STRATEGIC PETROLEUM RESERVE

ENGINEERING CHANGE PROPOSAL
SUMMARY SHEET
CLASS I CHANGE

ECP NUMBER	TITLE
SJ-M/O-4612	Sugarland Terminal Pressure Test

BUDGET SOURCE

- [ ] SPR BLI _____
- [ ] CONTRACTOR BASELINE
- [ ] AUD
- [x] OTHER **Equilon**

AUTHORITY

- [x] PCCB
- [ ] ECC

SCHEDULE

- [ ] YES
  MILESTONE NUMBER _____
  CMCR NUMBER _____
- [x] NO

TOTAL ESTIMATED COST OF CHANGE

	FY 00	FY	FY
DESIGN			
Testing	~~$30K~~		
TOTAL	~~$125,000~~		

PCCB/ECC SIGNATURES	DISPOSITION: CONCUR	DISPOSITION: NON CONCUR	DISPOSITION: DATE	COMMENTS CONDITIONS/LIMITATIONS
DOE SENIOR SITE OFFICIAL				
APM TECHNICAL ASSURANCE	✓		1/14/00	
APM SYSTEMS AND PROJECTS	✓		12/20/99	
APM MAINTENANCE AND OPERATIONS	✓		12/21/99	Costs should be depreciated over remainder of lease, not 20 yrs. NTE $50K
DEPUTY PROJECT MANAGER				
DOE CMO				
PROJECT MANAGER				
DEPUTY ASSISTANT SECRETARY - SPR				

PCCB/ECC ACTION

- [x] FULL APPROVAL
- [ ] CONDITIONAL/LIMITED APPROVAL
- [ ] DISAPPROVAL

ECPFM(4)

STRATEGIC PETROLEUM RESERVE

WR #

ENGINEERING CHANGE PROPOSAL

ECP NUMBER	ECP TITLE	PAGE 1 OF 1
SJ-M/O-4612	**Sugarland Terminal Pressure Test**	

CONTRACTOR CHANGE NO./REV.	INITIATED BY	DATE	SUBMITTED BY	DATE
	Mike Thompson	**11/12/1999**	**David Carrere**	**12/2/1999**
PRIORITY	ORG./CONTRACTOR	PHONE NO.	ORG./CONTRACTOR	PHONE NO.
	Equilon Pipeline	**7132411937**	**Equilon Pipeline**	**5048363216**

PRIORITY

- ☐ EMERGENCY
- ☐ URGENT
- ☒ ROUTINE

VALUE ENGINEERING	DRAWDOWN CRITICAL	ROM ESTIMATE
☐ VEP (MANDATORY)	☐ YES	**$ 425,000**
☐ VECP (VOLUNTARY)	☐ NO	

DESCRIPTION:

PROBLEM / EXISTING CONFIGURATION **The MAOP of the terminal is limited to 180 psig due to an error made during the original hydrotest. Apparently, the ANSI rating scheme was not understood during the original hydrotest and ANSI 150# piping was incorrectly assumed to be rated at 150 psig. Therefore, the 1-1/2 times hydrotest resulted in a test pressure of 225 psig. Per 49 CFR Part 195.406, the MAOP is therefore 80% of the test pressure - resulting in a MAOP of 180 psig. This operating pressure creates reliability problems in the operation of the terminal because of pressure protection that must be set based on MAOP. In order to increase reliability of the facility and meet DOT requirements, the MAOP must be raised. Since ANSI 150# piping is actually rated at 275 psig, the MAOP can be raised sufficiently by performing a pressure test on the terminal.**

PROPOSED SOLUTION / ENHANCEMENT **Pressure test the ANSI 150# piping in the terminal to obtain an MAOP of 225 psig.**

REASON / JUSTIFICATION **The higher MAOP will permit higher flow rates into and out of the terminal. Currently pipeline deliveries and receipts are limited by the reduced operating pressure. In addition, reliability of the facility is significantly impacted because our normal operating pressures leave almost no margin for error with respect to our overpressure protection (i.e. - relief valves, pressure shutdowns). This has resulted in numerous nuisance shutdowns. Also, Equilon's credibility as a pipeline operator with regulatory agencies is adversely affected by "overpressure events" that are not truly in any danger of overpressuring any piping, but that have to be logged as overpressure events because of the low MAOP.**

CI'S AFFECTED

TECHNCIAL ANALYSIS/RECOMMENDATION

IMPLEMENTATION METHOD

- ☐ SUBCONTRACT
- ☐ M&O LABOR (LOE)
- ☐ COMBINATION

ENGINEERING	DATE	DOE SSR	DATE
David Carrere	12/7/99		☐ CONCUR ☐ NONCONCUR

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STRATEGIC PETROLEUM RESERVE

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ENGINEERING CHANGE PROPOSAL

ECP NUMBER	ECP TITLE	PAGE 1 OF 1
SJ-M/O-4612	Sugarland Terminal Pressure Test	

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	Mike Thompson	11/12/1999	David Carrere	12/2/1999
PRIORITY	ORG./CONTRACTOR	PHONE NO.	ORG./CONTRACTOR	PHONE NO.
☐ EMERGENCY	Equilon Pipeline	7132411937	Equilon Pipeline	5048363216
☐ URGENT	VALUE ENGINEERING	DRAWDOWN CRITICAL	ROM ESTIMATE	
☒ ROUTINE	☐ VEP (MANDATORY)	☐ YES	$ 50,000 ~~$ 425,000~~	
	☐ VECP (VOLUNTARY)	☐ NO		

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TECHNCIAL ANALYSIS/RECOMMENDATION

IMPLEMENTATION METHOD
- ☐ SUBCONTRACT
- ☐ M&O LABOR (LOE)
- ☐ COMBINATION

ENGINEERING	DATE	DOE SSR	DATE	
David Carrere	12/7/99	Robert J. Kolb	12/20/99	☑ CONCUR ☐ NONCONCUR

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STRATEGIC PETROLEUM RESERVE
ENGINEERING CHANGE PROPOSAL
CONFIGURATION CHANGE AFFECTED REPORT

WR #

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

ECP NO.	CONRACTOR CHANGE NO.	REV.	CHANGE CLASSIFICATION ■ CLASS I ☐ CLASS II	PAGE 2 OF
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FUNCTIONS AFFECTED

YES/NO	ITEM
NO	LEVEL I ☐ LEVEL II ☐ CRITERIA
NONO	PERFORMANCE CRITERIA
NONO	RAM
NONO	INTERFACE CHARCTERISTICS
NONO	I/O POINTS
NONO	DOE LEVEL I, II, III SCHEDULES
NONO	GUARANTEES/DELIVERABLES
NONO	SAFETY/ENV/FP (CIRCLE ONE)
NONO	SECURITY REQUIREMENTS
? YES	OPCS SOFTWARE
NONO	OPCS HARDWARE
NONO	OPCS FIRMWARE
NONO	SETPOINTS/RANGES
NONO	DIP SWITCH SETTINGS/JUMPERS
NONO	MASTER CI LIST
NONO	WELLHEAD CONFIGURATION
NONO	SPARES/ROVISIONING REQUIREMENTS
NONO	GOVERNMENT FURNISHED EQUIPMENT
NONO	ENERGY USAGE
YES	OPERATIONS MODESL
YESNO	OTHER
	DOCUMENTS AFFECTED
YES/NO	**ITEMS**
	PIPING
NONO	101 - PROCESS FLOW DIAGRAMS
NONO	102 - MECHANICAL FLOW DIAGRAMS
YESYES	103 - PIPING AND INSTRUMENTATION DIAGRAMS (P&ID'S)
NONO	104 - UTILITY FLOW DIAGRAMS
NONO	105 - GENERAL PIPING PLANS
NONO	106 - AREA PLANS (MECHANICAL EQUIPMENT LOCATION)
NO	122 - WELL HEAD DRAWINGS
NONO	130 - VALVE LIST
NONO	135 - LINE LIST
NONO	140 - PSV LIST
NONO	150 - STANDARDS
	CIVIL/STRUCTURAL
NONO	201 - PLOT PLANS
NONO	202 - SITE WORK: GRADING (ROUGH & FINISH) DRAIN FENCING
NONO	210 - FOUNDATIONS: LOCATION PLANS
NONO	216 - MINES (WEEKS ISLAND ONLY)
NONO	250 - STANDARDS
	ELECTRICAL
NONO	301 - AREA CLASSIFICATION
NONO	302 - ONE LINE DIAGRAMS
NONO	303 - SCHEMATIC DIAGRAMS
NO	304 - POWER PLAND AND DETAILS
NONO	305 - LIGHTING PLAND AND DETAILS
NONO	307 - SUBSTATION PLANS AND DETAILS
NO	308 - WIRING DIAGRAMS
NONO	310 - GROUNDING
NONO	311 - CONDUIT & CABLE SCHEDULES (INCLUDING INST.)
NONO	313 - MCC/SWITHC GEAR EVALUATION & SCHEDULE

DOCUMENTS AFFECTED

YES/NO	ITEM
	ELECTRICAL (cont'd)
NONO	315 - CATHODIC PROTECTION
NONO	350 - STANDARDS
	INSTRUMENTATION
NONO	401 - BLOCK DIAGRAM
NONO	402 - LOOP DIAGRAMS
NONO	403 - INSTRUMENT PLANS
NONO	404 - INSTRUMENT WIRING DIAGRAM
NONO	409 - INSTRUMENT INDEX
NONO	450 - STANDARDS
	MAPPING
NONO	501 - ALIGNMENT SHEETS
NONO	509 - PIPELINE DRWGS (MAINLINE VALVES, DRIPS, SCRAPER, TRAPS, ETC.)
NONO	550 - STANDARDS
	ARCHITECTUAL
NONO	720 - ELEVATIONS AND FLOOR PLANS
NONO	750 - STANDARDS
	DOCUMENTATION
NONO	900 - RESERVED
NONO	901 - TECHNICAL/PERFORMANCE/DESIGN CRITERIA
YES	910 - DESIGN DESCRIPTION/BASIS
YES	911 - PROCESS SET POINT DOCUMENTS
NONO	912 - EQUIPMENT LIST
NONO	913 - MOV LIST
NONO	915 - ELECTRICAL SAFETY
NONO	920 - I/O DOCUMENT
YES	930 - OPERATIONS MANUALS
NONO	930 - MAINTENANCE MANUALS
NONO	950 - STANDARD SPECIFICATIONS
NONO	970 - TASK SPECIFICATIONS
NO	990 - CONFIGURATION MANAGEMENT REPORTS/I.B.M.

COMENTS:

ENGINEERING	DATE	CONFIGURATION MANAGEMENT	DATE
		Danny [illegible]	1/7/00

STRATEGIC PETROLEUM RESERVE

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ENGINEERING CHANGE PROPOSAL

SOFTWARE, HARDWARE, FIRMWARE CHANGE

CONTRACTOR CHANGE NUMBER	REVISION NUMBER	ECP NUMBER	PAGE
		SJ-M10-4/612	3 OF

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 SEPERATELY IF COMPATIBILITIES ARE DIFFERENT)

☐ INTERCHANGEABLE ☐ DRAWDOWN COMPATIBLE ☐ NONCOMPATIBLE

OPCS SUPPORT ENGINEER DATE FUNCTIONAL MANAGER DATE

IMPLEMENTATION / TEST COMMENTS

WITNESSED BY	DATE

TEST APPROVED BY DATE CHANGE RELEASE AUTHORITY DATE