U.S. DEPARTMENT OF ENERGY | OFFICE OF ENVIRONMENTAL MANAGEMENT

Educational Session #1 – Discussion on DOE's National Recycling Policy

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SSAB Discussion Outline

- Nickel Background/Status/Path Forward

Background: Volumetrically Contaminated Nickel Recycling

- The Secretarial policy restrictions are in place:
  - January 12, 2000, ***Moratorium*** prohibits unrestricted release of volumetrically-contaminated metal into commerce
  - July 13, 2000, ***Suspension*** prohibits unrestricted release of all scrap metals from DOE radiological areas into commerce

- Total Estimated Contaminated Nickel Inventory = 30,300 tons
  - Oak Ridge (ETTP) stored barrier shreds 5,600 tons
  - Paducah ingots 9,700 tons
  - Future Stocks
    - Projected Portsmouth D&D (~2014 – 2017) ~6,400 tons
    - Projected Paducah D&D (~2019 – 2023) ~8,600 tons

Background (cont'd): Volumetrically Contaminated Nickel Recycling

- EM-1 response to the 2/27/2013 *EM SSAB recommendation* to place more emphasis and priority on evaluating technologies to make recycling excess materials cost effective:
  - Decontamination and resale of excess materials have many positive impacts
  - Adding recycling and repurposing element to future cleanup contract is a fine concept to be explored
  - Potential consideration of the establishment of a national recycling center of excellence

Status: Volumetrically Contaminated Nickel Recycling

- Request for Task Proposal for Paducah Deactivation, DE-SOL-0004563, issued August 9, 2013
  - Section C.1.2.2.15 requires development of Recycling Program Plan to evaluate scrap metal recycling options per DOE policy restrictions
  - Procurement on-going. Award expected in 2014.
- Ongoing Portsmouth FBP bench testing to evaluate carbonyl technology to decontaminate Portsmouth nickel, such that it could be safely recycled
  - Estimated completion by May 2014
  - FBP's Nickel Carbonyl Bench Evaluation Plan posted on: http://fbportsmouth.com/projects/nickel-carbonyl-recovery/index.htm

Path Forward: Volumetrically Contaminated Nickel Recycling

- DOE evaluating options for nickel recycling.
- Potential benefits of recycling include:
  - Making best use of a valuable asset
  - Providing potentially significant source of funds for on-going cleanup work
  - Potential creation of new jobs near DOE sites and in host communities
  - Avoids disposal costs by reducing volumes
  - Reduces annual surveillance and maintenance costs
  - Provides waste minimization