

**FINDING OF NO SIGNIFICANT IMPACT**

**Mercury Reflasking  
Environmental Assessment**

**October 19, 2000**

**Department of Defense  
Defense Logistics Agency  
Defense National Stockpile Center  
Fort Belvoir, VA**

**AGENCY:** U.S. Department of Defense

**ACTION:** Finding of No Significant Impact

**SUMMARY:** An environmental assessment (EA) has been prepared to assess the potential environmental impacts associated with the proposed action to transfer (i.e., reflash) Defense National Stockpile mercury stored at the New Haven, Indiana and Warren, Ohio depots into new 76-lb and/or 1 metric ton (1-t) containers. Based on the analysis in this EA, the Defense National Stockpile Center (DNSC) has determined that the proposed action is not a major federal action significantly affecting the quality of the human environment within the meaning of the National Environmental Policy Act (NEPA) (42 U.S.C. 4321 et seq). Therefore the preparation of an environmental impact statement is not required.

The EA analyzed the No Action Alternative (as required by NEPA) and alternatives for transferring the mercury into 76-lb or 1 metric ton (1-t) capacity containers. Although not expressly analyzed in the EA, a hybrid alternative could be selected that could include portions of the No Action, 76-lb Flask, and 1-t Container alternatives. This hybrid alternative could involve transferring all or a portion of the mercury at either or both depots into either or both containers. The analyses presented in the EA bound the impacts of a hybrid alternative.

**ADDRESSES AND FURTHER INFORMATION:** Copies of this EA, and further information concerning the proposed action, are available from:

**Attention:** Mercury Reflasking EA  
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Additional information about the NEPA process can be obtained from the Council on Environmental Quality (CEQ) "NEPANET" website at "<http://ceq.eh.doe.gov/nepa/nepanet.htm>."

**PURPOSE AND NEED:** Under authority delegated by the Secretary of Defense under the Strategic and Critical Materials Stock Piling Act of 1939, as amended (50 USC 98 et seq.), DNSC, a subordinate command of the Defense Logistics Agency (DLA), is responsible for all activities necessary to provide safe, secure, and environmentally sound stewardship for all commodities in the National Defense Stockpile. DNSC is also responsible for the disposition of stockpiled items declared excess to national defense needs and authorized for sale by Congress.

DNSC is responsible for the management of stocks of certain critical and strategic materials as determined by Congress. Mercury is one of these materials. Mercury is currently stored in 76-lb (34-kg) flasks at four DLA/DNSC depots located in Binghamton, New York<sup>1</sup>; New Haven, Indiana; Somerville, New Jersey; and Warren, Ohio; and at the Department of Energy's (DOE's) Y-12 plant located in Oak Ridge, Tennessee. Leaking flasks have been identified at the New Haven and Warren depots. These leaking flasks were in storage for over 30 years. Therefore, DNSC needed to consider whether the mercury at these two depots should be transferred into new containers to ensure continued safe storage.

The *Mercury Reflasking EA* was prepared to consider the transfer of mercury into new containers to address the urgent situation at the New Haven and Warren depots, and therefore did not evaluate long-term storage of the mercury. Ultimate disposition of the mercury stockpile, including long-term storage, will be evaluated in a forthcoming EIS.

**BACKGROUND:** The New Haven Depot consists of approximately 268 acres (108 ha) of land with 12 permanent and 2 temporary employees. The entrance to the depot is located on the north side of Dawkins Road (State Route 14), approximately 3 mi (4.8 km) east of New Haven, Indiana. There are approximately 557 t (614 tons) of mercury stored in 16,151 steel flasks. Mercury is stored in accordance with DNSC requirements, and is inspected weekly as required by the DNSC mercury storage area inspection procedure. The DNSC health and safety guidelines for mercury ensure that worker exposure is limited. One confirmed leaking flask and five suspected leaking flasks have been found. In addition, 140 flasks have been identified as having droplets either on the flask itself or in the plastic bag surrounding it.

The Warren Depot consists of approximately 160 acres (65 ha) of land with 13 permanent duty employees. The entrance to the depot is located on the west side of Niles-Warren River Road, approximately 950 ft (290 m) north of DeForest Road. There are approximately 563 t (621 tons) of mercury stored in 16,355 steel flasks. Two confirmed leaking flasks and three suspected leaking flasks have been found. These five flasks have been placed in plastic bags to prevent any further mercury migration. Leaking mercury from these incidents at the New Haven and Warren depots has been promptly cleaned up with no mercury released to the environment.

**PROPOSED ACTION:** The proposed action is to transfer the mercury stored at the New Haven and Warren depots into new 76-lb and/or 1 metric ton (1-t) containers (i.e., reflask).

**ALTERNATIVES CONSIDERED:** This EA describes two alternatives for the proposed action as well as a No Action Alternative as required by NEPA.

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<sup>1</sup> It is anticipated that mercury will be transferred from the Binghamton, NY Depot to the Somerville, NJ Depot this fall.

No Action: The No Action Alternative provides an environmental baseline to compare to the potential effects of the proposed action. Under the No Action Alternative, the mercury would continue to be stored in existing flasks at the New Haven and Warren depots. Some leaking flasks would be anticipated and would be cleaned up using current procedures. Mercury recovered from the leaking flasks would be transferred to new flasks for continued storage.

Transfer into New 76-lb Flasks: Under this alternative, mercury would be transferred from the existing flasks into new seamless steel flasks. The existing flasks that have leaked at the New Haven Depot were in storage for at least 30 years and were fabricated in a manner that included welded seams rather than a seamless body.

Transfer into New One Metric Ton (1-t) Containers: In this alternative, mercury would be transferred from the existing flasks into new 1-t (1.1-ton) containers. The 1-t (1.1-ton) containers can hold the contents of about 29 flasks. If lot integrity must be maintained, 1,218 metric ton containers (586 at New Haven; 632 at Warren) would be needed to contain the 176 separate lots of mercury. Approximately 195 of these containers would not be completely filled and therefore, would not contain 1-t (1.1-ton) of mercury. If lot integrity could be ignored, 1,121 new metric ton containers (557 at New Haven and 564 at Warren) would be needed, and all but two of these containers would be completely filled.

**ENVIRONMENTAL IMPACTS:** The results of evaluations of potential human health and environmental consequences are summarized in this section. The impacts of transferring the mercury into 76-lb flasks versus 1-t (1.1-ton) containers are not differentiated in this section since the impacts of these activities are similar.

Human Health – Human health risks were evaluated for storage and reflasking operations at the depots, and for transportation of materials and wastes. These activities were evaluated for routine operations and accident conditions. This evaluation considered the potential impacts to children and the elderly.

Routine Operations – Routine operations refers to the conduct of the proposed action (transfer of mercury into new containers, followed by continued storage) without incident. The storage and reflasking operations would be carried out using equipment (including mercury vapor detectors), personal protective gear, and procedures designed to protect workers and minimize any emissions of mercury to the environment. Therefore, routine operations pose low to negligible risk to depot workers and the general public from exposure to mercury.

Facility Accidents – Numerous accident scenarios were considered for storage and reflasking operations. These scenarios include slow leaks, dropped or punctured flasks, pallet collapse, forklift fire, building fire, earthquake, high winds/tornadoes, lightning, snow loads, aircraft crash, vehicle crash, and explosions or fires at nearby facilities. All of the accident scenarios were determined to have a low or negligible risk.

*Transportation* – Under the proposed action, new pallets and storage containers would be trucked to the depot, and waste pallets, waste flasks and small amounts of hazardous waste would be trucked offsite. It is expected that the normal risks associated with truck transportation—injuries or fatalities due to collisions—would be a larger contribution to risk than the transportation of residual amounts of mercury. Based on the analysis presented in this EA, no serious truck accidents or accident fatalities are anticipated to result from the proposed action. Even if a serious truck accident were to occur, it is unlikely that the impacts to the public would exceed those evaluated for facility accidents. Therefore, the impacts would be low to negligible.

Environmental Justice - Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, requires that Federal agencies identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of their programs and activities on minority and low-income populations. Because no adverse effects are anticipated as a result of the proposed actions during both normal operation and accident conditions, there would be no opportunity for disproportionately high and adverse consequences on minority, or low-income populations.

Ecological Risk - If mercury becomes airborne as a result of an accident, it may deposit on the ground or on surface waters. If the mercury were present at high enough concentrations it could be toxic to plants and animals living or foraging in the area. The ecological risk assessment evaluated this possibility and concluded that the ecological risk is low or negligible for all of the evaluated accident scenarios.

Waste Management – Reflasking activities would generate wastes (i.e., empty flasks, old box pallets, workers' protective clothing, and wipes) that would require recycling, treatment and/or disposal. Hazardous waste (comprised mostly of workers' protective clothing and wipes) would be sent to offsite permitted commercial facilities for treatment and/or disposal. It is expected that empty flasks (nonhazardous waste under the Resource Conservation and Recovery Act [RCRA] empty container rule) would be trucked to an offsite treatment facility to recover any residual mercury. The cleaned flasks would then be sent to a scrap metal recycling facility. A representative number of samples would be taken from the old box pallets to determine if they are contaminated with mercury. If contaminated, they would be trucked to a treatment facility for mercury recovery. If uncontaminated, the wood would be sent to a recycling facility or disposed of in a local landfill as solid waste. Because wastes would be packaged and trucked to offsite permitted commercial facilities for recycling, treatment and/or disposal, there would be no major impacts on the onsite waste management infrastructure.

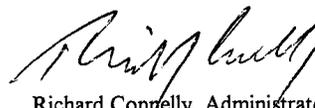
Other Environmental Impacts - Storage and reflasking activities would result in small increases in air emissions, would not use appreciable quantities of natural resources, would not involve construction or land disturbance, would take place inside warehouses, and would only marginally increase the traffic flow to and from the depots. In addition, the proposed action would not occur in a floodplain,

and would not impact wetlands, threatened and endangered species, and cultural resources. Therefore, the consequences of the proposed action are expected to be negligible for air quality and noise, geology and soils, water resources, ecological resources, cultural resources, land use and visual resources, and site infrastructure, and would comply with all applicable environmental regulations and executive orders.

Cumulative Impacts - Because the contributions from the Proposed Action would be extremely small, the proposed action is not expected to contribute substantially to the cumulative impacts from past or anticipated activities at the depots and along the transportation corridors.

**DETERMINATION:** Based on the analysis in this EA, I conclude that the proposed action does not constitute a major federal action significantly affecting the quality of the human environment within the meaning of NEPA. Therefore, an EIS for the proposed action is not required.

Issued at Fort Belvoir, VA this 19th day of October 2000.



Richard Connelly, Administrator  
Defense National Stockpile Center