

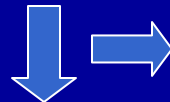


RCRA Corrective Action Process

RCRA Facility Assessment (RFA) -1988

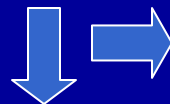


RCRA Facility Investigation (RFI) – 1990-2006



Interim Corrective Measures (ICM)

Corrective Measures Study (CMS) – 2009 - 2010?



Focused CMS – ATP Group

Corrective Measures Implementation (CMI)

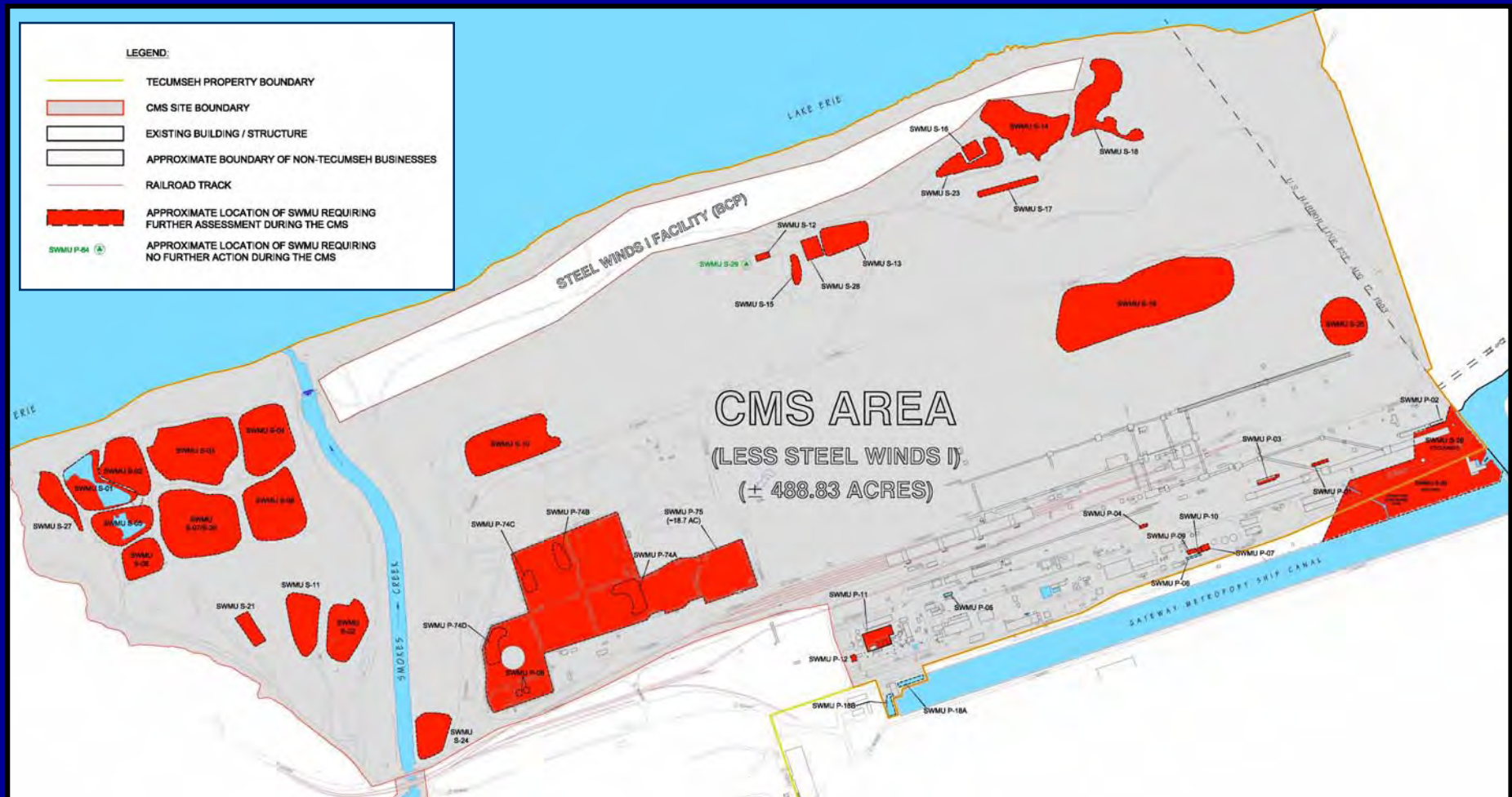
Regulatory Site History

- 1980 - BSC Receives Interim Status
- 1988 - EPA Performs a RCRA Facility Assessment; 104 SWMUS/6 water courses
- 1990 - BSC & EPA sign Administrative Order to conduct RCRA Facility Investigation (RFI)
- 2005 – RFI is submitted (approved 06)
- 2005 – Phase I BPA accepted
- 2007 – Phase II & III accepted
- 2009 – CMS Order is signed

Corrective Measures Site (CMS)

- Consent Order signed on June 30, 2009
- Order requires ArcelorMittlal Tecumseh Redevelopment Inc. to perform a Corrective Measures Study (CMS) for the CMS site (43 SWMUs & 4 water courses)
- Recommend final action for SWMUs; will be subject to public review and comment

CMS SWMUs Requiring Further Action



Consent Order continued

- Requires Tecumseh Redevelopment Inc. to provide \$25,000,000 in financial assurance
- Implement a Long-Term Groundwater Monitoring Plan
- Implement a Soil-Fill Management Plan

Interim Corrective Measures

- To expedite cleanup, **Interim Corrective Measures (ICMs)** have been performed at:
- Benzol Yard in coke oven area
- Dredging of lower stretch of Smokes Creek
- Tank removal in tank farm area

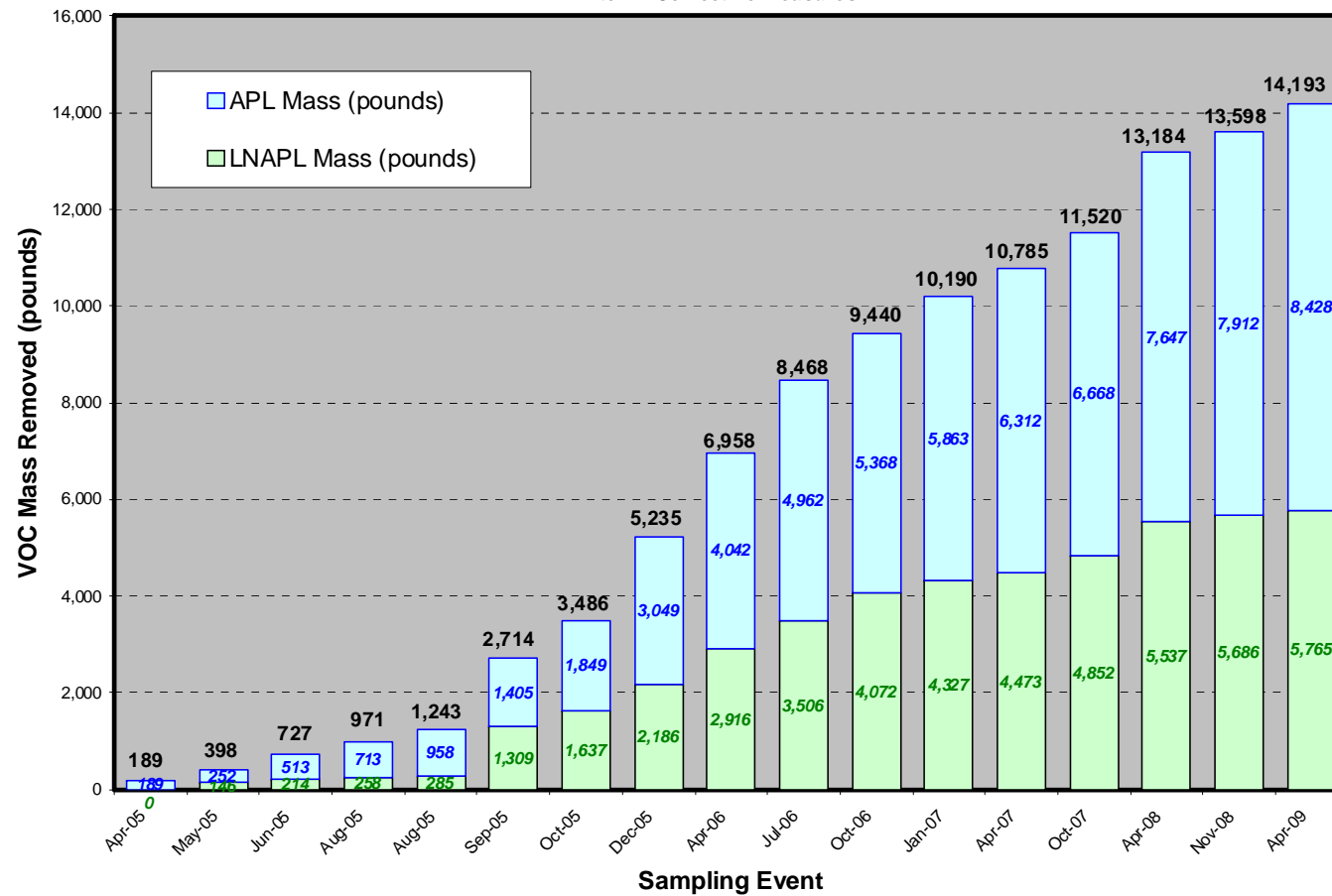
Benzol ICM



FIGURE 7-1

CUMULATIVE VOC MASS REMOVED TO DATE

Former Benzol Plant Tank Storage Area (SWMU P-11)
Tecumseh Redevelopment, Inc.
Interim Corrective Measures



Focused CMS for Acid Tar Pit Group

- Focused CMS for the **Acid Tar Pits** and **Agitator Sludge Pit** was performed to:
- Expedite cleanup in these areas to prevent recontamination of Smokes Creek sediments, and
- Develop a cleanup plan earlier than the site-wide CMS which will take several years to implement



Acid Tar Pit Group

- **SWMU S-11** ~ 1.4 acres & 50,000 cubic yards of waste material
- **SWMU S-22** ~ 1.4 acres consisting of three (3) surface impoundments & has ~50,000 cubic yards of waste material, including
- **SWMU S-24** ~ 1 acre & about 23,000 cubic yards of waste material

ATP SWMU Group Waste

- Spent pickle liquor (acids)
- Coal tar
- Coke oven condensate
- Waste lime
- Iron precipitator dust
- Tar like agitator sludge

ATP Group

- Waste material was dumped from about 1938 through the early 1970s
- The depth of waste in ranges from 20 to 40 ft below ground surface (BGS)
- At a depth of 38-52 BGS, a dense and non-permeable layer of clay is present

Focused Corrective Measures Study for ATP Group

- Evaluate remedial alternatives
- Define corrective measure objectives
- Recommend a remedy for the Acid Tar Pit group that meets all corrective measures objectives

Corrective Measures Objectives

- Protect human health & the environment;
- Attain environmental cleanup standards;
- Control the source(s) of contamination to reduce or eliminate further releases of hazardous constituents to the environment
- Comply with applicable waste management standards
- Be consistent with current & anticipated future land use in that portion of the site

Alternative Corrective Measures

1. No Action (\$0)
2. Individual In-Place Containment Cells (\$6.7 M)
3. Excavate & Dispose Agitator Sludge Pit (S-24) Off-Site & Contain In-Place ATP (S-11 & S-22) (\$17 M)
4. Excavate Agitator Sludge Pit (S-24); Consolidate & Construct Combined In-Place ATP Containment Cell (\$5.5 M)
5. Excavate S-11, S-22 & S-24; Consolidate in proposed On-Site Hazardous Waste CAMU (\$14.5 M)
6. Excavate S-11, S-22, & S-24, Stabilize, & Dispose Off-Site (\$52.7 M)

What Plan is proposed for the ATP & Agitator Sludge Pit?

- Alternative 4 was selected and includes:
- Excavate all waste in the agitator sludge pit and consolidate with the ATP
- After consolidation in the ATP, construct an impermeable slurry wall around the entire ATP area to the lake sediment layer
- Install a groundwater collection system w/in the containment area
- Install a final cover system

ATP SWMU Group (current)



