Strategic Petroleum Reserve

Quarterly Report

November 15, 1995

**U.S. Department of Energy
Assistant Secretary for Fossil Energy
Office of Strategic Petroleum Reserve**

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STRATEGIC PETROLEUM RESERVE QUARTERLY REPORT

EXECUTIVE SUMMARY

The Strategic Petroleum Reserve reduces the Nation's vulnerability to oil supply disruptions. Its existence provides a formidable deterrent to the use of oil as a political instrument and an effective response mechanism should a disruption occur.

The Strategic Petroleum Reserve was created pursuant to the Energy Policy and Conservation Act of December 22, 1975 (Public Law 94-163). Its purposes are to reduce the impact of disruptions in supplies of petroleum products and to carry out obligations of the United States under the Agreement on an International Energy Program. Section 165(a) of the Act requires the submission of Annual Reports and Section 165(b)(1) requires the submission of Quarterly Reports. This Quarterly Report highlights activities undertaken during the third quarter of calendar year 1995, including:

- ▶ inventory of petroleum products stored in the Reserve;
- ▶ current storage capacity and ullage available;
- ▶ current status of the Strategic Petroleum Reserve storage facilities, major projects and the acquisition of petroleum products;
- ▶ funds obligated by the Secretary from the SPR Petroleum Account and the Strategic Petroleum Reserve Account during the prior calendar quarter and in total; and
- ▶ major environmental actions completed, in progress, or anticipated.

In order to correct the Reserve's crude oil inventory problem associated with a higher-than-normal gas content, the Department commenced degasification operations at the West Hackberry and Bryan Mound storage sites. As of September 30, 1995, a total of approximately 8.0 million barrels of crude oil had been degassed.

The Department continued activities associated with the plans for drawdown and decommissioning of the Weeks Island storage facility due to mine geotechnical integrity problems. During the quarter, the Department continued its program of monitoring brine accumulation into the mine and construction of a freeze wall around the crevasse in the salt formation over the mine to provide groundwater control during drawdown. The freeze wall is scheduled to be completed in November at which time the movement of the crude oil stored at Weeks Island to other Strategic Petroleum Reserve storage sites

The site's drawdown capability is currently limited due to the higher than normal gas content of the site's crude inventory. The Department's contract for degasification provides for degasifying approximately 26 million barrels of crude oil at the Big Hill site. Plans are to use the degasification unit from Bayou Choctaw upon completion of operations at that site. Degasification of the affected inventory at Big Hill is scheduled to begin in August 1996, with completion in May 1997.

WEST HACKBERRY, LOUISIANA

The West Hackberry storage facility in Cameron Parish, Louisiana, has a storage capacity of 219 million barrels and an inventory of 204 million barrels. The site is available for fill and limited drawdown operations at this time.

The site's drawdown capability is currently limited due to the higher than normal gas content of the site's crude inventory. The Department's contract for degasification provides for degasifying approximately 18 million barrels of crude oil at the West Hackberry site. Delta Hudson, the degasification contractor, has completed setting all the major equipment during this quarter. Degasification of the crude was started in July 1995 and is scheduled for completion in March 1996. As of September 30, 1995, approximately 5.7 million barrels of crude have been degassed.

BAYOU CHOCTAW, LOUISIANA

The Bayou Choctaw storage facility in Iberville Parish, Louisiana, has a storage capacity of 75 million barrels and an inventory of 52 million barrels. The site is available for fill and limited drawdown operations.

The site's drawdown capability is currently limited due to the higher than normal gas content of the site's crude inventory. The Department's contract for degasification provides for degasifying approximately nine million barrels of crude oil at the Bayou Choctaw site. Plans are to use the degasification unit from West Hackberry upon completion of operations at that site. Degasification of the affected inventory at Bayou Choctaw is scheduled to begin in April 1996, with completion about July 1996.

In addition, in February 1995, the Department completed the installation of two crude oil heat exchangers for cooling crude oil during drawdown. During the quarter, the Department conducted an operational test of the site's heat exchangers which revealed a higher than predicted pressure drop through the exchangers. The Department has notified the heat exchanger manufacturer of the problem and initiated engineering analyses to determine what, if any, remedial actions are required to meet sites crude drawdown requirements.

WEEKS ISLAND, LOUISIANA

The Weeks Island storage facility in Iberia Parish, Louisiana, has a storage capacity of 70 million barrels and is currently filled to capacity.

In December 1994, the Department announced plans to decommission the Weeks Island storage facility due to geotechnical problems which pose a significant risk to continued use as a oil storage facility, i.e. surface water from above the salt dome is entering the Weeks Island storage chamber. Plans have been developed and preparations made to relocate the Weeks Island oil to other Strategic Petroleum Reserve storage facilities in Louisiana and Texas during 1995 and 1996 and to complete decommissioning Weeks Island as a Strategic Petroleum Reserve facility by mid-1999.

During the quarter, the Department continued its program of injecting saturated brine into the crevasse at the top of salt to minimize further leaching of the flow path and monitoring of brine accumulation into the mine. Brine inflow during the quarter increased from 175 to 200 gallons per hour. To provide further protection against any potential ground water from entering the mine while moving the Weeks Island oil, the Department is constructing a freeze wall, i.e. freezing the ground surrounding the postulated inflow point at the top of the salt formation. Construction of the freeze wall was initiated in June 1995, and the groundwater ring was frozen in November. The Department plans to test the freeze wall for competence and then commence the movement of the Weeks Island crude to other Strategic Petroleum Reserve storage sites.

To comply with the National Environmental Policy Act, the Department has initiated the preparation of an Environmental Assessment for the decommissioning of the Weeks Island site. During this quarter, the Environmental Assessment is undergoing review by the State of Louisiana.

ST. JAMES TERMINAL, LOUISIANA

The St. James Terminal is located on the Mississippi River in St. James Parish, Louisiana, 45 miles west of New Orleans and 30 miles southeast of Baton Rouge. The terminal provides marine services associated with the fill and drawdown of the Strategic Petroleum Reserve's Bayou Choctaw and Weeks Island storage facilities. In addition, the terminal can distribute crude oil through pipeline connections to two neighboring commercial crude oil distribution terminals, Capline and LOCAP. The terminal is available for both fill and drawdown operations. Plans to lease or outgrant use of the

terminal and crude oil pipelines are discussed in the "Special Topics" section of this report.

OIL FILL CAPABILITIES

As of September 30, 1995, the Reserve had a total storage capacity of 750 million barrels and a crude oil inventory of 592 million barrels. The oil fill capabilities for all the storage facilities are shown in Table I-1.

TABLE I-1
Strategic Petroleum Reserve Storage Capacity
(Figures in Millions)*

Storage Facility	Storage Capacity		Current Inventory		Capacity Available for Fill	
	(Barrels)	(Cubic Meters)	(Barrels)	(Cubic Meters)	(Barrels)	(Cubic Meters)
Bryan Mound	226	35.9	217	34.5	9	1.4
Big Hill	160	25.4	43	6.7	117	18.7
West Hackberry	219	34.8	204	32.6	15	2.2
Bayou Choctaw	75	11.9	52	8.3	23	3.6
Weeks Island	70	11.1	72	11.4	-2	-0.3
Tanks/ Pipelines	--	--	4	0.6	--	--
Total	750	119.1	592	94.1	162	25.6

*Volumes are reported both in barrels and in cubic meters in conformance with the Metric Conversion Act of 1975, the Omnibus Trade and Competitiveness Act of 1988, and the Department's Metric Transition Plan.

DRAWDOWN/DISTRIBUTION CAPABILITIES

IV. SPECIAL TOPICS

COMMERCIAL USE OF STRATEGIC PETROLEUM RESERVE DISTRIBUTION FACILITIES

The design of the Strategic Petroleum Reserve's crude oil distribution system has been based on a strategy of making maximum use of commercial crude oil distribution facilities and minimizing the development and operation of facilities to be used exclusively by the Strategic Petroleum Reserve. During its development, the Strategic Petroleum Reserve has constructed several crude oil pipelines and one marine terminal to connect its facilities to the commercial infrastructure. With the Reserve approximately 80 percent filled, no oil acquisition anticipated in the near future, and significant drawdown required only in the event of a national energy emergency, these facilities are significantly underutilized.

In 1994, the Department recommended the lease or outgrant of its distribution facilities, i.e. the St. James marine terminal and crude oil pipelines within the Capline, Texoma and Seaway complexes, for commercial crude oil distribution. Under Section 159(f)(D) of the Energy Policy and Conservation Act, the Secretary of Energy has statutory authority to "use, lease, maintain, sell or otherwise dispose of storage and related facilities" to the extent necessary and appropriate to implement the Strategic Petroleum Reserve Plan. By making these facilities available for commercial use, the Department expects to convert currently idle or partially utilized properties into a source of revenue. It also hopes to save maintenance and other costs associated with keeping the facilities ready for use.

In September 1994, the Department issued an "Invitation for Offers" inviting industry to submit offers for leasing the St. James marine terminal within the Capline complex. Although significant industry interest was expressed in the St. James Terminal, the Department did not receive any lease bids for the terminal pursuant to the "Invitation for Offers". In response to receiving no offers for leasing the St. James terminal, a Strategic Petroleum Reserve Leasing Business Strategy Group has met with several parties who previously expressed interest in leasing the facilities in order to understand why no bids were forthcoming.

Further action on leasing the St. James terminal and the Strategic Petroleum Reserve pipelines in the Capline complex have been delayed due to the pending oil relocation and sale of oil associated with the decommissioning of the Weeks Island storage site. However, plans were accelerated to issue a solicitation inviting industry to submit offers for leasing the Department-owned pipelines within the Seaway complex in October 1995.