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Chairman Murkowski, Ranking Member Cantwell and Members of the Committee, thank you for inviting me here today to discuss the potential modernization of the Strategic Petroleum Reserve (SPR) and related energy security issues.

In my testimony today, I would like to make three main points:

- First, the SPR, created in the wake of the 1970s oil crisis, remains an important national security asset, notwithstanding the sharp rise in U.S. oil production and steep drop in U.S. oil imports.
- Second, it is prudent to study whether the size, composition, location, or use of the SPR should be modified to reflect changes in the global oil market over the past four decades, but the results of that analysis, not current budget needs, should dictate whether to sell a large volume of SPR crude oil.
- Third, there is an urgent need to modernize the SPR's existing infrastructure to ensure that it can remain effective in the event of an emergency by delivering additional and incremental barrels to the market, and revenue from the SPR should be directed toward this imperative before any other.

Background

As members of the Committee know, Congress authorized the creation of the SPR in the Energy Policy and Conservation Act (EPCA) of 1975 in the wake of the 1970's Arab Oil Embargo as a way to insulate the United States from future petroleum supply disruptions.

As a member of the International Energy Agency, another byproduct of the 1970's oil crisis, the U.S. is required to hold stocks of crude oil and/or petroleum products equivalent to 90 days of net imports for use in emergency situations.[1] These stocks can be held either in private inventories or directly by the government. Currently, the SPR contains the equivalent of 142 days of net petroleum import cover.[2] That figure has risen in recent years in response to both surging oil supply and lower demand, dramatically reducing the nation's dependence on imports.

Presently, the SPR holds 694 million barrels of crude oil in salt caverns at four sites in Louisiana and Texas. It has capacity to hold 713.5 million barrels. In addition to the SPR, the U.S. government maintains emergency

[1] http://www.iea.org/ieaenergy/issue7/emergency-stocks-oil-that-limits-supply-disruptions.html.
[2] Calculated based on June 2015 monthly data from the Energy Information Administration by dividing total strategic petroleum reserve volume by net crude oil and petroleum products imports,
http://www.eia.gov/dnav/pet/PET_MOVE_NETI_A_EP00_IMN_MBBLPD_M.htm.
http://www.eia.gov/dnav/pet/pet_stoc_typ_d_nus_sas_mbbl_m.htm.

reserves of one million barrels of heating oil and one million barrels of gasoline, both located in the Northeast.[3]

EPCA defines the circumstances under which the SPR may be used. Generally, there are three possible types of drawdowns envisaged by EPCA (elaborated more fully in the Appendix)[4]:

- Full drawdown: The President can order a full drawdown of the Reserve to counter a "severe energy supply interruption."
- Limited drawdown: Up to 30 million barrels if the President finds that there is "a domestic or international energy supply shortage of significant scope or duration."
- Test sale or exchange: The Secretary of Energy is authorized to carry out test drawdowns and distribution of crude oil from the SPR not to exceed 5 million barrels.

To date, the President has only authorized three emergency drawdowns of the SPR: In 1991, during Operation Desert Storm; in 2005, during Hurricane Katrina; and in 2011 during the Libyan civil war. In addition, there have been a dozen exchanges for various reasons, including the creation of the Northeast Home Heating Oil Reserve to help respond to natural disasters and outages. There have also been three test sales to check for infrastructure and maintenance issues.[5]

Recently, several members of Congress have proposed selling crude oil from the SPR to raise revenue for other programs. For example, the reauthorization of the Highway Trust Fund proposes raising revenue for our nation's infrastructure needs by selling 101 million barrels of oil from the SPR between 2018 and 2025.

Funding our nation's infrastructure is an urgent and pressing priority, to be sure. But selling a national strategic asset that has existed for four decades and still provides a critical role in domestic energy security would be a short-sighted and unwise way to raise the needed funding.

The SPR remains an important national security asset

For 40 years, the SPR has created a deterrent against oil exporting countries threatening oil embargoes, provided a tool to respond to global oil supply disruptions, and served to prompt OPEC to release spare capacity.[6] Several arguments have been put forward to suggest that the SPR is less necessary today, including:

1. Changes in oil markets over the last 40 years mean that the risk of actual physical shortages of oil is far lower;
2. The United States is less vulnerable to supply shortages today following the surge in domestic oil production, which has dramatically reduced our dependence on foreign oil supplies;
3. The dramatic collapse in oil prices since mid-2014 has consequently decreased the potential economic harm from a supply disruption; and

[3] Northeast Home Heating Oil Reserve background:
http://energy.gov/fe/services/petroleum-reserves/heating-oil-reserve;
Northeast Gasoline Supply Reserve background:
http://energy.gov/fe/services/petroleum-reserves/northeast-regional-refined-petroleum-product-reserve.
[4] http://legcounsel.house.gov/Comps/EPCA.pdf.
[5] U.S. Senate Committee on Energy & Natural Resources, "A Turbulent World: In Defense of the Strategic Petroleum Reserve," 2015, p.2,
http://www.energy.senate.gov/public/index.cfm/files/serve?File_id=a5d94825-02f3-4e62-9eb3-2b9f36201e65.
[6] Michelle Billig Patron and David L. Goldwyn, "Managing Strategic Reserves," in *Energy and Security: Strategies for a World in Transition (2nd edition)*, edited by Jan H. Kalicki and David L. Goldwyn, Woodrow Wilson Center Press, 2013. p. 470.

4. Improvements in technology and the growth in climate policy mean the United States will soon be able to get off oil.

While there may be some truth in these statements, none constitutes a sound basis for draining our emergency stockpile.

Today's oil market is different than the oil market of the 1970s

In the 1970s, oil price controls existed in the U.S., and most internationally traded oil was sold under long-term contracts. A disruption in contracted shipments could result in a physical shortage for the buyer because of the lack of strategic and commercial stockpiles or a large spot market where buyers could easily access alternative sources of supply. In the intervening years, the oil market has become the largest and most liquid commodity market on earth with vibrant futures markets. The vast majority of globally traded oil is bought and sold for a price indexed to benchmark crude prices and mature pricing hubs in regions including Europe (Brent), the United States (WTI), and the Middle East (Dubai).[7]

Given how the oil market has changed, the consequence of a supply disruption anywhere is a price increase everywhere. Hence, the risk against which the SPR needs to guard today is a global disruption to crude supply that causes domestic prices to spike regardless of whether U.S. refineries import from the disrupted countries. The price impact of a global oil supply disruption can be tempered by additional supply from strategic stocks though coordinated action by countries, as well as by commercial supplies and spare capacity.

Price spikes threaten the economies of consumer nations. Broadly speaking, a $10 per barrel drop in the price of oil lifts GDP by 0.1 percent.[8] Oil price spikes, on the other hand, can erode spending power and reduce consumption, worsen the current account balances and weaken currencies, and, at times, contribute to rising inflation and trigger tighter monetary policies, which temper growth and investment. Studies analyzing long-term historical data found that a 10% per barrel oil price increase would predict 0.7% slower economic growth in the U.S. four quarters after the price rise.[9] James Hamilton also noted in a 2011 study that "all but one of the 11 post-war recessions were associated with an increase in the price of oil" and all but one of the 12 post-war oil price shocks "were accompanied by U.S. recessions, the single exception being the 2003 oil price increase associated with the Venezuelan unrest and second Persian Gulf War."[10]

An increasingly important role for SPR policy may also be to manage market expectations.[11] Markets react very quickly to anticipated supply and demand changes, which can sharply impact price movements. In 2012, for example, the impact on the world oil price of sanctions to limit Iranian oil sales and other geopolitical fears was tempered, at least in part, by a perception in the market that the U.S. and perhaps other IEA

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[7] Jason Bordoff and Trevor Houser, "Navigating the U.S. Oil Export Debate," Center on Global Energy Policy, 2015, p.47, http://energypolicy.columbia.edu/sites/default/files/energy/Navigating%20the%20US%20Oil%20Export%20Debate_January%202015.pdf.

[8] Jason Bordoff and James Stock, "The Implications of Lower Oil Prices for the US Economy Amid the Shale Boom," Center on Global Energy Policy, 2014, http://energypolicy.columbia.edu/sites/default/files/energy/CGEP_economic%20impacts%20of%20oil%20price%20drop.pdf.

[9] James D. Hamilton, "Oil and the Macroeconomy," University of California, San Diego, 2005, p.8, http://econweb.ucsd.edu/~jhamilto/JDH_palgrave_oil.pdf.

[10] James D. Hamilton, "Historical Oil Shocks," University of California, San Diego, 2011, http://econweb.ucsd.edu/~jhamilton/oil_history.pdf.

[11] Michelle Billig Patron and David L. Goldwyn, "Managing Strategic Reserves," in *Energy and Security: Strategies for a World in Transition (2nd edition)*, edited by Jan H. Kalicki and David L. Goldwyn, Woodrow Wilson Center Press, 2013. p. 471.

members might release the SPR if prices rose too far.[12] In the summer of 2012, both the G-20 and G-7 issued statements intended to signal that they might tap strategic oil stocks if necessary.[13] Policymakers sent numerous other signals to this effect, as well, such as the reported conversation in March 2012 between President Obama and UK Prime Minister David Cameron about using strategic oil stocks.[14] As a result, numerous analysts cautioned that the Obama Administration might release SPR crude if oil prices rose above roughly $120 per barrel.

Net imports are only one channel by which the economy is vulnerable to oil price spikes

Since 2008, oil production in the United States has risen 80 percent, or four million barrels per day (b/d). Combined with a decline in domestic oil demand, this has led to a decline in oil imports from 60 to 20 percent of U.S. consumption, which averaged 19 million b/d in 2014. Currently, the volume of oil the United States is projected to import in 2025 is a staggering 14 million b/d lower than projections made less than a decade ago.[15] Yet the U.S. remains a net importer of oil.

It has been argued as U.S. reliance on foreign oil supplies declines, so does the need for a cushion to protect against supply shortages. Indeed, the IEA's required level of stockholding for its members is determined by each country's level of imports, as countries must maintain stocks equaling a minimum of 90 days of import cover.

As noted earlier, however, the risk to consumer countries today from oil supply disruptions is not a physical shortage of oil but price spikes that harm the economy. During the 1990 Gulf War, for example, oil prices rose from an average of $17 in July 1990 to a peak of $41 in September 1990 following Iraq's invasion of Kuwait, and gasoline prices rose sharply in both the U.S. and the UK, even though the UK at the time was a net oil exporter.

However, it is true that the impact of an oil price shock on the U.S. macroeconomy today is less than it was a decade ago because the United States is a much smaller net importer. As the White House Council of Economic Advisers recently explained, "the resilience of the economy to international supply shocks—macroeconomic energy security—is enhanced by reducing spending on net petroleum imports and by reducing oil dependence."[16] This is due both to the smaller terms of trade penalty from an oil price shock, and the fact that when prices rise, more of the increase in oil producer revenue stays within the United States. The reverse is also true: when oil prices decline sharply, as they have over the past 14 months, it provides less of a boost to the U.S. economy because oil production is now a greater part of the domestic economy.

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[12] See, e.g., Blake Clayton, "Is the White House the New Federal Reserve of Oil?," *Forbes*, October 12, 2012, http://www.forbes.com/sites/blakeclayton/2012/10/12/is-the-white-house-the-new-federal-reserve-of-oil/; Izabella Kaminska, "SPR talk as QE3 expectation management," *Financial Times*, September 3, 2012, http://ftalphaville.ft.com/2012/09/03/1142871/spr-talk-as-qe3-expectation-management/.
[13] See, e.g., www.platts.com/latest-news/oil/london/g7-urges-oil-supply-boost-says-ready-to-call-8674832; http://profit.ndtv.com/news/corporates/article-g20-says-vigilant-on-oil-ready-to-take-measures-306458.
[14] Guy Chazan et al., "Crude Tumbles as Leaders Discuss Supplies," *Financial Times*, March 15, 2012, http://www.ft.com/intl/cms/s/0/20e8687a-6ebd-11e1-afb8-00144feab49a.html#axzz3nVdtfjsk; Matt Falloon and Jeff Mason, "Obama, UK's Cameron Discussed Tapping Oil Reserves: Sources," *Reuters*, March 15, 2012, http://www.reuters.com/article/2012/03/15/us-obama-energy-spr-idUSBRE82E00P20120315.
[15] Jason Bordoff and Akos Losz, "Oil Shock," *Horizons*, Spring 2015, http://www.cirsd.org/uploads/magazines/pdf/Jason%20Bordoff%20and%20Akos%20Losz.pdf_1429732733_english.pdf.
[16] Council of Economic Advisers, "The All-Of-The-Above Energy Strategy as a Path to Sustainable Economic Growth," 2014, p.3, https://www.whitehouse.gov/sites/default/files/docs/aota_report_updated_july_2014.pdf.

A reduced impact, however, does not mean there would be no impact. There are at least two reasons that the SPR remains critical despite reduced import dependence.

First, it is important to remember that any supply disruption would still have significant distributional impacts. Gasoline price increases act like a tax on motorists and reduce their spending power for other goods and services. Energy price increases are also regressive given that low-income consumers spend a higher percentage of their income on energy than high-income consumers.[17] While in theory there are other economically efficient ways to address such distributional concerns, history suggests doing so is unlikely.

Second, it is far from clear that U.S. oil import dependence will remain this low forever. The reduction in import dependence has been driven by both increased domestic supply as well as reduced demand, but there is great uncertainty about the outlook for both.

On the supply side, the decline in global oil prices has led to a drop in U.S. oil production from 9.6 million b/d in April to 9.1 million b/d in August, and the U.S. Energy Information Administration projects to fall another 300,000 b/d next year. The decline could be even larger and steeper if prices dip lower, as industry hedges that help protect producers against lower prices come off, and if producers' access to low-cost capital becomes more constrained. Industry has demonstrated the ability to increase productivity of tight oil production remarkably, but it is unclear whether those rates of improvement can be maintained. There is still limited experience with tight oil production, and so all projections of future growth in U.S. production should be taken with a large grain of salt, and as such it would be unwise to take any large decisions on energy security until we have a better understanding.

On the demand side, there has been an even greater surprise in actual versus projected U.S. oil usage. U.S. oil consumption in 2014 was about 25% lower than the U.S. government projected it would be in 2003. And the current forecast for 2025 oil demand is 34 percent lower than the level projected in 2003.[18] This reduction in projected oil usage is due to a combination of policy drivers like higher fuel economy standards, demographic shifts, and economic weakness.

These demand projections are being thrown into question, however. U.S. oil demand for 2015 is now expected to rise by around 500,000 b/d in response to the price collapse, and SUV sales this year are up 15 percent. Moreover, the Obama Administration's doubling of fuel economy standards is scheduled for a mid-term review in 2018. Particularly if oil prices remain low, there is likely to be significant pressure from automakers that claim that those requirements are infeasible, creating a risk the requirements could be weakened. In short, while oil market forecasting has never been an easy task, we are in the midst of a period of extreme flux in which conditions being cited for selling off the SPR could change relatively quickly.

Given that the primary risk to the U.S. economy in today's market is price spikes rather than supply shortages, energy security can be enhanced not only with tools like the SPR, but even more importantly by reducing oil consumption and thus the exposure of the U.S. economy to oil price fluctuations. Policies to reduce oil demand and investments in alternative transportation fuel R&D not only increase our energy security, but reduce greenhouse gas emissions that lead to potentially severe climate change impacts.

[17] http://www.brookings.edu/research/opinions/2012/03/06-gas-prices-sawhill.
[18] Council of Economic Advisers, "Explaining the U.S. Petroleum Consumption Surprise," 2015, p. 2, https://www.whitehouse.gov/sites/default/files/docs/explaining_us_petroleum_consumption_surprise_final.pdf.

The oil market is entering uncharted territory

While oil prices have fallen, history teaches we should not expect them to stay there. Indeed, oil prices may be even more volatile today than in the past.[19] OPEC countries have, at least for the time being, given up their historic role as a market stabilizer. In November 2014, OPEC chose not to cut production to support prices as they fell, sending them into a tailspin down to $45 per barrel by January.

Moreover, OPEC has actually increased production, leaving a very narrow margin of "spare capacity" to offset future supply disruptions—although high levels of global inventories will help for a while. For years, Saudi Arabia had been the only country that produced significantly less oil than it economically could, and was thus the only one with any meaningful level of spare capacity—the ability to quickly bring new oil supply onto the market to compensate for production losses elsewhere. From November 2014 to June 2015, Saudi Arabia boosted output by nearly 1 million b/d. Thus, the U.S. Energy Information Administration now estimates OPEC's total spare capacity at less than 1.3 million b/d, the lowest level since 2008.

In a world with very narrow spare capacity, any disruption to global supply can have an outsized impact on price because there is little buffer in the event of supply disruptions. There remain significant geopolitical risks in the world in key oil producers—even more so as low prices threaten instability in critical oil exporters. A recent Columbia University Center on Global Energy Policy study, for example, found significantly higher geopolitical risks in Venezuela following the oil price collapse.[20]

Moreover, a buffer against oil supply disruptions provides the U.S. with more flexibility to pursue policies that may reduce oil supply. Imagine, for example, that Iran reneged on its nuclear deal, and the U.S. and our European allies sought to tighten sanctions; without a buffer of spare capacity or strategic stocks, the economic costs we would impose on ourselves of curtailing Iranian oil sales might be steep.

It is important to put these oil market changes into context. For most of the modern history of oil, there has been some attempt by companies or organizations, whether the Seven Sisters, the Texas Railroad Commission, or OPEC, to control oil prices. If OPEC abandons that role, as the past year suggests may be occurring, and holds little spare capacity as a result, that may portend more volatile times for oil prices, as markets balance by prices falling low enough to curb uneconomic production and spur more usage (or high enough to incentivize more output and curb demand). A safety net such as the SPR may be particularly important in a more volatile oil market.

The U.S. economy will remain heavily dependent on petroleum

As noted earlier, projected U.S. oil demand has fallen sharply in recent years. Advanced vehicle and battery storage technologies are improving. Apple just announced plans to build its first electric car by the end of the decade. And many nations, including the United States, have announced much more aggressive policy steps to address climate change in the lead-up to December's negotiations in Paris. There is clearly strong momentum across numerous fronts that will reduce U.S. fossil fuel consumption.

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[19] Jason Bordoff, "Don't Get Used to Cheap Gas," *Wall Street Journal*, September 18, 2015, http://blogs.wsj.com/experts/2015/09/18/dont-get-used-to-cheap-gas/.
[20] Francisco Monaldi, "The Implications of the Decline in Oil Prices on the Economics, Politics and Oil Industry of Venezuela," Center on Global Energy Policy, 2015, p.3-4, http://energypolicy.columbia.edu/sites/default/files/energy/Impact%20of%20the%20Decline%20in%20Oil%20Prices.%20on%20Venezuela_September%202015.pdf.

Despite all these promising signs, it is still very likely that oil will remain the dominant transportation fuel for decades in the United States and globally. Currently, the world consumes 92 million b/d of oil.[21] The International Energy Agency projects that this will grow to 104 million b/d by 2040.[22] Even in a scenario in which we succeed in stabilizing atmospheric concentrations of greenhouse gas emissions at 450 ppm, which provides a roughly 50 percent chance of keeping warming from exceeding the 2 degree Celsius threshold, oil demand in 2040 will still be 72 million b/d.[23]

The SPR should not be used like an ATM

Given the evolving role of the SPR in today's changed oil market, there are very good reasons to undertake analysis of whether and how the SPR should be reformed. For example, if the primary risk against which it protects is not a shortage of oil imports but a global price spike in response to supply disruptions, does that mean the size of the SPR should be increased or decreased? Given the changing patterns of U.S. oil output and trade, should the composition of light versus heavy oil be changed? And, perhaps most importantly, how should the concept of "severe energy supply disruption" be understood today and what does that mean about the frequency with which government officials should consider releasing or filling the SPR?

These and others are key questions worth considering as Congress evaluates whether to take action regarding the SPR and reduce its size. Given the nature of today's oil market, the level of stocks should no longer be based solely on oil import dependence. Rather, an analysis would need to assess the impact on the macroeconomy of oil price spikes, the likelihood of supply disruptions and associated price spikes, and the impact of SPR volumes to mitigate those spikes and on the level of spare capacity; and compare those potential benefits to the carrying and opportunity costs of maintaining crude oil in strategic reserve. The decision about whether to reduce (or increase) the size of the SPR should be based on a prudent analysis, not driven by an imperative to fill a budget hole, no matter how meritorious the intended use.

We desperately need to rebuild our nation's crumbling roads and bridges. But depleting the SPR is a short-sighted way to raise those funds. That is especially true when the oil price has fallen to its lowest point in six years. Even if the sales are deferred several years into the future, there is no way to know now how quickly oil prices will recover. Prudent fiscal management argues for filling the SPR when prices are low and downsizing when prices are high.

SPR revenue should be used for SPR modernization

The SPR's outdated infrastructure needs to be modernized to ensure that it can remain effective in the event of an emergency by delivering additional and incremental barrels to the market. If there is any case to be made for selling SPR crude in today's market, it is to address this urgent need. In the Quadrennial Energy Review released this spring, the Obama Administration explained that changes in U.S. oil supply, demand, and transportation pose new challenges to the effectiveness of the SPR.

Historically, oil and refined petroleum products flowed from south to north to inland refineries. Yet with surging oil production in North Dakota moving south toward the Gulf of Mexico, as well as to refiners on the East and West Coasts, these historical patterns are being flipped. Significant volumes of oil from the Eagle Ford and Permian shale basins also are moving to Gulf Coast refineries. To accommodate these changes in the geography of U.S. crude oil supply and transportation, there have been pipeline additions and reversals, as well as sharp increases in barge, rail, and truck transport of oil and refined products.

[21] BP Statistical Review 2014.
[22] IEA World Energy Outlook 2014, p. 96.
[23] Ibid.

These changes in U.S. oil supply, demand and "midstream" pipeline infrastructure have significantly impeded the ability of the SPR to deliver *incremental* barrels of crude oil to refineries. In order for SPR barrels sold to domestic refineries in an emergency to increase the total global supply of crude oil, foreign oil shipments that would have been processed by U.S. refineries must be freed up for use elsewhere. This is harder to do than in the past. Moving SPR oil to refineries in the Midwest, as historically has been the case, no longer frees up imported barrels because non-Canadian and Gulf Coast crude has been largely backed out of inland refineries by the unconventional oil boom. That means that SPR crude would need to be moved by ship to East and West Coast refineries. Yet, as a result of the surge in U.S. oil supply, Gulf Coast marine facilities are operating at high capacities. If those dock facilities were used to load SPR crude in an emergency, the result would thus be to crowd out commercial supplies that would have otherwise been loaded, and thus the SPR supplies would not be incremental.[24] Additionally, several SPR facilities are aging and need life extension investments.

These findings from the Quadrennial Energy Review are consistent with a March 2014 test sale from the SPR. According to a report by the Congressional Research Service, the test sale revealed several operational challenges stemming from limited pipeline capacity, crude oil terminal storage capacity, and marine terminal distribution capacity.[25]

To ensure SPR crude oil can be effectively accessed in a future supply disruption, the Quadrennial Energy Review estimated that $1.5 to $2 billion was 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 distribution systems, as well as undertaking a life extension program for key SPR components."

As you yourself put it, Chairman Murkowski, "If Congress is going to sell any oil from the SPR, we should agree that the proceeds should first be used to pay for upgrading the reserve itself." It would be short-sighted to sell the SPR to meet a one-time budget need, thus reducing the size of this national strategic asset while also failing to invest in its operational needs to ensure it can continue to be effective in case of a true energy supply emergency.

Conclusion

The SPR has served as a critical piece of our nation's energy security strategy since the oil crisis of the 1970's, and it remains so today despite the sharp reduction in U.S. oil import dependence. Our ability to tap the SPR has been severely limited by recent changes in the U.S. oil outlook and infrastructure, and addressing these constraints should be a key priority to ensure the SPR can remain effective in an emergency. Dramatic changes in the global oil market over the past four decades and changed nature of the risks against which the SPR guards mean it is a very useful exercise for Congress, working with the U.S. Department of Energy, to consider whether the SPR's size, composition, location or use should be modified. That analysis should determine whether we sell off SPR crude, not immediate budget needs for priorities unrelated to energy security, no matter how meritorious.

Thank you for the opportunity to testify today.

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[24] Quadrennial Energy Review, 2015, Chapter IV, p. 6 http://energy.gov/sites/prod/files/2015/08/f25/QER%20Chapter%20IV%20Energy%20Security%20April%202015.pdf.

[25] U.S. Senate Committee on Energy & Natural Resources, "A Turbulent World: In Defense of the Strategic Petroleum Reserve," 2015, Appendix A, http://www.energy.senate.gov/public/index.cfm/files/serve?File_id=a5d94825-02f3-4e62-9eb3-2b9f36201e65.

Appendix[26]

The circumstances that might require the use of the Strategic Petroleum Reserve are defined in the Energy Policy and Conservation Act (EPCA). Generally, there are three possible types of drawdowns envisioned in the Act:

Full drawdown: The President can order a full drawdown of the Reserve to counter a "severe energy supply interruption." EPCA defines this as "a national energy supply shortage which the President determines –

> (A) is, or is likely to be, of significant scope and duration, and of an emergency nature
> (B) may cause major adverse impact on national safety or the national economy; and
> (C) results, or is likely to result, from (i) an interruption in the supply of imported petroleum products, (ii) an interruption in the supply of domestic petroleum products, or (iii) sabotage or an act of God."

EPCA also states that a severe energy supply interruption "shall be deemed to exist if the President determines that –

> (A) an emergency situation exists and there is a significant reduction in supply which is of significant scope and duration;
> (B) a severe increase in the price of petroleum products has resulted from such emergency situation; and
> (C) such price increase is likely to cause a major adverse impact on the national economy."

Limited drawdown: If the President finds that -

> (A) a circumstance, other than those described [above] exists that constitutes, or is likely to become, a domestic or international energy supply shortage of significant scope or duration; and
> (B) action taken....would assist directly and significantly in preventing or reducing the adverse impact of such shortage" then the Secretary may drawdown and distribute the Strategic Petroleum Reserve, although in no case:
>
> "(1) in excess of an aggregate of 30,000,000 barrels....
> (2) for more than 60 days....
> (3) if there are fewer than 500,000,000 barrels....stored in the Reserve."

Test Sale or Exchange: The Secretary of Energy is authorized to carry out test drawdowns and distribution of crude oil from the Reserve. If any such test drawdown includes the sale or exchange of crude oil, "then the aggregate quantity of crude oil withdrawn from the Reserve may not exceed 5,000,000 barrels during any such test drawdown or distribution."

[26] http://energy.gov/fe/services/petroleum-reserves/strategic-petroleum-reserve/spr-quick-facts-and-faqs.