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**Before the**

**Subcommittee on Energy and Power**
**Committee on Energy and Commerce**
**U.S. House of Representatives**

**Strategic Petroleum Reserve**

**April 30, 2015**

Chairman Whitfield, Ranking Member Rush, and Members of the Committee, it is my pleasure to appear before you today to discuss the Department of Energy's (DOE) Strategic Petroleum Reserve (SPR).

## SPR Background

The SPR provides strategic and economic security against foreign and domestic disruptions in oil supplies via an emergency stockpile of crude oil. It also fulfills U.S. obligations under the International Energy Program, which avails the U.S. of International Energy Agency assistance through its coordinated energy emergency response plans, and provides a defense against energy supply disruptions.

The SPR is a network of 60 operational caverns at four storage sites in Louisiana and Texas, with a total design capacity of 713.5 million barrels and 115 operational wellbores. It currently holds 691 million barrels of crude oil available for release in the event of a petroleum supply disruption. The SPR caverns are connected to three distribution networks—Seaway, Texoma, and Capline—that distribute SPR oil through pipelines and marine terminals to Gulf Coast refineries, inland refineries, and refineries on the East and West Coasts. Cavern operating costs are less than $0.25 per barrel per year, which are the lowest costs among oil stockpiling countries.

The infrastructure and equipment to support a drawdown across the SPR is both large and complex. In addition to the storage caverns and wellbores, these include:

- 16 above ground storage tanks holding crude oil, waste oil, and firefighting water;

- 80 pumps for crude oil, brine, raw water, and firefighting systems;
- 33 heat exchangers; 21 brine disposal wells;
- A crude oil degasification plant;
- More than 5,400 valves; and
- Over 200 miles of crude oil, brine disposal, and raw water pipeline that must be maintained.

Much of this aging infrastructure, which has performed capably to meet every emergency release throughout the SPR's history, is at the end of its design life and life extension investments will be needed in the near future.

**Program Highlights**

In 2014, the SPR performed an operational Test Sale that was conducted to evaluate the drawdown and sales procedure capabilities of the Reserve in the Texoma distribution system, which has been impacted due to significant changes in domestic crude oil production, increased imports of Canadian crude oil, and changes to crude oil distribution infrastructure upon which the SPR relies. The SPR completed delivery of 4,998,146 barrels of crude oil over a 47 day period, resulting in $468,564,599 in receipts. The Test Sale was successful in evaluating the drawdown and sales procedures, and validated the operational capability to drawdown the SPR. In particular, it identified a need to conduct analyses of potential commercial infrastructure investments and options to ensure future marine distribution capability of the SPR.

A portion of the receipts from the Test Sale ($227,744,500) was used to fund the requirements of the Northeast Gasoline Supply Reserve (NGSR). The NGSR was established as a result of Superstorm Sandy in 2012, It consists of one million barrels of government-owned gasoline ready for blending with ethanol and stored in leased commercial storage terminals at three locations in the Northeast U.S.: 700,000 barrels are stored in the New York Harbor area at two separate locations; 200,000 barrels are stored at a terminal in Revere, Massachusetts; and 100,000 barrels are stored at a terminal in South Portland, Maine.

The NGSR, which became operational in August 2014, remains at full readiness and prepared for an emergency drawdown at the direction of the President.

On April 9, 2015, in compliance with section 161(g)(6) of the Energy Policy and Conservation Act of 1975 (EPCA), the Department announced the award of contracts for the repurchase of crude oil sold during the 2014 Test Sale. Under terms of the contracts, which were funded by $239.2 million in receipts from the sale, BP Products North America, Inc. will deliver 2,197,500 barrels and Noble Americas will deliver 2,000,000 barrels to the Reserve's Bryan Mound site in Freeport, Texas. Deliveries are expected to be completed by July 31, 2015.

## SPR Modernization

The SPR remains an important protection against serious oil supply disruptions and the associated price increases in domestic petroleum and petroleum products. However, the global environment in which it operates has changed markedly since its creation in the 1970s. At that time, the mission of the SPR was to avoid "national energy supply shortages" (i.e., a loss of supply to U.S. refineries). Today, the impacts of an overall supply disruption of global oil markets would have the same effect on domestic petroleum product prices, regardless of U.S. oil import levels or whether or not U.S. refineries import crude oil from disrupted countries.

In response to these changing dynamics, the Department has initiated work on a comprehensive long-term strategic review of the SPR. The review will examine future SPR requirements regarding the size, composition, and geographic location of the Reserve; and determine the impact of these requirements on future SPR surface, below-ground, and distribution infrastructure. This review will be informed by the recommendations contained in final review reports[1] on the SPR conducted by the Government Accountability Office (GAO) and the Department of Energy's Inspector General (IG) Office. It will also be informed by the recommendations contained in the Administration's recently-released Quadrennial Energy Review (QER). Analytical methodology will be consistent with the requirements of OMB Circular A-94.

## Related QER Recommendations

The QER underscores the need for an effective SPR modernization program that reflects current global oil markets, U.S. market conditions, the nature of energy security in an interconnected world, and addresses SPR distribution infrastructure and life extension of key SPR infrastructure components. It outlines a program that would address physical infrastructure issues and revise the statutory basis for releasing the SPR. Addressing these issues will ensure the maximum readiness of the SPR to meet the Nation's strategic petroleum requirements during a disruption. Specific recommendations include the following[2]:

**Invest to optimize the SPR's emergency response capability:** DOE should make investments to optimize the ability of the SPR to protect the U.S. economy in an energy supply emergency. It is anticipated that $1.5–$2.0 billion is needed to increase the incremental distribution capacity of the SPR by adding dedicated marine loading dock capacity at the Gulf Coast terminus of the SPR

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[1] Reports:

The Department of Energy Inspector General. "Audit Report: The Strategic Petroleum Reserve's Drawdown Readiness."July 2014. http://energy.gov/sites/prod/files/2014/07/f17/DOE-IG-0916.pdf

U.S. Government Accountability Office. "Changing Crude Oil Markets: Allowing Exports Could Reduce Consumer Fuel Prices, and the Size of the Strategic Reserves Should Be Reexamined." September 2014. http://www.gao.gov/products/GAO-14-807.

[2] http://energy.gov/sites/prod/files/2015/04/f22/QER%20ch4%20final_0.pdf

distribution systems, as well as undertaking a life extension program for key SPR components, including surface infrastructure and additional brine-drive caverns. This work should be preceded by DOE analyzing appropriate SPR size and configuration and carrying out detailed engineering studies.

**Update SPR release authorities to reflect modern oil markets:** Congress should update the SPR release authorities in EPCA to make them more flexible. EPCA's definition of a "severe energy supply interruption" should expressly include criteria focused specifically on disruptions in the global oil market, regardless of whether they resulted in a loss of oil imports to the United States. In addition, the requirement that a severe increase in the price of petroleum products *has resulted* from such emergency situation should be changed to a requirement that a severe price increase *will likely result* from such emergency situation.

**Support other U.S. actions related to energy security infrastructures that reflect a broader and collective view of energy security:** The U.S. should continue to consult with allies and key energy trading partners on energy security issues, as well as support actions related to energy infrastructures that are consistent with U.S. interests and G-7 principles on energy security.

To ensure the strongest possible response to regional supply disruptions and vulnerabilities, the QER includes a recommendation to integrate the authorities of the President to release products from the Northeast Home Heating Fuel Reserve and the Northeast Gasoline Supply Reserve into a single, unified authority. These release authorities should be aligned and should be tailored to the purposes of a product reserve, as opposed to a crude oil reserve. [3]

Mr. Chairman, and members of the Committee, this completes my prepared statement. I would be happy to answer any questions you may have at this time.

[3] http://energy.gov/sites/prod/files/2015/04/f22/QER%20ch2%20final_1.pdf