Natural Disaster
Orphan Container Recovery
United States Environmental Protection Agency (EPA) Region 6, United States Coast Guard (USCG), Texas General Land Office (TGLO) & Texas Commission on Environmental Quality (TCEQ) Disaster Response Procedures

1.1   Purpose

1.1 Orphan Container Recovery Group Purpose: Too efficiently and safely recover orphaned containers with minimal impact to the environment. Containers pre-existing the disaster that are in their obvious place of origin and have not been displaced during the disaster should not be recovered unless they are leaking as a result of the disaster.

2.0   Objective

2.1 Orphan Container Recovery Objective: To locate orphan containers and physically recover all orphan containers at each location. Communication with Group Leaders should foster safe and efficient recovery operations with minimal impact to the environment.

3.0 Orphan Container Recovery Group Structure

3.1.1 Orphan Container Recovery Group Leadership-Group Supervisor

The Orphan Container Recovery Group will work for the Response Branch under the Operations Section. The Orphan Container Recovery Group will consist of multiple teams and will be directed by a Group Supervisor. The Group Supervisor will oversee all of the Orphan Container Recovery Teams and will oversee the documentation of all containers recovered in the field. The Group Supervisor will work directly with the Emergency Rapid Response Services (ERRS) Response Manager or state contractor to supply recovery teams with the necessary personnel and equipment. The Orphan Container Recovery Group Supervisor will plan daily field operations for the Orphan Container Recovery Teams and will ensure that assignments and maps are prepared and made available to the Recovery Team Leaders on a daily basis. The Group Supervisor will work directly with the Operations Section Chief on complex field issues such as leaving containers in place and in closing out United States Geological Service (USGS) map grids.

Note: Only federal government representatives may supervise federal contractor personnel and only state government representatives may supervise state contractor personnel.

3.1.2 Orphan Container Recovery Team Composition

Orphan Container Recovery Teams will consist of multiple types of personnel and equipment based on the type of operation to be conducted. It is the Group Supervisor's responsibility to make sure that teams are equipped with the appropriate personnel and equipment. A typical Container Recovery Team may consist of (1) government representative, (1) Superfund Technical Assistance and Response Team (START) Contractor, (1) ERRS Foreman, and (2-4) ERRS technician/operator personnel (or state contractor with equivalent personnel and capabilities). The

government representative will serve as the Team Leader and will deliver assignments, provide oversight and interact with the public. The START representative will assist the team in locating the container and will document the recovery. ERRS or a state contractor will provide personnel and equipment for physical removal of the item.

- Typical land-based recovery ERRS or state contractor equipment:
    - Two 1-ton pickups with trailers
    - One stakebed truck with boom arm/hydraulic lift
    - One skidsteer or long reach forklift
    - 1ATV/Mule
    - Supplies (overpack drums, drum pump, pads).
    - Level B personal protection equipment for response to leaking containers
- Typical water-based recovery:
    - Two 1-ton pickups with trailers
    - Two 18-20ft boats with 25-125hp outboard and trailer
    - One stakebed truck with boom arm/hydraulic lift
    - One skidsteer or long reach forklift
- Typical marsh-based recovery:
    - Two 1-ton pickups w/trailers
    - Two airboats
    - One marshbuggy
    - One crane
- Specialty Equipment:
    - Crane Barge/Truck
    - Vacuum Barge/Truck
    - Spud Barge and Tug
    - Supplied Air
- See Sample Recovery Team 204 in attachments

4.0 Orphan Container Recovery Group Procedures and Resources

4.1   Orphan Container Recovery Group Supervisor

The Orphan Container Recovery Group Supervisor is in charge of overall field operations for their teams. They need to assist the Orphan Container Recovery Team Leaders with map requests and with basic planning and implementation of their team's field operations. They need to make sure the ERRS Response Manager or state contractor on site is supporting the ERRS Foreman on each team with sufficient personnel and equipment needed to complete container recovery.

Mistakes entered into Response Manager (e.g. closing orphan containers which should remain open or mistakenly adjusting recovered items in the wrong orphan container target entry) can cause serious problems when the personal digital assistant (PDA) or laptop computer are synced. Such mistakes can cause orphan containers requiring recovery to be deleted in the Response Manager system, or previously closed orphan containers to reappear (making field teams deploy to empty orphan container targets unnecessarily).

4.1.1 Orphan Container Recovery Team Leaders

- Orphan Container Recovery Team Leaders are responsible for the oversight of the recovery operations for their teams. The START contractor should ensure that the PDA or laptop computer has been synched the morning prior to field use, that the logbook is consistent with the correct team name, and that he/she has the most up-to date maps with correct layers for the correct area. Two sets of maps are necessary for recovery: a larger scale(multi-grid navigational) map for location frame-of-reference and smaller scale (individual grid/quadrant) maps which depict individual orphan container targets. Teams that do not have a PDA should utilize laptop computers with Response Manager Software or printed spreadsheets that provide–information about containers to be recovered. *See Section 6.0 of this standard operating procedure (SOP) detailing necessary map requirements for field use.*

- Orphan Container Recovery Team Leaders are responsible for the oversight of the recovery operations for their teams. The Team ERRS Foreman or state contractor should ensure that their crew has proper personal protection equipment (PPE), communication capability via cell phone, satellite radio or radio, and access to the appropriate equipment for the planned recovery tasks scheduled for the day. Team Leaders are to stay in contact with the Group Supervisor for planning purposes and to ensure that the Team Leader has all the necessary assignments, maps, etc on a daily basis.

- Team Leaders should ensure that teams have the appropriate health and safety equipment necessary to complete recovery.

- Team Leaders should ensure that hazard analysis has been conducted to cover each recovery operation.

4.1.2 Orphan Container Recovery Team Documentation Lead (EPA START) or Other Designated Personnel (TCEQ or USCG)

The Orphan Container Recovery Team Documentation Lead is an EPA START Contractor or TCEQ, USCG personnel. The Lead will be in charge of all field documentation for their team. The Lead needs to ensure the following:

- All PDAs or laptop computers for field use have been synched appropriately (at 0100 hours and 0600 hours)

- Calibrate multi-gas meter and record calibration in logbook

- Check field kit and replenish with necessary supplies

- Check batteries in GPS unit, camera, and any other necessary equipment

- Attend ERRS morning Health & Safety meeting led by ERRS Response Manager or ERRS Health &Safety Officer.

- Meet with ERRS Foreman assigned to your Recovery Team to discuss meeting point and caravan instructions.

- Attend Orphan Container Recovery Group/Team Operational/Health & Safety meeting.

- Obtain set of maps with orphan container locations from the Orphan Container Recovery Team Lead.

- Meet with Team Lead & ERRS Foreman at specified location and mobilize to first orphan container location.

- Document recovery of orphaned containers and closure of orphan container targets as specified in Section 5.1.1 of this SOP.

- Return from field and write up daily 214B form documenting recovery activities as described in Section 5.1.2 of this SOP. Convene with Orphan Container Recovery Team Lead to discuss targets closed, items recovered, and obtain plan for following day activities.

- Bump test multi-gas meter and record readings in logbook.

- Provide a copy of the electronic 214B form to the Orphan Container Recovery Team Lead, Group Supervisor and to the Documentation Group. Turn in photos to the Documentation Group. Turn in PDA to the Information Technology (IT) Group for syncing and recharge. If state or USCG personnel perform the documentation function, they will provide the same information and will be responsible for transmitting any data to the above listed personnel.

4.1.3   Orphan Container Recovery Removal Lead (ERRS)

The Removal Lead will usually be an ERRS Foreman or state contractor for the team. The ERRS Lead needs to make sure that they are involved in the container recovery planning process with the Orphan Container Recovery Team Leader the day before the Orphan Container Recovery occurs to confirm that the proper equipment and personnel are deployed for the daily activities. The ERRS Lead will manage his crew and physically remove open orphan containers in the field for the team. *****Any specialized equipment needs for removal including Air Boats, Marsh Buggies, Crane Barges and other high rate equipment must be requested from the Team Leader to the Group Supervisor and approved by the Group Supervisor prior to use*****

5.1   Recovery Procedure for Documenting Recovered Items

5.1.1   Terminology and Field Documentation

The table below contains general Data Quality Objectives (DQOs) that should be used while documenting assessment and recovery operations. The table is followed by guidance on closure of containers.

Recovery Required (Open)	Site has been assessed but still needs to be recovered
Special Operations (Open)	The item requires recovery for disposal, and a recovery team with special equipment or elevated PPE needs to be dispatched. Assessment teams are to mark the specialized requirements in the ITEM COMMENTS field.
Leave in Place (Open)	The item couldn't be recovered, and additional action is required, or the PRP/owner will recover the item. Teams are instructed to documents the additional action/and or PRP data in the Item Comments field
Access Denied (Open)	The item was observed, but physical access to the container was blocked.
Refer to Other Agency (Open)	Item/clean up is to be handled by an agency other than the EPA but needs to be tracked for closure.
Item Recovered (Closed)	The item has been recovered for disposal, and no further action is required
Item Not Found (Closed)	The item has previously been recovered or is not found, and no further action is required.
Refer to Other Agency (Closed)	An agency other than the EPA is to handle the item/clean up, typically associated with Federal Lands that EPA does not have jurisdiction to perform clean-up.
Leave in Place (Closed)	Only use at the direction of a Group Supervisor and document the reason.
Access Denied (Closed)	The item was observed, but the PRP/owner prohibited access to the property and/or the item belongs to the property owner and they don't want it removed.
Refer to Other Agency (Closed)	Item/clean up is to be handled by an agency other than the EPA and has been addressed and/or EPA no longer needs to track for closure.

Once ERRS has removed all items from a location, START should "Close" the orphan container location as follows:

- Look up the orphan container target to be closed in Response Manager in the PDA or laptop computer. Confirm the orphan container target number for the items that ERRS is recovering. Container markings made by recon teams and pin flags in the area should display the unique Orphan Container Target ID assigned to the item or target.

- Review the items listed in Response Manager or printed sheet. Make sure that ERRS collects all items listed for the orphan container item or target.

- Change the site status from "Open" to "Closed" once ERRS has recovered ALL items from the Orphan Container item or target. **Save the entry update.**

- If ERRS or state contractor crews must leave an item for any reason, **do not** close the site. The site should remain open and the "Items" section in Response Manager should be changed to reflect remaining items at the target location which need to be recovered and if any specialized equipment is necessary for recovery of item(s). Example: A target has 3 (55-gallon) poly drums, a 100 lb. cylinder, and a 10,000 gallon AST. ERRS or state contractor crews are able to collect the drums and cylinder, but plan to come back and collect the AST at a later date. START, TCEQ or USCG personnel should leave the site "Open," and amend the comment field indicating that the 10,000-gallon AST is the only item remaining requiring recovery.

- Orphan containers that EPA does not intend to recover can only be closed out by the Orphan Container Group Supervisor with consultation with the Branch Director and Operations Section Chief. A justification must be placed into Response Manager as to why the item was left in place. Example: 1000 gallon AST, Non potable water container, non-hazardous, left in place.

Some locations such as debris lines have hundreds of items requiring recovery. ERRS or state contractor crews may take several days to recover all items. One location can consist of multiple items as long as they are in the same general vicinity. START, TCEQ or USCG personnel should take the following steps when one target has a large number of items:

- Do not "close" the target until all items have been recovered.

- Do not put any additional entries into the PDA unless specialized equipment is necessary.

- Maintain a count and description of containers recovered.

5.1.2   214B Documentation

Each Orphan Container Team Leader is responsible for completing a 214B at the end of the field day. The Team Leader is responsible for assigning the completion of the 214B. Typically, this assignment will be completed by the START, TCEQ or USCG personnel. The 214B should include essential information so that the Branch Director/Operations Section Chief can have a daily report on the progress of the Orphan Container Recovery Group. An example of a properly filled out 214B form is located in the attachments. The 214B should include:

- Team members

- Team needs/excess resources

- Out of the ordinary experiences

- Health and Safety Issues

- Team accomplishments
    - Each grid number/area fully covered including County/City information.
    - Items opened/closed in each grid/area, and special requirements for recovering the items.
    - A general overview statement summarizing daily findings and activities to report to the Branch Director/Operation Section Chief.

- Orphan containers observed but left "open." Items remaining to be recovered at the target or targets. Reason for not recovering the items and special resources needed to complete recovery.

6.0 Maps

6.1   Requesting Maps:

- The Orphan Container Recovery Team Lead should order maps by 1900 hours each day in order for the Geographic Information Systems (GIS) Group to produce the maps by

0600 hours the following day. This is especially important during large responses with a high demand for maps throughout the Incident Command System (ICS). This duty can be delegated to the START Documentation Lead for the team. This request must be made using a GIS Map Request Form (attached).

- The GIS Group is capable of customizing maps to meet the needs of various groups. It is important that the individual requesting the maps effectively communicates which "layers" the maps should show in order to be useful. Suggestions on effective layers follow in Section 6.2 of this SOP.

6. 2 Map Layer Requirements:

- EPA GIS grid overlay – not actual lat/long lines. Grid lines should depict boundaries to the second decimal degree ie. 33.54 and -101.94 (rather than an actual point such as 33.546172, -101.945739).
- County boundaries
- Bodies of water
- Field teams should have 2 sets of maps: large scale (multi-grid navigational overview) maps and small scale (individual grid/quadrant) maps.
- Large scale maps provide a location frame-of-reference for driving directions, while smaller scale grid maps are used to perform thorough orphan container recovery.
- Small scale individual grid/quadrant maps should show open orphan container targets with associated unique identifying nomenclature ("orphan container name") written beside each red dot. This prevents Orphan Container Recovery teams from producing double entries on already open targets and allows Orphan Container Recovery teams to close out the correct orphan container target.
- **For Orphan Container Recovery Teams:** Small scale individual grid/quadrant maps with labeled orphan container targets should be accompanied by Response Manager data pages listing specific items (orphan containers) found at each orphan container target. Specific items at each orphan container target (i.e. number of drums cylinders, totes, debris line) should be included on an accompanying page with the map.

6.2.1 Aerial Recovery Over-Flight Maps

- Layers on maps utilized in aerial recovery should include landmarks such as highways, football fields, treatment plants, towns – anything that can serve as a useful reference point visible from the air. Two types of maps are necessary for aerial Orphan Container recovery, large multi-grid navigational maps and multiple individual grid maps for the flight path. See attachment for example.

6.2.2 Ground Maps

- Layers for maps utilized in ground recon and recovery should include highways, city streets, county boundaries, cities, water bodies, wetland areas. It is important to have layers which show areas not accessible by car and foot such as lakes, canyons, large landfills, and large sections of restricted private property (such as gated and guarded chemical plants).

6.2.3   Waterway Maps

- Layers on maps utilized in water recovery should show layers which allow boat captains to navigate watercraft. Layers showing oyster beds, sandbars, water depth, and boat docks are useful. Waterway maps should have environmental sensitivity layers so that water Orphan Container Recovery Teams can determine if orphan containers are located in wetlands, etc. The large scale map should show roadways which provide access to docking and launching locations.

- The primary source of mapping information associated with coastal response is the TGLO, Texas Coastal Oil Spill Planning and Response Toolkit which is located at the weblink listed below: http://wwwdb.glo.state.tx.us/oilspill/Atlas/masterpage.pdf

6.2.4   Wetland Tactical Map

The recovery of orphan containers located within wetland environments require pre-planning. This planning process produces a map for recovery teams to use that depict orphan containers to be recovered, acceptable access points, and sensitive environments.

ATTACHMENTS:

ICS 204 FORM EXAMPLE

ICS 214B FORM EXAMPLE

ICS 214B FORM

GIS MAP REQUEST FORM

AIR OPERATIONS REQUEST FORM

MULTI-GRID NAVIGATIONAL MAP EXAMPLE

INDIVIDUAL GRID/QUADRANT MAP EXAMPLE