

STRATEGIC PETROLEUM RESERVE

**ENGINEERING CHANGE PROPOSAL
SUMMARY SHEET
CLASS I CHANGE**

ECP NUMBER SJ-M/O-4647	TITLE St. James Terminal – Sugarland Debottleneck
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BUDGET SOURCE	AUTHORITY
<input type="checkbox"/> SPR BLI _____ <input type="checkbox"/> CONTRACTOR BASELINE <input type="checkbox"/> AUD <input type="checkbox"/> OTHER: Lease Contractor	<input checked="" type="checkbox"/> PCCB <input type="checkbox"/> ECC

SCHEDULE	TOTAL ESTIMATED COST OF CHANGE															
<input type="checkbox"/> YES MILESTONE NUMBER _____ CMCN NUMBER _____ <input type="checkbox"/> NO	<table border="0"> <tr> <td></td> <td>FY 06</td> <td>FY 07</td> </tr> <tr> <td>DESIGN</td> <td></td> <td></td> </tr> <tr> <td>Construction Management</td> <td></td> <td></td> </tr> <tr> <td>CONSTRUCTION</td> <td></td> <td></td> </tr> <tr> <td>TOTAL</td> <td>\$ 600,000</td> <td></td> </tr> </table>		FY 06	FY 07	DESIGN			Construction Management			CONSTRUCTION			TOTAL	\$ 600,000	
	FY 06	FY 07														
DESIGN																
Construction Management																
CONSTRUCTION																
TOTAL	\$ 600,000															

PCCB/ECC SIGNATURES	DISPOSITION			COMMENTS CONDITIONS/LIMITATIONS
	C O N C U R	N O O N C U R	D A T E	
DOE SENIOR SITE OFFICIAL				
<i>[Signature]</i> APM TECHNICAL ASSURANCE	✓		6/15/06	
<i>[Signature]</i> APM SYSTEMS AND PROJECTS	✓		15 JUN 06	
<i>[Signature]</i> APM MAINTENANCE AND OPERATIONS	✓		6/15/06	
<i>[Signature]</i> APM MANAGEMENT AND ADMINISTRATION	✓		6/15/06	
DOE CMO				
PROJECT MANAGER				
DEPUTY ASSISTANT SECRETARY - SPR				

PCCB/ECC ACTION

FULL APPROVAL
 CONDITIONAL/LIMITED APPROVAL
 DISAPPROVAL



ECP EXECUTIVE SUMMARY

Change Request Number : *SJ-M/O-4647*

Title : Sugarland Debottleneck

Executive Summary:

This project will enhance both the commercial and non-commercial capabilities of the terminal by providing more flexibility (less manifold and meter conflicts) such that increased volumes can occur. With meters being the most significant limiting constraint, this project will, effectively, increase the number of meters within the Sugarland loss allowance area.

Implementation plan:

A motor operated 30" 150# double block and bleed valve will be installed at the spectacle blind location to allow LoCap deliveries to be routed directly into the terminal while leaving the Bayou Choctaw meters available for other movements. Also, a motor operated 20" 150# double block and bleed valve will be hot tapped into the Sugarland header on the 30" side of valve SL4. This will be connected to an existing flange that is now blinded, near the tee to valve SL6. This will allow the meters to be bypassed for receipts from Capline. (See Exhibit A)

Implementation Cost: (currently being developed by Shell)

	2006
Design:	\$241,500
Construction Management:	
Construction:	\$325,000
GFE:	
LOE:	
Total:	\$566,500

Life Cycle Cost:

Impact Summary:

Logistics:

Level I, II, III Criteria:

Codes, regulations,
permits, etc.:

Safety, Environmental, Fire
Protection Systems, Security:

Contract completion dates:

GFE:

Schedules:

STRATEGIC PETROLEUM RESERVE ENGINEERING CHANGE PROPOSAL

Task # (s):

ECP NUMBER <i>SJ-M/0-4647</i>	ECP TITLE Sugarland Debottleneck			PAGE 1 OF 3
CONTRACTOR CHANGE NO. / REV.	INITIATED BY Scott Adams <i>for Mike Lusk</i>	DATE 5/17/2006	SUBMITTED BY Jeff Barab	DATE 5/18/2006
PRIORITY <input type="checkbox"/> EMERGENCY <input type="checkbox"/> URGENT <input checked="" type="checkbox"/> ROUTINE	ORG./CONTRACTOR Shell Pipeline	PHONE NO. 713-241-2011	ORG./CONTRACTOR Shell Pipeline	PHONE NO. 713-241-0765
	VALUE ENGINEERING	DRAWDOWN CRITICAL	ROM ESTIMATE	
	<input type="checkbox"/> VEP (MANDATORY) <input type="checkbox"/> VECP (VOLUNTARY)	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	\$600,000	

DESCRIPTION:

PROBLEM / EXISTING CONFIGURATION:
 As commercial business at Sugarland has been developed, metering facilities have become a limiting factor in the number of operations (receipts, deliveries, transfers) that can be made simultaneously. As such, some requested movements from customers have either not been accommodated or have been accommodated by the use of tank gauge (barge receipts, tank-to-tank transfers primarily). This has also impacted the ability to maximize both commercial and non-commercial (drawdowns during the 2005 hurricanes) business. Two movements, in particular, offer significant improvements with relatively simple modifications. Specifically, receipts from Ship Shoal, Shell's Houma pipeline and ExxonMobil's Raceland line (which use the Shell 20-inch receipt line) are metered both using Capline meters and Sugarland meters. Also, Locap receipts, which are metered at Locap, preclude the use of the Bayou Choctaw meters during these receipts due to the current piping configuration, precluding the ability to receive Locap and tankers simultaneously.

PROPOSED SOLUTION / ENHANCEMENT:
 A motor operated 20" 150# double block and bleed valve will be hot tapped into the Sugarland header on the 30" side of valve SL4. This will be connected to an existing flange that is now blinded, near the tee to valve SL6. This will allow receipts from the Shell 20-inch receiving line (Ship Shoal, Shell Houma and ExxonMobil Raceland lines), already metered at Capline, to bypass Sugarland meters so that the meters may be used for other concurrent movements.

Also, a motor operated 30" 150# double block and bleed valve will be installed at the spectacle blind location to allow Locap deliveries to be routed directly into the terminal while leaving the Bayou Choctaw meters available for other movements. (See Exhibit A)

REASON / JUSTIFICATION:
 These modifications will enable additional flexibility for making concurrent movements at Sugarland. Measurement will also be improved by further reducing the types of movements that are made using tank gauge from time to time. This project will enhance the commercial viability of the Sugarland facility as well as providing additional flexibility during SPR drawdowns.

Note: Shell will fund this project (with no unfunded liability). All modifications will be owned by the DOE at the termination of the lease, per the Facility Lease.

CI'S AFFECTED:

TECHNICAL ANALYSIS / RECOMMENDATION:	IMPLEMENTATION METHOD: <input type="checkbox"/> SUBCONTRACT <input type="checkbox"/> M&O LABOR (LOE) <input type="checkbox"/> COMBINATION
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ENGINEERING <i>Scott Adams</i>	DATE 05/17/06	DOE SSR	DATE
			<input type="checkbox"/> CONCUR <input type="checkbox"/> NONCONCUR

STRATEGIC PETROLEUM RESERVE
ENGINEERING CHANGE PROPOSAL
CONFIGURATION CHANGE AFFECTED REPORT

TO BE COMPLETED BY TECHNICAL REVIEW PROCESS, ENGINEERING AND CONFIGURATION MANAGEMENT ORGANIZATION DEFINED PROCESS

ECP NO.: SJ-M/0-4647	CONTRACTOR CHANGE NO. / REV.:	CHANGE CLASSIFICATION: <input checked="" type="checkbox"/> CLASS I <input type="checkbox"/> CLASS II	PAGE 2 OF 3
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FUNCTIONS AFFECTED		DOCUMENTS AFFECTED	
YES/NO	ITEM	YES/NO	ITEM
NO	<input checked="" type="checkbox"/> LEVEL I <input type="checkbox"/> LEVEL II <input type="checkbox"/> LEVEL III CRITERIA		ELECTRICAL (cont'd)
NO	PERFORMANCE CRITERIA	NO	308 - WIRING DIAGRAMS
NO	RAM	NO	310 - GROUNDING
NO	INTERFACE CHARACTERISTICS	NO	311 - CONDUIT & CABLE SCHEDULES (INCLUDING INST.)
NO	I/O POINTS	NO	313 - MCC/SWITCH GEAR ELEVATION & SCHEDULE
NO	DOE LEVEL I, II, III SCHEDULES	NO	315 - CATHODIC PROTECTION
NO	GUARANTEES/DELIVERABLES	NO	350 - STANDARDS
NO	<input type="checkbox"/> SAFETY/ <input type="checkbox"/> ENV / <input type="checkbox"/> FP		INSTRUMENTATION
NO	SECURITY REQUIREMENTS	NO	401 - BLOCK DIAGRAM
YES	OPCS SOFTWARE	NO	402 - LOOP DIAGRAMS
NO	OPCS HARDWARE	NO	403 - INSTRUMENT PLANS AND DETAILS
NO	OPCS FIRMWARE	NO	404 - INSTRUMENT WIRING DIAGRAM
NO	SETPOINTS/RANGES	NO	409 - INSTRUMENT INDEX
NO	DIP SWITCH SETTINGS/JUMPERS	NO	450 - STANDARDS
NO	MASTER CI LIST		MAPPING
NO	WELLHEAD CONFIGURATION	NO	501 - ALIGNMENT SHEETS
NO	SPARES/PROVISIONING REQUIREMENTS	NO	509 - PIPELINE DRWGS (MAINLINE VALVES, DRIPS, SCRAPER, TRAPS, ETC.)
NO	GOVERNMENT FURNISHED EQUIPMENT	NO	550 - STANDARDS
NO	ENERGY USAGE		ARCHITECTURAL
NO	OPERATIONS MODELS	NO	720 - ELEVATIONS AND FLOOR PLANS
NO	OTHER	NO	750 - STANDARDS
	DOCUMENTS AFFECTED		DATA SYSTEMS
	ITEMS	NO	801 - PHYSICAL DIAGRAMS
	PIPING	NO	802 - LOGICAL / BLOCK DIAGRAMS
YES	101 - PROCESS FLOW DIAGRAMS	NO	810 - SYSTEM / DEVICE CONFIGURATION SETTINGS
YES	102 - MECHANICAL FLOW DIAGRAMS	NO	820 - CYBER SECURITY
YES	103 - PIPING AND INSTRUMENTATION DIAGRAMS (P&ID'S)	NO	850 - STANDARDS
NO	104 - UTILITY FLOW DIAGRAMS	NO	870 - EQUIPMENT SPECIFICATIONS
YES	105 - GENERAL PIPING PLANS	NO	880 - SYSTEM / APPLICATION SPECIFICATIONS
NO	106 - AREA PLANS (MECHANICAL EQUIPMENT LOCATION)		DOCUMENTATION
NO	122 - WELL HEAD DRAWINGS	NO	900 - RESERVED
NO	123 - WELL COMPLETION CONFIGURATION DRAWINGS	NO	901 - TECHNICAL/PERFORMANCE/DESIGN CRITERIA
YES	130 - VALVE LIST	NO	910 - DESIGN DESCRIPTION/BASIS
NO	135 - LINE LIST	NO	911 - PROCESS SET POINT DOCUMENTS
NO	140 - PSV LIST	NO	912 - EQUIPMENT LIST
NO	150 - STANDARDS	YES	913 - MOV LIST
	CIVIL/STRUCTURAL	NO	915 - ELECTRICAL SAFETY
NO	201 - PLOT PLANS	NO	920 - I/O DOCUMENT
NO	202 - SITE WORK: GRADING (ROUGH & FINISH & DRAIN FENCING)	YES	930 - OPERATIONS MANUALS
NO	210 - FOUNDATIONS: LOCATION PLANS	NO	930 - MAINTENANCE MANUALS
NO	216 - MINES (WEEKS ISLAND ONLY)	NO	950 - STANDARD SPECIFICATIONS
NO	250 - STANDARDS	NO	970 - TASK SPECIFICATIONS
	ELECTRICAL	NO	990 - CONFIGURATION MANAGEMENT REPORTS/I.B.O.M.
NO	301 - AREA CLASSIFICATION		COMMENTS: Software change: PLC Programming will be modified to include valve operation.
NO	302 - ONE LINE DIAGRAMS		
NO	303 - SCHEMATIC DIAGRAMS		
NO	304 - POWER PLANS AND DETAILS		
NO	305 - LIGHTING PLANS AND DETAILS		
NO	307 - SUBSTATION PLANS AND DETAILS		
ENGINEERING	DATE	CONFIGURATION MANAGEMENT	DATE

**STRATEGIC PETROLEUM RESERVE
ENGINEERING CHANGE PROPOSAL
SOFTWARE, HARDWARE, FIRMWARE CHANGE**

CONTRACTOR CHANGE NUMBER / REV:	ECP NUMBER: SJ-M/0-4647	PAGE 3 OF 3
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SOFTWARE CHANGE ANALYSIS	HARDWARE/SOFTWARE AFFECTED (NOTE: REDLINE CI BOM)

DISPOSITION OF PARTS

REWORK SITE COMPONENTS ONLY
 REWORK ALL SITE COMPONENTS
 COMPONENTS NOT AFFECTED
 OTHER (DESCRIBE) _____

COMPONENT COMPATIBILITY (LIST COMPONENTS SEPARATELY IF COMPATIBILITY'S ARE DIFFERENT)

INTERCHANGEABLE
 DRAWDOWN COMPATIBLE
 NONCOMPATIBLE

OPCS SUPPORT ENGINEER	DATE	FUNCTIONAL MANAGER	DATE
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IMPLEMENTATION / TEST COMMENTS:

WITNESSED BY	DATE
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TEST APPROVED BY	DATE	CHANGE RELEASE AUTHORITY	DATE
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