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# **Mercury Storage Concept Pre-Environmental Impact Statement Grand Junction, Colorado, Scoping Meeting Information**



U.S. DEPARTMENT OF  
**ENERGY**

Legacy  
Management

# Mercury Export Ban Act

- Passed into law in October 2008
- Purpose is to prohibit the export of mercury
- Identifies the Department of Energy (DOE) as the agency to provide long-term storage with collaboration from the Environmental Protection Agency (EPA)
- Requires:
  - Guidance on standards and procedures by October 1, 2009
  - Facility will be constructed and operated to hazardous waste requirements
  - A facility be designated by January 1, 2010
  - Operations to begin by January 1, 2013



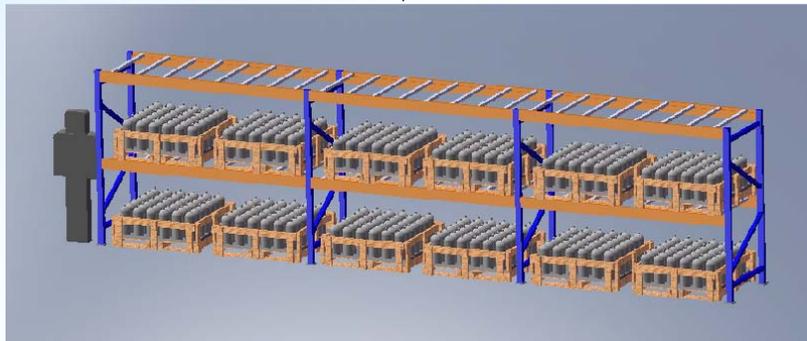
# Stockpiles of Mercury

- DOE stores approximately 1,200 metric tons at the Oak Ridge Reservation
- Department of Defense stores approximately 4,400 metric tons
- EPA estimates that between 7,500 and 10,000 metric tons of mercury would be available for storage from industry sources over the next 40 years
- At this time, no decision has been made as to how much elemental mercury would be stored in the storage building



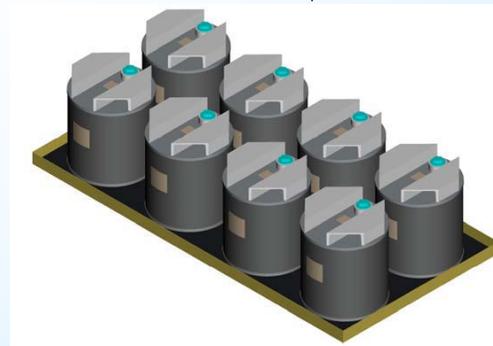
# Mercury Storage Containers

76-Pound Flasks



Pallets of Flasks Stacked Three High

A 1-Metric-Ton Container



Containers Grouped on Drip Tray



# DOE's Actions

- Established a Mercury Working Group
- DOE's Environmental Management (EM) organization responsible for site selection and construction
- DOE's Legacy Management (LM) organization responsible for long-term storage
- EM requested input on potential locations from both private and federal entities through an Expression of Interest (EOI)
- LM informally evaluated the idea of locating the mercury storage building at the Grand Junction Disposal Site and decided it should go through the formal Environmental Impact Statement (EIS) process
- LM submitted a proposal in response to the EOI to EM
- EM received EOIs from seven locations, including LM's proposal to consider the Grand Junction Disposal Site for evaluation
- EM initiated an EIS based on input from the EOI



# Stakeholder Communications/Commitments

- EIS Scoping Meeting held on July 21, 2009, in Grand Junction
  - Meeting was well-attended by the public and elected officials
  - Formal public comments can be submitted until August 14, 2009
- DOE has had informal discussions with the city, county, state, and local business leaders during the process



# EIS Process



# LM's Proposal

- Construct a new, energy efficient building at the Grand Junction Disposal Site in area that would not impact disposal cell operations
- New building would comply with hazardous waste storage requirements
- The Grand Junction Disposal Site contains 360 acres of DOE-owned land. Disposal cell encompasses 94 acres of that parcel.
- New building (up to 150,000 square feet) would be located in the corner of the property and not impact disposal cell operations
- Significant environmental and geologic information has been collected in the past that can be used for evaluation in the EIS
- Mercury storage mission would be supported by over 150 federal and contractor employees located in LM's Grand Junction Office
- LM's mission is the long-term surveillance and monitoring of DOE's legacy sites and materials
- LM currently manages over 80 sites in 27 states and Puerto Rico, including 11 sites in Colorado



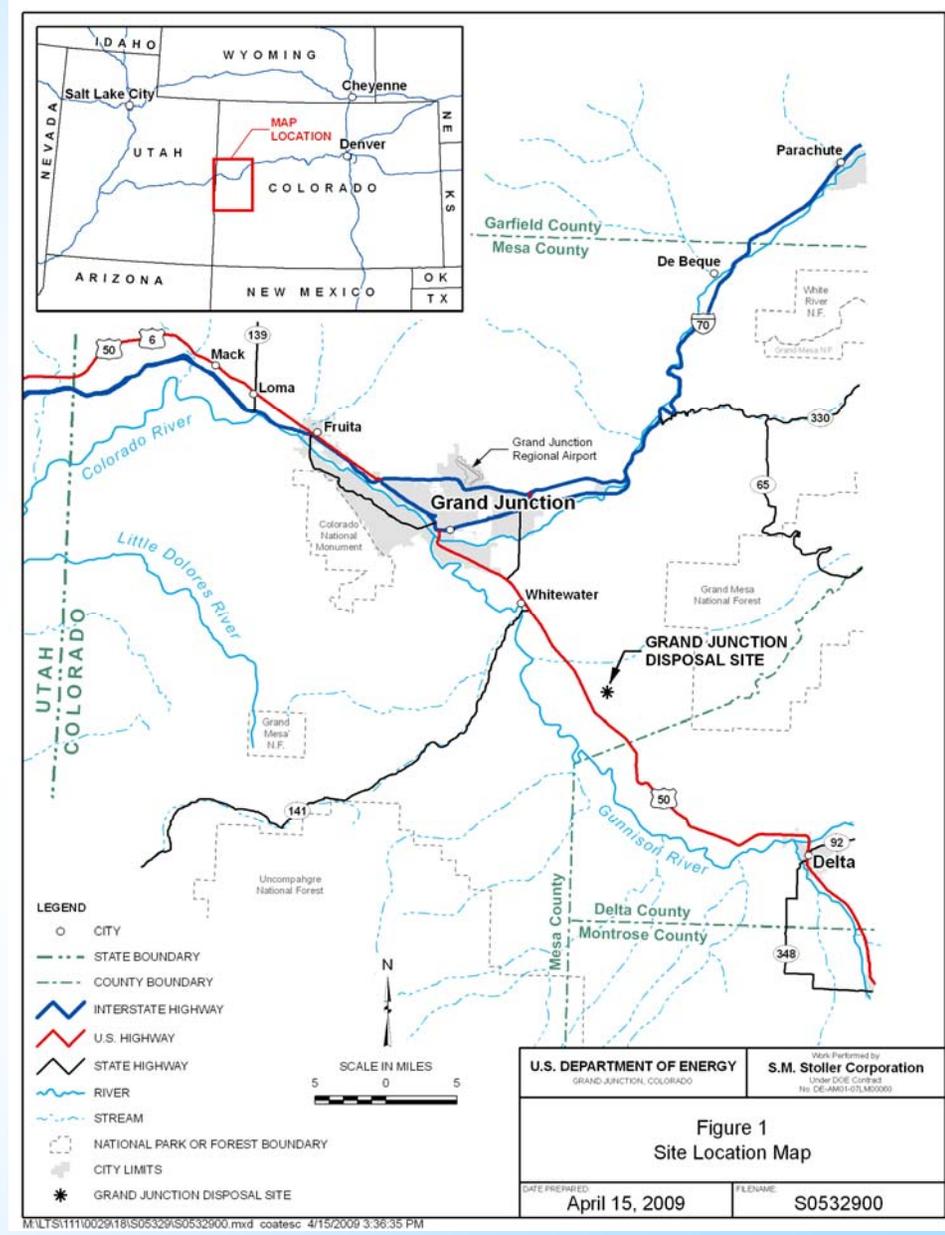
# Map of Legacy Management Sites



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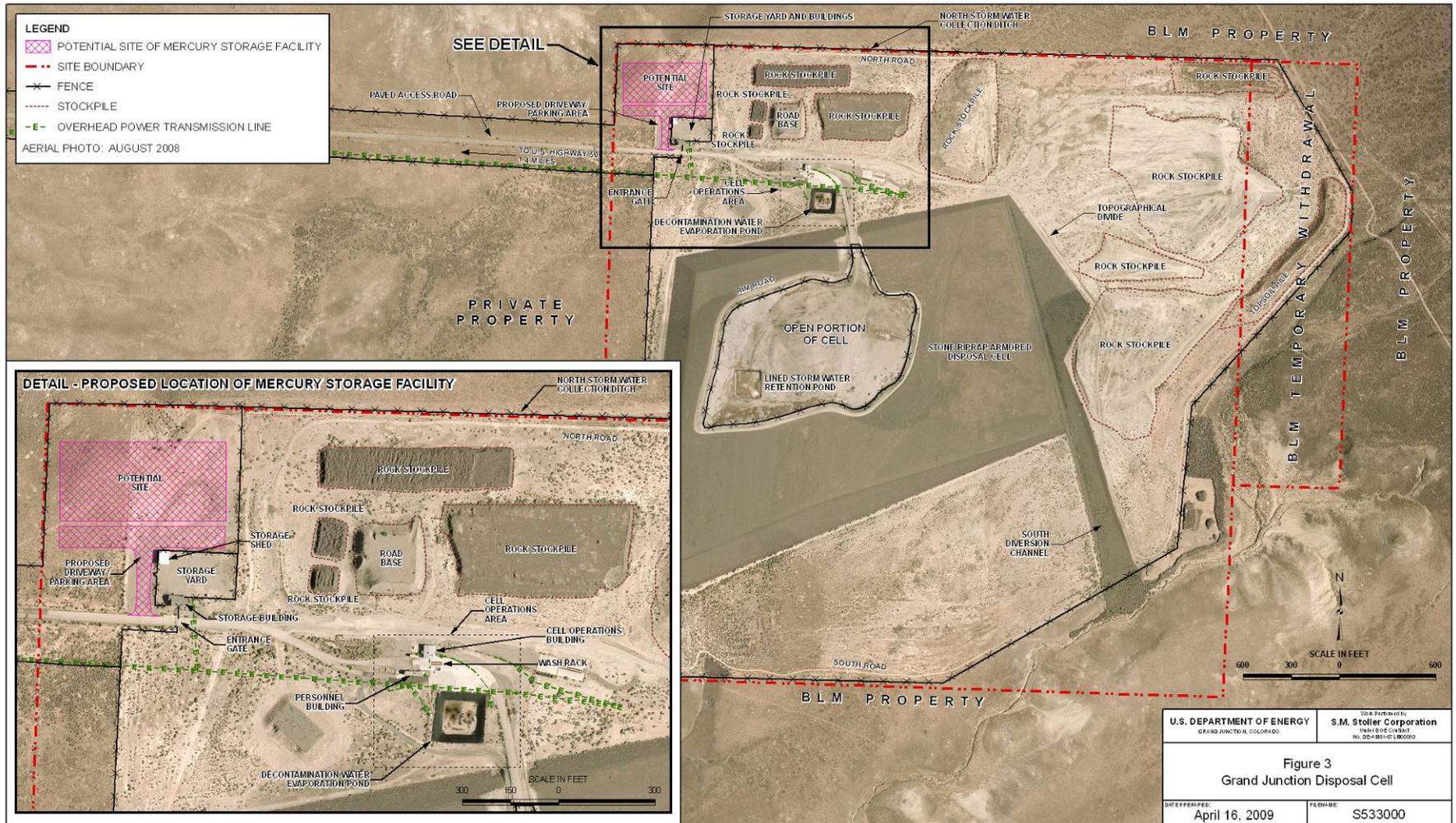
# Site Location Map



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# Grand Junction Disposal Cell



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# Mercury Quick Facts

- Mercury is a naturally occurring element that is found in air, water, and soil. It exists in several forms: elemental or metallic mercury, inorganic mercury compounds, and organic mercury compounds.
- Coal-burning power plants are the largest human-caused source of mercury emissions to the air in the United States, accounting for over 40 percent of all domestic human-caused mercury emissions
- Mercury in the air eventually settles into water where certain microorganisms can change it into methylmercury
- Methylmercury is a highly toxic form of mercury that builds up in fish and shellfish, which are the main sources of methylmercury exposure to humans.
- Mercury exposure at high levels can harm the brain, heart, kidneys, lungs, and immune system of people of all ages. Research shows that most people's fish consumption does not cause a health concern.
- It has been demonstrated that high levels of methylmercury in the bloodstream of unborn babies and young children may harm the developing nervous system, making the child less able to think and learn.

Source: <http://www.epa.gov/mercury/>



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# Mercury Storage Information

- DOE has set up a website to provide information on the mercury storage project at <http://www.mercurystorageeis.com/>
- EPA has a mercury website that provides basic information on different forms of mercury and health and ecological effects at <http://www.epa.gov/mercury/about.htm>

