


FLARE GAS RECOVERY PROCESS SPECIFICATION					DATE	REV	
					18-Jul-2005	0	
LOCATION:			PROJECT REFERENCE:				
FLARE SYSTEM DATA			REV	FEED GAS COMPOSITION			
1	FLARE EQUIPMENT NUMBER			Compound		Mole Fraction	REV
2	FLARE TIP DIAMETER	Select Units		60	Methane	CH ₄	
3	FLARE DESIGN (MAXIMUM) FLOW RATE	Select Units		61	Ethane	C ₂ H ₆	
4	FLARE SMOKELESS FLOW RATE	Select Units		62	Propane	C ₃ H ₈	
5	FLARE PRESSURE DROP FROM BASE TO TIP	Select Units		63	n-Butane	C ₄ H ₁₀	
6	ESTIMATED SUPPRESSION STEAM USAGE	Select Units		64	Isobutane	C ₄ H ₁₀	
7	FLARE HEADER LINE SIZE	Select Units		65	n-Pentane	C ₅ H ₁₂	
8	KNOCKOUT VESSEL INSTALLED?	YES or NO		66	Isopentane	C ₅ H ₁₂	
9	LIQUID SEAL VESSEL INSTALLED?	YES or NO		67	Neopentane	C ₅ H ₁₂	
10	LIQUID SEAL DEPTH	Select Units		68	n-Hexane	C ₆ H ₁₄	
11	LIQUID SEAL FLUID	WATER or Other	WATER	69	2-Methylpentane	C ₆ H ₁₄	
SITE CONDITIONS				70	3-Methylpentane	C ₆ H ₁₄	
12	ELEVATION ABOVE SEA LEVEL	Select Units		71	Neohexane	C ₆ H ₁₄	
13	ATMOSPHERIC PRESSURE	Select Units		72	2,3-Dimethylbutane	C ₆ H ₁₄	
14	AMBIENT AIR TEMPERATURE Maximum:	Select Units		73	n-Heptane	C ₇ H ₁₆	
15	Minimum:	Select Units		74	2-Methylhexane	C ₇ H ₁₆	
16	EARTHQUAKE ZONE	Select Code	Zone per location	75	3-Methylhexane	C ₇ H ₁₆	
17	SITE DESIGN WINDSPEED [ASCE 7, latest edition]	Select Units		76	3-Ethylpentane	C ₇ H ₁₆	
18	AREA CLASSIFICATION	Select Code		77	2,2-dimethylpentane	C ₇ H ₁₆	
FEED GAS PROPERTIES				78	2,4-dimethylpentane	C ₇ H ₁₆	
19	HEATING VALUE, [LHV]	Btu/scf	Value based on gas composition	79	3,3-dimethylpentane	C ₇ H ₁₆	
20	MOLECULAR WEIGHT		Value based on gas composition	80	Triptane	C ₇ H ₁₆	
21	SPECIFIC GRAVITY [AIR = 1.0]		Value based on gas composition	81	n-Octane	C ₈ H ₁₈	
OPERATING UTILITIES				82	Diisobutyl	C ₈ H ₁₈	
22	ELECTRICAL POWER SUPPLY	60 Hz or 50Hz		83	Osooctane	C ₈ H ₁₈	
23	FOR MOTORS <250 HP	480 VAC or 2300 VAC or Other		84	n-Nonane	C ₉ H ₂₀	
24	FOR MOTORS >250 HP	2300 VAC or 4160 VAC or Other		85	n-Decane	C ₁₀ H ₂₂	
25	FOR CONTROL ELEMENTS	120 VAC or 24 VDC		86	Cyclopentane	C ₅ H ₁₀	
26	INSTRUMENT AIR SUPPLY PRESSURE	Select Units		87	Methylcyclopentane	C ₆ H ₁₂	
27	SERVICE WATER SUPPLY PRESSURE	Select Units		88	Cyclohexane	C ₆ H ₁₂	
28	COOLING WATER SUPPLY Maximum Temperature:	Select Units		89	Methylcyclohexane	C ₇ H ₁₄	
29	Minimum Pressure:	Select Units		90	Ethylene	C ₂ H ₄	
30	COOLING WATER RETURN Maximum Temperature:	Select Units		91	Propene	C ₃ H ₆	
31	Minimum Pressure:	Select Units		92	1-Butene	C ₄ H ₈	
ECONOMIC FACTORS				93	Cis-2-Butene	C ₄ H ₈	
32	VALUE OF ELECTRICAL POWER	Select Units		94	Trans-2-Butene	C ₄ H ₈	
33	VALUE OF STEAM	Select Units		95	Isobutene	C ₄ H ₈	
34	VALUE OF RECOVERED GAS AS FUEL	Select Units		96	1-Pentene	C ₅ H ₁₀	
35	VALUE OF RECOVERED GAS AS PROCESS FEED	Select Units		97	1,2-Butadiene	C ₄ H ₆	
DESIGN BASIS				98	1,3-Butadiene	C ₄ H ₆	
36	DESIGN (MAXIMUM) GAS RECOVERY RATE	Select Units		99	Isoprene	C ₅ H ₈	
37	FEED GAS TEMPERATURE	Select Units		100	Acetylene	C ₂ H ₂	
38	FEED GAS PRESSURE	Select Units		101	Benzene	C ₆ H ₆	
39	RECOVERED GAS DELIVERY TEMPERATURE LIMIT	Select Units		102	Toluene	C ₇ H ₈	
40	RECOVERED GAS MINIMUM DISCHARGE PRESSURE	Select Units		103	Ethylbenzene	C ₈ H ₁₀	
41	RECOVERED GAS INTENDED USE	FUEL or PROCESS FEED		104	o-Xylene	C ₈ H ₁₀	
42	CONTROL SYSTEM PLATFORM	DCS or PLC		105	m-Xylene	C ₈ H ₁₀	
NOTES AND COMMENTS				106	p-Xylene	C ₈ H ₁₀	
43	text:			107	Styrene	C ₈ H ₁₀	
44				108	Isopropylbenzene	C ₉ H ₁₂	
45				109	Methyl Alcohol	CH ₄ O	
46				110	Ethyl Alcohol	C ₂ H ₆ O	
47				111	Carbon Monoxide	CO	
48				112	Carbon Dioxide	CO ₂	
49				113	Hydrogen Sulfide	H ₂ S	
50				114	Sulfur Dioxide	SO ₂	
51				115	Ammonia	NH ₃	
52				116	Air	N ₂ O ₂	
53				117	Hydrogen	H ₂	
54				118	Oxygen	O ₂	
55				119	Nitrogen	N ₂	
56				120	Chlorine	Cl ₂	
57				121	Water	H ₂ O	
58				122	Helium	He	
59				123	Hydrogen Chloride	HCl	