

## **Executive Summary**

On February 6, 2003, Mr. W. C. Gibson, Department of Energy (DOE) Project Manager, directed DynMcDermott Petroleum Operations Company (DM), the Management and Operations (M&O) Contractor for the Strategic Petroleum Reserve (SPR), to prepare a Supplement Analysis for the SPR. The purpose of this analysis is threefold: to document changes of National Environmental Policy Act (NEPA) significance to the SPR and to document the changes to environmental laws, regulations, and orders since the original and supplemental Environmental Impact Statements (EIS) documents listed below were prepared, to analyze the impacts of these changes to the original Record(s) Of Decision(s) (RODs) and to detail any recommended additional NEPA actions, if needed. In order to maintain compliance with NEPA, DOE is required to address NEPA as part of project planning and to re-evaluate previously prepared EISs for validity. Section 1021.330 (d) of the 10 CFR states that DOE shall, every five years, evaluate site-wide NEPA documents prepared under Sec. 1021.330.

Such a review was conducted as described in this document. Further evaluation of each site for particular potential issues was initiated based on three criteria identified to properly assess the current state of the SPR sites and the program relative to NEPA compliance with the RODs for existing EISs and Environmental Assessments (EAs). The criteria selected were based on interpretation of DOE's NEPA policies, SPR history and best professional judgment. They are:

- Operational and engineering (O&E) modifications;
- Regulatory amendments and enactments; and
- Population dynamics and other socioeconomic variations in the vicinity of each of the sites.

It was ultimately determined that O&E modifications and site capacities, while different, were not significant under the Council on Environmental Quality (CEQ) criteria. As well, it was concluded that the SPR sites not only operated within the state and Federal regulations and statutes, but set internal standards that far exceeded state and Federal minimum requirements. Moreover, despite having been established some twenty years ago, sites are also compliant with newer Executive Orders regarding environmental justice and the protection of children. Relative to potential socioeconomic impacts, the variations in locales affected by SPR sites could not be attributed to significant influence by the presence and/or operation of the SPR facility. Rather, analysis indicated that locales were primarily affected by systemic trends, not project-related influences.

Finally, there was no foundation on which to base the preparation of a new EIS or Supplemental EIS as the review as conducted resulted in a determination that the SPR currently operates within the scope of potential impacts evaluated in the original and

supplemental EISs and EAs and that the RODs resulting from these are still valid and applicable to SPR operations. A revision of the NEPA-final capacities for the storage of crude oil by the DOE at each site resulted from the analysis, and this SA constitutes additional NEPA documentation that no significant impacts are associated with the increased capacities at Big Hill and Bryan Mound. Historical NEPA documentation evaluated and a discussion of the current status of impacts to media documented in this Supplement Analysis, by the SPR sites and the SPR as a program, follows.

### **NEPA Documents Evaluated**

Final Environmental Impact Statement (Final Supplement to FEA FES 76/77-6), Strategic Petroleum Reserve, Bryan Mound Salt Dome, ██████████ County, Texas, EIS-0001

Final Environmental Impact Statement (Final of DEIS, FEA-DES-77-10 and of DS-FEIS, FEA-FES-76/77-6) Strategic Petroleum Reserve, Seaway Group Salt Domes (Bryan Mound expansion, Allen, Nash, Damon Mound, and West Columbia) ██████████ County, Texas, Volumes I-III, EIS-0021

Final Environmental Impact Statement (Final Statement to FEA-DES-77-9) Strategic Petroleum Reserve, Capline Group Salt Domes (Iberia, Napoleonville, Weeks Island Expansion, Bayou Choctaw Expansion, Chacahoula) ██████████ parishes, Louisiana Volume I-IV, EIS-0024

Final Environmental Impact Statement (Final Statement to FEA-DES-77-8) Strategic Petroleum Reserve, Texoma Group Salt Domes (West Hackberry Expansion, Black Bayou, Vinton, Big Hill) ██████████ ██████████ parishes, Louisiana and ██████████ county, Texas Volumes I-V, EIS-0029

Final Supplement to Final Environmental Impact Statement FEA-FES-76-2, Strategic Petroleum Reserve, Expansion of Reserve, EIS-0034

Final Supplement to Final Environmental Impact Statements DOE/EIS-0021,0029, Strategic Petroleum Reserve, Phase III Development Texoma and Seaway Group Salt Domes (West Hackberry and Bryan Mound Expansion, Big Hill Development) ██████████ Parish, Louisiana and ██████████ Counties, Texas, EIS-0075

Final Environmental Impact Statement for Bayou Choctaw Salt Dome, FES 76-5

Final Environmental Statement on the Bryan Mound Salt Dome, FES 76/77-6

Supplement to Final Environmental Impact Statement, West Hackberry Salt Dome, FEA/S-77/114

Supplement to Final Environmental Impact Statement for Bayou Choctaw Salt Dome, FEA/S-77/129

Strategic Petroleum Reserve. Final Environmental Impact Statement. West Hackberry Salt Dome, PB 262 508

## **Impacts**

### Land Use

It was determined that each site and the SPR as a program remains within its original evaluated footprint or within the footprint contemplated by subsequent NEPA documentation. Land use impacts present no basis for preparation of a new or supplemental EIS.

### Air Quality

It was determined that impacts to air quality remain well below the magnitude of impacts originally evaluated for each site and the SPR as a program. The original evaluation of impacts to air quality assumed that each site would be a major source of air pollution within its air shed and that five full fill and drawdown cycles would occur within approximately a twenty year time period. As SPR sites are, at worst, classified as minor sources of air pollution within their air shed and a full drawdown and fill cycle has yet to occur, the majority of potentially adverse impacts evaluated have yet to occur. Thus, impacts to air quality present no basis for preparation of a new or supplemental EIS.

### Water Resources

It was determined that impacts to the water environment have occurred essentially as evaluated, but have not achieved a magnitude of impacts originally evaluated. Impacts to the water environment were reduced as the sites have not accomplished the five full fill and drawdown cycles that were originally assumed. Thus, impacts associated with raw water withdrawal for 5 full drawdowns have yet to occur. As well, impacts associated with brine discharge for only 1 fill cycle has occurred for most sites. Where sites have yet to be filled to their evaluated capacity, these impacts are further diminished. Thus, impacts to water resources present no basis for preparation of a new or supplemental EIS.

### Noise Impacts

It was determined that noise impacts to the environment have occurred essentially as evaluated, especially relative to construction. Still, these have likely not achieved a magnitude of impacts originally evaluated as impacts to the environment are diminished at the sites that have not accomplished the five full fill and drawdown cycles that were originally assumed.

### Biodiversity (species, ecosystems, natural resources)

It was determined that each site and the SPR as a program remains within its original evaluated footprint or within the footprint contemplated by subsequent NEPA documentation. Impacts to biodiversity, therefore, remain within the scope and magnitude of impacts originally evaluated and present no basis for preparation of a new or supplemental EIS.

### Cultural/Aesthetic Resources

It was determined that each site and the SPR as a program remains within its original evaluated footprint or within the footprint contemplated by subsequent NEPA documentation. Impacts to cultural/aesthetic resources, therefore, remain within the scope and magnitude of impacts originally evaluated and present no basis for preparation of a new or supplemental EIS.

### Socioeconomics

It was determined that each site remains within its original evaluated operations phase or within the operations phase contemplated by subsequent NEPA documentation. The project has outlasted its originally evaluated life span. Cumulative long-term impacts to socioeconomics, therefore, are difficult to ascertain given regional and local trends in the adjacent areas. As socioeconomic impacts are deemed indirect or secondary impacts by the Council for Environmental Quality and cannot, by themselves, invalidate a ROD, these present no basis for preparation of a new or supplemental EIS.

### **New Guidance Applicable to the SPR**

#### Recommendations for Analyzing Accidents under the National Environmental Policy Act

DOE issued guidance regarding the analysis of 'reasonably foreseeable' accidents and their impacts during preparation of an EIS or EA in July 2002. This guidance recommends that accident analyses in a NEPA document consider a range of 'reasonably foreseeable' scenarios and their impacts on workers and the environment. It was determined that accident analysis consisting of brine and oil spills resulting from pipeline breaks and wellhead ruptures evaluated in the EISs was appropriate and, thus, this guidance presents no basis for preparation of a new or supplemental EIS.

#### Clean Air Act General Conformity Requirements and the National Environmental Policy Act Process

DOE issued guidance regarding the coordination of the Clean Air Act (CAA), CAA Conformity, and the NEPA Process in April 2000. This guidance recommends that the CAA and CAA Conformity be considered early in the NEPA process. In 2001, the SPR received concurrence from Texas and Louisiana regarding CAA conformity. Thus, this guidance presents no basis for preparation of a new or supplemental EIS.

#### 2003 Amendment of 10 CFR 1022

In 2003, the DOE promulgated revisions to 10 CFR 1022 intended to streamline floodplains and wetlands assessment under NEPA. In response, floodplains assessment has been incorporated into all aspects of the NEPA process. Thus, this guidance presents no basis for preparation of a new or supplemental EIS.