then the dose projections should be revised by performing another calculation.

5.2.5 The data recorded while performing dose projections should be appropriately entered on the Dose Assessment status boards located in the TSC and EOF.

6.0 FINAL CONDITIONS

- 6.1 Releases of radioactive material to the atmosphere have been terminated or decreased below the Emergency Action Level (EAL) for an ALERT category.

OR

- 6.2 Releases are controlled and long-term monitoring program has been established.

7.0 ATTACHMENTS

None

8.0 RECORDS

None

SAFETY RELATED

Required Review Level (check one)



PORC



QUALIFIED REVIEWER

PROCEDURE NUMBER: EP-002-061 REVISION: 9 CHANGE: 2 DEVIATION: N/ATITLE: Emergency Environmental MonitoringEFFECTIVE DATE/MILESTONE: N/A

(N/A if Same as Approval Date)

PROCEDURE OWNER: Emergency Planning Manager

(Position Title)

PREPARER (Print Name / Initial): J.J. Lewis / [Signature] DATE: 04/27/03**ACTION:**☐ New Procedure☐ Deletion☐ Revision☒ ChangeEC? ☐

(Applicable W2.109 Step Numbers)

☐ Deviation

Expiration Date/Milestone: _____

☐ Temporary Procedure

Applicable Conditions: _____

DESCRIPTION AND JUSTIFICATION OF CHANGE: Delete reference to procedures HP-002-351 (automatic TLD reader operation) and HP-002-353 (manual TLD reader operation) because Health Physics no longer uses the manual reader and the automatic reader operation information is contained in HP-001-221. Add HP-001-221 to reference section. Delete attachments (7.5-7.8) that are duplicates of the information contained in the ODCM (UNT-005-014) to prevent information discrepancies.

☐ Request/Approval Page Continuation Sheet(s) attached.

EC SUPERVISOR

APPROVAL:

N/ADATE: N/A

50.59 REVIEWER

Required? ☐

REVIEW:

N/ADATE: N/A☒ PROGRAMMATICALLY EXCLUDED

PORC Mtg. No.:

03-003

DATE: _____

50.54 REVIEWER

Required? ☒

REVIEW:

[Signature]DATE: 4-30-03

TECHNICAL REVIEWER

REVIEW:

[Signature]DATE: 4-30-03Change Notice (CN)? ☐

CHANGE NOTICE (CN) SUPERVISOR

APPROVAL:

N/ADATE: N/A

CHANGE NOTICE (CN) ON-SHIFT SM/CRS

APPROVAL:

N/ADATE: N/A

2 Week Final Approval

DATE: N/A

QUALIFIED REVIEWER

Required? ☒

REVIEW:

[Signature]DATE: 5/15/03

GROUP/DEPT. HEAD

REVIEW ☐ or APPROVAL ☒[Signature]DATE: 5/28/03

GM, PLANT OPERATIONS

REVIEW ☐ or APPROVAL ☐N/ADATE: N/A

VICE PRESIDENT, OPERATIONS

APPROVAL:

N/ADATE: N/A**CONTROLLED**

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Informational Use

LIST OF EFFECTIVE PAGES

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| 1-13,23-27 | Revision 9 |
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| 19-22,29,30 | Revision 7 |
| 14,17,18 | Revision 6 |
| 1, 2, 3, 9, 13, 19-30 | Change 2 |

1.0 PURPOSE

- 1.1 This procedure provides the instructions for environmental monitoring during and after a radiological emergency at Waterford 3. It is designed to be used in conjunction with EP-002-060.

2.0 REFERENCES

- 2.1 CE-003-526, Collection and Preparation of REMP Liquid Samples
- 2.2 CE-003-527, Collection and Preparation of Milk Samples
- 2.3 CE-003-528, Collection and Preparation of Sediment Samples
- 2.4 CE-003-529, Collection and Preparation of Vegetation Samples
- 2.5 CE-003-530, Collection and Preparation of Fish Samples
- 2.6 CE-003-531, Collection and Preparation of REMP Air Samples
- 2.7 CE-003-532, Preparation and Distribution of REMP Thermoluminescent Dosimeters
- 2.8 CE-003-533, REMP Sample Scheduling, Recording and Shipping
- 2.9 UNT-005-014, Offsite Dose Calculation Manual
- 2.10 EP-002-050, Offsite Dose Assessment (Manual)
- 2.11 EP-002-060, Radiological Field Monitoring
- ~~2.12 HP-002-351, Operation of the Panasonic Automatic TLD Reader UD-710A~~
- ~~2.13 HP-002-353, Operation of the Panasonic Manual TLD Reader UD-702E~~
- 2.12 HP-001-221, TLD Receipt, Processing and Exposure Report Generation

3.0 RESPONSIBILITIES

- 3.1 The Health Physics Coordinator (HPC)/Radiological Assessment Coordinator (RAC) are responsible for ensuring the implementation of this procedure.
- 3.2 The TSC Dose Assessment Coordinator (DAC)/EOF Field Team Controller and field monitoring teams are responsible for implementing this procedure.

5.4.4.2 Direct Radiation Readings (TLD)

NOTE

There are two TLDs at each REMP TLD location, change out only one of the two TLDs at affected areas.

- A. Change out routine (REMP) TLDs in affected areas in accordance with the appropriate section of CE-003-532.
- B. Set out additional TLDs at locations of interest in accordance with CE-003-532.
- C. TLDs collected in emergency situations will be analyzed in accordance with the appropriate sections of ~~HP-002-351 or HP-002-353~~ HP-001-221.

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5.4.4.3 Vegetation Sampling

- A. Sample Size: Grass - 0.5 to 1.0 kilogram (approximately 1 to 2 pounds) Broad-leafed Vegetation - 0.5 to 1.0 kilogram (approximately 1 to 2 pounds) Food Products - 1.0 kilogram (approximately 2 pounds)
- B. REMP vegetation samples (grass, broad-leafed vegetation and food products) should be collected in emergency situations in accordance with CE-003-529.
- C. Additional vegetation samples should be collected at locations of interest in accordance with CE-003-529.

6.0 FINAL CONDITIONS

Emergency condition is terminated and all samples have been collected.

7.0 ATTACHMENT

- 7.1 Emergency Survey Points (Map) - 914 Meter Exclusion Area Boundary
- 7.2 Emergency Survey Points (Description) - 914 Meter Exclusion Area Boundary
- 7.3 Emergency Planning Zone (Map) - 10 Miles
- 7.4 Emergency Survey Points (Description) - 10 Miles
- ~~7.5 REMP Sample Location Table (Description)~~
- ~~7.6 REMP Sample Locations Within 2 Miles of Waterford 3 (Map)~~
- ~~7.7 REMP Sample Locations Within 10 Miles of Waterford 3 (Map)~~
- ~~7.8 REMP Sample Locations Within 50 Miles of Waterford 3 (Map)~~

8.0 RECORDS

None

**EMERGENCY SURVEY POINTS
- (10 MILES)**

The following table lists and describes the location of each of the Emergency Survey (monitoring) Points. During emergencies the appropriate survey (monitoring) points will be used to key the Field Monitoring Teams to specific locations downwind from the site. At the monitoring point the team(s) will obtain dose rates air samples and any additional samples as requested by the Health Physics Coordinator or Radiological Assessment Coordinator.

| LOCATION | * CORRESPONDING REMP LOCATION | DESCRIPTION | COORDINATES WITH REFERENCE TO WATERFORD 3 |
|-----------------|----------------------------------|---|---|
| A-3 (East Bank) | NONE | River Road (Hwy. 628) at Parish Line | 2.53 miles 5 degrees |
| A-4 (East Bank) | NONE | Intersection of River Road (Hwy. 628) and Miya Lane | 3.62 miles 359 degrees |
| A-5 (East Bank) | NONE | Intersection of Hwy. 61 and Hwy. 51 | 4.91 miles 355 degrees |
| B-1 (East Bank) | B-1 | River Road (Hwy. 628) at fence enclosing high line tower next to Little Gypsy | .87 miles 20 degrees |
| B-2 (East Bank) | NONE | Intersection of Evangeline Road and River Road (Hwy. 628) | 1.29 miles 12 degrees |
| B-3 (East Bank) | NONE | Evangeline Road at first railroad track from River Road (Hwy. 628) (2nd railroad track when traveling from Hwy. 61) | 2.48 miles 27 degrees |
| B-4 (East Bank) | NONE | Intersection of Evangeline Road and Hwy. 61 | 3.64 miles 30 degrees |
| B-7 (East Bank) | NONE | Hwy. 51 at Interstate 10 | 6.71 miles 16 degrees |
| C-1 (East Bank) | C-1, APC-1 | Little Gypsy Intake Structure (across from entrance to Little Gypsy) | .80 miles 38 degrees |
| C-3 (East Bank) | NONE | Hwy. 628 (Montz Road) at first railroad track, when traveling from the River Road to Hwy. 61 (2nd railroad track when traveling from Hwy. 61) | 2.28 miles 37 degrees |
| C-4 (East Bank) | NONE | Hwy. 61 at Hwy. 628 (Montz Road) | 3.59 miles 37 degrees |
| D-2 (East Bank) | NONE | St. Charles Parish Road 12 (Spillway Road) at Hwy. 628 (Montz Road) | 1.23 miles 58 degrees |

* Note - Corresponding REMP locations may not be located at the exact location as the Emergency Monitoring Point, but are listed here if they are very near to the Emergency Monitoring Point. ~~See Attachment 7.5 for a description of the REMP location.~~

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**EMERGENCY SURVEY POINTS
(10 MILES)**

| LOCATION | *CORRESPONDING REMP LOCATION | DESCRIPTION | COORDINATES WITH REFERENCE TO WATERFORD 3 |
|------------------|---------------------------------|---|---|
| D-5 (East Bank) | D-5 | Intersection of Hwy. 48 (Apple Street) and Hwy. 61 | 4.13 miles 70 degrees |
| E-3 (East Bank) | NONE | Levee off River Road (Hwy. 48) opposite Shell Norco Chemical Plant (where pipeline crosses levee near east side of Bonnet Carré Spillway) | 2.58 miles 84 degrees |
| E-4 (East Bank) | NONE | Intersection of Apple Street (Hwy. 48) and River Road | 3.49 miles 88 degrees |
| E-5 (East Bank) | NONE | Intersection of River Road (Hwy. 48) and Hwy. 627 (Prospect Ave.) | 4.19 miles 94 degrees |
| E-7 (East Bank) | NONE | Intersection of Hwy. 61 and Ormond Blvd. | 6.52 miles 94 degrees |
| F-2 (West Bank) | NONE | Intersection of River Road (Hwy. 18) and Hwy. 3142 | 1.16 miles 101 degrees |
| F-4 (West Bank) | NONE | Intersection of River Road (Hwy. 18) and Hwy. 3160 | 4.18 miles 111 degrees |
| F-5 (West Bank) | NONE | River Road (Hwy. 18) at St. Charles Parish Courthouse | 4.47 miles 118 degrees |
| F-6 (East Bank) | NONE | Intersection of Ormond Blvd. and River Road (Hwy. 48) (4-lane road with brick entrance to subdivision that reads "Ormond Estates") | 5.59 miles 118 degrees |
| F-7 (East Bank) | NONE | Levee off River Road (Hwy. 48) at Luling-Destrehan Bridge | 6.83 miles 119 degrees |
| F-10 (East Bank) | NONE | Intersection of Hwy. 626 (St. Rose Avenue) and River Road (Hwy. 48) | 9.85 miles 110 degrees |
| G-2 (West Bank) | NONE | Hwy. 3142 at Railroad Bridge | 1.39 miles 141 degrees |
| G-4 (West Bank) | G-4 | Hwy. 3160 at Railroad Crossing | 3.23 miles 131 degrees |

* Note - Corresponding REMP locations may not be located at the exact location as the Emergency Monitoring Point, but are listed here if they are very near to the Emergency Monitoring Point. See Attachment 7.5 for a description of the REMP location.

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**EMERGENCY SURVEY POINTS
(10 MILES)**

| LOCATION | * CORRESPONDING REMP LOCATION | DESCRIPTION | COORDINATES WITH REFERENCE TO WATERFORD 3 |
|-------------------|----------------------------------|--|---|
| G-7 (West Bank) | NONE | River Road (Hwy. 18) at Luling-Destrehan Bridge | 6.89 miles 125 degrees |
| G-8 (West Bank) | NONE | First Pentecostal Church on west side of Hwy. 52 between River Road (Hwy. 18) and Boutte northern town limits | 7.73 miles 136 degrees |
| G-9 (West Bank) | NONE | Entrance to Monsanto at traffic light on Hwy. 90 | 8.99 miles 131 degrees |
| G-10 (West Bank) | NONE | Intersection of Barton Avenue (Hwy. 3060) and Hwy. 90 | 9.44 miles 127 degrees |
| H-2 (West Bank) | NONE | Intersection of Hwy. 3127 and Hwy. 3142 | 1.84 miles 159 degrees |
| H-9 (West Bank) | NONE | Intersection of Hwy. 3127 and Hwy. 90 at traffic light | 8.16 miles 148 degrees |
| J-2 (West Bank) + | NONE | Hwy. 3127, .8 miles west from intersection of Hwy. 3127 and Hwy. 3142 | 1.26 miles 180 degrees |
| K-2 (West Bank) + | NONE | Hwy. 3127, 1.2 miles west from intersection of Hwy. 3127 and Hwy. 3142 (.4 miles west of J-2) | 1.08 miles 197 degrees |
| L-2 (West Bank) + | NONE | Hwy. 3127, 1.7 miles west from intersection of Hwy. 3127 and Hwy. 3142 (½ mile west of K-2) | 1.05 miles 224 degrees |
| M-2 (West Bank) + | NONE | Hwy. 3127, 2.2 miles west from intersection of Hwy. 3127 and Hwy. 3142 (½ mile west of L-2) | 1.24 miles 248 degrees |
| N-1 (West Bank) | N-1 | Old Killona Elementary School - take Post Street (first paved road west of Waterford 3) off River Road (Hwy. 18) to first left (Short Street), to old school building | .94 miles 276 degrees |

* Note - Corresponding REMP locations may not be located at the exact location as the Emergency Monitoring Point, but are listed here if they are very near to the Emergency Monitoring Point. See Attachment 7.6 for a description of the REMP location.

+ Locations marked by signs on South side of Hwy. 3127.

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**EMERGENCY SURVEY POINTS
(10 MILES)**

| LOCATION | * CORRESPONDING REMP LOCATION | DESCRIPTION | COORDINATES WITH REFERENCE TO WATERFORD 3 |
|------------------|----------------------------------|--|---|
| N-2 (West Bank) | NONE | Intersection of Hwy. 3127 and Hwy. 3141 | 1.55 miles 263 degrees |
| P-2 (West Bank) | NONE | Hwy. 3141 at railroad track | 1.24 miles 283 degrees |
| P-6 (West Bank) | NONE | Intersection of Hwy. 640 and Hwy. 3127 | 5.46 miles 286 degrees |
| P-10 (East Bank) | NONE | Intersection of River Road (Hwy. 44) and Hwy. 54 in Garyville | 9.30 miles 290 degrees |
| Q-2 (West Bank) | NONE | Intersection of River Road (Hwy. 18) and Hwy. 3141 | 1.05 miles 317 degrees |
| Q-3 (West Bank) | NONE | River Road (Hwy. 18) at Trailer Park entrance (1.2 miles west of intersection at Hwy. 3141) | 2.21 miles 322 degrees |
| Q-5 (West Bank) | NONE | Intersection of River Road (Hwy. 18) and Gold Mine Plantation Road | 4.43 miles 320 degrees |
| Q-7 (East Bank) | NONE | Intersection of River Road (Hwy. 44) and Hwy. 53 | 6.29 miles 310 degrees |
| Q-9 (East Bank) | NONE | Intersection of Hwy. 61 and Hwy. 637 | 7.97 miles 316 degrees |
| R-3 (West Bank) | NONE | River Road (Hwy. 18) at Parish line | 2.78 miles 330 degrees |
| R-4 (West Bank) | NONE | Intersection of River Road (Hwy. 18) and E. Fourteenth Street | 3.71 miles 342 degrees |
| R-5 (East Bank) | NONE | Intersection of River Road (Hwy. 628) and Fir Street | 4.85 miles 341 degrees |
| R-6 (East Bank) | R-6 | Intersection of Hwy. 61 and Elm Street (Hwy. 3223) | 5.77 miles 341 degrees |

* Note - Corresponding REMP locations may not be located at the exact location as the Emergency Monitoring Point, but are listed here if they are very near to the Emergency Monitoring Point. ~~See Attachment 7.5 for a description of the REMP location.~~

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REMP SAMPLE LOCATION TABLE

| LOCATION NUMBER | LOCATION DESCRIPTION | MILES FROM PLANT | SECTOR DIRECTION |
|--------------------------------------|---|---------------------|---------------------|
| <u>DIRECT RADIATION (TLD)</u> | | | |
| A-2 | (Eastbank) located on a utility pole on River Road (LA 628) at the south corner of the Zephrian L. Perilloux Fire Station (Station 5) in Montz, LA. | 1.1 | N |
| B-1 | (Eastbank) On fence enclosing the transmission tower 0.3 miles west (up-river) from Little Gypsy. Access from River Road (LA 628). TLDs are located at SW corner of fence enclosure. | 0.8 | NNE |
| C-1 | (Eastbank) On fence enclosing the Little Gypsy Cooling Water Intake. Access is from River Road (LA 628) across from Little Gypsy Power Station entrance. TLDs are on the south side (inside) of the Cooling Water Intake fence enclosure, directly opposite the entrance gate. | 0.8 | NE |
| D-2 | (Eastbank) Located approximately 0.3 miles east of Little Gypsy Power Station. Access from River Road (LA 628) near the west end of the Bonnet Carre Spillway. TLDs are attached to a stop sign post located at the peak of the levee on the west entrance road through the Bonne Carre spillway. | 1.1 | ENE |
| E-1 | (Westbank) Located on utility pole along River Road (LA 18) approximately 0.3 miles east of Waterford 3 plant entrance. Access from LA 18. TLDs are on the third utility pole east of the construction entrance road. | 0.2 | E |
| F-2 | (Westbank) Located on fence enclosure surrounding the Entergy substation on LA 3142. Access from LA 3142 approximately 0.2 miles south of LA 18. TLDs are on the southeast corner of the fence enclosure. | 1.1 | ESE |
| G-2 | (Westbank) Located on fence near utility pole on East side of LA 3142 (Next to Union Carbide Star Plant Gate 3). Access from LA 3142 approximately 0.2 miles north of railroad overpass. | 1.2 | SE |
| H-2 | (Westbank) Located on fence enclosure to shell road off of LA 3142. Access from LA 3142 south of railroad overpass on east side of LA 3142. TLDs are on the south side of the gate for shell road. (Just south of Texaco pipeline station). | 1.2 | SSE |
| J-2 | (Westbank) Located on northeast corner of fence enclosing Texaco valve station south of LA 3127. Access from LA 3127, approximately 0.6 miles west of LA 3127/3142 intersection. | 1.3 | S |

REMP SAMPLE LOCATION TABLE

| LOCATION NUMBER | LOCATION DESCRIPTION | MILES FROM PLANT | SECTOR DIRECTION |
|-----------------|---|------------------|------------------|
| K-1 | (Westbank) Located on fence at Gate 92 entrance off of LA 3127. Access from LA 3127, approximately 1.3 miles west of LA 3127/3142 inter-section. (Gate 92 is the access to the Waterford 3 switchyard station and Training Center.) | 1.0 | SSW |
| L-1 | (Westbank) Located next to "Private Road" sign at Gate 97 entrance off of LA 3127, approximately 1.6 miles west of LA 3127/3142 intersection. (Gate 97 is an access road for Waterford 3.) | 1.0 | SW |
| M-1 | (Westbank) Located on south gate of the Waterford 1 and 2 fuel oil storage tank enclosure. Access is either thru Entergy -Gate 92, Gate 97 off of LA 3127, the shell access road from LA 18 between Waterford 3, or thru the Waterford 1 and 2 access road. | 0.7 | WSW |
| N-1 | (Westbank) Located behind the "No Trespassing" sign off Short Street, in Killona, just south of the Killona Elementary School. | 0.9 | W |
| P-1 | (Westbank) Located on Short Street. TLD is inside fence at air sample station APP-1. | 0.8 | WNW |
| Q-1 | (Westbank) Located on fence enclosing air sample station approximately 0.5 miles west of Waterford 1 and 2 on River Road (LA 18). | 0.8 | NW |
| R-1 | (Westbank) Located on fence enclosure for Waterford 1 and 2 Cooling Water Intake Structure. Access is from River Road (LA 18) opposite Waterford 1 and 2. TLDs are on the southwest corner of fence. | 0.5 | NNW |
| A-5 | (Eastbank) Located on utility pole just east of the Shady Nook Trailer Park on Hwy. 61 in LaPlace. TLDs are on second utility pole east of trailer park on north side of Hwy. 61 (eastern end of LaPlace). | 4.6 | N |
| B-4 | (Eastbank) Located on utility pole guidewire west of shell access road to South Central Bell transmission tower on south side of Hwy. 61. Transmission tower is just east of Weigh Station at St. John/St. Charles Parish line. TLDs are on first utility pole west of access road. | 3.8 | NNE |

REMP SAMPLE LOCATION TABLE

| LOCATION NUMBER | LOCATION DESCRIPTION | MILES FROM PLANT | SECTOR DIRECTION |
|--------------------|---|---------------------|---------------------|
| D-5 | (Eastbank) Located on fence gate on shell access road to Big 3 Chemical Plant. Shell access road is approximately 0.1 miles west of Hwy. 61/48 intersection (at black and yellow gate). TLDs are on fence gate 0.1 miles north on shell access road from Hwy. 61. | 4.2 | ENE |
| E-5 | (Eastbank) Located on the Norco Substation fence enclosure. Access from River Road (LA 48) onto Wesco St. (adjacent to Norco Shell Chemical Plant), take Wesco St. to the dead end. TLDs are located on the sixth fence post south of the north substation gate. | 4.2 | E |
| F-4 | (Westbank) Located on utility pole behind blonde brick house on Aquarius St. in Hahnville. Access from River Road (LA 18) and turn onto Oak St. Follow Oak St. to Hickory St., turn right on Hickory St. and follow to Aquarius St. and turn left. Blonde brick house is second house on right (west) side of Aquarius St. heading south. | 3.5 | ESE |
| G-4 | (Westbank) Located on railroad sign northwest side of LA 3160/railroad track intersection. Access from either LA 3127 or River Road (LA 18) onto LA 3160. | 3.2 | SE |
| H-6 | (Westbank) Located on a road sign on the northwest side of the second canal bridge east of LA 3160 along LA 3127. | 5.7 | SSE |
| P-6 | (Westbank) Located on fence surrounding the Union Pacific communications tower at the LA 640/railroad track intersection. Tower is located approximately 500 feet west of LA 640. | 5.5 | WNW |
| Q-5 | (Westbank) Located on fence post surrounding (green) river marker on levee just east of Edgard. Fence post is located along River Road (LA 18) across from the Webre's house. | 5.0 | NW |
| R-6 | (Eastbank) Located on fence enclosing Entergy Laydown Yard on LA 3223 in LaPlace. Access from Hwy. 61 onto Elm St. (LA 3223), take Elm St. to the northeast corner of LA 3223/railroad intersection. TLDs are located at the entrance of the southeast corner of the fence enclosure. | 5.3 | NNW |
| F-9 | (Eastbank) Located on entrance gate to Destrehan Substation. Access from River Road (LA 48), approximately 1.5 miles east of old Luling-Destrehan Bridge, onto Jonathan Street (west of Bunge Corp. Grain Elevator), and proceed to substation gate. | 8.2 | ESE |

REMP SAMPLE LOCATION TABLE

| LOCATION NUMBER | LOCATION DESCRIPTION | MILES FROM PLANT | SECTOR DIRECTION |
|--------------------|--|---------------------|---------------------|
| G-9 | (Westbank) Located on back fence of Entergy District Office in Luling. Access via Ellington St. from either River Road (LA 18); or Second or Third St. from Paul Mallaird Rd. (LA 52) to Ellington St. | 8.1 | SE |
| E-15 | (Eastbank) Located on Kenner Substation fence enclosure. Access from either River Road (LA 48) or Hwy. 61, turn onto Alliance Ave. TLDs are located on the north side of the fence enclosure, near a light pole. | 11.8 | E |
| J-15 | (Westbank) Located on fence enclosure surrounding Entergy switchyard at LA 631/Hwy. 90 intersection in Des Allemands. TLDs are on the northwest corner of fence. Access from LA 631 via shell road. | 12.0 | S |
| E-30* | (Westbank) Located at the Entergy Office on Delaronde St. in Algiers. TLDs are on a tree in the courtyard at the south entrance to the building. | 27.0 | E |
| <u>AIRBORNE</u> | | | |
| APP-1 | (Westbank) Located in soybean/sugarcane field at northwest corner of Short St. in Killona. | 0.8 | WNW |
| APQ-1 | (Westbank) Located at northwest corner of soybean/sugarcane field on east side of Killona. Access from River Road (LA 18) approximately 0.6 miles east of LA 18/3141 intersection. | 0.8 | NW |
| APG-1 | (Westbank) Located at the north side of the Secondary Meteorological Tower. | 0.5 | SE |
| APC-1 | (Eastbank) Located inside the Little Gypsy Cooling Water Intake Structure fence enclosure. | 0.8 | NE |
| APE-30* | (Westbank) Located on the roof of the Entergy Office building on Delaronde St. in Algiers. | 27.0 | E |
| <u>BROAD LEAF</u> | | | |
| BLQ-1 | (Westbank) Located between LA 18 and soybean field on eastern edge Killona, near air sample station APQ-1. | 0.8 | NW |
| BLB-1 | (Eastbank) Located at wooded area at the southwestern corner of the Entergy Little Gypsy plant along River Road. | 0.8 | NNE |

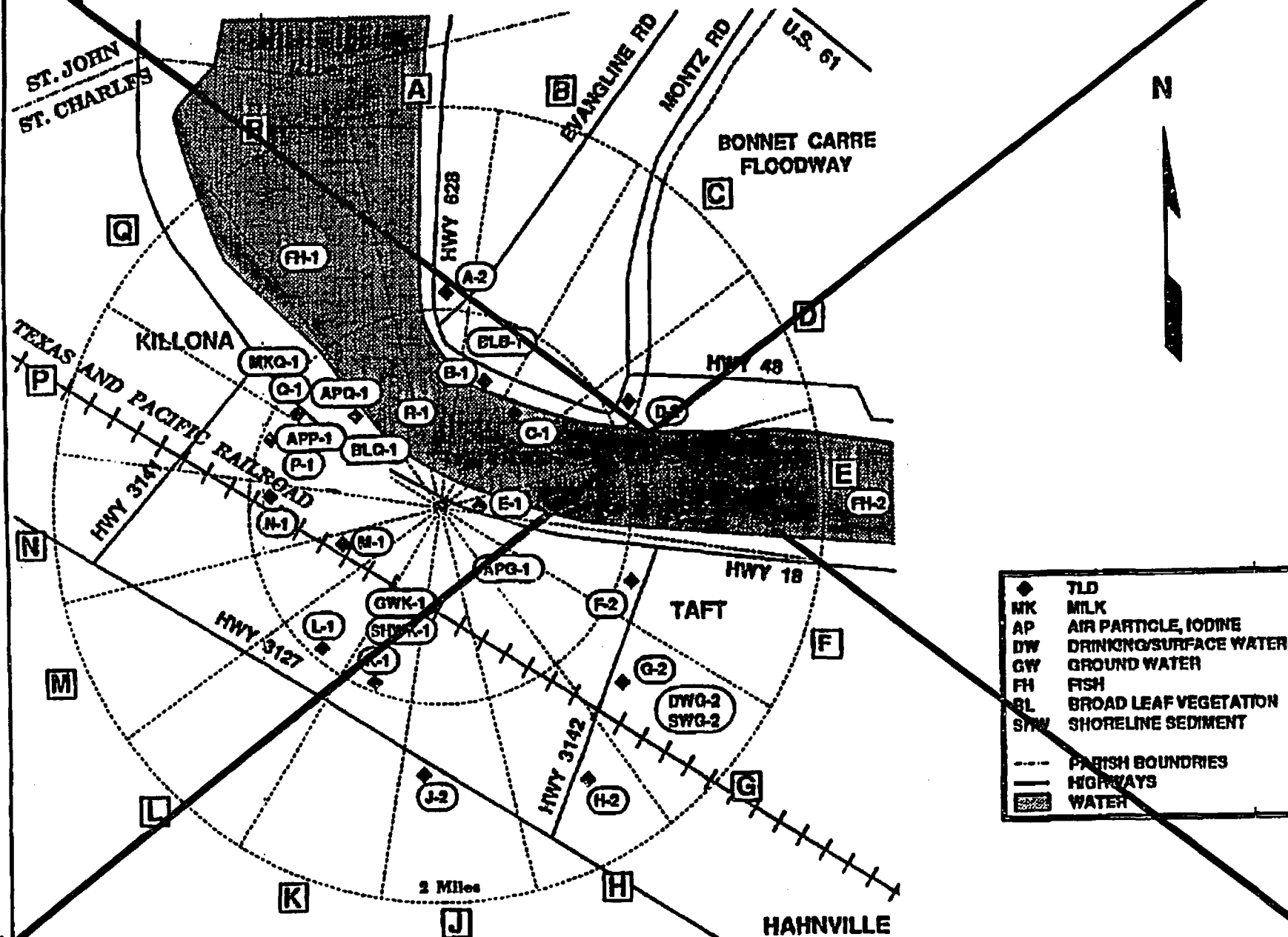
* DENOTES CONTROL LOCATIONS

REMP SAMPLE LOCATION TABLE

| LOCATION NUMBER | LOCATION DESCRIPTION | MILES FROM PLANT | SECTOR DIRECTION |
|-------------------------------|---|---------------------|---------------------|
| <u>BROAD LEAF (Continued)</u> | | | |
| BLK-15* | (Westbank) Located 3.5 miles SSW of Des Allemands on Hwy. 90. | 15.0 | SSW |
| <u>MILK</u> | | | |
| MKQ-5 | (Westbank) Located at the Webre's house, just across LA 18 from river marker, at the eastern end of Edgard. | 5.0 | NW |
| MKQ-45* | (Eastbank) Located off of I-12 in Denham Springs. Take LA 3002 South to LA 1034 then right to LA 1032. Turn left and go to farm 1 mile on the right. | 4.2 | NW |
| MKQ-1 | (Westbank) 1.0 miles west of Waterford 3 at the corner of River Road and Post Street in Killona. | 1.0 | NW |
| <u>FISH</u> | | | |
| FH-1* | Upstream of the plant intake structure. | N/A | N/A |
| FH-2 | Downstream of the plant discharge structure. | N/A | N/A |
| <u>WATERBORNE</u> | | | |
| GWK-1 | (Westbank) Located at 40 Arpent Canal south of the plant. Access from LA 3127 through Entergy Gate 92 which is at the Waterford 3 Training Center. The canal is northwest of the shell access road/railroad track intersection. | 0.5 | SSW |
| DWG-2 SWG-2 | (Westbank) Located at the Union Carbide drinking water canal. Access from LA 3142 through Gate 28. | 2.0 | SE |
| SHWE-3 | (Westbank) Located at the Foot Ferry Landing off of LA 18 in Taft. | 3.0 | E |
| SHWK-1 | (Westbank) Located at 40 Arpent Canal South of Plant. Access through Entergy Gate 92 off of LA 3127. | 0.5 | SSW |
| DWE-5 SWE-5 | (Eastbank) Located at the St. Charles Parish Waterworks off of River Road (LA 48) near New Sarpy. | 4.5 | E |
| DWP-7* SWP-7* | (Westbank) Located at the St. John Parish Waterworks off of LA 18 in Edgard. | 6.5 | WNW |

* DENOTES CONTROL LOCATIONS

REMP SAMPLES WITHIN 2 MILES OF WATERFORD 3



2



SAFETY RELATED

Required Review Level (check one)



PORC



QUALIFIED REVIEWER

PROCEDURE NUMBER: EP-003-040 REVISION: 22 CHANGE: 2 DEVIATION: N/ATITLE: Emergency Equipment InventoryEFFECTIVE DATE/MILESTONE: N/A

(N/A If Same as Approval Date)

PROCEDURE OWNER: Emergency Planning Manager

(Position Title)

PREPARER (Print Name / Initial): J.J. Lewis / [Signature] DATE: 04/22/03

ACTION:



New Procedure



Deletion



Revision



Change

EC? ☐

(Applicable W2.109 Step Numbers)



Deviation

Expiration Date/Milestone: _____



Temporary Procedure

Applicable Conditions: _____

DESCRIPTION AND JUSTIFICATION OF CHANGE: Delete reference to attachments (7.5-7.8) from EP-002-061, Emergency Environmental Monitoring that are duplicates of the information contained in the ODCM (UNT-005-014) to prevent information discrepancies.

☐ Request/Approval Page Continuation Sheet(s) attached.

| | | | | | |
|---|---|--------------------|--------------------|----------------|----------------|
| EC SUPERVISOR | APPROVAL: | <u>N/A</u> | DATE: | <u>N/A</u> | |
| 50.59 REVIEWER | Required? <input type="checkbox"/> | REVIEW: | <u>N/A</u> | DATE: | <u>N/A</u> |
| <input checked="" type="checkbox"/> PROGRAMMATICALLY EXCLUDED | PORC Mtg. No.: | <u>03-003</u> | DATE: | | |
| 50.54 REVIEWER | Required? <input checked="" type="checkbox"/> | REVIEW: | <u>[Signature]</u> | DATE: | <u>4-30-03</u> |
| TECHNICAL REVIEWER | REVIEW: | <u>[Signature]</u> | DATE: | <u>4-30-03</u> | |

| | | | | | | |
|--|-------|-----------------------------|-----------|------------------------------|-------|------------|
| Change Notice (CN)? <input type="checkbox"/> | CHANG | NOTICE (CN) SUPERVISOR | APPROVAL: | <u>N/A</u> | DATE: | <u>N/A</u> |
| | CHANG | NOTICE (CN) ON-SHIFT SM/CRS | APPROVAL: | <u>N/A</u> | DATE: | <u>N/A</u> |
| | | | | <u>2 Week Final Approval</u> | DATE: | <u>N/A</u> |

| | | | | | |
|----------------------------|---|--------------------|--------------------|----------------|----------------|
| QUALIFIED REVIEWER | Required? <input checked="" type="checkbox"/> | REVIEW: | <u>[Signature]</u> | DATE: | <u>5/15/05</u> |
| GROUP/DEPT. HEAD | REVIEW <input type="checkbox"/> or APPROVAL <input checked="" type="checkbox"/> | <u>[Signature]</u> | DATE: | <u>5/28/03</u> | |
| GM, PLANT OPERATIONS | REVIEW <input type="checkbox"/> or APPROVAL <input type="checkbox"/> | <u>N/A</u> | DATE: | <u>N/A</u> | |
| VICE PRESIDENT, OPERATIONS | APPROVAL: | <u>N/A</u> | DATE: | <u>N/A</u> | |

CONTROLLED

LIST OF EFFECTIVE PAGES

| | | |
|---------------|-----------------------|---|
| 1, 4-6, 29-32 | Revision 22 | 1 |
| 2, 3 | Revision 22, Change 1 | |
| 7-9 | Revision 21 | |
| 10-13 | Revision 20 | |
| 21,22 | Revision 19 | |
| 23 | Revision 17, Change 1 | 1 |
| 14-18, 33 | Revision 17 | |
| 24-27 | Revision 16 | |
| 19, 20 | Revision 14 | |
| 28 | Revision 11 | |
| 2, 10, 30 | Change 2 | 2 |

INVENTORY CHECKLIST

INVENTORY

RESPONSIBILITY

HP Supervisor

DESCRIPTION: Field Monitoring Kits A B C (Circle One)

LOCATION: Backup OSC - Admin. Bldg. Projection Room

| ITEM DESCRIPTION | MINIMUM REQUIRED | CURRENT QUANTITY | TAG NUMBER | CALIBRATION DUE DATE | CONDITION SAT/UNSAT | COMMENTS |
|-------------------------------------|---------------------|---------------------|----------------|-------------------------|------------------------|----------|
| EP-002-032 Rev. | 1 | | N/A | N/A | | |
| EP-002-033 Rev. | 1 | | N/A | N/A | | |
| EP-002-060 Rev. | 1 | | N/A | N/A | | |
| EP-002-061 Rev. | 1 | | N/A | N/A | | |
| CE-003-526 Rev. | 1 | | N/A | N/A | | |
| CE-003-528 Rev. | 1 | | N/A | N/A | | |
| CE-003-529 Rev. | 1 | | N/A | N/A | | |
| CE-003-533 Rev. | 1 | | N/A | N/A | | |
| HP Log Sheet | 10 | | N/A | N/A | | |
| EP-002-060 Att. 7.10 Rev. | 3 | | N/A | N/A | | |
| EP-002-060 Att. 7.9 Rev. | 3 | | N/A | N/A | | |
| EP-002-060 Att. 7.2 Rev. | 3 | | N/A | N/A | | |
| EP-002-060 Att. 7.5 Rev. | 3 | | N/A | N/A | | |
| EP-002-060 Att. 7.8 Rev. | 1 | | N/A | N/A | | |
| EP-002-060 Att. 7.7 Rev. | 10 | | N/A | N/A | | |
| EP-002-061 Att. 7.2 Rev. | 1 | | N/A | N/A | | |
| EP-002-061 Att. 7.4 Rev. | 1 | | N/A | N/A | | |
| EP-002-061 Att. 7.5 Rev. | 1 | | N/A | N/A | | |
| EP-002-061 Att. 7.6 Rev. | 1 | | N/A | N/A | | |
| EP-002-061 Att. 7.7 Rev. | 1 | | N/A | N/A | | |
| EP-002-061 Att. 7.8 Rev. | 1 | | N/A | N/A | | |

2

cc: W-3 Records Center - Original

EP-003-040 Revision 20

Attachment 7.2 (1 of 4)

INVENTORY CHECKLIST

INVENTORY

DESCRIPTION:

Onsite Monitoring Kit

RESPONSIBILITY

HP Supervisor

LOCATION:

Maintenance Support Building (MSB) - OSC Storage Room

| ITEM DESCRIPTION | MINIMUM REQUIRED | CURRENT QUANTITY | TAG NUMBER | CALIBRATION DUE DATE | CONDITION SAT/UNSAT | COMMENTS |
|---|---------------------|---------------------|---------------|-------------------------|------------------------|----------|
| EP-002-061 Att. 7.5 Rev. | 1 | | N/A | N/A | | |
| EP-002-061 Att. 7.6 Rev. | 1 | | N/A | N/A | | |
| EP-002-061 Att. 7.7 Rev. | 1 | | N/A | N/A | | |
| EP-002-061 Att. 7.8 Rev. | 1 | | N/A | N/A | | |
| CE-003-533 Att. 12.4 Rev. | 3 | | N/A | N/A | | |
| CE-003-533 Att. 12.5 Rev. | 3 | | N/A | N/A | | |
| CE-003-533 Att. 12.6 Rev. | 3 | | N/A | N/A | | |
| Ludlum 12 (or equivalent) w/Pancake Probe * | 1 | | | | | |
| RO2 (or equivalent) * | 1 | | | | | |
| Spare Air Sampler Fuses * | 3 | | N/A | N/A | | |
| Air Sampler (battery) * | 1 | | | | | |
| Air Sampler Filters - (box) * | 1 | | N/A | N/A | | |
| Air Purifying Resp. w/Canisters ** | 2 | | N/A | | | |
| CS-137 Button Check Source * | 1 | | | N/A | | |
| Laminated EPZ Map | 1 | | N/A | N/A | | |
| Laminated EAB Map | 1 | | N/A | N/A | | |
| Tape - 2" (roll) | 1 | | N/A | N/A | | |
| Silver Zeolite Cartridges | 10 | | N/A | | | |
| Cartridge Holder | 1 | | N/A | N/A | | |

* Located in Instrument Box

** Located on shelf in OSC Storage Room

cc: W-3 Records Center - Original
EP-003-040 Revision 22

Attachment 7.11 (2 of 4)