



U.S. DEPARTMENT OF
ENERGY

Office of
Cybersecurity, Energy Security,
and Emergency Response

DOE Office of Petroleum Reserves

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Office of Petroleum Reserves

September 14, 2023

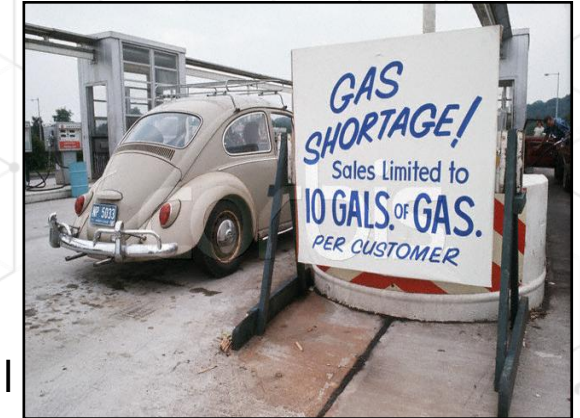
SPR Program

Established by U.S. Law

- Energy Policy & Conservation Act (EPCA) (December 1975)

Strategic Value

- Nation's **Insurance Policy** against petroleum supply interruptions (International incidents, hurricanes, accidents, and terrorism)
- **Deterrent** to hostile threats to cutoff oil supplies
- Carry out U.S. treaty obligations with the **International Energy Agency**
 - IEA required emergency assistance stockpile = 90 days net oil imports
 - U.S. share of IEA release ~40%



Strategic Petroleum Reserve Basics

- SPR crude oil is government owned and stored in salt domes that are government owned and contractor operated.
- For SPR refined produce reserves, stored in the Northeast, the product is government owned, however, the storage facilities are commercially owned and operated.
- The SPR uses salt caverns to store it's crude oil because cavern storage is by far the cheapest way to store petroleum products.
- The crude oil reserves are located in the Gulf of Mexico for two main reasons. First, over 50% of the U.S. refining capacity is located in the Gulf of Mexico and second, that's where the salt domes are.

Relative storage cost

Salt Cavern

Hard Rock Storage
(Used in Japan and China)

Above ground
steel tank storage

Least Expensive

Most Expensive

Strategic Petroleum Reserve

Site Information



Bryan Mound



Big Hill



West Hackberry



Bayou Choctaw

<u>SPR Site</u>	<u>Authorized Capacity</u>	<u>Current Inventory</u>	<u>Drawdown Rate</u>	<u>Fill Rate</u>
Bryan Mound	247.1 MMB	176.4 MMB	1.50 MMB/d	0.225 MMB/d
Big Hill	170.0 MMB	47.4 MMB	0.94 MMB/d	0.225 MMB/d
West Hackberry	220.4 MMB	87.9 MMB	1.30 MMB/d	0.125 MMB/d
Bayou Choctaw	76.0 MMB	34.0 MMB	0.46 MMB/d	0.110 MMB/d
Pipeline Fill / Tanks		1.2 MMB		
SPR Total	713.5 MMB	346.9 MMB	4.20 MMB/d	0.685 MMB/d

Fill Rate is ~1/6 of the Drawdown Rate

SPR Release Authorities



PRESIDENT OF THE UNITED STATES

- **Full Drawdown** [EPCA§161(d)]
 - To address a “severe energy supply interruption,” or
 - To meet U.S. obligations under the International Energy Program
- **Limited Drawdown** [EPCA§161(h)]
(Added in 1991)
 - Gives President flexibility in preventing or addressing lesser supply shortages
 - Limited to 30 MMB & 60 days; can’t drawdown below 340 MMB

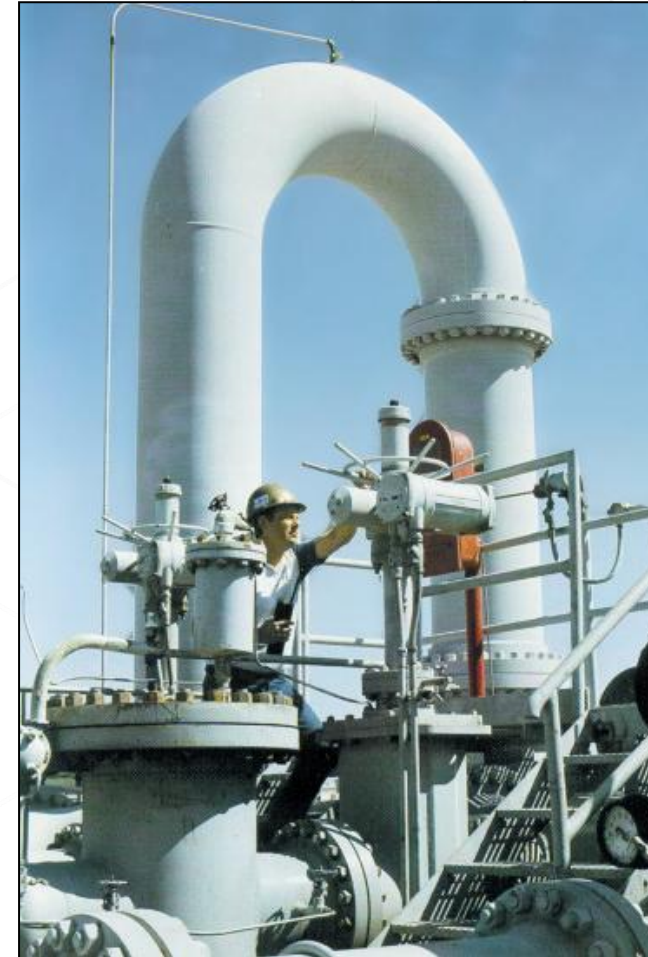


SECRETARY OF ENERGY

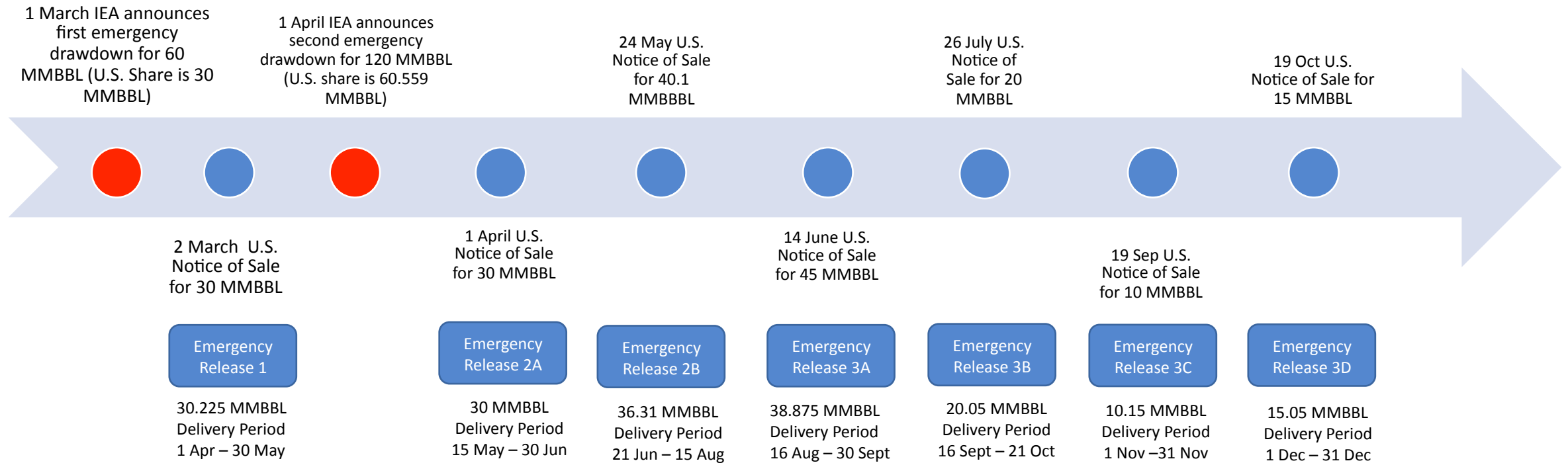
- **Test Sale** [EPCA§161 (g)]
 - To conduct evaluations of sales and drawdown procedures
 - Limited to 5 million barrels of oil
- **Oil Exchanges** [EPCA§159(f)] Under “Oil Acquisition Authority”
 - To acquire or alter the mix of oil
 - Used to provide refiners short-term emergency loans to address supply problems

SPR Release Policy

- **Competitive sale process**
 - Online auction system
 - Open to any person or entity providing an offer guarantee letter of credit
 - Awards to best value to the government
 - Awards not Final until 100% backed by Letter of Credit Guarantee
- **Sale prices indexed to industry marker crudes to minimize price risk to buyers and government**
- **SPR crude oil can be exported**



U.S. SPR Releases



CY22 SPR Emergency releases: 180.66 MMBBL

Total CY22 SPR releases: 209.779 MMBBL

(Keystone Pipeline Exchange 1.80 MMBBL)

SPR Repurchase Plan

- 180 million barrels sold in response to the Russian invasion of Ukraine
 - Average price received was \$94 per barrel
- Congress authorized the buyback of 140 million barrels in planned congressional sales for FY 24 – FY26
 - \$10.4 billion dollars toward planned congressional sales
 - Congress rescinded an additional \$2.05 billion for debt reduction
 - Remaining \$4.5 billion will be used to repurchase crude oil
- Advantages of the buyback
 - In addition to reduced wear and tear on the caverns, buying back the sales will save the taxpayer \$80 million dollars in crude oil movement cost.
 - Fill rate is about 1/6 of the drawdown rate. With current planned maintenance outages, it would take about 4.5 years to repurchase the 140 million barrels

Criteria for commencing acquisition

- DOE shall consider the following factors prior to commencing acquisition of petroleum products for the SPR:
 - The current inventory of the SPR;
 - The current level of private inventories;
 - Days of net import protection;
 - Current price levels for petroleum products and related commodities, the ability to minimize costs and avoid incurring excessive costs in acquisition, and the possible effect on consumer and market prices of any SPR acquisition;
 - The outlook for international and domestic production levels;
 - Existing or potential disruptions in supply or refining capability;
 - The level of market volatility;
 - Futures market price differentials for petroleum products and related commodities;
 - The need to protect national security; and
 - Any other factor the Secretary deems necessary or appropriate to consider.

Solicitation for the purchase of crude oil

- The solicitation shall include:
 - Manner of acquisition;
 - Time period for solicitations;
 - Quantity of petroleum products sought;
 - Minimum petroleum product quality requirements;
 - Time period for delivery;
 - Acceptable delivery locations; and
 - Instructions for the offer process.

Bid Selection Process

- Evaluation of the bids for the lowest cost to the government
- Congress is notified
- After congressional notification apparently successful bidders are notified of the \$ value of their winning bid. (for example, \$40 million)
- After 3 days DOE takes the average closing value for the marker crude used in the solicitation and determines the amount of the crude being purchased. (for example, Mars average 3 day close was \$80/bbl. Therefore, the amount of crude purchased would be 500,000 barrels.)

SPR Crude Oil Purchases

- May 15th Solicitation
 - 3.1 million barrels
 - Delivered to Big Hill in August 2023
 - Average Purchase Price: \$73.39 per barrel
- June 20th Solicitation
 - 3.2 million barrels
 - Delivered to Big Hill in September 2023
 - Average Purchase Price: \$71.98 per barrel
- July 7th Solicitation
 - 6.0 million barrels
 - Solicitation cancelled due to rising flat prices

Thank You!



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