

RECORD OF NEPA REVIEW

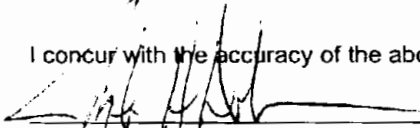
Project ID No. WH-MM-463

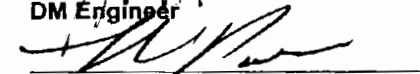
Title: Replace WH Raw Water Intake Pipeline

Description: The subcontractor will provide all supervision, labor, materials, tools, supplies, transportation, facilities, equipment, and services required to perform the work associated with replacement of the 4.2-mile West Hackberry Raw Water Intake Pipeline with a 48-inch diameter carbon steel line. GFE procurement for this project will occur in FY05 (WH-MM-463A), with installation performed in FY06 (WH-MM-463). Installation of the new pipeline will occur adjacent to the existing pipeline. The existing pipeline, when taken out of service, is proposed to remain in place.

Completely signed NEPA document is needed by 4/1/04 per DM Engineer.

I concur with the accuracy of the above brief descriptive task summary by my signature



DM Engineer


DOE Engineer

3/10/04

Date
3/10/04

Date

Regulatory Requirements in 10 CFR 1021.410

(1) The proposed action fits within a class of actions that is listed in Appendix A or B of Subpart D.

The proposed action must not:

1. Threaten a violation of statutory, regulatory, or permit requirements for environment, safety, and health, including requirements of DOE and/or Executive Orders.
2. Require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities, but the proposal may include categorically excluded waste storage, disposal, recovery, or treatment actions.
3. Disturb hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and /natural gas products that preexist in the environment such that would be uncontrolled or unpermitted releases; or
4. Adversely affect environmentally sensitive resources.

(2) There are no extraordinary circumstances related to the proposal that may affect the significance of the environmental effects of the proposal.

(3) The proposal is not "connected" (40 CFR 1508.25(a)(1)) to other actions with potentially significant impact and is not related to other proposed actions with cumulatively significant impacts (40 CFR 1508.25(a)(2)), and is not precluded by 40 CFR 1506.1 or 10 CFR 1021.211.

RECORD OF NEPA REVIEW

Environmental Analysis:

Review Initiation Date: 3/10/04

CA (Clean Air): N/A

CW (Clean Water): see Aspects

HW (Hazardous Waste): see Aspects

CS (Control of Toxics): N/A

PP (Pollution Prevention): N/A

MR (Mgmt and Report): NEPA review

Wetlands/ Floodplains: see Aspects

Aspects:

Job consists of installation of a new 4.2 mile WH Raw Water Intake Pipeline.

Aspects will be mitigated by the following:

- Subcontractor must submit MSDS sheets to DM for approval of any products prior to use on the project.
- Subcontractor must submit a Waste Minimization Plan to DM for approval prior to commencement of physical work for wastes generated on a SPR site.
- Subcontractor must check with DM to ensure that permit or permit modification has been obtained from the U.S. Army -Corps of Engineers prior to start of construction.
- Subcontractor must check with DM to ensure that a consistency determination has been made of this direct federal action by the LDNR Coastal Management Division prior to construction.
- Subcontractor must check with DM to ascertain if a Water Quality Certification is needed and has been obtained prior to construction.

Determination of NEPA

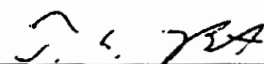
This project is covered under an existing NEPA document and does not require further NEPA action.

NEPA document to be applied: The Department of Energy has determined that this task is of the administrative nature and is therefore covered under the original Environment Impact Statement, Environmental Assessment, or Supplement Assessment prepared for the operation of the Strategic Petroleum Reserve.

NEPA review suggests an Environmental Assessment is required. (see attached ECP)

NEPA review suggests an Environmental Impact Statement is required. (see attached _____)

NEPA review suggests this project is a Categorical Exclusion.



Approved by
DM NEPA Specialist

3/11/04

Date




DM Environmental Dept. Concurrence

3/11/04

Date

Based on my review of information conveyed to me and in my possession the proposed action, as NEPA Compliance Officer (as authorized under DOE Order 451.1) I have determined that the proposed action fits within the specified actions, the other regulatory requirements set forth above are met, and the action is hereby excluded from further NEPA review.



Approved by
DOE NEPA Compliance Officer

3/11/04

Date

LIST OF ENVIRONMENTAL SUBMITTALS

Contract Number: **WH-MM-463** Description: **Replace WH Raw Water Intake Pipeline**

#.	(1) (X) APPLIES	SPEC. PARAGRAPH	DESCRIPTION OF SUBMITTAL	(2) SUBMITTAL DEADLINE	(3) Electronic COPIES TO CMTR	REMARKS OR NOTES
1	X	3.0	Submit a letter to M&O contractor to confirm that M&O contractor has received all permits	Prior to mobilization	1	Ensures permits are in place prior to work. CMTR will provide a copy to the Site ES&H Manager for confirmation.
2		4.4	Proof of EPA approved certification of personnel and equipment for CFC refrigerant and Halon recovery	Prior to commencement of work	1	
3		4.4	Service records for appliances containing at least 50 pounds of refrigerant.	After servicing.	1	CMTR will provide documentation to Site ES&H Manager. Records must be maintained on site for at least 3 years.
4	X	5.2	List of products and their current MSDSs to be approved for site use (submitted to CMTR)	10 working days in advance of need, or prior to use of a product for emergency contracts	1	Contractor must keep MSDSs at workplace. List will be modified as needed. CMTR will provide copies to the Site ES&H Manager. The site ES&H Manager will provide to the NOLA Chemical Management Specialist those MSDSs for products not listed in the Qualified Products List for review and approval.
5	X	6.2	Hazardous material handling and transportation training documentation	Prior to handling hazardous material	1	CMTR will provide documentation to Site ES&H Manager.
6		6.6	Copy of commercial pesticide applicator's license	Prior to initial application	1	CMTR will provide copy of license to Site ES&H Manager.
7	X	6.7	Copies of driver's licenses for drivers that will transport hazardous material	Prior to commencement of work	1	Copies will be provided to the CMTR prior to transporting throughout contract period.
8	X	6.8	Contamination (Spill) Report	End of work day of occurrence	1	CMTR will provide copy to site Control Room Operator
9	X	6.9	Contractor's Chemical Inventory	Every 3 months, or at contract end, if sooner	1	Completed inventory will be provided to CMTR.
10	X	7.2	Approved waste management plan	Prior to commencement of work	1	CMTR will provide copies to Site ES&H Manager and NOLA Waste Mgmt. Specialist for review/approval. Review of the plan by M&O contractor may require up to 5 working days.

(1) Submittals applicable to this contract are marked with an "X."

(2) Submit information on or before submittal deadline.

(3) Electronically transmit to Construction Management Technical Representative (CMTR) on site.

LIST OF ENVIRONMENTAL SUBMITTALS (cont.)

Contract Number: WH-MM-463 Description: Replace WH Raw Water Intake Pipeline

#.	(1) (X) APPLIES	SPEC. PARAGRAPH	DESCRIPTION OF SUBMITTAL	(2) SUBMITTAL DEADLINE	(3) COPIES TO CMTR	REMARKS OR NOTES
11	X	7.2.4	Lab and QA/QC results of waste characterization	10 working days after sampling	3	CMTR will provide copies to Site ES&H Manager and NOLA Waste Mgmt Specialist.
12	X	7.2.5	Waste determinations for approval	Prior to disposal	3	Include lab test and QA/QC results with the waste determination. CMTR will provide copies to Site ES&H Manager and NOLA Waste Mgmt Specialist for review and concurrence. Approved determinations become part of the waste management plan.
13	X	7.2.7	SPR Weekly Waste Inspection Report	End of month or end of contract if sooner	2	CMTR will provide a copy to Site ES&H Manager immediately upon receipt.
14	X	7.2.7	Monthly Waste Inventory Report	End of month or end of contract if sooner	2	CMTR will provide a copy to site ES&H Manager immediately upon receipt.
15	X	7.2.9	Requested waste disposers, and recyclers not on the SPR qualified list	60 calendar days prior to need for disposers and 10 days for transporters	3	CMTR will provide copies to the Site ES&H Manager and the NOLA Waste Mgmt Specialist for investigation and concurrence. Submittal does not guarantee approval by M&O contractor
16	X	7.2.10	Copies of waste shipping papers	Immediately	1	CMTR will provide a copy to the ES&H Manager for records.
17	X	7.2.11	Request for approval of disposal location for temporary sanitary facility waste	Prior to delivery of sanitary facilities	3	CMTR will provide information to Site ES&H Manager and NOLA Waste Mgmt. Specialist for concurrence.
18	X	7.2.12	Request for permission to discharge waters	Prior to discharge	2	CMTR will provide requests to Site ES&H Manager. Some discharges may require permits. Check on these prior to work.
19	X	7.2.12	Request for permission to discharge hydrostatic test water	30 days prior to intent to discharge	2	Applies only for pipe testing where discharge is made to ground. CMTR will provide request to Site ES&H Manager.
20	X	5.5	Affirmative Procurement Report (when quantities are estimated, i.e., not verifiable)	At contract completion	2	Contractor shall complete Attachment 2.
21	X	5.5	Affirmative Procurement Report (when quantities are verifiable)	At contract completion	2	CMTR will provide an electronic copy of report to M&O Contractor Pollution Prevention Specialist. Contractor shall complete Attachment 3. CMTR will provide an electronic copy of report to ES&H Pollution Prevention Specialist.

(1) Submittals applicable to this contract are marked with an "X."

(2) Submit information on or before submittal deadline.

(3) Transmit an electronic copy to Construction Management Technical Representative (CMTR) on site.

See next page for signature approvals.

Contract Number: WH-MM-463 **Description:** Replace WH Raw Water Intake Pipeline

This submittal register was developed and reviewed for applicability by:

J. L. BA

Date: 3/21/26

M&O Contractor Environmental Department

Date: _____

Concurrence by ACI Construction Manager

STRATEGIC PETROLEUM RESERVE
ENGINEERING CHANGE PROPOSAL
SUMMARY SHEET
CLASS I CHANGE

Task No.: WH-MM-463

03191551

ECP NUMBER WH-M/O1870	TITLE Replace West Hackberry Raw Water Intake Pipeline																																											
BUDGET SOURCE <input type="checkbox"/> SPR BLI _____ <input type="checkbox"/> CONTRACTOR BASELINE <input type="checkbox"/> BCR <input type="checkbox"/> OTHER	AUTHORITY <input type="checkbox"/> PCCB <input type="checkbox"/> ECC																																											
	SCHEDULE <input type="checkbox"/> YES MILESTONE NUMBER _____ CMCR NUMBER _____ <input type="checkbox"/> NO	TOTAL ESTIMATED COST OF CHANGE <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;"></th> <th style="width: 10%; text-align: center;">FY 04</th> <th style="width: 10%; text-align: center;">FY 05</th> <th style="width: 10%; text-align: center;">FY 06</th> </tr> </thead> <tbody> <tr> <td>DESIGN/PROJ. MGMT.</td> <td style="text-align: right;">\$1,349K</td> <td></td> <td></td> </tr> <tr> <td>CONSTR. MGMT.</td> <td></td> <td style="text-align: right;">\$1,155K</td> <td></td> </tr> <tr> <td>CONSTRUCTION</td> <td></td> <td style="text-align: right;">\$13,535K</td> <td></td> </tr> <tr> <td>GFE</td> <td></td> <td style="text-align: right;">\$6,222K</td> <td></td> </tr> <tr> <td>TOTAL</td> <td style="text-align: right;">\$1,349K</td> <td style="text-align: right;">\$6,222K</td> <td style="text-align: right;">\$14,690K</td> </tr> </tbody> </table>			FY 04	FY 05	FY 06	DESIGN/PROJ. MGMT.	\$1,349K			CONSTR. MGMT.		\$1,155K		CONSTRUCTION		\$13,535K		GFE		\$6,222K		TOTAL	\$1,349K	\$6,222K	\$14,690K																	
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Strategic Petroleum Reserve ENGINEERING CHANGE PROPOSAL

ECP NUMBER WH-M10-1870		ECP TITLE Replace West Hackberry Raw Water Intake Pipeline		PAGE 1 OF 3	
CONTRACTOR CHANGE NO./REV. 03191551		INITIATED BY <i>J. DeCuir</i>	DATE: 11/13/03	SUBMITTED BY <i>R. Emmert</i>	DATE 11/18/03
PRIORITY <input type="checkbox"/> EMERGENCY <input type="checkbox"/> URGENT <input checked="" type="checkbox"/> ROUTINE		ORG./CONTRACTOR Sr. Engineer/DM	PHONE NO. 4592	ORG./CONTRACTOR Dir. E&C/DM	PHONE NO. 4317
		VALUE ENGINEERING <input type="checkbox"/> VEP (MANDATORY) <input checked="" type="checkbox"/> VECP (VOLUNTARY)	DRAWDOWN CRITICAL <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	ROM ESTIMATE \$22,260K	
DESCRIPTION PROBLEM / EXISTING CONFIGURATION:					
<p>The West Hackberry Raw Water Intake Pipeline (RWIPL) is nearing the end of its operable life, and must be replaced to maintain the site's drawdown capability. The exact condition of the West Hackberry RW Pipeline is unknown. Based on historic inspection data the line is suspected to have extensive internal general corrosion.</p> <p>The RWIPL, located between the Intracoastal Waterway and the site, supplies West Hackberry with the raw water for drawdown. The pipeline was designed to meet an operable lifetime of 20 years. It is currently in its 23rd year of service.</p> <p>General corrosion of the pipeline limits its maximum allowable operating pressure (MAOP) to 220 psig. Any reductions in operating pressure due to the pipeline's continued deterioration could have a negative impact on the maximum drawdown rates achievable.</p>					
PROPOSED SOLUTION/ENHANCEMENT					
<p>Replace the current 42-inch RWIPL with a 48 inch diameter, unlined API-5L pipeline conforming to ANSI Specification B31-4. Provide adequate corrosion allowance to ensure a 25-year operable lifetime.</p> <p>Installation will occur adjacent to the existing pipeline. The existing pipeline will be taken out of service but is to remain in place. Additional right-of-way must be acquired due to limitations in some areas (e.g. only a single pipeline allowed within existing right-of-way).</p> <p>See page 4 for additional information.</p>					
REASON/JUSTIFICATION					
<p>This task is required to maintain West Hackberry's drawdown capability/availability. DRIVING REQUIREMENT: Level I Criteria, paragraphs 4.2.1 and 4.2.4 (see attached).</p>					
CI'S AFFECTED West Hackberry Raw Water Intake Pipeline					
TECHNICAL ANALYSIS/RECOMMENDATION				IMPLEMENTATION METHOD <input checked="" type="checkbox"/> SUBCONTRACT <input type="checkbox"/> M&O LABOR (LOE) <input type="checkbox"/> COMBINATION	
ENGINEERING <i>J.P. Waring</i>		DATE 12/9/03		DOE SSR <i>See Electronic Signature/Approval</i>	
				DATE 1/5/04	
				<input checked="" type="checkbox"/> CONCUR <input type="checkbox"/> NONCONCUR	

STRATEGIC PETROLEUM RESERVE

ENGINEERING CHANGE PROPOSAL (CONTINUED)

PAGE 4 OF _____

This proposal is based on a detailed engineering analysis and trade study performed by SPR architect/engineer, S&B Infrastructure (ref. Project Order No. 91, S&B Job No. U-0323, *West Hackberry Raw Water Intake Pipeline Replacement*). The study analyzed different replacement options for the West Hackberry RWIPL (WH-42-RW-4002-A) based on their advantages and disadvantages in cost, technical performance, and schedule.

The study evaluated a range of line sizes and hydraulic performance characteristics, types of linings and coatings, environmental impacts, disposition of the existing line, schedule for procurement and installation and initial capital and life cycle costs. Also included in the study was an analysis of installing a lining into the existing RWIPL to extend its operating life, relocation of the RWIS to a location adjacent to the main site taking suction from Black Lake, and other site enhancements, which may be required as a part of the solution, or which may be desired to enhance operability.

Cost-Effectiveness Analysis Methodology

The overall objective of the Cost-Effectiveness Analysis was to determine the best alternative to deliver drawdown raw water from the RWIS to the RWINJ pumps with the highest level of availability at the lowest Life Cycle Cost. The methodology used in the Cost-Effectiveness Analysis consisted of the following steps:

- Establish the existing design requirements
- Develop hydraulic model
- Develop the alternatives
- Estimate the cost of alternatives
- Determine the most cost effective alternative or combination of alternatives

The selection of the alternative presented in this ECP, a 48-inch diameter unlined replacement pipeline [rather than the A/E recommended 42-inch diameter] is based on a consensus of the SPR engineering community that increasing the size of the raw water intake line is a prudent expenditure because:

- A 48-inch RWINT line increases the terminal delivery pressure available at the end of drawdown by a minimum of 50%. It also increases the pressure margin available to counteract heat exchanger fouling or pump wear.
- Increasing the line size to 48-inches takes advantage of a one-time opportunity to increase the Raw Water Line capacity by 39% for \$2,000,000 (10%) additional cost, thereby removing a significant obstacle to increasing the site drawdown rate. Increasing RW pipeline capacity was approximately 1/3 of the estimated total cost to increase WH drawdown capacity under the recent SPR 1MMB Expansion study. The total cost as defined in Expansion Module was approximately \$60 million.