
APPENDIX G

Southeast Wisconsin Inland Zone Sub-Area Worst Case Discharge Analysis

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Facility Response Plan (FRP) Facilities

EPA reviewed FRPs from those facilities in the Southeast Wisconsin sub-area. There are 11 large oil storage facilities that have the potential for discharge into the Southeast Wisconsin sub-area. These facilities have total oil storage capacity ranging from 2,839,730 to over 29,601,101 gallons. In analyzing worst case discharge scenarios, EPA evaluated total storage capacity, worst case discharge amount, type of oil, and proximity to downstream vulnerable features including drinking water intakes and environmentally sensitive areas. Table 1 presents information used in the analysis.

EPA determined an appropriate worst case discharge scenario to be addressed for the Southeast Wisconsin sub-area is a discharge from the US Venture facility located at 9135 and 9125 N. 107th Street, Milwaukee, Milwaukee County, Wisconsin 53224. The facility is a bulk oil terminal with a total storage capacity of 29,601,101 gallons. The worst case discharge amount is [REDACTED] gallons of [REDACTED]. The US Venture facility has the highest worst case discharge volume within the sub-area and is likely to have the greatest impact to public health and the environment based on the facility's proximity to downstream vulnerable features.

The Planning Distance from the US Venture facility is [REDACTED] miles. A worst case discharge from the facility would flow into a ditch to the east of the facility, then into the Little Menomonee River. The Little Menomonee River discharges into the Menomonee River. A worst case discharge would flow through several sensitive species habitats, including two endangered species areas. Additionally, a worst case discharge from the US Venture facility has the potential to affect 10 managed land areas and nine conservation and recreation lands.

EPA's [Inland Response Tactics Manual](#) provides response strategies that can be used during a worst case discharge. Table 2 provides a list of tactics that are likely to be employed in the Southeast Wisconsin sub-area.

Pipelines

EPA analyzed worst case discharge scenarios from pipelines that may impact the inland zone. A list of pipelines that cross the major rivers within the Southeast Wisconsin sub-area are provided in Table 3. While discharges from pipelines can be significant, the pipelines in the planning area are not likely to have a worst case discharge greater than FRP facilities. Response strategies appropriate for a worst case discharge from a FRP facility would also address a worst case discharge from a pipeline in the sub-area.

Railroads

Worst-case discharge for railroads means "the largest foreseeable discharge in adverse weather conditions," as defined at 33 U.S.C. 1321(a)(24). The largest foreseeable discharge includes discharges resulting from fire or explosion. PHMSA clarifies the definition of a WCD for trains in the FAST Act of 2015.

The worst-case discharge from a unit train consists of the greater of:

- (1) 300,000 gallons of liquid petroleum oil; or
- (2) 15 percent of the total lading of liquid petroleum oil transported within the largest unit train consist reasonably expected to transport liquid petroleum oil in a given response zone. The worst-case

discharge calculated from tank cars exceeding 42,000 gallons is equal to the capacity of the cargo container.

Several railroads have crossings on rivers throughout the Southeast Wisconsin sub-area. Derailments over or near the river could result in releases of hazardous materials or oil. However, a worst case from a unit train traveling through the planning area is not anticipated to exceed the facility worst case discharge.

Vessels

The WCD scenario for a tank vessel could originate from a bulk oil transportation ship rupturing nearshore thereby releasing all of its contents into Lake Michigan and subsequently to nearby lakefront. The Port of Milwaukee has a liquid cargo pier for the on and offloading of product to a nearby facility. At least one vessel that delivers petroleum products at the Port of Milwaukee is capable of carrying approximately 3,000,000 gallons. In the 2018 USCG Sector Lake Michigan Area Contingency Plan it is stated that various foreigner flagged tank ships make trips to Burns Harbor, IN (bottom of Lake Michigan) with a capacity of 6,300,000 gallons. A vessel arriving or departing at the Port of Milwaukee or traveling to Burns Harbor may experience a mechanical failure or an act of god that could cause a WCD all of its contents into the Southeast Wisconsin Sub-Area.

Off-Shore Facilities

There are no off-shore facilities in the planning area.

Other Sources

Analysis of worst case discharge scenarios from other sources that may impact the inland zone.

Table 1
FRP Facility Worst Case Discharge Analysis

Facility	Location	County	WCD Amount (gallons)	WCD Oil Type	Facility Capacity (gallons)	Planning Distance	Vulnerability Analysis
Us Venture Inc	Milwaukee	Milwaukee				miles	Drinking Water Intakes: Noted Sensitive Species: Special Designated Areas: Environmentally Sensitive Areas: Managed Lands: Conservation and Recreation Lands:
MKE Fuel Co., Bulk Fuel Farm	Milwaukee	Milwaukee				miles	Drinking Water Intakes: Noted Sensitive Species: Special Designated Areas: Environmentally Sensitive Areas: Managed Lands: Conservation and Recreation Lands:
Buckeye Terminals LLC	Milwaukee	Milwaukee				miles	Drinking Water Intakes: Noted Sensitive Species: Special Designated Areas: Environmentally Sensitive Areas: Managed Lands: Conservation and Recreation Lands:
Flint Hills Resources LP, Milwaukee Terminal	Milwaukee	Milwaukee				miles	Drinking Water Intakes: Noted Sensitive Species: Special Designated Areas: Environmentally Sensitive Areas: Managed Lands: Conservation and Recreation Lands:
US Oil	Milwaukee	Milwaukee				miles	Drinking Water Intakes: Noted Sensitive Species: Special Designated Areas:

Facility	Location	County	WCD Amount (gallons)	WCD Oil Type	Facility Capacity (gallons)	Planning Distance	Vulnerability Analysis
							Environmentally Sensitive Areas: █ Managed Lands: █ Conservation and Recreation Lands: █
IFI Terminal Milwaukee LLC	Milwaukee	Milwaukee	█	█	█	█ miles	Drinking Water Intakes: █ Noted Sensitive Species: █ Special Designated Areas: █ Environmentally Sensitive Areas: █ Managed Lands: █ Conservation and Recreation Lands: █
Citgo Petroleum Corp	Milwaukee	Milwaukee	█	█	█	█ miles	Drinking Water Intakes: █ Noted Sensitive Species: █ Special Designated Areas: █ Environmentally Sensitive Areas: █ Managed Lands: █ Conservation and Recreation Lands: █
Construction Resources Management Milwaukee	Milwaukee	Milwaukee	█	█	█	█ miles	Drinking Water Intakes: █ Noted Sensitive Species: █ Special Designated Areas: █ Environmentally Sensitive Areas: █ Managed Lands: █ Conservation and Recreation Lands: █
South Harbor Milwaukee Terminal	Milwaukee	Milwaukee	█	█	█	█ miles	Drinking Water Intakes: █ Noted Sensitive Species: █ Special Designated Areas: █ Environmentally Sensitive Areas: █ Managed Lands: █ Conservation and Recreation Lands: █
Benz Oil Corporation	Milwaukee	Milwaukee	█		█		Drinking Water Intakes: Noted Sensitive Species: Special Designated Areas: Environmentally Sensitive Areas: Managed Lands: Conservation and Recreation Lands:

Facility	Location	County	WCD Amount (gallons)	WCD Oil Type	Facility Capacity (gallons)	Planning Distance	Vulnerability Analysis
PPG Industries, Inc.- Oak Creek	Milwaukee	Milwaukee				miles	Drinking Water Intakes: Noted Sensitive Species: Special Designated Areas: Environmentally Sensitive Areas: Managed Lands: Conservation and Recreation Lands:

Table 2

Worst Case Discharge Response Strategies

Tactic	Purpose	Location
Diversion booming	Remove oil from faster water and divert it to slower water	Stream, open water
Exclusion booming	Exclude oil from a sensitive area	River, culvert, open water
Containment booming	Contain and recover oil	Open water, river, stream
Barriers	Contain or divert oil on water or that has potential to migrate	Land, stream, ice
Flooding and flushing	Physically remove oil from the shoreline to a location for collection and removal	Shoreline

Table 3
Pipeline Worst Case Discharge Analysis

Pipeline Operator	Line	Size (inches)	Products	WCD Volume (Barrels/Gallons)	Waterbody	Crossing Locations
Buckeye Partners, LP	West Shore Pipeline Co. GT254GY (Granville Station to Green Bay Terminal)				Killsnake River	
					Mullet River	
					North Branch Manitowoc River	
					South Branch Manitowoc River	
					Sheboygan River	
Buckeye Partners, LP	West Shore Pipeline Co. JT256MF (Mitchell Field to St. Martins Jct.)				Root River	
Buckeye Partners, LP	West Shore Pipeline Co. EB252GT (St Martins Jct to Granville Station)				Root River	
					Menomonee River	
					Menomonee River	
					Menomonee River	
					Menomonee River	