



Understanding the Grey in CERCLA “Superfund”

EPA: Protecting Human Health and the Environment in Mississippi

Caroline Freeman
Superfund Division Branch Manager
US EPA Region 4



U.S. EPA Region 4

1



EPA History




- EPA was created in 1970 by the Nixon Administration
- EPA’s mission is to protect human health and the environment
- Create and enforce regulations to protect
 - Communities
 - Air
 - Water
 - Land

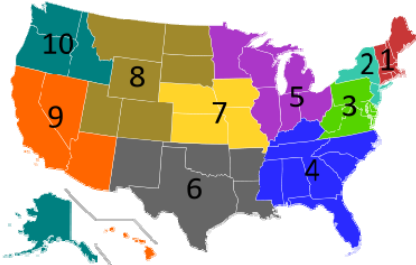


U.S. EPA Region 4


2


 **U.S. EPA**

10 EPA Regions **EPA Region 4**




- North Carolina
- South Carolina
- Georgia
- Mississippi
- Alabama
- Florida
- Kentucky
- Tennessee
- And 6 Tribes

 U.S. EPA Region 4 3

 **Superfund**

- In 1980 - Congress passed the Comprehensive Environmental Response and Liability Act (CERCLA or Superfund)
- CERCLA allows EPA the authority to clean up releases or threatened releases of hazardous substances that may endanger public health or welfare or the (natural) environment




 U.S. EPA Region 4 4

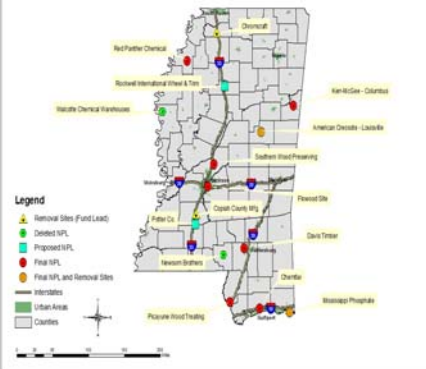
 **Superfund Task Force**

- Expediting cleanup and remediation
- Reinvigorating Responsible Party cleanup and reuse
- Encouraging private investment
- Promoting redevelopment and community revitalization
- Engaging partners and stakeholders

 U.S. EPA Region 4 5

 **Superfund NPL Sites in MS**


STATUS OF SUPERFUND SITES IN MISSISSIPPI




Legend


- ▲ Remedial Sites (Fund Lead)
- Deleted NPL
- Proposed NPL
- Final NPL
- Final NPL and Remedial Sites
- Urban Areas
- Counties

Key	Site Name	City
1	American Creosote Works Inc	Louisville
2	Chemfax, Inc.	Gulfport
3	Davis Timber Company	Hattiesburg
4	Flowood Site	Flowood
5	Kerr-McGee Chemical Corp – Columbus	Columbus
6	Newsom Brothers/Old Reichhold Chemicals, Inc.	Columbia
7	Mississippi Phosphates Corp.	Pascagoula
8	Picayune Wood Treating Site	Picayune
9	Potter Co.	Wesson
10	Red Panther Chemical Company	Clarksdale
11	Rockwell/Grenada	Grenada
12	Sonford Products	Flowood
13	Southeastern Wood Preserving	Canton
14	Walcotte Chemical Co. Warehouses	Greenville

 U.S. EPA Region 4 6




Superfund NPL Sites in MS



STATUS OF SUPERFUND SITES IN MISSISSIPPI

Key Site Facts	Sites
Sites listed on the Final NPL	9
Final NPL sites that are Fund-lead	5
Sites deleted from the NPL	3
Sites currently proposed for listing on the NPL	2
Sites assessed by EPA & MDEQ	519



U.S. EPA Region 4

7



Emergency Response Program

- Chemical and Oil Spill Response
- CERCLA Removal Actions - Three types:
 - Emergency – action is required within hours
 - Time-critical – action is required within 6 months
 - Non-time-critical – planning period of more than 6 months is available



U.S. EPA Region 4

8



Stafford Act Response

- In response to disasters (**natural or man-made**), the Governor of impacted state can request Disaster Declaration from the President.
- FEMA is lead coordinating body for declared disasters.
- EPA is lead agency for Emergency Support Function 10 (**oil and hazardous substance**)
- Receives Missions and funding from FEMA in response to state Requests for Action.



U.S. EPA Region 4

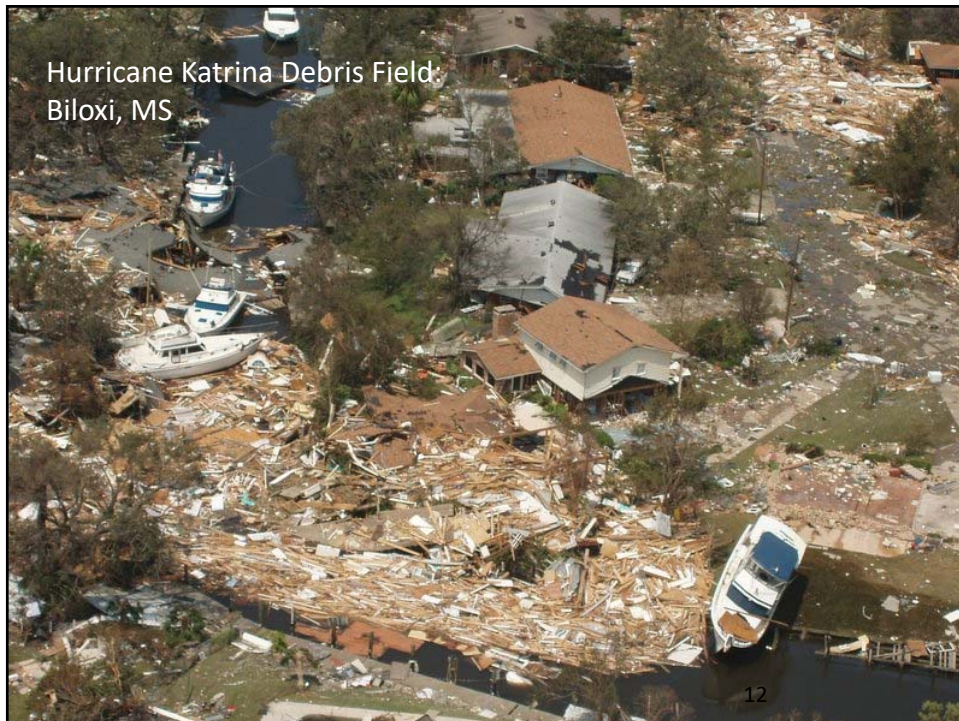
9



Train derailment and crude oil spill,
New Augusta, Mississippi



Plugging oil well along Mississippi River near Natchez, Mississippi



EPA

Superfund Remedial Process

The Superfund Process

National goal of remedy selection is to select remedies that are:

- Protective of human health and the environment
- Maintain protection over time
- Minimize untreated waste

U.S. EPA Region 4

13

EPA

Superfund Remedial Process

The Superfund Process

- **Site Discovery**
- **Preliminary Assessment/ Site Investigation**
- **National Priorities List**
- **Remedial Investigation/ Feasibility Study**
- **Proposed Plan**
- **Record of Decision (ROD)**
- **Remedial Design/ Remedial Action**
- **Operation & Maintenance**
- **Five Year Reviews**
- **Delisting**

U.S. EPA Region 4

14



Superfund Redevelopment Program

- Provides tools and information to help return sites to productive use
- Tools include:
 - Ready for Reuse Determinations
 - Comfort and status letters
 - Prospective purchaser inquiry calls
 - Reuse planning and fact sheets
- EPA will assist in addressing liability concerns with potential purchasers/developers





U.S. EPA Region 4

15



Superfund Redevelopment Program

Where to find Additional Information:

<http://www.epa.gov/superfund/programs/recycle/reusespotlight.html>



U.S. EPA Region 4

16



CASE STUDIES



U.S. EPA Region 4

17



Picayune Wood Treating




U.S. EPA Region 4

18

EPA

Picayune Wood Treating

- 50 acres
- Wood treating operation, 1946-1999
- Placed on NPL, 2004
- Ground water, sediment and soil contamination
- Located in mixed-use area of Picayune
- Currently vacant


U.S. EPA Region 4
Picayune Wood Treating

19

EPA

Cleanup

Key Activities	Year
EPA emergency response actions	Late 1990s, late 2000s
EPA completes reuse planning process	2005
EPA issues final cleanup plan	2007
Cleanup begins to address soil, sediment and ground water contamination	Late 2011
Soil remedial action completed	2013
State O&M began on landfill	Oct 2014
Currently Addressing Groundwater	




U.S. EPA Region 4
Picayune Wood Treating

20


 **Before and After**




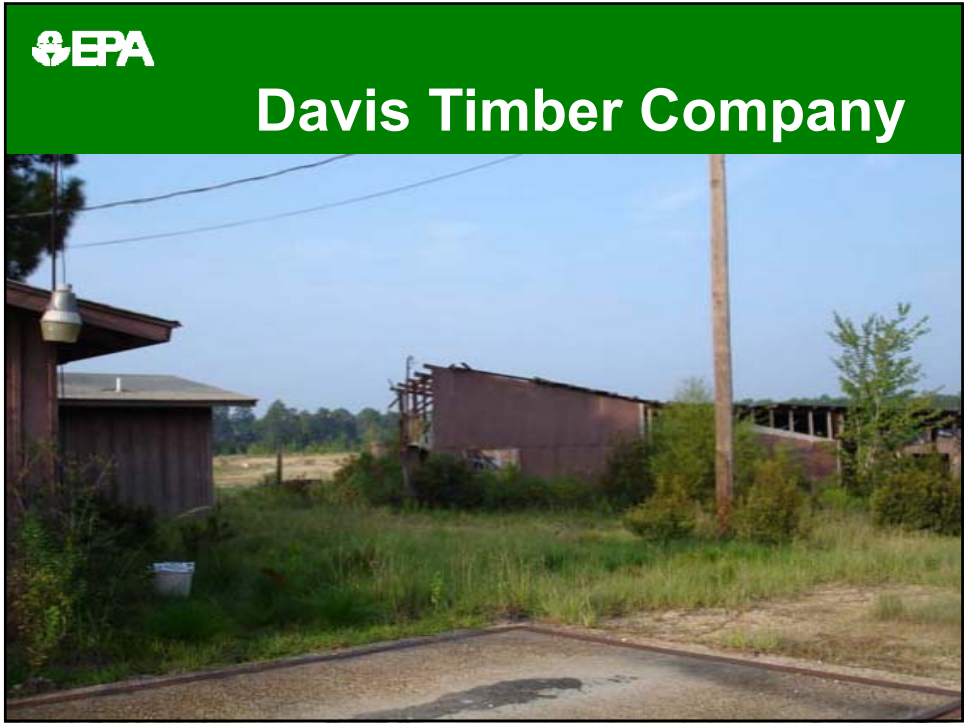
 U.S. EPA Region 4
Picayune Wood Treating 21

 **Looking Toward Reuse**

- State-owned
- Site reuse and redevelopment plan, 2005
- Prospective Purchaser Inquiry for 31 acres adjacent to former facility, April 2018



 U.S. EPA Region 4
Picayune Wood Treating 22



EPA

Davis Timber Company


- 30 acres
- Wood treating operation, 1972 – late 1980s
- Placed on NPL, 2000
- Soil and sediment contamination
- Located in growing area of Lamar County, northwest of Hattiesburg
- Currently vacant



EPA


U.S. EPA Region 4
Davis Timber Company

24



Cleanup

Key Activities	Year
EPA completes situation assessment	2006
EPA issues final cleanup plan to addresses soil and sediment contamination, and surface water flow	2009
EPA implements final cleanup plan Deletion	2011-2015 2018


U.S. EPA Region 4
Davis Timber Company
25




Before and After






U.S. EPA Region 4
Davis Timber Company
26

 **Related Highlights**

- All on-site structures - demolished
- 400,000 gallons of contamination removed from soil for treatment
- Impoundment area capped and graded
- Moved a 500-to-1,000-foot-long section of a creek located next to the impoundment area, about 200 feet farther west of current location

 U.S. EPA Region 4
Davis Timber Company 27

 **Looking Toward Reuse**

- Privately-owned
- Situation assessment report, 2006
- Property is currently in reuse
 - Humane Society
 - Pollinator Habitat



- *“I am fully confident that they did a good job cleaning up. It’s a giant beautiful field now.”*
Brenda Sumrall, Hub City Humane Society Board President

 U.S. EPA Region 4
Davis Timber Company 28



EPA

Sonford Products


- 6 acres
- Pentachlorophenol processing operations, 1972-1985
- Placed on NPL, 2007
- Soil, sediment, surface water and ground water contamination
- Located in mixed-use area of Flowood
- Site includes developed and undeveloped areas




EPA


U.S. EPA Region 4
Sonford Products

30


 **Cleanup**


Key Activities	Year
Initial EPA cleanup actions	1985
EPA completes situation assessment	2008
EPA issues final cleanup plans to address ground water, soil and sediment contamination	2009, 2010
EPA implements final cleanup plan	2011-current

 U.S. EPA Region 4
Sonford Products 31

 **Related Highlights**

- Neighborhood cleanup, which included eight homes, addresses dioxin and will help protect children
- Local government assistance overseeing remediation of utility corridors
- Local government engaged in community meetings



 U.S. EPA Region 4
Sonford Products 32



Ongoing Groundwater Cleanup

- Second phase of the remediation involves multi-phase extraction of LNAPL present in GW
- In-situ chemical oxidation will be used to treat the residual GW contamination after multi-phase extraction
- Final construction phase of the remedy is scheduled for FY 2018



U.S. EPA Region 4
Sonford Products

33



Continued and Potential Reuse

- Parts of site include residential and industrial uses
- Current site industrial
- Concrete septic tank manufacturing facility
- Light industrial use anticipated for remainder of the site



U.S. EPA Region 4
Sonford Products

34



Mississippi Phosphates



U.S. EPA Region 4

35




Mississippi Phosphates

- 1000 acres.
- Proposed to NPL - August 3, 2017
- Final on the NPL - January 18, 2018
- Impacted Media - Soil, sediment, surface water, and groundwater
- COCs – Metals, Nutrients; Acids; and radionuclides

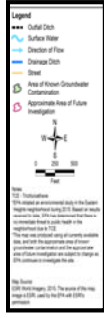


U.S. EPA Region 4

36



Rockwell International Wheel and Trim



Legend

Solid Ditch

Surface Water

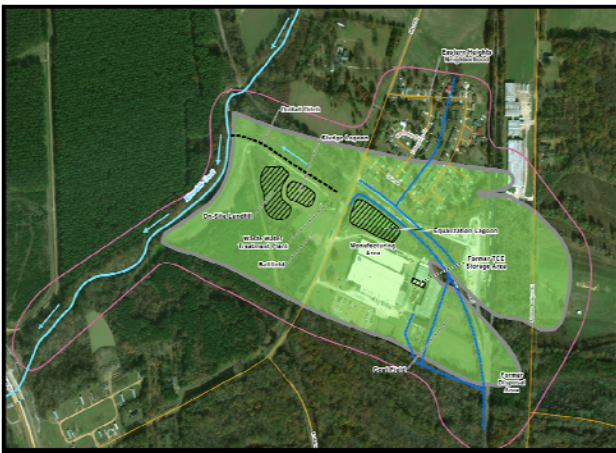
Direction of Flow

Drainage Ditch

Stream

Area of Known Groundwater Contamination

Applicable Area of Future Investigation




Proposed Jan 18, 2018

Expected Final Rule September 2018

TCE and/or Hexavalent Chromium has contaminated the Soil, air, sediment, groundwater and surface water

Approximately 120 acres are being evaluated


U.S. EPA Region 4
37



Closing

- Cleanup and redevelopment require support and commitment from a range of stakeholders
- State of Mississippi and local government support are critical to Superfund site cleanup
- State and local government assistance help make communities safer and increase opportunities for community revitalization
- EPA & MDEQ are committed to meaningful community engagement


U.S. EPA Region 4
38



THANK YOU!



U.S. EPA Region 4

39



Contact Information - EPA

American Creosote Works, Inc.
Picayune Wood Treating
 Michael Taylor, 404-562-8762
taylor.michael@epa.gov

Kerr-McGee Chemical
 Charles King, 404-562-8931
king.charlesl@epa.gov

Davis Timber Company
 Scott Martin, 404-562-8916
martin.scott@epa.gov

Sonford Products
 Neema Atashi, 404-562-8150
atashi.neema@epa.gov

Southeastern Wood Preserving
 Marcia O'Neal, 404-562-9688
oneal.marcia@epa.gov

Mississippi Phosphate
 Karl Wilson, 404-562-9295
wilson.karl@epa.gov

Chemfax, Inc.
 Brian Farrier, 404-562-8952
farrier.brian@epa.gov

Rockwell International Wheel and Trim
 Shelby Johnston, 404-562-8287
johnston.shelby@epa.gov



U.S. EPA Region 4


40

 **EPA**

Contact Information - MDEQ

<p>Picayune Wood Treating Phillip Weathersby, 601-961-5217 PWeathersby@mdeq.ms.gov</p>	<p>Sonford Products Richard Ball, 601-961-5353 Rball@mdeq.ms.gov</p>
<p>Kerr-McGee Chemical Thomas Wallace, 601-961-5240 TWallace@mdeq.ms.gov</p>	<p>Chemfax, Inc. Lynn Chambers, 601-961-5117 LChambers@mdeq.ms.gov</p>
<p>American Creosote Works, Inc. Lynn Chambers, 601-961-5117 LChambers@mdeq.ms.gov</p>	<p>Southeastern Wood Preserving Richard Ball, 601-961-5353 RBall@mdeq.ms.gov</p>
<p>Davis Timber Company Lynn Chambers, 601-961-5117 LChamber@mdeq.ms.gov</p>	<p>Rockwell International Wheel & Trim James Crellin, 601-961-5230 JCrellin@mdeq.ms.gov</p>


 U.S. EPA Region 4 41

 **EPA**

Contact Information

Caroline Y. Freeman
Restoration and Sustainability Branch Chief
EPA Region 4 Superfund Division
freeman.caroline@epa.gov , 404-562-8976

For more about EPA's cleanup work in Mississippi and across Region 4 visit:
<http://www.epa.gov/region4/superfund/index.html>

 U.S. EPA Region 4 42