

Introduction¹

The National Environmental Policy Act (NEPA) was enacted in 1969. In this statute, Congress recognized that technological, social, and economic forces have a profound influence on the quality of the human environment. The Department of Energy's (DOE's) procedure per the *SPRMO NEPA Implementation Plan* (SPRMO O 451.1B) is to follow the letter and spirit of NEPA and to comply fully with the Council on Environmental Quality's (CEQ's) regulations (40 CFR 1500-1508). All activities on the Strategic Petroleum Reserve (SPR) must have, or have had, a NEPA review to determine NEPA applicability (10 CFR 1021). Compliance with Federal Statutes such as NEPA and incorporation of these into DOE project planning and overview is of paramount importance per the *SPRMO Environmental Policy Statement* (SPRMO P 451.1).

Strategic Petroleum Reserve Project Background

The creation of the SPR was mandated by Congress as part of the Energy Policy and Conservation Act on December 22, 1975. The objective of the SPR is to provide the United States with petroleum should a supply disruption occur. At its inception, the DOE (then the Federal Energy Administration [FEA]) evaluated the potential impacts of implementation of the SPR mission at the proposed sites as well as the potential impacts of its mission as a whole. The evaluations undertaken by the FEA resulted in a programmatic Environmental Impact Statement (EIS) (FES-76-2) that addressed the potential environmental impacts of the SPR as a federal program. This EIS identified 32 potential crude oil storage sites throughout the contiguous United States. This number was narrowed, however, when implementation of the Early Storage Reserve (ESR) program was considered. Consideration of timely implementation of the ESR left 8 potential sites that provided for the storage of oil underground in salt caverns.

Of these, five sites were chosen based on their immediate utility for the ESR and the ease with which they could be used or developed for permanent storage. These sites were then evaluated specifically for the purpose and needs of the ESR and the SPR, the potential impacts of the initial implementation of the SPR program, and the long-term operation of these sites relative to the SPR's mission. The initial site-specific evaluations for these sites resulted in five draft EISs (DES 76-4 through DES-76-8) that were subsequently finalized (FES 76/77-4 through

¹ For ease of review, a List of Acronyms is provided in Attachment A and references have been provided in Attachment C.

FES 76/77-8) and have, since the actual implementation of the program, been amended/superseded by additional EISs. Subsequent to the development of the initial sites, major changes have occurred on the SPR including the expansion of the SPR with the development of the Big Hill (BH) site and accompanying Group pipeline distribution enhancements [REDACTED] the development and subsequent leasing of an oil distribution river terminal at St. James (St. James) and accompanying pipelines to [REDACTED] the construction and operation of a pipeline by Shell Pipe Line Corporation (Shell) connecting [REDACTED], the construction and operation of a pipeline from the [REDACTED] the decommissioning of the Sulphur Mines (SM) and Weeks Island (WI) sites, the sale of the accompanying WI pipeline [REDACTED] for use, the sale of the accompanying SM pipelines for salvage, the rebuilding of all sites through the Life Extension (LE) project and the implementation of two oil degasification (degas) projects. These major activities have been evaluated in more recent NEPA documents. A list of applicable EISs and Environmental Assessments (EAs) is provided with this submittal as Attachment B, as evidence of the SPR's continuous compliance with NEPA.

The crude oil currently stored by the SPR in salt caverns along the Louisiana (LA) and Texas (TX) Gulf Coast serves to mitigate the effects of a significant oil supply interruption. Due to the location of these reserves, oil can be distributed through interstate pipelines to nearly half of the Nation's oil refineries or transported via barge to more remote refineries. Currently, the SPR consists of four Gulf Coast underground salt dome oil storage facilities in LA and TX and a project management facility in LA. A warehouse facility contained within the Stennis Space Center (Stennis) is currently under preparation for use by the SPR, but has not yet become an active facility. A general description of these sites is provided below.

Only the four active *storage* sites still under the control of DOE will be evaluated for NEPA compliance in the present document. Previously decommissioned storage sites, WI and SM, and their aforementioned accompanying pipelines, facilities leased to third parties, St. James, and its aforementioned accompanying pipelines and pipelines constructed and operated by other operators such as [REDACTED] will not be addressed in this document. As well, DOE-occupied facilities which are leased from third parties such as SPR Headquarters in New Orleans and not yet operational facilities such as Stennis will not be addressed in this document as these sites are not DOE-owned and are covered by the ongoing DOE NEPA process. As to decommissioned facilities, the SM Site and the WI Site, and facilities leased to third parties, St. James, there are existing EAs with Finding(s) of No Significant Impact (FONSI) which are described

below. No evaluation of decommissioned facilities, facilities leased to third parties, DOE-occupied facilities leased from third parties, or inactive sites will be presented.

Site Descriptions

General site information for *all* SPR sites except for the Stennis Warehouse has been derived from the *Site Environmental Report* and is provided in the subsections below. Facilities have been described along with the applicable NEPA documentation. Site descriptions properly include the discussions of the surrounding environment as well as site location and history.

Bayou Choctaw

The SPR BC storage facility occupies 356 acres in ██████ Parish, LA. The BC salt dome was selected as a storage site early in the SPR program due to its existing brine caverns, which could be readily converted to oil storage and its proximity to commercial marine and pipeline crude oil distribution facilities. Development of the site was initiated in 1977 and operations commenced late that year. Small canals and bayous flow through the site area and join larger bodies of water off-site. The area surrounding the site is a freshwater swamp, which includes substantial stands of bottomland hardwoods with interconnecting waterways. The site proper is normally dry and protected from spring flooding by the site's flood control levees and pumps. The surrounding forest and swamp provides habitat for a diverse wildlife population, including many kinds of birds and mammals such as raccoon and deer, and reptiles including the American alligator.

Big Hill

The SPR BH storage facility covers approximately 270 acres over the BH salt dome in ██████ County, TX. The BH storage facility is the SPR's most recent storage facility and is located close to commercial marine and pipeline crude oil distribution facilities. Development of the site was initiated in 1982 and operations commenced in 1987. Most of the site is upland habitat, consisting of tall grass. A few 150-year-old live oak trees are present on the site. Identified bird concentrations and rookeries are located in the area of the site. No rare, threatened, or endangered species habitat has been identified in the vicinity of the BH site. Wildlife in the area includes coyote, rabbits, raccoon, and many bird species. The nearby ponds and marsh provide excellent habitat for the American alligator and over-wintering waterfowl.

Bryan Mound

The SPR BM storage facility occupies 500 acres, which almost encompasses the entire BM salt dome, in ██████ County, TX. The BM salt dome was selected as a storage site early in the SPR program due to its existing brine caverns, which could be readily converted to oil storage, and its proximity to commercial marine and pipeline crude oil distribution facilities. Development of the site was initiated in 1977 and operations commenced in 1979. The marsh and prairie areas surrounding BM are typical of those found throughout this region of the TX Gulf Coast. Brackish marshland dominates the low-lying portions of the site. The coastal prairie is covered with tall grass forming a cover for wildlife. Water bodies surrounding the site provide a diverse ecosystem. Marshes and tidal pools are ideal habitats for a variety of birds, aquatic life, and mammals. Migratory waterfowl as well as nutria, raccoon, skunks, rattlesnakes, turtles, and frogs can be found on and in the area surrounding BM.

West Hackberry

The SPR WH storage facility covers approximately 565 acres on top of the WH salt dome in ██████ Parish, LA. The WH salt dome was also selected as a storage site early in the SPR program due to its existing brine caverns, which could be readily converted to oil storage and its proximity to commercial marine and pipeline crude oil distribution facilities. Development of the site was initiated in 1977 and operations commenced in 1979. Numerous canals and natural waterways bisect the area. The surrounding area consists of marshland with natural ridges. These ridges, called cheniers, typically support grass and trees and affect water flow through the marshes. In many areas, lakes, bayous, and canals are concentrated so that the marsh may not seem to be a landmass, but rather a large region of small islands. The marshlands surrounding the WH site provide excellent habitat for a variety of wetland species. Many bird species frequent the area, including southern bald eagle, Arctic peregrine falcon, brown pelicans, and waterfowl. Other inhabitants include red fox, raccoon, nutria, opossum, wolf, bobcat, rabbits, and white-tailed deer. The American alligator is extremely common, breeding and nesting in this area. The marsh also supports a variety of other reptiles, fish, shellfish, and mammals.

SPR Headquarters (New Orleans)

The project management office for SPR operations is housed in two adjacent office buildings and a nearby warehouse in ██████ Louisiana. This facility is the main Project Management Office through which the DOE, with support of DynMcDermott Petroleum Operations Company (DM), the current Management and Operations Contractor (M&O Contractor) for the SPR, manages, operates, and maintains the crude oil reserve sites. Activities conducted at the New Orleans office complex are predominantly administrative with nearby

warehouse capacity to augment project-wide equipment storage. Office and warehouse space is leased, not owned, by the DOE.

Stennis Warehouse Facility

Most recently, warehouse space has been leased at the Stennis Space Center. The leasing of this space has been reviewed to determine potential activities under NEPA. This determination resulted in the preparation of a categorical exclusion (CX) on August 18, 2003. It is important to note that this site is not currently active and is still in the preparation stage. It is intended for use as a warehouse facility and as an emergency operations office.

Weeks Island

The WI facility located in [REDACTED] Parish, LA was decommissioned in 1999 and is currently under ongoing long term environmental monitoring. The area surrounding the island is a combination of marsh, bayous, manmade canals, and bays, contiguous with the Gulf of Mexico (GOM), that provide a vast estuarine nursery ground for an array of commercially and recreationally important finfish and shellfish. The vegetation communities on WI are diverse. Lowland hardwood species proliferate in the very fertile loam soil common at the higher elevations. The predominant tree species are oak, magnolia, and hickory, and extend down to the surrounding marsh. Pecan trees are also present. Gulls, terns, herons, and egrets are common in the marsh area. Mink, nutria, river otter, and raccoon are the most common inhabitants of the intermediate marshes. Other mammals found at WI are opossum, bats, squirrels, swamp rabbit, bobcat, white-tailed deer, and coyote. WI is the home of one of the densest breeding populations of the LA black bear, which has been listed as a threatened species by the U.S. Fish and Wildlife Service (F&WS) under authority of the Endangered Species Act (ESA). WI and the surrounding wetlands are also frequented by a variety of endangered or threatened avian species, including the brown pelican, bald eagle, peregrine falcon, the piping plover, and least tern. The wetlands to the southwest of WI are a breeding area for least terns. The American alligator occurs in the marshes adjacent to the site.

The decommissioning of the WI site and pipeline initiated the preparation of an EA, DOE/EA-0151, the result of which was a FONSI in December 1995.

St. James Terminal

The St. James facility located on LA Highway 18 near [REDACTED] LA was leased to Shell in 1997. St. James consists of six aboveground storage tanks with a total capacity of 0.3 million m³ (2 MMB) and two tanker docks. The site encompasses 149 acres. Wetlands and agriculturally viable land surround the terminal. The potential for the presence of two endangered species, the Pallid Sturgeon (endangered) and the Arctic Peregrine Falcon (threatened), near the site has been

previously identified as has the presence of the southern bald eagle. As well, habitat for frogs, snakes, turtles, nutria, rabbit, raccoon, armadillo, muskrat, opossum, squirrel, egret, ibis, and heron can be found on the site and surrounding the site. In January of 1995, DOE prepared an environmental assessment (DOE/EA-1003) for leasing St. James to private industry as a commercial terminal, the result of which was a FONSI. The lease was awarded to Shell and turnover of the custody of the terminal and accompanying pipelines and operations occurred on January 31, 1997.

Since Shell is now responsible for all operations at St. James, no further evaluation is necessary until such time as this facility is operated by DOE. Currently, DOE's activities relative to St. James are on-going lease oversight comprised of site inspections and monitoring.

Sulphur Mines

The SM site and accompanying pipelines were decommissioned in 1990. The oil inventory originally stored at SM was relocated to the BH facility, resulting in a subsequent inventory increase and expansion of site capacity at BH. The decommissioning of the SM site and relocation of its inventory to the BH site were addressed in an EA (DOE/EA-0401) prepared January 1990. The preparation and submittal of DOE/EA-0401 resulted in a FONSI for these activities. The SM facility was sold in its entirety in May 1993, leaving the current owner entirely responsible for maintaining the necessary environmental compliance. The accompanying pipeline was eventually sold for salvage with no lingering environmental responsibility. DOE retains residual environmental responsibility only at the brine disposal well site. Thus, other than acknowledgment of the potential for 'environmental legacy' issues that generally accompany sale of industrial property, no further evaluation is necessary. As DOE has effected no operation and/or process changes at this site and/or its accompanying pipeline since the transfer of ownership (and no longer has any authority to do so), the aforementioned EA for this site remains valid as original.

National Environmental Policy Act Program Overview

DOE puts forth great effort to apply the NEPA review process early in the planning stages for DOE proposals. Pursuant to this, DOE adopted Title 10 CFR 1021, NEPA Implementing Procedures, which requires through local DOE order, SPRMO O 451.1B, and DM procedure (ASIS400.15), a review of all SPR projects in the early stages to ensure that environmental impacts and requirements are adequately evaluated. This includes the review of conceptual design reports, definitive engineering scopes, statements of work, purchase requisitions, work or service orders, and engineering change proposals (ECPs). Most SPR projects are

either addressed in an existing NEPA document or they fall into the CX category, which suggests that the NEPA document be a Record of NEPA Review (RONR). For a few projects, if not addressed by a RONR, a higher level of NEPA review may be required, which will impact the planning process by triggering an EA and/or an EIS. A SPR project requiring a RONR is based on its value(s). Projects that would require a RONR include information systems contracts with a project value of at least \$50,000, construction contracts with project value of at least \$50,000, and service contracts with a project value of at least \$100,000.