

April 1, 2008

Donald Silawsky
Office of Petroleum Reserves
U.S. Dept. of Energy
1000 Independence Ave., SW
Washington, DC 20585-0301

SUBJECT: SCOPING FOR THE SPR SEIS

Dear Mr. Silawsky:

I am writing in regard to the Richton, MS Strategic Petroleum Reserve. I represent the Gulf Conservation Coalition. We are not opposed to the placement of a strategic petroleum reserve in Richton, but are very much opposed to the current plans for the way the SPR will be developed. We feel that if the site is developed it should be done in a way that will cause the least impact to the environment and economy of south Mississippi. The current plan is far from environmentally sensitive by turning billions of gallons of fresh water from a pristine river system into a toxic salt slurry, then pumping that slurry into a wildlife habitat. In addition to the environmental damage, the economy of south Mississippi will suffer from the loss of fresh water for its industrial needs and damages incurred to the seafood industry. With just a few changes to the plan, the project could become a Win-Win program. Accomplishing an energy related national security project at no expense to the environment is an easily achieved goal.

I have provided a list of concerns, questions and possible alternatives regarding the current plan. Please provide a written response to each of these questions and the possible alternatives.

LIST OF CONCERNS:

1. Removal of a large amount of water from the Pascagoula River over five years will tax an already stressed natural resource. Numerous wildlife and plant life species (including several on the endangered species list) depend on the Pascagoula River for survival. Since the Pascagoula River is a free flowing river (the largest undamed river system in the CONUS), it is much more dependant on weather conditions to keep its water levels sufficient for maintaining its ecology than would a river system that is managed with dams.
In addition to the ecology dependence on the river water levels, the population of the southern counties of Mississippi also depends on the river system for much of its economy, as well. The industries of Jackson County depend on the river for their fresh water needs. Ecotourism businesses are running tours of the river for tourists. The public uses the river for all sorts of recreation, including fishing, swimming, skiing, canoeing, bird watching, scenic touring, and camping. Lowered water levels will negatively impact all of the above listed current uses for the river system.
2. Brine disposal in the Gulf of Mexico will increase the salinity levels of the surrounding Gulf waters and the nearby Mississippi Sound. Due to the very large volume of the highly saline brine, (91 billion gallons) the increased salinity will have harmful effects on much of the marine life off the Mississippi Coast. Besides the mortality of the shellfish, marine grasses, marine life larvae, small fish, plankton, and small crustaceans that are in the immediate vicinity of the brine discharge point, this same list of marine life will be affected at great distances from the discharge point. The current discharge point is 4 miles south of one of the few passes through the line of barrier islands that run the length of the Alabama and Mississippi Coasts. These passes are the main thoroughfare for the free floating marine

life that travels with the tides that flow in and out through those passes. In addition, the prevailing bottom currents will push the brine directly toward the pass.

Once inside the pass, the brine will not have the same water volumes to mix with due to the shallower water and the entrapment of the barrier islands preventing further mixing of the waters.

Studies during the last few months in adjacent Mobile Bay have shown that the prolific oyster reefs there have been all but wiped out in just the two and a half years since Hurricane Katrina hit the area. Biologists have blamed the entire loss on increased salinity levels of the waters in Mobile Bay. The increased salinity was said to have been caused by a combination of the recent drought conditions combined with higher salinity Gulf waters entering the bay through a ½ mile wide cut in Alabama's barrier island (Dauphin) made by Hurricane Katrina. This example illustrates how sensitive the marine life is to even small natural increases in salinity levels. Ninety one billion gallons of salt brine at ten times the surrounding area's normal salinity level, combined with a lowered Pascagoula River level will have a dramatic impact on the marine resources of the area.

3. The one hundred mile long brine disposal pipeline is predicted by the D.O.E. to have 56 spills during the construction of the salt dome caverns. Using the figures supplied by the D.O.E. in its Environmental Impact Statement for the twenty year history of the four existing SPR sites, the average size of the spills at those sites was 282,000 gallons per spill. This brine disposal pipeline crosses numerous fresh water bodies, municipal drinking water supply sources, wetlands, farmlands, woodlands, public property, and private property. A single spill of this magnitude will have a huge negative impact to the surrounding area. If the spill occurs in certain areas, catastrophic results could be felt with municipal drinking water supplies. Since the D.O.E. experienced three spills at the four existing sites that were in the millions of gallons each, it's conceivable and fairly likely that a spill of that magnitude could occur in this pipeline, especially considering that this pipeline is longer than all four of those brine disposal pipelines added together. In its 1992 EIS, the D.O.E. predicted 2 brine spills from the Richton brine pipeline that would be more than 3 million gallons each. That prediction has been removed from the current EIS.
4. The proposed site of the tank farm and tanker dock at Pascagoula will restrict industrial growth in the area. The tank farm is planned to be 49 acres in size and located on Singing River Island. The ten jobs projected by the D.O.E. that would be created by this site are far less than the potential for job creation that this same site could create. Sites of similar size and location in the area currently support an average of ten jobs per acre.

QUESTIONS:

- 1) Has there been a study conducted to determine the environmental and economic impacts of taking 50 million gallons of water per day from the Pascagoula River, and if so, what were the results?
 - a) If a study has not been conducted to determine the environmental and economic impacts of taking 50 million gallons of water per day from the Pascagoula River, will one be conducted and when?
 - b) If a study has been conducted regarding use of the Pascagoula River for the Raw Water Intake, how did it incorporate the potential for increase of the current water removal for industrial expansions?
- 2) If the Pascagoula River water level falls close to a point where pumping for the SPR and Jackson County Industrial needs may have to stop, will raw water pumping for the SPR stop to allow the Jackson County industrial needs be met?
- 3) What will be the criteria for stopping the pumping of raw water from the Pascagoula River system?
- 4) If the Pat Harrison Waterway has to be paid to increase the Pascagoula River water level to allow pumping to continue for both the SPR and Jackson County industrial needs, will the cost to PHW be paid in full or part by the D.O.E.?

- 5) What are the expected results of taking 50 million gallons of water per day from the Pascagoula River on the following:
 - a) Gulf sturgeon, yellow blotched map turtle and pearl darter, or other animals or plants listed as endangered species?
 - b) Wetlands plant life, particularly from additional salt water intrusion into the river system?
 - c) The area's potential for economic expansion?
 - d) Drinking water tables in the communities within the Pascagoula River System area?
 - e) Recreational activities, such as fishing, swimming, water skiing, camping, and boating?
- 6) What alternatives have been considered by the D.O.E. for raw water intakes located at sites other than the Pascagoula River system?
- 7) Has the alternative of using raw water from the Mississippi River been evaluated, and if so, why was it rejected?
- 8) Has there been a study conducted to determine the impact of discharging 50 million gallons of salt brine per day into the Gulf of Mexico near Pascagoula, Ms.?
 - a) If a study has been conducted regarding the discharge of salt brine into the Gulf of Mexico near Pascagoula, Ms. what were the results?
 - b) If a study has not been conducted regarding the discharge of salt brine into the Gulf of Mexico near Pascagoula, Ms., will one be conducted, and when?
 - c) If a study has been conducted regarding the discharge of salt brine into the Gulf of Mexico near Pascagoula, how was the study specifically tailored to make accurate conclusions based on the environmental conditions of the Pascagoula area, including the barrier islands, tidal flow through the island passes, prevailing bottom currents, ship traffic and discharge proximity to the ship channel?
 - d) If a study has been conducted regarding the discharge of salt brine into the Gulf of Mexico near Pascagoula, Ms., what is the expected impact on marine life such as the crustaceans, mammals, marine life larvae, sea grasses, plankton, and shellfish?
 - e) If a study has been conducted regarding the discharge of salt brine near Pascagoula, Ms. what is the expected affect on the area economy, specifically regarding the commercial fishing, oystering and shrimping industries?
- 9) With the close proximity of the salt brine discharge to the Mississippi Sound, is the salinity of the Mississippi Sound expected to increase?
 - a) If the salinity level of the Mississippi Sound is not expected to increase, how will the salt from the brine discharge be kept from entering the Mississippi Sound?
- 10) How will the oyster reefs in the Mississippi Sound be protected from the same increased salinity levels that have just killed most of the Mobile Bay oysters?
- 11) The current Environmental Impact Statement predicts 56 or more salt brine spills will occur. What is the average size in gallons, expected to be from those spills?
- 12) What was the average size in gallons, of all salt brine spills which occurred at the existing SPR sites in Louisiana and Texas?
- 13) What was the size in gallons, of the largest salt brine spill that occurred at the existing SPR sites in Louisiana and Texas?
- 14) What was the size of the largest oil spill that occurred at the existing SPR sites in Louisiana and Texas?
- 15) How will salt brine spills be kept to a minimum?

- 16) Is it possible for a salt brine spill to negatively affect a municipal drinking water supply?
- 17) What is the D.O.E. contingency plan if a town's drinking water supply is contaminated by a salt brine spill?
- 18) Will the D.O.E. pay restitution to property owners that are affected by a salt brine or oil spill?
- 19) Has a study been conducted to predict the number, size and results of salt brine and oil spills from all pipelines from the Richton SPR?
 - a) If a study has been conducted to predict the number, size and results of salt brine and oil spills, from all pipelines from the Richton SPR, what were the results?
 - b) If a study to predict the number size and results of salt brine and oil spills from all pipelines from the Richton SPR has not been conducted, will one be conducted, and when?
- 20) Has the 100 mile length of the salt brine disposal pipeline been considered in making predictions as to the number of salt brine spills, and if so, why does the E.I.S. predict the same number of spills for pipeline lengths of 10 miles to 100 miles?
- 21) What alternatives have been considered by the D.O.E. for disposal of the salt brine instead of piping it to the Gulf of Mexico?
- 22) Can the salt be extracted from the brine and sold or given away, and if no, why not?
- 23) If the salt can't be sold or given away, because of cost drivers, what are the cost drivers?
- 24) Why was deep well injection disposal of the salt brine considered to be an option by the D.O.E. for the Richton SPR in 1992, but is not considered an option now?
 - a) If deep well injection cannot be used to dispose of the salt brine in one location due to inadequate properties of the deep strata, could multiple sites be used?
- 25) Has there ever been an accident at any of the existing SPR sites in which someone was injured or killed?
- 26) Has there been a study conducted to determine the economic impact to Jackson County of placing a 49 acre tank farm on Singing River Island, and if so, what were the results?
- 27) How does the average number of jobs per acre at other similar waterfront industrial sites with a deepwater dock in Jackson County compare with the jobs per acre created by the 49 acre tank farm site in Jackson County?
- 28) Has a study been conducted to determine whether the Pascagoula Ship Channel will be able to handle the tanker traffic created by the Richton SPR, and if so, what were the results?
 - a) If a study of the Pascagoula Ship Channel traffic has been conducted, did it include ship traffic associated with the two LNG offloading sites that are being developed at Pascagoula, Ms?
- 29) What alternatives have been considered by the D.O.E. for the location of the Pascagoula tank farm?
- 30) What are the ten largest cost components for the construction of the Richton SPR Project, including the cost of the oil, and what is the estimated value of each?
- 31) Is there a possibility that the Richton salt dome may be expanded to a larger capacity in the future?
 - a) If there is a possibility that the Richton salt dome may be expanded to a larger capacity in the future, what is its maximum capacity, and how much longer would the raw water and brine disposal pumping be required?
- 32) If during the construction or operation of the Richton SPR, a negative environmental or economic impact occurs that is greater than predicted by the D.O.E. Environmental Impact Statement, will the project be stopped until a reevaluation and change of plan is instituted to correct the error?

- 33) How will the environmental and economic impacts of the Richton SPR construction and operation be independently monitored?
- 34) How will the concerns and wishes of the people of south Mississippi (As evidenced by the resolutions passed by the Jackson and George County Boards of Supervisors and Pascagoula, Gautier and Ocean Springs City Councils) be taken into account for the methods of development of the Richton SPR?

POSSIBLE ALTERNATIVES:

1. The following alternate plan for supply of the fresh water should be considered to eliminate the negative environmental and economic impacts of removing the water from the Pascagoula River system:

The 50 million gallons of water per day could be removed from the Mississippi River by extending the planned Richton to Liberty pipeline by 50 miles. This would eliminate the need for the 30 mile pipeline from Richton to the Pascagoula River at Merrill. The water removed from the Mississippi River would be a much smaller percentage of the average flow rate than the percentage of flow from the Pascagoula River.

According to the U.S.G.S., the average annual flow rate of the Mississippi River near Liberty is approximately 600 times the average annual flow rate of the Pascagoula River at Merrill. It is expected that there will be no negative impacts from the removal of this water from the Mississippi River. Another positive impact is that the issue of protected species (gulf sturgeon, yellow blotched map turtle, and pearl darter) is minimized or eliminated. The impact to the project cost would be negligible from adding a net 20 miles of pipeline. Even if the Richton to Liberty pipeline could not serve a dual purpose use, installing a second pipeline in the same right away would still result in a very small percentage increase in the overall program cost.
2. The following alternate plan to the brine disposal should be considered to eliminate the environmental and economic consequences of the salt brine disposal in the Gulf of Mexico:

The brine disposal could be accomplished by deep well injection near the salt dome storage site, instead of piping the brine 100 miles from Richton to a dump site in the Gulf of Mexico south of Pascagoula. Deep well injection disposal of the brine was used by the D.O.E. during the development of two of the existing S.P.R. sites and has been proposed by the D.O.E. for brine disposal if the salt domes at Bruinsburg, MS are developed for the S.P.R.

In addition, deep well injection for disposal of the brine was one option proposed by the D.O.E. when the Richton salt dome was evaluated by the D.O.E. in 1992. Suitable strata could be found for deep well injection at a much closer distance than the 100 miles to the current planned disposal site. The cost of deep well injection would possibly add to the project cost, but would be defrayed by elimination of 100 miles of brine disposal pipeline from Richton to Pascagoula, and the cost of spill cleanups and mitigation efforts.
3. The following alternate plan for the location of the Pascagoula tank farm should be considered to eliminate an economic impact to the Jackson County economy.

The tank farm needs to be relocated to a site that is inland from its current waterfront location, for two reasons: to allow industrial expansion and for hurricane protection. Industrial property located near the deep water port in Pascagoula is essential for future development of the county. The ten jobs created by the tank farm site is only a fraction of the jobs that a site of this size could be used for. Also, tanks located on the waterfront would be exposed to hurricane threats. The tanker dock could be located in the Bayou Casotte area, and the oil pumped to a tank farm that would be located inland from the dock and along the planned pipeline route. This would eliminate both issues with minimal, if any added cost.

Please make the proper changes to the project plans to minimize or eliminate the environmental and economic impacts.

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cc: David Johnson, U.S. Dept of Energy
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NOAA Fisheries Service, Southeast Regional Office, Habitat Conservation Division