MDE’s Role

- Protect the environment and public health by reviewing the construction plan
- Ensure that construction would not undo the remedy already in place
- On going coordination with EPA
Historical facts

- Chromium manufacturing began *circa* 1840s through mid 1980s
- Initially chromium was mined in Baltimore County
- Chromium ore was brought by vessels to the Chrome Works plant in Fells Point
1989 Consent Decree

- 09/29/1989- Signed between EPA/MDE & Allied-Signal; entered in federal court

- Terms:
  - conduct investigations to determine nature and extent of contamination and migration from site;
  - submit a Corrective Measures Implementation Program Plan to prevent further contamination

Site characterization/investigation

- Investigations identified site conditions and the extent of contamination

- Chromium was found in (no other contaminants above standards):
  - shallow groundwater at levels up to 14,500 mg/l (highest concentrations near the chemical manufacturing buildings)
  - deep groundwater at levels up to 8,000 mg/l (also highest near the chemical manufacturing buildings)
  - Studies found that contaminated groundwater had migrated away from the Site in the deep and shallow groundwater
Corrective actions

- Dismantlement of buildings: most materials went to hazardous waste landfill in Hawkins Point (now closed); some materials (metals etc.) decontaminated and recycled.

- Outboard embankment: a stone rip-rap structure around water-side to support old bulkheads

- Hydraulic barrier: a bentonite wall surrounding the site to bedrock

- Multi-media cap: geotextile fabric; clay layer; plastic liner; cover soil w/ demarcation fabric; and stone layer

- Groundwater system: maintain a negative gradient
Corrective measure effectiveness

- Chromium risks were determined by:
  - direct exposure to the contaminated soil through inhalation
  - exposure to contaminated surface water adjacent to site (62 lbs of Cr per day discharged into harbor)

- Surface & groundwater monitoring around site

- Remediation of contaminated groundwater outside wall was not required, “no known exposure”

- Completion of Remedy: 06/21/1999
  - Note: No further investigative or remedial work needs to be completed at this site
Brownfields/Redevelopment

• Brownfield redevelopment has resulted in remediation of former contaminated properties and returned them to beneficial use;
  – very consistent with Smart Growth planning.

• Brownfield redevelopment often occurs concurrently with remedial work; this site was remediated first.

• Many former industrial sites like the GM Plant have been safely redeveloped in the Baltimore area under MDE’s oversight.

• Harbor Point is a redevelopment project and not a site investigation or remedial project.

• 02/05/2003: “Covenant Not to Sue” signed between Honeywell and EPA/MDE sets conditions for safe redevelopment. Amended: 8/22/2013 to include Harbor Point.

• Morgan Stanley: Geotechnical report (2006); Detail Design Plan (2008); construction completed (2010).
Current status

• June 2012: Conceptual design plan (CDP) submitted to EPA/MDE:
  – agencies provided comments and approved CDP January 2013.

• July 2013: Detailed design plan (DDP) submitted to EPA/MDE:
  – agencies provided comments 10/31/2013;
  – revised DDP submitted 11/12/2013 (being reviewed).

• Agencies are requesting use of CARB air sampling method for pre-construction chromium in ambient air.
Construction goals

• MDE & EPA would ensure that public health and the environment are protected.
  – Construction should not undo the remedy already in place.

• Construction action levels would be set based on dust particulate levels – would conservatively assume that Cr will be in dust, and be monitored throughout invasive activities.

• Actions to control dust or even shut down would be triggered by conservative standards.

• EPA and MDE can adjust standards based on sample results as construction progresses.

• MDE plans to have inspectors present on-site during critical phases of the construction.

• Post construction: EPA & MDE would maintain oversight, as monitoring will be always ongoing to ensure that the remedy is maintained.
Here’s a portion of MDE’s webpage showing documents available by download or PIA request.

http://www.mde.state.md.us/programs/Land/HazardousWaste/HazardousWasteHome/Pages/AlliedChemical.aspx
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