



[www.CRAworld.com](http://www.CRAworld.com)

## Recovery and Containment Plan

**Illinois Central Railroad (IC) – Dicyclopentadiene (DCPD) Derailment  
Railroad Mile Post 102 (Yazoo Subdivision)  
Minter City, Mississippi**

Prepared for: **Illinois Central Railroad (IC)**

### **Conestoga-Rovers & Associates**

5551 Corporate Boulevard, Suite 200  
Baton Rouge, Louisiana 70808

April 2015 • 11102224 (3)



### Table of Contents

	Page
<b>Section 1.0 Introduction .....</b>	<b>1</b>
<b>Section 2.0 Berm Construction and Materials .....</b>	<b>1</b>
<b>Section 3.0 Berm Construction .....</b>	<b>2</b>
<b>Section 4.0 Recovery of Released Product .....</b>	<b>2</b>
<b>Section 5.0 Contingency Plans .....</b>	<b>3</b>
<b>Section 6.0 Berm Maintenance.....</b>	<b>3</b>
<b>Section 7.0 Boom and Berm Disposal and De-Construction .....</b>	<b>3</b>

### List of Figures (Following Text)

- Figure 1 Vicinity Map
- Figure 2 Site Plan

## Section 1.0 Introduction

This Recovery and Containment Plan is designed to aid in the deployment and management of effective berm construction and recovery of released product in the response to the Illinois Central (IC) train derailment on March 30, 2015, near Minter City, Mississippi. On March 30, 2015, at 2030 hours, rail cars being transported by IC derailed near the town of Minter City, Mississippi, at railroad Mile Post 102 (Yazoo Subdivision) (Site). A vicinity map of the Site is provided on Figure 1. Of the 10 derailed rail cars, only one was breached and leaked a portion of its contents (dicyclopentadiene [DCPD]) onto the IC right-of-way and the adjacent railroad ditch north of the tracks (see Figure 2). The released product is insoluble in water and has a density of 0.98 grams per cubic centimeter ( $\text{g}/\text{cm}^3$ ); therefore, the majority of the product will be recoverable with containment and vacuum operations. Berm deployment and management will take into account the chemical and physical properties of the released product. This plan includes a map of the locations of current berm placement and recovery zones located throughout the release area (see Figure 2).

## Section 2.0 Berm Construction and Materials

Berms and possible underflow dams will be constructed with soil that is judged to be reasonably impervious to surface water and the released product. Materials such as sand and larger rocks will not be used due to the permeability of these materials. A soil with a high amount of clay is ideal for berm and underflow dam construction.

Where applicable, native soils from the Site will be used to construct the berms and possible underflow dams. This is to aid in repair of the berm and possible underflow dams due to erosion and break through. Heavy machinery, such as a track hoe or back hoe will be utilized to build and compact the berms and possible underflow dams.

Care will be taken when constructing possible underflow dams in relation to the sizing, number, depth, and orientation of the flowthrough tubes. These flowthrough tubes, which are typically polyvinyl chloride (PVC) or corrugated metal culverts, are to be angled upward facing downstream with the upstream ends being set at sufficient depth to allow for water to flow through the tubes but to restrict the movement of the released product on the surface of the water. These tubes will be surrounded by underflow dam construction material to keep the tubes from shifting or moving due to increased flow or pressure.

### Section 3.0 Berm Construction

Berms will be constructed at locations where access to the ditch, flow, and natural barriers are most conducive to the containment and recovery of the released product. Two types of berm to be constructed are:

- Containment Berm - low to intermittent flow and overland flow pathways, also used to close off oxbows and tributaries
- Underflow Dam - low and medium flow ditch segments and impoundments (may possibly be constructed to help control increased surface water runoff during rain events)

The locations of the berms and underflow dams will be identified and communicated to stakeholders related to the berm development (i.e., landowners, regulatory agencies, and response contractors). Information communicated includes the size, location, and other geographic conditions of the berms. All berms and underflow dams will be constructed to minimize damage to natural resources and will be constructed in a manner that allows response crews to dismantle and de-construct without permanent damage to the drainage features or surrounding lands.

The present locations of the berms are presented on Figure 2.

### Section 4.0 Recovery of Released Product

Released product will be contained on-Site and directed toward recovery zones as presented on Figure 2. Recovery zones have been established to reduce the footprint of environmental impact and facilitate recovery with vacuum trucks. Vacuum trucks will be utilized at each recovery zone to recover released product. Recovered product transferred into on-Site frac tanks for storage until the waste stream can be properly characterized for subsequent transportation and disposal.

In addition, sorbent pads and boom will be used to aid in the collection of released product. Once sorbent pads and boom are saturated, they will be placed into heavy gauge plastic bags (i.e., drum liners or contractor bags) and contained in on-Site roll-off boxes for storage until the waste stream can be properly characterized for subsequent transportation and disposal.

## **Section 5.0 Contingency Plans**

The Site will be equipped with at least two frac tanks designated for the containment of impacted stormwater runoff and product. In addition, trailers with sorbent boom have been staged for potential deployment to assist in product recovery. In addition, in order to control increased water levels, native soils may be used to strengthen the existing berms, or the construction of underflow dams may be implemented.

## **Section 6.0 Berm Maintenance**

Berms and possible underflow dams will be inspected during each operational period. Observations of effectiveness, break through, saturation of the construction materials, effectiveness of the possible underflow system, and water pressure will be documented. Modifications and repairs will be made as necessary.

## **Section 7.0 Boom and Berm Disposal and De-Construction**

Upon completion of the response or upon receipt of approval from responsible regulatory agencies, all sorbent booms and berms will be removed from the ditches and other drainage features. Sorbent boom and berms needed to control terrestrial sources or drainage will be kept in place until approval for removal is granted by regulatory agencies.

All sorbent boom removed from the Site will be placed into heavy gauge plastic bags (i.e., drum liners or contractor bags) and contained in on-Site roll-off boxes for storage until the waste stream can be properly characterized for subsequent transportation and disposal.

Berms and underflow dams will be de-constructed using heavy machinery. Care will be taken to restore the drainage features of the Site to pre-existing conditions. Decisions for the final disposition of the construction materials will be according to stakeholder wishes.

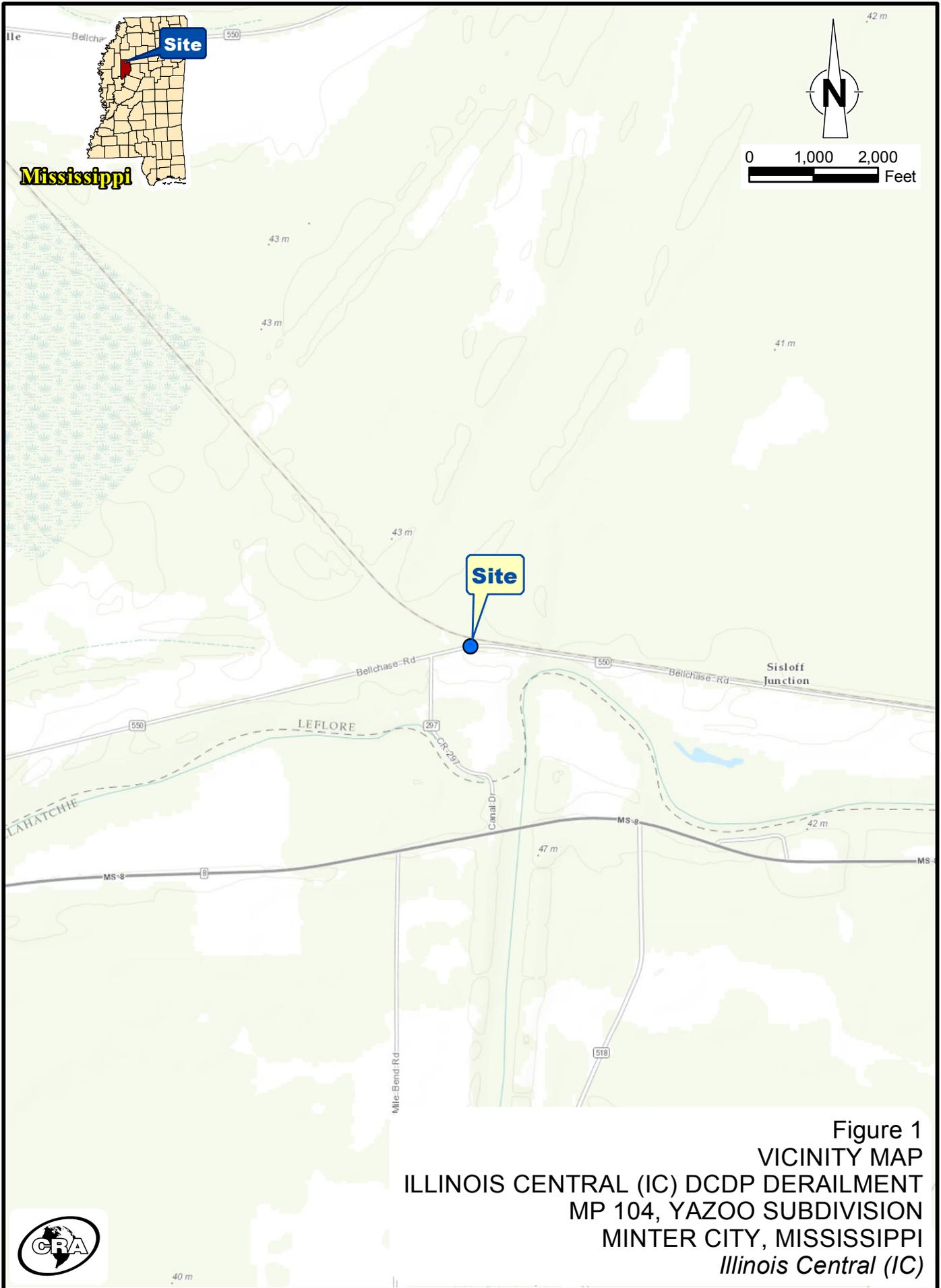


Figure 1  
 VICINITY MAP  
 ILLINOIS CENTRAL (IC) DCDP DERAILMENT  
 MP 104, YAZOO SUBDIVISION  
 MINTER CITY, MISSISSIPPI  
*Illinois Central (IC)*





**Legend**

- Recovery Zone Location
- Containment Berm
- Boom Storage
- Frac Tank
- Rolloff Box
- Vac Truck
- Impacted Area

**Railcars**

- Auto Car
- Box Car
- Tank Car

Figure 2  
 SITE PLAN  
 ILLINOIS CENTRAL (IC) DCDP DERAILMENT  
 MP 102.6, YAZOO SUBDIVISION  
 MINTER CITY, MISSISSIPPI  
*Illinois Central (IC)*

0 75 150  
 Feet

Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

RE: Esri World Imagery (2011).