



NYRSTAR CLARKSVILLE: ENVIRONMENTAL RESPONSE MANUAL

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INTRODUCTION

The purpose of this manual is to identify specific duties, coordinate response activities and ensure proper management and follow-up to conditions posing a potential or actual threat to the environment. The manual is divided into two main sections; the first addressing spills and the second addressing air emissions. Each of these sections is described in detail with reference to applicability, notification, response procedures, control, clean-up equipment required, and follow-up.

Also included in the appendix of this manual is a copy of the Release Response Checklist. The Release Response Checklist is to be posted in the control areas of each department and used as a reference to guide response actions. Enter a RIMS incident report and include the Environmental Department in the notification section.

All levels of management are to be trained on the contents of this manual and the correct implementation of the policies contained herein.

1.0 SPILLS

1.1 Applicability

Examples of materials with potential for spillage include:

1. Wastewater: lift station overflow, seepage or break in reservoir.
2. Acid: tanks, load out, piping.
3. Process Solutions: electrolyte, tank spills.
4. Other Chemicals: caustic and slaked lime, pickle liquor, sodium sulfide, ferrous sulfate, copper sulfate.
5. Residues: copper, cobalt, and leach.
6. Gasoline, fuel oil, kerosene, transformer fluid, waste oil, lubricating oil.

1.2 Spill Response Procedures.

Upon discovery of a spill, follow these procedures:

1. Report the spill to responsible department personnel (i.e., operator, team leader, or superintendent).

Responsible department personnel will:

2. Identify the source of the release.

3. Implement process/maintenance control at the source to stop the release. Shut down the source if necessary.
4. Determine if the spill can be contained in the plant production area (east of the railroad tracks) and cleanup can be completed promptly.
5. If spill **can be contained** in production area and cleanup can be completed promptly proceed with step 6; **if not**, then proceed to step 10.
6. Contain the release using available equipment listed in Section 1.4.
7. Notify team leader of spill (if he has not been previously notified).
8. Initiate cleanup procedures (Section 1.3)..
9. Enter a RIMS incident report and include the Environmental Department in the notification section.

If spill cannot be contained in production area: Immediately initiate cleanup procedures as outlined in Section 1.3 and make notifications as outlined in item 10 below.

10. **R- Immediately contact department Team leader, Superintendent, and the Environmental Response Coordinator, day or night.**

	Office Ext	Cell
Larry Newton	3277	931-436-1273
Kevin Cook	3315	615-559-7884

Fill out a RIMS report, including the environmental sub-form, for the incident and include the Environmental Department on the notification list within 24 hours of spill.

1.3 Spill Clean-Up Procedures.

1. Solid or semi-solid residues may be cleaned up with a shovel or loader.
2. Notify area Maintenance Shift Team leader (days) or Leach Plant Shift Team leader (nights) to repair/replace faulty equipment causing spill. If repairs will be major and time consuming, install temporary waste

handling system until repairs can be made. An emergency pump unit designed for spill removal is available at the mobile shop. The pump unit consists of a gasoline powered 2-inch stainless steel pump on a two-wheel trailer with appropriate suction and discharge hoses on the trailer. The emergency pump unit is not to be used for strong (90% +) acid spill cleanup.

3. Spilled liquid material (other than oil) may be pumped into a nearby sump if:
 - a. The sump can discharge to Metals Recovery, or
 - b. It will not contaminate the circuit.

Note: Spilled oil should be placed into drums or other containers by pumping or other manual methods. Oil contaminated beyond reuse should be placed in the used oil tank outside east wall of the Maintenance Shop.

4. Determine if spill occurred within the plant areas that drain to the automatic spill control system (SPCC). Refer to the plant map, Figure 1, located in back of this section, which shows these areas. Request that Metals Recovery operators inspect the spill collection system to determine if it is in proper working order.
5. Oil spills must be contained and cleaned up using absorbent materials or, if an oil spill is of a larger volume, using an emergency response contractor with a vacuum truck.
6. **R-** In the event of a liquid spill, during normal business hours, in which the material **CANNOT** be quickly and completely cleaned up using Nyrstar Clarksville resources, contact the External Services Department on the radio (Maintenance channel) or at phone extensions 3213, or 3410 to request assistance from the response contractor. In the event of a liquid spill, outside of normal business hours, in which the material **CANNOT** be cleaned up using Nyrstar Clarksville resources, contact the External Services Department according to the following call list.

R-

	Cell
Jesse Knopp	931-217-4197

Dispose of spill materials in the manner as instructed by the Environmental Department.

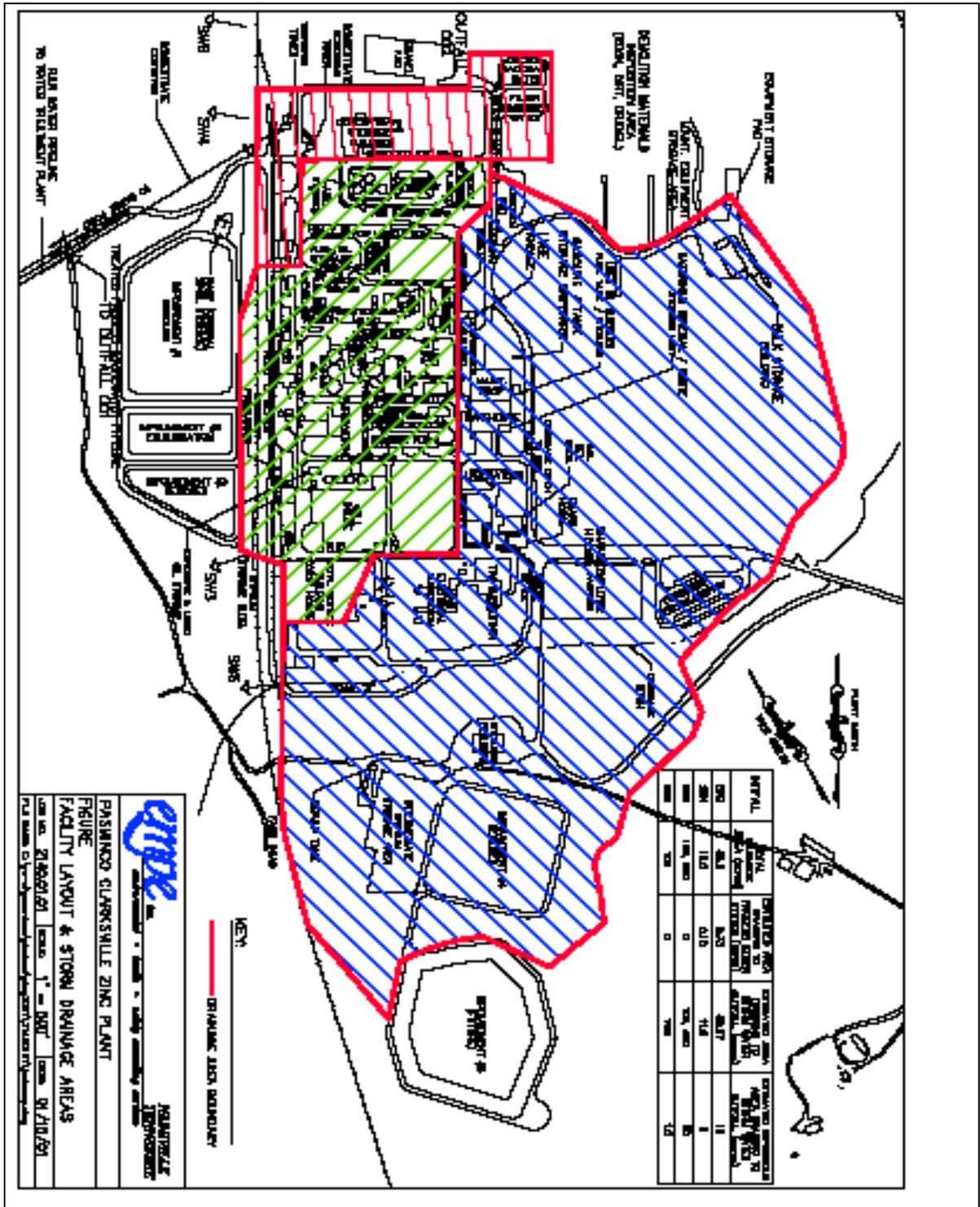
NOTE: Some process solids/solutions cannot be placed in the impoundments.

1.4 Spill Response Equipment/Materials

- SPCC – spill containment structure located at the plant’s main storm water outfall below the southeast corner of impoundment #3. The SPCC is equipped with a pump capable of transferring 100 gallons of liquid per minute to impoundment #2.
- Sand for damming/diking (north of the bulk oil storage building)
- Sorbent booms, pads, and granules for oil spills (Warehouse stock)
- Shovels (Warehouse stock)
- Street Sweeper (Materials Handling Department)
- Tyvek suits (Warehouse stock)
- Front-end loader (Materials Handling Department)
- Mini-loader (Materials Handling Department)
- Soda-ash for neutralizing acid spills is stored in the warehouse
- Emergency pump unit designed for spill removal is available at the mobile shop. The pump unit consists of a gasoline powered 2-inch stainless steel pump on a two-wheel trailer with appropriate suction and discharge hoses on the trailer. The emergency pump unit is not to be used for strong (90% +) acid spill cleanup.

Note: Figure 1-Facility Drainage Map on the following page is a word document copy of the original PDF file and, as such, it is only a rendition (picture) of the map. The original PDF file is located on the X:drive/Environmental/Environmental Response Manual/Facility Drainage Map and presents a better view of details.

Figure 1 – Facility Drainage Map



NYRSTAR CLARKSVILLE: ENVIRONMENTAL RESPONSE MANUAL



2.0 EXCESS AIR EMISSIONS

2.1 Applicability

Particulate (dust, smoke or fume) and acid mist emissions are considered excessive when there is a visible discharge (other than steam), occurring outside of a building, which comes from any permitted bag house stack or vent, plant operation or equipment normally controlled by a bag house, or the acid plant tail gas stack. The site's standard is that only ZERO OPACITY (no visible dust, smoke or fume) is acceptable. Any incident of excessive visible emissions must be entered into RIMS. Enter a RIMS incident report and include the Environmental Department in the notification section.

Fugitive emissions are those emissions that occur from non-permitted sources. These may include dust or mist emissions from equipment malfunctions, buildings (roofs, doors, and vents), roads, conveyors, etc. Fugitive emissions are considered excessive when there is a visible discharge. The site's standard is that only ZERO OPACITY (no visible dust, smoke or fume) is acceptable. Any incident of excessive visible emissions must be entered into RIMS. Enter a RIMS incident report and include the Environmental Department in the notification section.

The site's standard for SO₂ emissions from the acid plant tail gas stack are considered excessive when the SO₂ concentration exceeds 650 ppm, as measured by the in-stack SO₂ tail gas analyzer. An incident of excessive SO₂ emissions must be entered into RIMS. Enter a RIMS incident report and include the Environmental Department in the notification section.



2.2 Excess Air Emissions Response Procedures

Upon discovery of excess air emissions, follow these procedures:

1. Report the release to the responsible department personnel (operator, team leader, or superintendent).
2. Responsible department immediately identifies the emission source and implements process/maintenance control at the source. Shut down the source if necessary.
3. Determine if the release (either by visible or odor emissions) is likely to impact or be noticed by members of the surrounding community.

If no, continue with item 4. If yes, move to item 6:

4. Notify department Team leader.
5. Enter a RIMS incident report and include the Environmental Department in the notification section.
- 6. Immediately contact department Team leader, Superintendent, and the Environmental Response Coordinator, day or night, listed below.**

R-

	Office Ext	Cell
Larry Newton	3277	931-436-1273
Kevin Cook	3315	615-559-7884

- 7. Enter a RIMS incident report and include the Environmental Department in the notification section.**



Appendix A

(Environmental Response Manual)

RELEASE RESPONSE CHECKLIST

- Report release to responsible department personnel

Responsible department personnel will:

- Identify source of release
- Implement process/maintenance control at the source; **shut down source if necessary.**

Can the spill be contained in the production area or can emissions impact to surrounding community be avoided?

- Yes
- No

If Yes:

- Contain the release
- Notify Team leader
- Initiate cleanup (if responding to a spill), either internally or through outside contractor
- Enter a RIMS incident report and include the Environmental Department in the notification section.

If No:

- Initiate clean-up (if responding to a spill), either internally or through outside contractor.**
- Immediately contact team leader, superintendent, and the Environmental Response Coordinator.**
 - R-

	Office Ext	Home
Larry Newton	3277	931-436-1273
Kevin Cook	3315	615-559-7884

- Enter a RIMS incident report and include the Environmental Department in the notification section.



Appendix B

(Contact Information for Notifications)

Notification to outside Authorities: R-

1. Notification shall only be made after approval by senior management.
 - a. General Manager – Rob Winton
3227
2. Notification shall only be made by one of the Emergency Coordinators listed in this manual.
 - a. Police Department: City of Clarksville
(931) 553-8119
Emergency (911)
 - b. Sheriff Department: Montgomery County
(931) 920-1875
Emergency (911)
 - c. Fire Department: City of Clarksville
(931) 645-7456
Emergency (911)
 - d. Hospital: Gateway Medical Center
(931) 502-1000
Emergency (911)
 - e. State Emergency Planning Commission:
Tennessee Emergency Management Agency (TEMA)
(800) 262-3300
 - f. Montgomery County Emergency Management Agency
(931) 648-5702
 - g. National Response Center
(800) 424-8802
 - h. State of Tennessee
Division of Solid Waste
(615) 532-0780

Division of Air Pollution Control
(615) 532-0554

Division of Water Pollution Control
(615) 532-0625



**Division of Radiological Health
(615) 532-0364**

- i. Nashville Field Office
(931) 687-7000**
- j. USEPA Region 4
General Info: (404) 562-9900
24 Hour Spill Reporting: (404) 562-8700**

➤ **Provide authorities with the following information: R-**

Your name and telephone Number

Name and address of facility: Nyrstar Clarksville
1800 Zinc Plant Road
Clarksville, TN 37040
(931)552-4200

EPA I. D. Number TND081460651

Time of Incident:

Type of Incident (i.e., Fire, Spill, etc.):

Identity of material involved, if known:

Quantity of material involved, if known:

The extend of injuries which have occurred, if any

The possible hazards to public health and of the environment outside the facility.