42-003-00032

APC 1 = M.V. 0.7.8
ATP = 85
03-03-31

U. S. Steel
Clairton Works
400 State Street
Clairton, PA 15025-1855

March 31, 2003

Project No. AC0125

Ms. Sandra Etzel
Allegheny County Health Department
Bureau of Air Pollution Control
301 39th Street
Pittsburgh, Pennsylvania 15201

RE: Semi-Annual Report as Required by 40 CFR, Part 61, §61.138 of Subpart L and 40 CFR, Part 61, §61.247 of Subpart V for the Reporting Period of July 2002 through December 2002

Dear Ms. Etzel:

This report is being sent to the Department as a statement that the United States Steel Corporation, Clairton Works has fulfilled all provisions of 40 CFR, Part 61, Subparts L and V for the reporting period of July 2002 through December 2002. The report has been prepared to meet the reporting requirements of 40 CFR, Part 61, §61.138 and 40 CFR, Part 61, §61.247.

Monthly audits of equipment in benzene service as defined in 40 CFR, Part 61, Subpart L and V have been conducted in accordance with Environmental Protection Agency (EPA) Reference Method 21, *"Determination of Volatile Organic Compound Leaks"*. Results of these monitoring events, including total components monitored and total leaking components identified, can be found in Table 1. No leaks to any of the components were left unrepaired, and all leaks were fixed in the mandated 5/15 day period. Clairton Works does not have any valves subject to the alternative standards of 61-243-1 or 61-243-2.

An audit of gas blanketing vessels was conducted on September 19 and 20, 2002 of the gas blanketing vessel's ductwork. Ten leaks were discovered. The leaks were fixed and monitored later in the day or during the following monitoring event in October, and all ten leaks were fixed to be below the leak criteria. No abnormalities in the blanketing systems were found.

A revised component registry is included in Appendix A. This registry includes all components in benzene service and reflects changes made in the program since the last reporting period.

If you should have any questions or comments, please call me at your convenience at (412) 233-1015.

Sincerely,

Coleen M. Davis

Coleen M. Davis
Senior Environmental Control Engineer

cc: Jim Hagedorn—USEPA Region III

Table 1. Summary of Total Equipment Monitored and Leaks Detected, Equipment in Benzene Service, July 2002 through December 2002, USS Clairton Works, Clairton, Pennsylvania

		July	Aug.	Sept.	Oct.	Nov.	Dec.
Monitoring Dates		17th/24th, Aug 7th	7th	19th/20th	1st, 11th, 24th/25th	1st	3rd
Valves	Components Monitored	1943	5	5	2135	1	1
	Leaks Detected	5	0	0	1	0	0
	Percent Leakers			0.26%			0.05%
	Components Not Repaired in 5/15 Period	0	0	0	0	0	0
	Components Requiring Delay of Repair	0	0	0	0	0	0
Pumps	Components Monitored	18	18	18	18	18	18
	Leaks Detected	0	0	0	0	0	0
	Percent Leakers			0.00%			0.00%
	Components Not Repaired in 5/15 Period	0	0	0	0	0	0
	Components Requiring Delay of Repair	0	0	0	0	0	0
Exhausters	Components Monitored	34	0	0	34	0	0
	Leaks Detected	0	0	0	0	0	0
	Percent Leakers			0.00%			0.00%
	Components Not Repaired in 5/15 Period	0	0	0	0	0	0
	Components Requiring Delay of Repair	0	0	0	0	0	0

Notes:

--The difference in valves monitored between the July and October, 2002 events is due to the annual difficult-to-monitor valves were screened during the October event

ED_002508A_00000154-00002

KEY

MONITORING FREQUENCY
Q--Quarterly
M--Monthly
A--Annual (Difficult-to-Monitor)
UTM--When conditions make it safe (Unsafe-to-Monitor)
A,V,O--When audible, visual, or olfactory leak suspected
N/A--Not applicable (component under vacuum)
DTM--Component is a difficult-to-monitor component

COMPONENT TYPE
V--Valve
P--Pump Seal
AGI--Agitator
C--Flange or other connector
O/E--Open Ended Line
PRV--Pressure Relief Valve
E--Exhauster

PHASE
G--Gas
L--Liquid
GV--Gas under Vacuum

TABLE 1
REGISTRATION OF COMPONENTS IN BENZENE SERVICE
MAIN AXI C-100

8 Quarterly Components, 4 UTM Components

Tag Identification	Monitoring Frequency	Component Type	Phase	Benzene Concentration	Figure #	Control Room		
0011								
1049	Q	E	G	5.36	1	1	MAIN AXI	C-100
1000	N/A(vac)	V	GV	5.36	1	1	MAIN AXI	C-100
1001	UTM	V	G	5.36	1	1	MAIN AXI	C-100
1002	UTM	PRV O/E	G	5.36	1	1	MAIN AXI	C-100
1003	UTM	V	G	5.36	1	1	MAIN AXI	C-100
0012							**NOISE SUPRESSION/UNLOADING**	
1004	N/A(vac)	V O/E	GV	5.36	1	1	MAIN AXI	C-100
1005	N/A(vac)	V O/E	GV	5.36	1	1	MAIN AXI	C-100
1006	UTM	V O/E	G	5.36	1	1	MAIN AXI	C-100
0013							**SAFETY WATER SYSTEM**	
1024	N/A(vac)	V	GV	5.36	1	1	MAIN AXI	C-100
1025	N/A(vac)	V	GV	5.36	1	1	MAIN AXI	C-100
1026	N/A(vac)	V	GV	5.36	1	1	MAIN AXI	C-100
1033	N/A(vac)	V	GV	5.36	1	1	MAIN AXI	C-100
1035	N/A(vac)	V	GV	5.36	1	1	MAIN AXI	C-100
1036	N/A(vac)	V O/E	GV	5.36	1	1	MAIN AXI	C-100
0014							**INJECTION WATER SYSTEM**	
1020	Q	V	G	5.36	1	1	MAIN AXI	C-100
1021	Q	V	G	5.36	1	1	MAIN AXI	C-100
1022	Q	V	G	5.36	1	1	MAIN AXI	C-100
1023	Q	V O/E	G	5.36	1	1	MAIN AXI	C-100
0015							**EXHAUST SEAL SYSTEM**	
1030	Q	O/E	G	5.36	1	1	MAIN AXI	C-100
1031	A,V,O	C(x2)	G	5.36	1	1	MAIN AXI	C-100
1032	Q	V	G	5.36	1	1	MAIN AXI	C-100
1034	Q	V	G	5.36	1	1	MAIN AXI	C-100

AXI C-100 EXHAUSTER SHAFT AND SEAL	EXHAUSTER SEAL	Y
RAW GAS SUCTION BLOCKING VALVE	INACCESSIBLE	N
RAW GAS BYPASS BLOCKING VALVE	INACCESSIBLE	N
RAW GAS BYPASS RELIEF VALVE	INACCESSIBLE	N
RAW GAS EXHAUST BLOCKING VALVE	INACCESSIBLE	N
SUCTION NOISE SUPPRESSOR CLEANOUT VALVE	INACCESSIBLE	N
SUCTION NOISE SUPPRESSOR CLEANOUT VALVE	INACCESSIBLE	N
EXHAUST NOISE SUPPRESSOR CLEANOUT VALVE	INACCESSIBLE	N
SAFETY WATER VALVE	SAFETY WATER	Y
SAFETY WATER O/E VALVE	SAFETY WATER	Y
SAFETY WATER GAUGE VALVE	SAFETY WATER	Y
SAFETY WATER AUTO VALVE	SAFETY WATER	Y
SAFETY WATER VALVE	SAFETY WATER	Y
SAFETY WATER O/E VALVE	SAFETY WATER	Y
INJECTION WATER AUTO VALVE	INJECTION WAT	Y
INJECTION WATER VALVE	INJECTION WAT	Y
SAFETY WATER	INJECTION WAT	Y
RAW GAS EXHAUST CLEANOUT	INJECTION WAT	Y
EXHAUST SEAL DRAIN		Y
SIGHT GLASS		Y
EXHAUST SEAL VENT RECYCLE LINE VALVE	RECYCLE LINE	Y
EXHAUST SEAL VENT RECYCLE LINE VALVE	RECYCLE LINE	Y

ED_002508A_00000154-00003

TABLE 2
REGISTRATION OF COMPONENTS IN BENZENE SERVICE
MAIN AXI C-105

15 Quarterly Components, 3 UTM Components

Tag Identification	Monitoring Frequency	Component Type	Phase	Benzene Concentration	Figure #	Control Room				
0021						**HEADER SYSTEM**				
1099	Q	E	G	5.36	2	1	MAIN AXI	C-105	AXI C-105 EXHAUSTER SHAFT AND SEAL	EXHAUSTER SEAL	Y
1050	N/A(vac)	V	GV	5.36	2	1	MAIN AXI	C-105	RAW GAS SUCTION BLOCKING VALVE	INACCESSIBLE	N
1051	UTM	V	G	5.36	2	1	MAIN AXI	C-105	RAW GAS BY-PASS BLOCKING VALVE	INACCESSIBLE	N
1052	UTM	PRV O/E	G	5.36	2	1	MAIN AXI	C-105	RAW GAS BYPASS RELIEF VALVE	INACCESSIBLE	N
1053	UTM	V	G	5.36	2	1	MAIN AXI	C-105	RAW GAS EXHAUST BLOCKING VALVE	INACCESSIBLE	N
0022						**NOISE SUPRESSION/UNLOADING**				
1054	N/A(vac)	V	GV	5.36	2	1	MAIN AXI	C-105	SUCTION NOISE SUPPRESSOR CLEANOUT VALVE	INACCESSIBLE	N
1055	UTM	V O/E	G	5.36	2	1	MAIN AXI	C-105	EXHAUST NOISE SUPRESSOR CLEANOUT	INACCESSIBLE	N
0023						**SAFETY WATER SYSTEM**				
1060	N/A(vac)	V	GV	5.36	2	1	MAIN AXI	C-105	SAFETY WATER VALVE	SAFETY WATER	Y
1061	N/A(vac)	V	GV	5.36	2	1	MAIN AXI	C-105	SAFETY WATER PRESSURE TAP	SAFETY WATER	Y
1062	N/A(vac)	C	GV	5.36	2	1	MAIN AXI	C-105	SAFETY WATER GAUGE	SAFETY WATER	Y
1063	N/A(vac)	V	GV	5.36	2	1	MAIN AXI	C-105	SAFETY WATER VALVE	SAFETY WATER	Y
1064	N/A(vac)	V	GV	5.36	2	1	MAIN AXI	C-105	SAFETY WATER VALVE	SAFETY WATER	Y
0024						**INJECTION WATER SYSTEM**				
1070	Q	V O/E	G	5.36	2	1	MAIN AXI	C-105	INJECTION WATER O/E VALVE	INJECTION WAT	Y
1071	Q	V O/E	G	5.36	2	1	MAIN AXI	C-105	INJECTION WATER O/E VALVE	INJECTION WAT	Y
1072	Q	V	G	5.36	2	1	MAIN AXI	C-105	INJECTION WATER VALVE	INJECTION WAT	Y
1073	Q	V	G	5.36	2	1	MAIN AXI	C-105	INJECTION WATER VALVE	INJECTION WAT	Y
1074	Q	V	G	5.36	2	1	MAIN AXI	C-105	INJECTION WATER VALVE	INJECTION WAT	Y
1076	Q	V	G	5.36	2	1	MAIN AXI	C-105	INJECTION WATER AUTO VALVE	INJECTION WAT	Y
1075	Q	V	G	5.36	2	1	MAIN AXI	C-105	INJECTION WATER C-185 BYPASS VALVE	INJECTION WAT	Y
1078	A	V	G	5.36	2	1	MAIN AXI	C-105	C-185 BYPASS VALVE (Near C-140)	INJECTION WAT	DTM
1079	A	V O/E	G	5.36	2	1	MAIN AXI	C-105	C-185 BYPASS O/E VALVE (Near C-140)	INJECTION WAT	DTM
0025						**EXHAUST SEAL SYSTEM**				
1077	Q	V O/E	G	5.36	2	1	MAIN AXI	C-105	RAW GAS EXHAUST CLEAN OUT O/E VALVE		Y
1080	Q	O/E	G	5.36	2	1	MAIN AXI	C-105	EXHAUST SEAL DRAIN		Y
1081	A,V,O	C(x2)	G	5.36	2	1	MAIN AXI	C-105	SIGHT GLASS		Y
1082	Q	V	G	5.36	2	1	MAIN AXI	C-105	EXHAUST SEAL VENT RECYCLE LINE VALVE	RECYCLE LINE	Y
1083	Q	V O/E	G	5.36	2	1	MAIN AXI	C-105	EXHAUST SEAL VENT RECYCLE LINE O/E VALVE	RECYCLE LINE	Y
1084	Q	V	G	5.36	2	1	MAIN AXI	C-105	EXHAUST SEAL VENT RECYCLE LINE VALVE	RECYCLE LINE	Y

TABLE 3
REGISTRATION OF COMPONENTS IN BENZENE SERVICE
MAIN AXI C-110

13 Quarterly Components, 4 UTM Components

Tag Identification	Monitoring Frequency	Component Type	Phase	Benzene Concentration	Figure #	Control Room				
0031							**HEADER SYSTEM**			
1149	Q	E	G	5.36	3	1	MAIN AXI	C-110	AXI C-110 EXHAUSTER SHAFT AND SEAL	EXHAUSTER SEAL	Y
1100	N/A(vac)	V	GV	5.36	3	1	MAIN AXI	C-110	RAW GAS SUCTION BLOCKING VALVE	INACCESSIBLE	N
1101	UTM	V	G	5.36	3	1	MAIN AXI	C-110	RAW GAS BYPASS BLOCKING VALVE	INACCESSIBLE	N
1102	UTM	PRV O/E	G	5.36	3	1	MAIN AXI	C-110	RAW GAS BYPASS RELIEF VALVE	INACCESSIBLE	N
1103	UTM	V	G	5.36	3	1	MAIN AXI	C-110	RAW GAS EXHAUST BLOCKING VALVE	INACCESSIBLE	N
0032							**NOISE SUPRESSION/UNLOADING**			
1104	N/A(vac)	V O/E	GV	5.36	3	1	MAIN AXI	C-110	SUCTION NOISE SUPPRESSOR CLEANOUT VALVE	INACCESSIBLE	N
1105	N/A(vac)	V O/E	GV	5.36	3	1	MAIN AXI	C-110	SUCTION NOISE SUPPRESSOR CLEANOUT VALVE	INACCESSIBLE	N
1106	N/A(vac)	V O/E	GV	5.36	3	1	MAIN AXI	C-110	SUCTION NOISE SUPPRESSOR CLEANOUT VALVE	INACCESSIBLE	N
1107	N/A(vac)	V O/E	GV	5.36	3	1	MAIN AXI	C-110	UNLOAD VALVE 4"	INACCESSIBLE	N
1108	UTM	V O/E	G	5.36	3	1	MAIN AXI	C-110	EXHAUST NOISE SUPPRESSOR CLEANOUT VALVE	INACCESSIBLE	N
0033							**SAFETY WATER SYSTEM**			
1110	N/A(vac)	V	GV	5.36	3	1	MAIN AXI	C-110	SAFETY WATER VALVE	SAFETY WATER	Y
1111	N/A(vac)	V	GV	5.36	3	1	MAIN AXI	C-110	SAFETY WATER PRESSURE TAP	SAFETY WATER	Y
1112	N/A(vac)	C	GV	5.36	3	1	MAIN AXI	C-110	SAFETY WATER GAUGE	SAFETY WATER	Y
1113	N/A(vac)	V O/E	GV	5.36	3	1	MAIN AXI	C-110	SAFETY WATER O/E VALVE	SAFETY WATER	Y
1114	N/A(vac)	V	GV	5.36	3	1	MAIN AXI	C-110	SAFETY WATER VALVE	SAFETY WATER	Y
0034							**INJECTION WATER SYSTEM**			
1120	Q	V	G	5.36	3	1	MAIN AXI	C-110	INJECTION WATER VALVE	INJECTION WAT	Y
1121	Q	V	G	5.36	3	1	MAIN AXI	C-110	INJECTION WATER VALVE	INJECTION WAT	Y
1122	Q	V O/E	G	5.36	3	1	MAIN AXI	C-110	INJECTION WATER O/E VALVE	INJECTION WAT	Y
1123	Q	V	G	5.36	3	1	MAIN AXI	C-110	INJECTION WATER VALVE	INJECTION WAT	Y
1124	Q	V	G	5.36	3	1	MAIN AXI	C-110	INJECTION WATER VALVE	INJECTION WAT	Y
1136	Q	V	G	5.36	3	1	MAIN AXI	C-110	INJECTION WATER AUTO VALVE	INJECTION WAT	Y
1135	Q	V OE	G	5.36	3	1	MAIN AXI	C-110	INJECTION WATER O/E VALVE	INJECTION WAT	Y
0035										
1125	Q	V O/E	G	5.36	3	1	MAIN AXI	C-110	RAW GAS EXHAUST CLEANOUT VALVE		Y
1131	Q	O/E	G	5.36	3	1	MAIN AXI	C-110	EXHAUST SEAL DRAIN		Y
1130	A,V,O	C(x2)	G	5.36	3	1	MAIN AXI	C-110	SIGHT GLASS		Y
1132	Q	V	G	5.36	3	1	MAIN AXI	C-110	EXHAUST SEAL VENT RECYCLE LINE VALVE	RECYCLE LINE	Y
1133	Q	V	G	5.36	3	1	MAIN AXI	C-110	EXHAUST SEAL VENT RECYCLE LINE VALVE	RECYCLE LINE	Y
1134	Q	V	G	5.36	3	1	MAIN AXI	C-110	EXHAUST SEAL VENT RECYCLE LINE VALVE	RECYCLE LINE	Y

TABLE 4
REGISTRATION OF COMPONENTS IN BENZENE SERVICE
MAIN AXI C-115

11 Quarterly Components, 4 UTM Components

Tag Identification	Monitoring Frequency	Component Type	Phase	Benzene Concentration	Figure #	Control Room			
0041						**INJECTION WATER SYSTEM**			
1199	Q	E	G	5.36	4	1	MAIN AXI	C-115	AXI C-115 EXHAUSTER SHAFT AND SEAL	EXHAUSTER SEAL	Y
1151	UTM	V	G	5.36	4	1	MAIN AXI	C-115	RAW GAS BYPASS BLOCKING VALVE	INACCESSIBLE	N
1152	UTM	PRV O/E	G	5.36	4	1	MAIN AXI	C-115	RAW GAS BYPASS RELIEF VALVE	INACCESSIBLE	N
1153	UTM	V	G	5.36	4	1	MAIN AXI	C-115	RAW GAS OUTLET BLOCKING VALVE	INACCESSIBLE	N
0042						**NOISE SUPRESSION/UNLOADING**			
1154	N/A(vac)	V O/E	GV	5.36	4	1	MAIN AXI	C-115	INLET NOISE SUPPRESSOR CLEANOUT VALVE	INACCESSIBLE	N
1155	UTM	V O/E	G	5.36	4	1	MAIN AXI	C-115	OUTLET NOISE SUPPRESSOR CLEANOUT VALVE	INACCESSIBLE	N
0043						**SAFETY WATER SYSTEM**			
1160	N/A(vac)	V	GV	5.36	4	1	MAIN AXI	C-115	SAFETY WATER VALVE	SAFETY WATER	Y
1161	N/A(vac)	V	GV	5.36	4	1	MAIN AXI	C-115	SAFETY WATER PRESSURE TAP	SAFETY WATER	Y
1162	N/A(vac)	C	GV	5.36	4	1	MAIN AXI	C-115	SAFETY WATER GAUGE	SAFETY WATER	Y
1163	N/A(vac)	V O/E	GV	5.36	4	1	MAIN AXI	C-115	SAFETY WATER CLEANOUT.	SAFETY WATER	Y
1164	N/A(vac)	V	GV	5.36	4	1	MAIN AXI	C-115	SAFETY WATER CONTROL VALVE	SAFETY WATER	Y
0044						**INJECTION WATER SYSTEM**			
1170	Q	V	G	5.36	4	1	MAIN AXI	C-115	INJECTION WATER VALVE	INJECTION WAT	Y
1171	Q	V	G	5.36	4	1	MAIN AXI	C-115	INJECTION WATER VALVE	INJECTION WAT	Y
1172	Q	V	G	5.36	4	1	MAIN AXI	C-115	INJECTION WATER VALVE	INJECTION WAT	Y
1174	Q	V	G	6.36	4	1	MAIN AXI	C-115	INJECTION WATER AUTO VALVE	INJECTION WAT	Y
1175	Q	V O/E	G	7.36	4	1	MAIN AXI	C-115	INJECTION WATER O/E VALVE	INJECTION WAT	Y
0045						**EXHAUST SEAL SYSTEM**			
1173	Q	V O/E	G	5.36	4	1	MAIN AXI	C-115	RAW GAS OUTLET CLEANOUT VALVE		Y
1180	Q	O/E	G	5.36	4	1	MAIN AXI	C-115	PRESSURE SEAL DRAIN		Y
1181	A,V,O	C(x2)	G	5.36	4	1	MAIN AXI	C-115	SIGHT GLASS		Y
1182	Q	V	G	5.36	4	1	MAIN AXI	C-115	PRESSURE SEAL VENT RECYCLE LINE VALVE	RECYCLE LINE	Y
1183	Q	V O/E	G	5.36	4	1	MAIN AXI	C-115	PRESSURE SEAL VENT RECYCLE LINE O/E VALVE	RECYCLE LINE	Y
1184	Q	V	G	5.36	4	1	MAIN AXI	C-115	PRESSURE SEAL VENT RECYCLE LINE VALVE	RECYCLE LINE	Y

TABLE 5
REGISTRATION OF COMPONENTS IN BENZENE SERVICE
MAIN AXI C-120

12 Quarterly Components, 4 UTM Components

Tag Identification	Monitoring Frequency	Component Type	Phase	Benzene Concentration	Figure #	Control Room				
0051							**INJECTION WATER SYSTEM**			
1249	Q	E	G	5.36	5	1	MAIN AXI	C-120	AXI C-120 EXHAUSTER SHAFT AND SEAL	EXHAUSTER SEAL	Y
1201	UTM	V	G	5.36	5	1	MAIN AXI	C-120	RAW GAS BYPASS BLOCKING VALVE	INACCESSIBLE	N
1202	UTM	PRV O/E	G	5.36	5	1	MAIN AXI	C-120	RAW GAS BYPASS RELIEF VALVE	INACCESSIBLE	N
1203	UTM	V	G	5.36	5	1	MAIN AXI	C-120	RAW GAS OUTLET BLOCKING VALVE	INACCESSIBLE	N
0052							**NOISE SUPRESSION/UNLOADING**			
1204	N/A(vac)	V O/E	GV	5.36	5	1	MAIN AXI	C-120	INLET NOISE SUPPRESSOR CLEANOUT VALVE	INACCESSIBLE	N
1205	UTM	V O/E	G	5.36	5	1	MAIN AXI	C-120	OUTLET NOISE SUPPRESSOR CLEANOUT VALVE	INACCESSIBLE	N
0053							**SAFETY WATER SYSTEM**			
1210	N/A(vac)	V	GV	5.36	5	1	MAIN AXI	C-120	SAFETY WATER VALVE	SAFETY WATER	Y
1211	N/A(vac)	V O/E	GV	5.36	5	1	MAIN AXI	C-120	SAFETY WATER O/E VALVE	SAFETY WATER	Y
1213	N/A(vac)	V O/E	GV	5.36	5	1	MAIN AXI	C-120	SAFETY WATER O/E VALVE	SAFETY WATER	Y
1214	N/A(vac)	V	GV	5.36	5	1	MAIN AXI	C-120	SAFETY WATER CONTROL VALVE	SAFETY WATER	Y
0054							**INJECTION WATER SYSTEM**			
1220	Q	V	G	5.36	5	1	MAIN AXI	C-120	INJECTION WATER VALVE	INJECTION WAT	Y
1221	Q	V O/E	G	5.36	5	1	MAIN AXI	C-120	INJECTION WATER O/E VALVE	INJECTION WAT	Y
1222	Q	V	G	5.36	5	1	MAIN AXI	C-120	INJECTION WATER VALVE	INJECTION WAT	Y
1223	Q	V	G	5.36	5	1	MAIN AXI	C-120	INJECTION WATER VALVE	INJECTION WAT	Y
1225	Q	V	G	5.36	5	1	MAIN AXI	C-121	INJECTION WATER AUTO VALVE	INJECTION WAT	Y
1235	Q	V O/E	G	5.36	5	1	MAIN AXI	C-122	INJECTION WATER O/E VALVE	INJECTION WAT	Y
0055							**EXHAUST SEAL SYSTEM**			
1224	Q	V O/E	G	5.36	5	1	MAIN AXI	C-120	RAW GAS OUTLET CLEANOUT VALVE		Y
1230	Q	O/E	G	5.36	5	1	MAIN AXI	C-120	PRESSURE SEAL DRAIN		Y
1231	A,V,O	C(x2)	G	5.36	5	1	MAIN AXI	C-120	SIGHT GLASS		Y
1232	Q	V	G	5.36	5	1	MAIN AXI	C-120	PRESSURE SEAL VENT RECYCLE LINE VALVE	RECYCLE LINE	Y
1233	Q	V O/E	G	5.36	5	1	MAIN AXI	C-120	PRESSURE SEAL VENT RECYCLE LINE VALVE	RECYCLE LINE	Y
1234	Q	V	G	5.36	5	1	MAIN AXI	C-120	PRESSURE SEAL VENT RECYCLE LINE VALVE	RECYCLE LINE	Y

TABLE 6
REGISTRATION OF COMPONENTS IN BENZENE SERVICE
MAIN AXI C-125

14 Quarterly Components, 5 UTM Components

Tag Identification	Monitoring Frequency	Component Type	Phase	Benzene Concentration	Figure #	Control Room				
0061						**HEADER SYSTEM**				
1299	Q	E	G	5.36	6	1	MAIN AXI	C-125	AXI C-125 EXHAUSTER SHAFT AND SEAL	EXHAUSTER SEAL	Y
1250	N/A(vac)	V	GV	5.36	6	1	MAIN AXI	C-125	RAW GAS INLET BLOCKING VALVE	INACCESSIBLE	N
1251	UTM	V	G	5.36	6	1	MAIN AXI	C-125	RAW GAS BYPASS BLOCKING VALVE	INACCESSIBLE	N
1252	UTM	PRV O/E	G	5.36	6	1	MAIN AXI	C-125	RAW GAS BYPASS RELIEF VALVE	INACCESSIBLE	N
1253	UTM	V	G	5.36	6	1	MAIN AXI	C-125	RAW GAS OUTLET BLOCKING VALVE	INACCESSIBLE	N
0062						**NOISE SUPRESSION/UNLOADING**				
1254	UTM	V O/E	G	5.36	6	1	MAIN AXI	C-125	OUTLET CLEANOUT VALVE	INACCESSIBLE	N
1255	UTM	V O/E	G	5.36	6	1	MAIN AXI	C-125	OUTLET NOISE SUPPRESSOR CLEANOUT VALVE	INACCESSIBLE	N
1256	N/A(vac)	V O/E	GV	5.36	6	1	MAIN AXI	C-125	INLET NOISE SUPPRESSOR CLEANOUT VALVE	INACCESSIBLE	N
0063						**SAFETY WATER SYSTEM**				
1260	N/A(vac)	V	GV	5.36	6	1	MAIN AXI	C-125	SAFTETY WATER VALVE	SAFETY WATER	Y
1261	N/A(vac)	V O/E	GV	5.36	6	1	MAIN AXI	C-125	SAFTETY WATER O/E VALVE	SAFETY WATER	Y
1262	N/A(vac)	V O/E	GV	5.36	6	1	MAIN AXI	C-125	SAFTETY WATER O/E VALVE	SAFETY WATER	Y
1263	N/A(vac)	V O/E	GV	5.36	6	1	MAIN AXI	C-125	SAFTETY WATER O/E VALVE	SAFETY WATER	Y
1264	N/A(vac)	V	GV	5.36	6	1	MAIN AXI	C-125	SAFTETY WATER CONTROL VALVE	SAFETY WATER	Y
1265	N/A(vac)	C(x2)	GV	5.36	6	1	MAIN AXI	C-125	SAFETY WATER SIGHT GLASS	SAFETY WATER	Y
0064						**INJECTION WATER SYSTEM**				
1270	Q	V	G	5.36	6	1	MAIN AXI	C-125	INJECTION WATER VALVE	INJECTION WAT	Y
1271	Q	V	G	5.36	6	1	MAIN AXI	C-125	INJECTION WATER VALVE	INJECTION WAT	Y
1272	Q	V	G	5.36	6	1	MAIN AXI	C-125	INJECTION WATER VALVE	INJECTION WAT	Y
1274	Q	V	G	5.36	6	1	MAIN AXI	C-125	INJECTION WATER CONTROL VALVE	INJECTION WAT	Y
1275	Q	V	G	5.36	6	1	MAIN AXI	C-125	INJECTION WATER VALVE	INJECTION WAT	Y
1285	Q	V O/E	G	5.36	6	1	MAIN AXI	C-125	INJECTION WATER O/E VALVE	INJECTION WAT	Y
1327	A	V O/E	G	5.36	6	1	MAIN AXI	C-125	C-185/C-105 BYPASS VALVE	INJECTION WAT	DTM
1385	A	V O/E	G	5.36	6	1	MAIN AXI	C-125	C-185/C-105 BYPASS VALVE	INJECTION WAT	DTM
0065						**EXHAUST SEAL SYSTEM**				
1273	Q	V O/E	G	5.36	6	1	MAIN AXI	C-125	RAW GAS OUTLET CLEANOUT VALVE		Y
1280	Q	O/E	G	5.36	6	1	MAIN AXI	C-125	PRESSURE SEAL DRAIN		Y
1281	A,V,O	C(x2)	G	5.36	6	1	MAIN AXI	C-125	SIGHT GLASS		Y
1282	Q	V	G	5.36	6	1	MAIN AXI	C-125	PRESSURE SEAL VENT RECYCLE LINE CLEANOUT	RECYCLE LINE	Y
1283	Q	V O/E	G	5.36	6	1	MAIN AXI	C-125	PRESSURE SEAL VENT RECYCLE LINE O/E VALVE	RECYCLE LINE	Y
1284	Q	V	G	5.36	6	1	MAIN AXI	C-125	PRESSURE SEAL VENT RECYCLE LINE VALVE	RECYCLE LINE	Y

ED_002508A_00000154-00008

TABLE 7
REGISTRATION OF COMPONENTS IN BENZENE SERVICE
MAIN AXI C-130

13 Quarterly Components, 4 UTM Components

Tag Identification	Monitoring Frequency	Component Type	Phase	Benzene Concentration	Figure #	Control Room				
0071					**HEADER SYSTEM**					
1349	Q	E	G	5.36	7	1	MAIN AXI	C-130	AXI C-130 EXHAUSTER SHAFT AND SEAL	EXHAUSTER SEAL	Y
1300	N/A(vac)	V	GV	5.36	7	1	MAIN AXI	C-130	RAW GAS INLET BLOCKING VALVE	INACCESSIBLE	N
1301	UTM	V	G	5.36	7	1	MAIN AXI	C-130	RAW GAS BYPASS BLOCKING VALVE	INACCESSIBLE	N
1302	UTM	PRV O/E	G	5.36	7	1	MAIN AXI	C-130	RAW GAS BYPASS RELIEF VALVE	INACCESSIBLE	N
1303	UTM	V	G	5.36	7	1	MAIN AXI	C-130	RAW GAS OUTLET BLOCKING VALVE	INACCESSIBLE	N
0072					**NOISE SUPRESSION/UNLOADING**					
1304	N/A(vac)	V O/E	GV	5.36	7	1	MAIN AXI	C-130	INLET NOISE SUPPRESSOR CLEANOUT VALVE	INACCESSIBLE	N
1305	UTM	V O/E	G	5.36	7	1	MAIN AXI	C-130	OUTLET NOISE SUPPRESSOR CLEANOUT VALVE	INACCESSIBLE	N
0073					**SAFETY WATER SYSTEM**					
1310	N/A(vac)	V	GV	5.36	7	1	MAIN AXI	C-130	SAFTETY WATER VALVE BLOCKING	SAFETY WATER	Y
1311	N/A(vac)	V	GV	5.36	7	1	MAIN AXI	C-130	SAFTETY WATER PRESSURE TA[P	SAFETY WATER	Y
1312	N/A(vac)	C	GV	5.36	7	1	MAIN AXI	C-130	SAFETY WATER GAUGE	SAFETY WATER	Y
1315	N/A(vac)	V	GV	5.36	7	1	MAIN AXI	C-130	SAFTETY WATER VALVE	SAFETY WATER	Y
1313	N/A(vac)	V O/E	GV	5.36	7	1	MAIN AXI	C-130	SAFTETY WATER O/E VALVE	SAFETY WATER	Y
1314	N/A(vac)	V	GV	5.36	7	1	MAIN AXI	C-130	SAFTETY WATER VALVE BLOCKING	SAFETY WATER	Y
0074					**INJECTION WATER SYSTEM**					
1320	Q	V	G	5.36	7	1	MAIN AXI	C-130	INJECTION WATER VALVE	INJECTION WAT	Y
1321	Q	V	G	5.36	7	1	MAIN AXI	C-130	INJECTION WATER VALVE	INJECTION WAT	Y
1322	Q	V O/E	G	5.36	7	1	MAIN AXI	C-130	INJECTION WATER O/E VALVE	INJECTION WAT	Y
1323	Q	V	G	5.36	7	1	MAIN AXI	C-130	INJECTION WATER VALVE	INJECTION WAT	Y
1324	Q	V O/E	G	5.36	7	1	MAIN AXI	C-130	INJECTION WATER O/E VALVE	INJECTION WAT	Y
1325	Q	V	G	5.36	7	1	MAIN AXI	C-130	INJECTION WATER CONTROL VALVE	INJECTION WAT	Y
1326	Q	V O/E	G	5.36	7	1	MAIN AXI	C-130	INJECTION WATER O/E VALVE	INJECTION WAT	Y
0075					**EXHAUST SEAL SYSTEM**					
1336	Q	V O/E	G	5.36	7	1	MAIN AXI	C-130	RAW GAS OUTLET CLEANOUT VALVE		Y
1330	Q	O/E	G	5.36	7	1	MAIN AXI	C-130	PRESSURE SEAL DRAIN		Y
1331	A,V,O	C(x2)	G	5.36	7	1	MAIN AXI	C-130	SIGHT GLASS		Y
1332	Q	V O/E	G	5.36	7	1	MAIN AXI	C-130	PRESSURE SEAL VENT RECYCLE LINE O/E VALVE	RECYCLE LINE	Y
1333	Q	V	G	5.36	7	1	MAIN AXI	C-130	PRESSURE SEAL VENT RECYCLE LINE VALVE	RECYCLE LINE	Y
1334	Q	V	G	5.36	7	1	MAIN AXI	C-130	PRESSURE SEAL VENT RECYCLE LINE	RECYCLE LINE	Y

TABLE 8
REGISTRATION OF COMPONENTS IN BENZENE SERVICE
MAIN AXI C-135

10 Quarterly Components, 4 UTM Components

Tag Identification	Monitoring Frequency	Component Type	Phase	Benzene Concentration	Figure #	Control Room				
0081					HEADER SYSTEM					
1399	Q	E	G	5.36	8	1	MAIN AXI	C-135	AXI C-135 EXHAUSTER SHAFT AND SEAL	EXHAUSTER SEAL	Y
1350	N/A(vac)	V	GV	5.36	8	1	MAIN AXI	C-135	RAW GAS SUCTION BLOCKING VALVE	INACCESSIBLE	N
1351	UTM	V	G	5.36	8	1	MAIN AXI	C-135	RAW GAS BYPASS BLOCKING VALVE	INACCESSIBLE	N
1352	UTM	PRV O/E	G	5.36	8	1	MAIN AXI	C-135	RAW GAS BYPASS RELIEF VALVE	INACCESSIBLE	N
1353	UTM	V	G	5.36	8	1	MAIN AXI	C-135	RAW GAS EXHAUST BLOCKING VALVE	INACCESSIBLE	N
0082					NOISE SUPRESSION/UNLOADING					
1354	N/A(vac)	V O/E	GV	5.36	8	1	MAIN AXI	C-135	SUCTION NOISE SUPPRESSOR CLEANOUT VALVE	INACCESSIBLE	N
1355	UTM	V O/E	G	5.36	8	1	MAIN AXI	C-135	EXHAUST NOISE SUPPRESSOR CLEANOUT VALVE	INACCESSIBLE	N
0083					SAFETY WATER SYSTEM					
1360	N/A(vac)	V	GV	5.36	8	1	MAIN AXI	C-135	SAFETY WATER VALVE	SAFETY WATER	Y
1361	N/A(vac)	V	GV	5.36	8	1	MAIN AXI	C-135	SAFETY WATER PRESSURE TAP	SAFETY WATER	Y
1362	N/A(vac)	C	GV	5.36	8	1	MAIN AXI	C-135	SAFETY WATER GAUGE	SAFETY WATER	Y
1363	N/A(vac)	V O/E	GV	5.36	8	1	MAIN AXI	C-135	SAFETY WATER CLEANOUT VALVE	SAFETY WATER	Y
1364	N/A(vac)	C(x2)	GV	5.36	8	1	MAIN AXI	C-135	SIGHT GLASS	SAFETY WATER	Y
1365	N/A(vac)	V	GV	5.36	8	1	MAIN AXI	C-135	SAFETY WATER CONTROL VALVE	SAFETY WATER	Y
0084					INJECTION WATER SYSTEM					
1370	Q	V	G	5.36	8	1	MAIN AXI	C-135	INJECTION WATER VALVE	INJECTION WAT	Y
1371	Q	V	G	5.36	8	1	MAIN AXI	C-135	INJECTION WATER VALVE	INJECTION WAT	Y
1372	Q	V O/E	G	5.36	8	1	MAIN AXI	C-135	INJECTION WATER CLEANOUT VALVE	INJECTION WAT	Y
1373	Q	V	G	5.36	8	1	MAIN AXI	C-135	INJECTION WATER VALVE	INJECTION WAT	Y
1374	Q	V	G	5.36	8	1	MAIN AXI	C-135	INJECTION WATER VALVE	INJECTION WAT	Y
1375	Q	V O/E	G	5.36	8	1	MAIN AXI	C-135	INJECTION WATER O/E VALVE	INJECTION WAT	Y
1376	Q	V	G	5.36	8	1	MAIN AXI	C-135	INJECTION WATER CONTROL VALVE	INJECTION WAT	Y
1379	Q	V O/E	G	5.36	8	1	MAIN AXI	C-135	INJECTION WATER O/E VALVE	INJECTION WAT	Y
0085					EXHAUST SEAL SYSTEM					
1384	Q	V O/E	G	5.36	8	1	MAIN AXI	C-135	RAW GAS EXHAUST CLEANOUT VALVE		Y
1380	Q	O/E	G	5.36	8	1	MAIN AXI	C-135	EXHAUST SEAL DRAIN		Y
1381	A,V,O	C(x2)	G	5.36	8	1	MAIN AXI	C-135	SIGHT GLASS		Y
1382	Q	V O/E	G	5.36	8	1	MAIN AXI	C-135	EXHAUST SEAL VENT RECYCLE LINE O/E VALVE	RECYCLE LINE	Y
1383	Q	V	G	5.36	8	1	MAIN AXI	C-135	EXHAUST SEAL VENT RECYCLE LINE VALVE	RECYCLE LINE	Y

TABLE 9
REGISTRATION OF COMPONENTS IN BENZENE SERVICE
MAIN AXI C-140

10 Quarterly Components, 5 UTM Components

Tag Identification	Monitoring Frequency	Components Type	Phase	Benzene Concentration	Figure 9	Control Room				
0091					**HEADER SYSTEM**					
1449	Q	E	G	5.36	9	1	MAIN AXI	C-140	AXI C-140 EXHAUSTER SHAFT AND SEAL	EXHAUSTER SEAL	Y
1401	UTM	V	G	5.36	9	1	MAIN AXI	C-140	RAW GAS BYPASS BLOCKING VALVE	INACCESSSIBLE	N
1402	UTM	PRV O/E	G	5.36	9	1	MAIN AXI	C-140	RAW GAS BYPASS RELIEF VALVE	INACCESSSIBLE	N
1403	UTM	V	G	5.36	9	1	MAIN AXI	C-140	RAW GAS OUTLET BLOCKING VALVE	INACCESSSIBLE	N
1404	UTM	V O/E	G	5.36	9	1	MAIN AXI	C-140	OUTLET CLEANOUT VALVE	INACCESSSIBLE	N
0092					**NOISE SUPRESSION/UNLOADING**					
1405	N/A(vac)	V O/E	GV	5.36	9	1	MAIN AXI	C-140	INLET NOISE SUPPRESSOR CLEANOUT VALVE	INACCESSSIBLE	N
1406	N/A(vac)	V O/E	GV	5.36	9	1	MAIN AXI	C-140	INLET NOISE SUPPRESSOR CLEANOUT VALVE	INACCESSSIBLE	N
1407	UTM	V O/E	G	5.36	9	1	MAIN AXI	C-140	OUTLET NOISE SUPPRESSOR CLEANOUT VALVE	INACCESSSIBLE	N
0093					**SAFETY WATER SYSTEM**					
1410	N/A(vac)	V	GV	5.36	9	1	MAIN AXI	C-140	SAFETY WATER VALVE BLOCKING	SAFETY WATER	Y
1411	N/A(vac)	V O/E	GV	5.36	9	1	MAIN AXI	C-140	SAFETY WATER O/E VALVE	SAFETY WATER	Y
1413	N/A(vac)	V O/E	GV	5.36	9	1	MAIN AXI	C-140	SAFETY WATER O/E VALVE	SAFETY WATER	Y
1414	N/A(vac)	V O/E	GV	5.36	9	1	MAIN AXI	C-140	SAFETY WATER CLEANOUT VALVE	SAFETY WATER	Y
1415	N/A(vac)	V	GV	5.36	9	1	MAIN AXI	C-140	SAFETY WATER VALVE	SAFETY WATER	Y
1416	N/A(vac)	V O/E	GV	5.36	9	1	MAIN AXI	C-140	SAFETY WATER O/E VALVE	SAFETY WATER	Y
1417	N/A(vac)	V	GV	5.36	9	1	MAIN AXI	C-140	SAFETY WATER CONTROL VALVE	SAFETY WATER	Y
0094					**INJECTION WATER SYSTEM**					
1420	Q	V	G	5.36	9	1	MAIN AXI	C-140	INJECTION WATER VALVE	INJECTION WAT	Y
1421	Q	V	G	5.36	9	1	MAIN AXI	C-140	INJECTION WATER VALVE	INJECTION WAT	Y
1422	Q	V	G	5.36	9	1	MAIN AXI	C-140	INJECTION WATER WHEEL VALVE	INJECTION WAT	Y
1423	Q	V	G	5.36	9	1	MAIN AXI	C-140	INJECTION WATER VALVE	INJECTION WAT	Y
1085	Q	V O/E	G	5.36	9	1	MAIN AXI	C-140	INJECTION WATER O/E VALVE	INJECTION WAT	Y
1424	Q	V	G	5.36	9	1	MAIN AXI	C-140	INJECTION WATER	INJECTION WAT	Y
1425	Q	V O/E	G	5.36	9	1	MAIN AXI	C-140	INJECTION WATER	INJECTION WAT	Y
0095					**EXHAUST SEAL SYSTEM**					
1435	Q	V O/E	G	5.36	9	1	MAIN AXI	C-140	RAW GAS OUTLET CLEANOUT VALVE		Y
1430	Q	O/E	G	5.36	9	1	MAIN AXI	C-140	PRESSURE SEAL DRAIN		Y
1431	A,V,O	C(x2)	G	5.36	9	1	MAIN AXI	C-140	SIGHT GLASS		Y
1432	Q	V O/E	G	5.36	9	1	MAIN AXI	C-140	PRESSURE SEAL VENT RECYCLE LINE VALVE	RECYCLE LINE	Y
1433	Q	V	G	5.36	9	1	MAIN AXI	C-140	PRESSURE SEAL VENT RECYCLE LINE VALVE	RECYCLE LINE	Y
1434	Q	V	G	5.36	9	1	MAIN AXI	C-140	PRESSURE SEAL VENT RECYCLE LINE VALVE	RECYCLE LINE	Y

TABLE 10
REGISTRATION OF COMPONENTS IN BENZENE SERVICE
MAIN AXI C-1455

13 Quarterly Components, 5 UTM Components

Tag Identification	Monitoring Frequency	Component Type	Phase	Benzene Concentration	Figure #	Control Room				
0101					**HEADER SYSTEM**					
1499	Q	E	G	5.36	10	1	MAIN AXI	C-145	AXI C-145 EXHAUSTER SHAFT AND SEAL	EXHAUSTER SEAL	Y
1451	UTM	V	G	5.36	10	1	MAIN AXI	C-145	RAW GAS BYPASS BLOCKING VALVE	INACCESSIBLE	N
1452	UTM	PRV O/E	G	5.36	10	1	MAIN AXI	C-145	RAW GAS BYPASS RELIEF VALVE	INACCESSIBLE	N
1453	UTM	V	G	5.36	10	1	MAIN AXI	C-145	RAW GAS OUTLET BLOCKING VALVE	INACCESSIBLE	N
0102					**NOISE SUPRESSION/UNLOADING**					
1454	N/A(vac)	V O/E	GV	5.36	10	1	MAIN AXI	C-145	INLET NOISE SUPPRESSOR CLEANOUT VALVE	INACCESSIBLE	N
1455	N/A(vac)	V O/E	GV	5.36	10	1	MAIN AXI	C-145	4" UNLOAD LINE	INACCESSIBLE	N
1456	UTM	V O/E	G	5.36	10	1	MAIN AXI	C-145	OUTLET NOISE SUPPRESSOR CLEANOUT VALVE	INACCESSIBLE	N
1457	UTM	V O/E	G	5.36	10	1	MAIN AXI	C-145	OUTLET NOISE SUPPRESSOR CLEANOUT VALVE	INACCESSIBLE	N
0103					**SAFETY WATER SYSTEM**					
1460	N/A(vac)	V	GV	5.36	10	1	MAIN AXI	C-145	SAFETY WATER VALVE	SAFETY WATER	Y
1461	N/A(vac)	C	GV	5.36	10	1	MAIN AXI	C-145	SAFETY WATER GAUGE	SAFETY WATER	Y
1462	N/A(vac)	V O/E	GV	5.36	10	1	MAIN AXI	C-145	SAFETY WATER VALVE	SAFETY WATER	Y
1463	N/A(vac)	C(x2)	GV	5.36	10	1	MAIN AXI	C-145	SAFETY WATER SIGHT GLASS	SAFETY WATER	Y
1464	N/A(vac)	C(x2)	GV	5.36	10	1	MAIN AXI	C-145	SAFETY WATER VALVE CONTROL	SAFETY WATER	Y
0104					**INJECTION WATER SYSTEM**					
1470	Q	V	G	5.36	10	1	MAIN AXI	C-145	INJECTION WATER VALVE	INJECTION WAT	Y
1471	Q	V	G	5.36	10	1	MAIN AXI	C-145	INJECTION WATER VALVE	INJECTION WAT	Y
1472	Q	V O/E	G	5.36	10	1	MAIN AXI	C-145	INJECTION WATER O/E VALVE	INJECTION WAT	Y
1473	Q	V O/E	G	5.36	10	1	MAIN AXI	C-145	INJECTION WATER CLEANOUT VALVE	INJECTION WAT	Y
1474	Q	V	G	5.36	10	1	MAIN AXI	C-145	INJECTION WATER	INJECTION WAT	Y
1475	Q	V	G	5.36	10	1	MAIN AXI	C-145	INJECTION WATER CONTROL VALVE	INJECTION WAT	Y
1476	Q	V O/E	G	5.36	10	1	MAIN AXI	C-145	INJECTION WATER O/E VALVE	INJECTION WAT	Y
0105					**EXHAUST SEAL SYSTEM**					
1485	Q	V O/E	G	5.36	10	1	MAIN AXI	C-145	RAW GAS OUTLET CLEANOUT LINE		Y
1480	Q	O/E	G	5.36	10	1	MAIN AXI	C-145	PRESSURE SEAL DRAIN		Y
1481	A,V,O	C(x2)	G	5.36	10	1	MAIN AXI	C-145	SIGHT GLASS		Y
1482	Q	V	G	5.36	10	1	MAIN AXI	C-145	PRESSURE SEAL VENT RECYCLE LINE VALVE	RECYCLE LINE	Y
1483	Q	V O/E	G	5.36	10	1	MAIN AXI	C-145	PRESSURE SEAL VENT RECYCLE LINE O/E VALVE	RECYCLE LINE	Y
1484	Q	V	G	5.36	10	1	MAIN AXI	C-145	PRESSURE SEAL VENT RECYCLE LINE VALVE	RECYCLE LINE	Y

TABLE 11
REGISTRATION OF COMPONENTS IN BENZENE SERVICE
MAIN AXI C-150

13 Quarterly Components, 4 UTM Components

Tag Identification	Monitoring Frequency	Component Type	Phase	Benzene Concentration	Figure #	Control Room			
0111					**HEADER SYSTEM**				
1549	Q	E	G	5.36	11	1	MAIN AXI	C-150	AXI C-150 EXHAUSTER SHAFT AND SEAL — EXHAUSTER SEAL — Y
1500	N/A(vac)	V	GV	5.36	11	1	MAIN AXI	C-150	RAW GAS INLET BLOCKING VALVE — INACCESSIBLE — N
1501	UTM	V	G	5.36	11	1	MAIN AXI	C-150	RAW GAS BYPASS BLOCKING VALVE — INACCESSIBLE — N
1502	UTM	PRV O/E	G	5.36	11	1	MAIN AXI	C-150	RAW GAS BYPASS RELIEF VALVE — INACCESSIBLE — N
1503	UTM	V	G	5.36	11	1	MAIN AXI	C-150	RAW GAS OUTLET BLOCKING VALVE — INACCESSIBLE — N
0112					**NOISE SUPRESSION/UNLOADING**				
1504	N/A(vac)	V O/E	GV	5.36	11	1	MAIN AXI	C-150	INLET NOISE SUPPRESSOR CLEANOUT VALVE — INACCESSIBLE — N
1505	N/A(vac)	V	GV	5.36	11	1	MAIN AXI	C-150	4" UNLOAD LINE — INACCESSIBLE — N
1506	N/A(vac)	V O/E	GV	5.36	11	1	MAIN AXI	C-150	4" UNLOAD LINE — INACCESSIBLE — N
1507	UTM	V O/E	G	5.36	11	1	MAIN AXI	C-150	OUTLET NOISE SUPPRESOR CLEAN OUT VALVE — INACCESSIBLE — N
0113					**SAFETY WATER SYSTEM**				
1510	N/A(vac)	V	GV	5.36	11	1	MAIN AXI	C-150	SAFETY WATER VALVE — SAFETY WATER — Y
1511	N/A(vac)	V O/E	GV	5.36	11	1	MAIN AXI	C-150	SAFETY WATER O/E VALVE — SAFETY WATER — Y
1512	N/A(vac)	V O/E	GV	5.36	11	1	MAIN AXI	C-150	SAFETY WATER O/E VALVE — SAFETY WATER — Y
1513	N/A(vac)	C(x2)	GV	5.36	11	1	MAIN AXI	C-150	SAFETY WATER SIGHT GLASS — SAFETY WATER — Y
1514	N/A(vac)	V	GV	5.36	11	1	MAIN AXI	C-150	SAFETY WATER VALVE — SAFETY WATER — Y
0114					**INJECTION WATER SYSTEM**				
1520	Q	V	G	5.36	11	1	MAIN AXI	C-150	INJECTION WATER VALVE — INJECTION WAT — Y
1521	Q	V	G	5.36	11	1	MAIN AXI	C-150	INJECTION WATER VALVE — INJECTION WAT — Y
1522	Q	V	G	5.36	11	1	MAIN AXI	C-150	INJECTION WATER VALVE — INJECTION WAT — Y
1523	Q	V O/E	G	5.36	11	1	MAIN AXI	C-150	INJECTION WATER O/E VALVE — INJECTION WAT — Y
1524	Q	V	G	5.36	11	1	MAIN AXI	C-150	INJECTION WATER VALVE — INJECTION WAT — Y
1525	Q	V	G	5.36	11	1	MAIN AXI	C-150	INJECTION WATER CONTROL VALVE — INJECTION WAT — Y
1526	Q	V O/E	G	5.36	11	1	MAIN AXI	C-150	INJECTION WATER O/E VALVE — INJECTION WAT — Y
0115					**EXHAUST SEAL SYSTEM**				
1535	Q	V O/E	G	5.36	11	1	MAIN AXI	C-150	RAW GAS OUTLET CLEANOUT VALVE — Y
1530	Q	O/E	G	5.36	11	1	MAIN AXI	C-150	PRESSURE SEAL DRAIN — Y
1531	A,V,O	C(x2)	G	5.36	11	1	MAIN AXI	C-150	SIGHT GLASS — Y
1532	Q	V O/E	G	5.36	11	1	MAIN AXI	C-150	PRESSURE SEAL VENT RECYCLE LINE O/E VALVE — RECYCLE LINE — Y
1533	Q	V	G	5.36	11	1	MAIN AXI	C-150	PRESSURE SEAL VENT RECYCLE LINE VALVE — RECYCLE LINE — Y
1534	Q	V	G	5.36	11	1	MAIN AXI	C-150	PRESSURE SEAL VENT RECYCLE LINE VALVE — RECYCLE LINE — Y

TABLE 12
REGISTRATION OF COMPONENTS IN BENZENE SERVICE
MAIN AXI C-155

11 Quarterly Components, 4 UTM Components

Tag Identification	Monitoring Frequency	Component Type	Phase	Benzene Concentration	Pegasus #	Control Room				
0121					HEADER SYSTEM					
1599	Q	E	G	5.36	12	1	MAIN AXI	C-155	AXI C-155 EXHAUSTER SHAFT AND SEAL	EXHAUSTER SEAL	Y
1551	UTM	V	G	5.36	12	1	MAIN AXI	C-155	RAW GAS BYPASS BLOCKING VALVE	INACCESSIBLE	N
1552	UTM	PRV O/E	G	5.36	12	1	MAIN AXI	C-155	RAW GAS BYPASS RELIEF VALVE	INACCESSIBLE	N
1553	UTM	V	G	5.36	12	1	MAIN AXI	C-155	RAW GAS OUTLET BLOCKING VALVE	INACCESSIBLE	N
0122					NOISE SUPRESSION/UNLOADING					
1554	N/A(vac)	V	GV	5.36	12	1	MAIN AXI	C-155	INLET NOISE SUPPRESSOR PRESSURE TAP	INACCESSIBLE	N
1555	UTM	V O/E	G	5.36	12	1	MAIN AXI	C-155	OUTLET NOISE SUPPRESSOR CLEANOUT VALVE	INACCESSIBLE	N
1556	N/A(vac)	C	GV	5.36	12	1	MAIN AXI	C-155	INLET NOISE SUPPRESSOR PRESSURE GAUGE	INACCESSIBLE	N
0123					SAFETY WATER SYSTEM					
1560	N/A(vac)	V	GV	5.36	12	1	MAIN AXI	C-155	SAFETY WATER VALVE	SAFETY WATER	Y
1561	N/A(vac)	V O/E	GV	5.36	12	1	MAIN AXI	C-155	SAFETY WATER O/E VALVE	SAFETY WATER	Y
1562	N/A(vac)	V O/E	GV	5.36	12	1	MAIN AXI	C-155	SAFETY WATER O/E VALVE	SAFETY WATER	Y
1563	N/A(vac)	V	GV	5.36	12	1	MAIN AXI	C-155	SAFETY WATER VALVE	SAFETY WATER	Y
0124					INJECTION WATER SYSTEM					
1573	Q	V	G	5.36	12	1	MAIN AXI	C-155	INJECTION WATER VALVE	INJECTION WAT	Y
1572	Q	V	G	5.36	12	1	MAIN AXI	C-155	INJECTION WATER VALVE	INJECTION WAT	Y
1571	Q	V O/E	G	5.36	12	1	MAIN AXI	C-155	INJECTION WATER CLEANOUT VALVE	INJECTION WAT	Y
1575	Q	V	G	5.36	12	1	MAIN AXI	C-155	INJECTION WATER VALVE	INJECTION WAT	Y
1576	Q	V	G	5.36	13	1	MAIN AXI	C-155	INJECTION WATER CONTROL VALVE	INJECTION WAT	Y
0125					EXHAUST SEAL SYSTEM					
1574	Q	V O/E	G	5.36	12	1	MAIN AXI	C-155	RAW GAS OUTLET CLEANOUT VALVE		Y
1580	Q	O/E	G	5.36	12	1	MAIN AXI	C-155	PRESSURE SEAL DRAIN		Y
1581	A,V,O	C(x2)	G	5.36	12	1	MAIN AXI	C-155	SIGHT GLASS		Y
1582	Q	V	G	5.36	12	1	MAIN AXI	C-155	PRESSURE SEAL VENT RECYCLE LINE VALVE	RECYCLE LINE	Y
1583	Q	V O/E	G	5.36	12	1	MAIN AXI	C-155	PRESSURE SEAL VENT RECYCLE LINE CLEANOUT VALVE	RECYCLE LINE	Y
1584	Q	V	G	5.36	12	1	MAIN AXI	C-155	PRESSURE SEAL VENT RECYCLE LINE VALVE	RECYCLE LINE	Y

TABLE 13
REGISTRATION OF COMPONENTS IN BENZENE SERVICE
MAIN AXI C-160

11 Quarterly Components, 4 UTM Components

Tag Identification	Monitoring Frequency	Component Type	Phase	Benzene Concentration	Figure #	Control Room				
0131					HEADER SYSTEM					
1649	Q	E	G	5.36	13	1	MAIN AXI	C-160	AXI C-160 EXHAUSTER SHAFT AND SEAL	EXHAUSTER SEAL	Y
1600	N/A(vac)	V	GV	5.36	13	1	MAIN AXI	C-160	RAW GAS INLET BLOCKING VALVE	INACCESSIBLE	N
1601	UTM	V	G	5.36	13	1	MAIN AXI	C-160	RAW GAS BYPASS BLOCKING VALVE	INACCESSIBLE	N
1602	UTM	PRV O/E	G	5.36	13	1	MAIN AXI	C-160	RAW GAS BYPASS RELIEF VALVE	INACCESSIBLE	N
1603	UTM	V	G	5.36	13	1	MAIN AXI	C-160	RAW GAS OUTLET BLOCKING VALVE	INACCESSIBLE	N
0132					NOISE SUPRESSION/UNLOADING					
1604	N/A(vac)	V O/E	GV	5.36	13	1	MAIN AXI	C-160	INLET NOISE SUPPRESSOR CLEANOUT VALVE	INACCESSIBLE	N
1605	UTM	V O/E	G	5.36	13	1	MAIN AXI	C-160	OUTLET NOISE SUPPRESSOR CLEANOUT VALVE	INACCESSIBLE	N
0133					SAFETY WATER SYSTEM					
1610	N/A(vac)	V	GV	5.36	13	1	MAIN AXI	C-160	SAFETY WATER VALVE	SAFETY WATER	Y
1611	N/A(vac)	V O/E	GV	5.36	13	1	MAIN AXI	C-160	SAFETY WATER O/E VALVE	SAFETY WATER	Y
1612	N/A(vac)	V O/E	GV	5.36	13	1	MAIN AXI	C-160	SAFETY WATER CLEANOUT VALVE	SAFETY WATER	Y
1613	N/A(vac)	C(x2)	GV	5.36	13	1	MAIN AXI	C-160	SAFETY WATER SIGHT GLASS	SAFETY WATER	Y
1614	N/A(vac)	V	GV	5.36	13	1	MAIN AXI	C-160	SAFETY WATER VALVE CONTROL	SAFETY WATER	Y
0134					INJECTION WATER SYSTEM					
1620	Q	V	G	5.36	13	1	MAIN AXI	C-160	INJECTION WATER VALVE	INJECTION WAT	Y
1621	Q	V	G	5.36	13	1	MAIN AXI	C-160	INJECTION WATER VALVE	INJECTION WAT	Y
1622	Q	V	G	5.36	13	1	MAIN AXI	C-160	INJECTION WATER VALVE	INJECTION WAT	Y
1623	Q	V	G	5.36	13	1	MAIN AXI	C-160	INJECTION WATER CONTROL VALVE	INJECTION WAT	Y
1624	Q	V O/E	G	5.36	13	1	MAIN AXI	C-160	INJECTION WATER O/E VALVE	INJECTION WAT	Y
0135					EXHAUST SEAL SYSTEM					
1635	Q	V O/E	G	5.36	13	1	MAIN AXI	C-160	RAW GAS OUTLET CLEANOUT VALVE		Y
1630	Q	O/E	G	5.36	13	1	MAIN AXI	C-160	PRESSURE SEAL DRAIN		Y
1631	A,V,O	C(x2)	G	5.36	13	1	MAIN AXI	C-160	SIGHT GLASS		Y
1632	Q	V O/E	G	5.36	13	1	MAIN AXI	C-160	PRESSURE SEAL VENT RECYCLE LINE CLEANOUT VALVE	RECYCLE LINE	Y
1633	Q	V	G	5.36	13	1	MAIN AXI	C-160	PRESSURE SEAL VENT RECYCLE LINE VALVE	RECYCLE LINE	Y
1634	Q	V	G	5.36	13	1	MAIN AXI	C-160	PRESSURE SEAL VENT RECYCLE LINE VALVE	RECYCLE LINE	Y

TABLE 14
REGISTRATION OF COMPONENTS IN BENZENE SERVICE
MAIN AXI C-165

11 Quarterly Components, 4 UTM Components

Tag Identification	Monitoring Frequency	Component Type	Phase	Benzene Concentration	Figure #	Control Room				
0141					**HEADER SYSTEM**					
1699	Q	E	G	5.36	14	1	MAIN AXI	C-165	AXI C-165 EXHAUSTER SHAFT AND SEAL	EXHAUSTER SEAL	Y
1651	UTM	V	G	5.36	14	1	MAIN AXI	C-165	RAW GAS BYPASS BLOCKING VALVE	INACCESSIBLE	N
1652	UTM	PRV O/E	G	5.36	14	1	MAIN AXI	C-165	RAW GAS BYPASS RELIEF VALVE	INACCESSIBLE	N
1653	UTM	V	G	5.36	14	1	MAIN AXI	C-165	RAW GAS EXHAUST BLOCKING VALVE	INACCESSIBLE	N
0142					**NOISE SUPRESSION/UNLOADING**					
1654	N/A(vac)	V O/E	GV	5.36	14	1	MAIN AXI	C-165	INLET NOISE SUPPRESSOR CLEANOUT VALVE	INACCESSIBLE	N
1655	UTM	V O/E	G	5.36	14	1	MAIN AXI	C-165	EXHAUST NOISE SUPPRESSOR CLEANOUT VALVE	INACCESSIBLE	N
0143					**SAFETY WATER SYSTEM**					
1660	N/A(vac)	V	GV	5.36	14	1	MAIN AXI	C-165	SAFETY WATER VALVE	SAFETY WATER	Y
1661	N/A(vac)	V O/E	GV	5.36	14	1	MAIN AXI	C-165	SAFETY WATER O/E VALVE	SAFETY WATER	Y
1662	N/A(vac)	V O/E	GV	5.36	14	1	MAIN AXI	C-165	SAFETY WATER CLEANOUT VALVE	SAFETY WATER	Y
1663	N/A(vac)	C(x2)	GV	5.36	14	1	MAIN AXI	C-165	SAFETY WATER SIGHT GLASS	SAFETY WATER	Y
1664	N/A(vac)	V	GV	5.36	14	1	MAIN AXI	C-165	SAFETY WATER CONTROL VALVE	SAFETY WATER	Y
0144					**INJECTION WATER SYSTEM**					
1670	Q	V	G	5.36	14	1	MAIN AXI	C-165	INJECTION WATER VALVE	INJECTION WAT	Y
1671	Q	V	G	5.36	14	1	MAIN AXI	C-165	INJECTION WATER VALVE	INJECTION WAT	Y
1672	Q	V	G	5.36	14	1	MAIN AXI	C-165	INJECTION WATER WHEEL VALVE	INJECTION WAT	Y
1536	Q	V	G	5.36	14	1	MAIN AXI	C-165	INJECTION WATER FLEXIBLE LINE CONNECTING VALVE	INJECTION WAT	Y
1673	Q	V	G	5.36	14	1	MAIN AXI	C-165	INJECTION WATER VALVE	INJECTION WAT	Y
1674	Q	V	G	5.36	14	1	MAIN AXI	C-165	INJECTION WATER CONTROL VALVE	INJECTION WAT	Y
1675	Q	V O/E	G	5.36	14	1	MAIN AXI	C-165	INJECTION WATER O/E VALVE	INJECTION WAT	Y
0145					**EXHAUST SEAL SYSTEM**					
1685	Q	V O/E	G	5.36	14	1	MAIN AXI	C-165	RAW GAS EXHAUST CLEANOUT VALVE		Y
1680	Q	O/E	G	5.36	14	1	MAIN AXI	C-165	EXHAUST SEAL DRAIN		Y
1681	A,V,O	C(x2)	G	5.36	14	1	MAIN AXI	C-165	SIGHT GLASS		Y
1682	Q	V	G	5.36	14	1	MAIN AXI	C-165	EXHAUST SEAL VENT RECYCLE LINE VALVE	RECYCLE LINE	Y

ED_002508A_00000154-00016

TABLE 15
REGISTRATION OF COMPONENTS IN BENZENE SERVICE
MAIN AXI C-170

13 Quarterly Components, 4 UTM Components

Tag Identification	Monitoring Frequency	Component Type	Phase	Benzene Concentration	Figure #	Control Room				
0151					**HEADER SYSTEM**					
1749	Q	E	G	5.36	15	1	MAIN AXI	C-170	AXI C-170 EXHAUSTER SHAFT AND SEAL	EXHAUSTER SEAL	Y
1700	N/A(vac)	V	GV	5.36	15	1	MAIN AXI	C-170	RAW GAS INLET BLOCKING VALVE	INACCESSIBLE	N
1701	UTM	V	G	5.36	15	1	MAIN AXI	C-170	RAW GAS BYPASS BLOCKNG VALVE	INACCESSIBLE	N
1702	UTM	PRV O/E	G	5.36	15	1	MAIN AXI	C-170	RAW GAS BYPASS RELIEF VALVE	INACCESSIBLE	N
1703	UTM	V	G	5.36	15	1	MAIN AXI	C-170	RAW GAS EXHAUST BLOCKING VALVE	INACCESSIBLE	N
0152					**NOISE SUPRESSION/UNLOADING**					
1704	N/A(vac)	V O/E	GV	5.36	15	1	MAIN AXI	C-170	INLET NOISE SUPPRESSOR CLEANOUT VALVE	INACCESSIBLE	N
1705	N/A(vac)	V O/E	GV	5.36	15	1	MAIN AXI	C-170	INLET NOISE SUPPRESSOR CLEANOUT VALVE	INACCESSIBLE	N
1706	N/A(vac)	V O/E	GV	5.36	15	1	MAIN AXI	C-170	INLET NOISE SUPPRESSOR CLEANOUT VALVE	INACCESSIBLE	N
1707	N/A(vac)	V O/E	GV	5.36	15	1	MAIN AXI	C-170	INLET NOISE SUPPRESSOR CLEANOUT VALVE	INACCESSIBLE	N
1708	N/A(vac)	V O/E	GV	5.36	15	1	MAIN AXI	C-170	INLET NOISE SUPPRESSOR CLEANOUT VALVE	INACCESSIBLE	N
1709	UTM	V O/E	G	5.36	15	1	MAIN AXI	C-170	EXHAUST NOISE SUPPRESSOR CLEANOUT VALVE	INACCESSIBLE	N
1740	N/A(vac)	V O/E	GV	5.36	15	1	MAIN AXI	C-170	4" UNLOAD VALVE		Y
1741	N/A(vac)	V O/E	GV	5.36	15	1	MAIN AXI	C-170	4" UNLOAD VALVE		Y
0153					**SAFETY WATER SYSTEM**					
1710	N/A(vac)	V	GV	5.36	15	1	MAIN AXI	C-170	SAFETY WATER VALVE	SAFETY WATER	Y
1711	N/A(vac)	V	GV	5.36	15	1	MAIN AXI	C-170	SAFETY WATER VALVE	SAFETY WATER	Y
1712	N/A(vac)	V O/E	GV	5.36	15	1	MAIN AXI	C-170	SAFETY WATER VALVE	SAFETY WATER	Y
1713	N/A(vac)	V O/E	GV	5.36	15	1	MAIN AXI	C-170	SAFETY WATER VALVE	SAFETY WATER	Y
1715	N/A(vac)	V	GV	5.36	15	1	MAIN AXI	C-170	SAFETY WATER VALVE CONTROL	SAFETY WATER	Y
0154					**INJECTION WATER SYSTEM**					
1720	Q	V	G	5.36	15	1	MAIN AXI	C-170	INJECTION WATER VALVE	INJECTION WAT	Y
1721	Q	V	G	5.36	15	1	MAIN AXI	C-170	INJECTION WATER VALVE	INJECTION WAT	Y
1722	Q	V O/E	G	5.36	15	1	MAIN AXI	C-170	INJECTION WATER VALVE CLEANOUT	INJECTION WAT	Y
1723	Q	V	G	5.36	15	1	MAIN AXI	C-170	INJECTION WATER VALVE CLEANOUT	INJECTION WAT	Y
1724	Q	V O/E	G	5.36	15	1	MAIN AXI	C-170	INJECTION WATER VALVE	INJECTION WAT	Y
1725	Q	V	G	5.36	15	1	MAIN AXI	C-170	INJECTION WATER VALVE	INJECTION WAT	Y
0155					**EXHAUST SEAL SYSTEM**					
1537	Q	V	G	5.36	15	1	MAIN AXI	C-170	RAW GAS EXHAUST CLEANOUT VALVE		Y
1730	Q	O/E	G	5.36	15	1	MAIN AXI	C-170	EXHAUST SEAL DRAIN		Y
1731	A,V,O	C(x2)	G	5.36	15	1	MAIN AXI	C-170	SIGHT GLASS		Y
1732	Q	V O/E	G	5.36	15	1	MAIN AXI	C-170	EXHAUST SEAL VENT RECYCLE LINE CLEANOUT VALVE	RECYCLE LINE	Y
1733	Q	V	G	5.36	15	1	MAIN AXI	C-170	EXHAUST SEAL VENT RECYCLE LINE VALVE	RECYCLE LINE	Y
1734	Q	V	G	5.36	15	1	MAIN AXI	C-170	EXHAUST SEAL VENT RECYCLE LINE VALVE	RECYCLE LINE	Y
1735	Q	V O/E	G	5.36	15	1	MAIN AXI	C-170	EXHAUST SEAL VENT RECYCLE LINE CLEANOUT VALVE	RECYCLE LINE	Y

TABLE 16
REGISTRATION OF COMPONENTS IN BENZENE SERVICE
MAIN AXI C-175

11 Quarterly Components, 4 UTM Components

Tag Identification	Monitoring Frequency	Component Type	Phase	Benzene Concentration	Figure #	Control Room				
0161					HEADER SYSTEM					
1799	Q	E	G	5.36	16	1	MAIN AXI	C-175	AXI C-175 EXHAUSTER SHAFT AND SEAL	EXHAUSTER SEAL	Y
1750	N/A(vac)	V	GV	5.36	16	1	MAIN AXI	C-175	RAW GAS INLET BLOCKING VALVE	INACCESSIBLE	N
1751	UTM	V	G	5.36	16	1	MAIN AXI	C-175	REW GAS BYPASS BLOCKING VALVE	INACCESSIBLE	N
1752	UTM	PRV O/E	G	5.36	16	1	MAIN AXI	C-175	RAW GAS BYPASS RELIEF VALVE	INACCESSIBLE	N
1753	UTM	V	G	5.36	16	1	MAIN AXI	C-175	RAW GAS EXHAUST BLOCKING VALVE	INACCESSIBLE	N
0162					NOISE SUPRESSION/UNLOADING					
1754	N/A(vac)	V O/E	GV	5.36	16	1	MAIN AXI	C-175	INLET NOISE SUPPRESSOR CLEANOUT VALVE	INACCESSIBLE	N
1755	UTM	V O/E	G	5.36	16	1	MAIN AXI	C-175	EXHAUST NOISE SUPPRESSOR CLEANOUT VALVE	INACCESSIBLE	N
0163					SAFETY WATER SYSTEM					
1760	N/A(vac)	V O/E	GV	5.36	16	1	MAIN AXI	C-175	SAFETY WATER VALVE	SAFETY WATER	Y
1761	N/A(vac)	V O/E	GV	5.36	16	1	MAIN AXI	C-175	SAFETY WATER VALVE	SAFETY WATER	Y
1762	N/A(vac)	C(x2)	GV	5.36	16	1	MAIN AXI	C-175	SAFETY WATER SIGHT GLASS	SAFETY WATER	Y
1763	N/A(vac)	V	GV	5.36	16	1	MAIN AXI	C-175	SAFETY WATER VALVE CONTROL	SAFETY WATER	Y
0164					INJECTION WATER SYSTEM					
1770	Q	V	G	5.36	16	1	MAIN AXI	C-175	INJECTION WATER VALVE	INJECTION WAT	Y
1771	Q	V	G	5.36	16	1	MAIN AXI	C-175	INJECTION WATER VALVE	INJECTION WAT	Y
1772	Q	V O/E	G	5.36	16	1	MAIN AXI	C-175	INJECTION WATER VALVE	INJECTION WAT	Y
1773	Q	V	G	5.36	16	1	MAIN AXI	C-175	INJECTION WATER VALVE	INJECTION WAT	Y
1774	Q	V	G	5.36	16	1	MAIN AXI	C-175	INJECTION WATER VALVE	INJECTION WAT	Y
1775	A,V,O	C	G	5.36	16	1	MAIN AXI	C-175	INJECTION WATER PRESSURE GAUGE	INJECTION WAT	Y
1776	Q	V O/E	G	5.36	16	1	MAIN AXI	C-175	INJECTION WATER O/E VALVE	INJECTION WAT	Y
0165					EXHAUST SEAL SYSTEM					
1785	Q	V O/E	G	5.36	16	1	MAIN AXI	C-175	RAW GAS EXHAUST CLEANOUT VALVE		Y
1780	Q	O/E	G	5.36	16	1	MAIN AXI	C-175	EXHAUST SEAL DRAIN		Y
1781	A,V,O	C(x2)	G	5.36	16	1	MAIN AXI	C-175	SIGHT GLASS		Y
1782	Q	V	G	5.36	16	1	MAIN AXI	C-175	EXHAUST SEAL VENT RECYCLE LINE VALVE	RECYCLE LINE	Y
1783	Q	V O/E	G	5.36	16	1	MAIN AXI	C-175	EXHAUST SEAL VENT RECYCLE LINE CLEANOUT VALVE	RECYCLE LINE	Y
1784	Q	V	G	5.36	16	1	MAIN AXI	C-175	EXHAUST SEAL VENT RECYCLE LINE VALVE	RECYCLE LINE	Y

ED_002508A_00000154-00018

TABLE 17
REGISTRATION OF COMPONENTS IN BENZENE SERVICE
MAIN AXI C-180

12 Quarterly Components, 4 UTM Components

Tag Identification	Monitoring Frequency	Component Type	Phase	Benzene Concentration	Figure #	Control Room				
0171					**HEADER SYSTEM**					
1849	Q	E	G	5.36	17	1	MAIN AXI	C-180	AXI C-180 EXHAUSTER SHAFT AND SEAL	EXHAUSTER SEAL	Y
1800	N/A(vac)	V	GV	5.36	17	1	MAIN AXI	C-180	RAW GAS SUCTION BLOCKING VALVE	INACCESSIBLE	N
1801	UTM	V	G	5.36	17	1	MAIN AXI	C-180	RAW GAS BYPASS BLOCKING VALVE	INACCESSIBLE	N
1802	UTM	PRV O/E	G	5.36	17	1	MAIN AXI	C-180	RAW GAS BYPASS RELIEF VALVE	INACCESSIBLE	N
1803	UTM	V	G	5.36	17	1	MAIN AXI	C-180	RAW GAS EXHAUST BLOCKING VALVE	INACCESSIBLE	N
0172					**NOISE SUPRESSION/UNLOADING**					
1804	N/A(vac)	V O/E	GV	5.36	17	1	MAIN AXI	C-180	SUCTION NOISE SUPPRESSOR CLEANOUT VALVE	INACCESSIBLE	N
1805	N/A(vac)	V O/E	GV	5.36	17	1	MAIN AXI	C-180	SUCTION NOISE SUPPRESSOR CLEANOUT VALVE	INACCESSIBLE	N
1806	UTM	V O/E	G	5.36	17	1	MAIN AXI	C-180	EXHAUST NOISE SUPPRESSOR CLEANOUT VALVE	INACCESSIBLE	N
0173					**SAFETY WATER SYSTEM**					
1810	N/A(vac)	V	GV	5.36	17	1	MAIN AXI	C-180	SAFETY WATER VALVE	SAFETY WATER	Y
1811	N/A(vac)	V	GV	5.36	17	1	MAIN AXI	C-180	SAFETY WATER PRESSURE TAP	SAFETY WATER	Y
1812	N/A(vac)	C	GV	5.36	17	1	MAIN AXI	C-180	SAFETY WATER GAUGE	SAFETY WATER	Y
1813	N/A(vac)	V O/E	GV	5.36	17	1	MAIN AXI	C-180	SAFETY WATER O/E VALVE	SAFETY WATER	Y
1814	N/A(vac)	V O/E	GV	5.36	17	1	MAIN AXI	C-180	SAFETY WATER O/E VALVE	SAFETY WATER	Y
1815	N/A(vac)	C(x2)	GV	5.36	17	1	MAIN AXI	C-180	SAFETY WATER SIGHT GLASS	SAFETY WATER	Y
1816	N/A(vac)	V	GV	5.36	17	1	MAIN AXI	C-180	SAFETY WATER VALVE CONTROL	SAFETY WATER	Y
0174					**INJECTION WATER SYSTEM**					
1820	Q	V	G	5.36	17	1	MAIN AXI	C-180	INJECTION WATER VALVE	INJECTION WAT	Y
1821	Q	V	G	5.36	17	1	MAIN AXI	C-180	INJECTION WATER VALVE	INJECTION WAT	Y
1822	Q	V O/E	G	5.36	17	1	MAIN AXI	C-180	INJECTION WATER VALVE	INJECTION WAT	Y
1823	Q	V	G	5.36	17	1	MAIN AXI	C-180	INJECTION WATER VALVE	INJECTION WAT	Y
1825	Q	V	G	5.36	17	1	MAIN AXI	C-180	INJECTION WATER BLOCKING	INJECTION WAT	Y
1826	Q	V O/E	G	5.36	17	1	MAIN AXI	C-180	INJECTION WATER O/E VALVE	INJECTION WAT	Y
015					**EXHAUST SEAL SYSTEM**					
1835	Q	V O/E	G	5.36	17	1	MAIN AXI	C-180	RAW GAS EXHAUST CLEANOUT		Y
1830	Q	O/E	G	5.36	17	1	MAIN AXI	C-180	EXHAUST SEAL DRAIN		Y
1831	A,V,O	C(x2)	G	5.36	17	1	MAIN AXI	C-180	SIGHT GLASS		Y
1832	Q	V	G	5.36	17	1	MAIN AXI	C-180	EXHAUST SEAL VENT RECYCLE LINE VALVE	RECYCLE LINE	Y
1833	Q	V O/E	G	5.36	17	1	MAIN AXI	C-180	EXHAUST SEAL VENT RECYCLE LINE CLEANOUT	RECYCLE LINE	Y
1834	Q	V O/E	G	5.36	17	1	MAIN AXI	C-180	EXHAUST SEAL VENT RECYCLE LINE CLEANOUT	RECYCLE LINE	Y

ED_002508A_00000154-00019

TABLE 18
REGISTRATION OF COMPONENTS IN BENZENE SERVICE
MAIN AXI C-185

11 Quarterly Components, 4 UTM Components

Tag Identification	Monitoring Frequency	Component Type	Phase	Benzene Concentration	Figure #	Control Room				
0181					HEADER SYSTEM					
1899	Q	E	G	5.36	18	1	MAIN AXI	C-185	AXI C-185 EXHAUSTER SHAFT AND SEAL	EXHAUSTER SEAL	Y
1850	N/A(vac)	V	GV	5.36	18	1	MAIN AXI	C-185	RAW GAS SUCTION BLOCKING VALVE	INACCESSIBLE	N
1851	UTM	V	G	5.36	18	1	MAIN AXI	C-185	RAW GAS BYPASS BLOCKING VALVE	INACCESSIBLE	N
1852	UTM	PRV O/E	G	5.36	18	1	MAIN AXI	C-185	RAW GAS BYPASS RELIEF VALVE	INACCESSIBLE	N
1853	UTM	V	G	5.36	18	1	MAIN AXI	C-185	RAW GAS EXHAUST BLOCKING VALVE	INACCESSIBLE	N
0182					NOISE SUPRESSION/UNLOADING					
1854	N/A(vac)	V O/E	GV	5.36	18	1	MAIN AXI	C-185	SUCTION NOISE SUPPRESSOR CLEANOUT VALVE	INACCESSIBLE	N
1855	N/A(vac)	V O/E	GV	5.36	18	1	MAIN AXI	C-185	SUCTION NOISE SUPPRESSOR CLEANOUT VALVE	INACCESSIBLE	N
1856	UTM	V O/E	G	5.36	18	1	MAIN AXI	C-185	EXHAUST NOISE SUPPRESSOR CLEANOUT VALVE	INACCESSIBLE	N
0183					SAFETY WATER SYSTEM					
1860	N/A(vac)	V	GV	5.36	18	1	MAIN AXI	C-185	SAFETY WATER VALVE	SAFETY WATER	Y
1862	N/A(vac)	C	GV	5.36	18	1	MAIN AXI	C-185	SAFETY WATER GAUGE	SAFETY WATER	Y
1863	N/A(vac)	V O/E	GV	5.36	18	1	MAIN AXI	C-185	SAFETY WATER O/E VALVE	SAFETY WATER	Y
1864	N/A(vac)	V O/E	GV	5.36	18	1	MAIN AXI	C-185	SAFETY WATER O/E VALVE	SAFETY WATER	Y
1865	N/A(vac)	C(x2)	GV	5.36	18	1	MAIN AXI	C-185	SAFETY WATER SIGHT GLASS	SAFETY WATER	Y
1866	N/A(vac)	V	GV	5.36	18	1	MAIN AXI	C-185	SAFETY WATER VALVE CONTROL	SAFETY WATER	Y
0184					INJECTION WATER SYSTEM					
1870	Q	V	G	5.36	18	1	MAIN AXI	C-185	INJECTION WATER VALVE	INJECTION WAT	Y
1871	Q	V	G	5.36	18	1	MAIN AXI	C-185	INJECTION WATER VALVE	INJECTION WAT	Y
1872	Q	V O/E	G	5.36	18	1	MAIN AXI	C-185	INJECTION WATER VALVE	INJECTION WAT	Y
1873	Q	V	G	5.36	18	1	MAIN AXI	C-185	INJECTION WATER VALVE	INJECTION WAT	Y
1874	Q	V	G	5.36	18	1	MAIN AXI	C-185	INJECTION WATER BLOCKING	INJECTION WAT	Y
1875	Q	V	G	5.36	18	1	MAIN AXI	C-185	INJECTION WATER VALVE	INJECTION WAT	Y
1877	Q	V O/E	G	5.36	18	1	MAIN AXI	C-185	INJECTION WATER O/E VALVE	INJECTION WAT	Y
0185					EXHAUST SEAL SYSTEM					
1885	Q	V O/E	G	5.36	18	1	MAIN AXI	C-185	RAW GAS EXHAUST CLEANOUT VALVE		Y
1880	Q	O/E	G	5.36	18	1	MAIN AXI	C-185	EXHAUST SEAL DRAIN		Y
1881	A,V,O	C(x2)	G	5.36	18	1	MAIN AXI	C-185	SIGHT GLASS		Y
1882	Q	V	G	5.36	18	1	MAIN AXI	C-185	EXHAUST SEAL VENT RECYCLE LINE VALVE	RECYCLE LINE	Y
0186					INJECTION WATER SYSTEM					
1876	Q	V	G	5.36	18	1	MAIN AXI	C-185	C-105/185 BYPASS VALVE	BYPASS LINE	Y
1824	A	V	G	5.36	18	1	MAIN AXI	C-185	C-105/185 BYPASS VALVE	BYPASS LINE	DTM
1837	A	V O/E	G	5.36	18	1	MAIN AXI	C-185	C-105/185 BYPASS CLEANOUT VALVE	BYPASS LINE	DTM
1884	A	V	G	5.36	18	1	MAIN AXI	C-185	C-105/185 BYPASS VALVE	BYPASS LINE	DTM

ED_002508A_00000154-00020

TABLE 19
REGISTRATION OF COMPONENTS IN BENZENE SERVICE
LIGHT OIL DECANT AREA

3 Monthly, 74 Quarterly Components, 10 Annual Components

Tag Identification	Monitoring Frequency	Component Type	Phase	Benzene Concentration	Figure #	Control Room					
0191					PUMP 201						
2000	Q	V	L	57.63	19	1	LO PUMP	P-201C	SUCTION BLOCKING	RIGHT SIDE	Y
2001	Q	V O/E	L	57.63	19	1	LO PUMP	P-201C	SUCTION CLEANOUT	RIGHT SIDE	Y
2002	M	P	L	57.63	19	1	LO PUMP	P-201C	PUMP SEAL	RIGHT SIDE	Y
2003	Q	V	L	57.63	19	1	LO PUMP	P-201C	OUTLET	RIGHT SIDE	Y
2004	A,V,O	C	L	57.63	19	1	LO PUMP	P-201C	OUTLET PRESSURE GAUGE	RIGHT SIDE	Y
2005	Q	V O/E	L	57.63	19	1	LO PUMP	P-201C	OUTLET SAMPLE	RIGHT SIDE	Y
2006	Q	V O/E	L	57.63	19	1	LO PUMP	P-201C	OUTLET SAMPLE	RIGHT SIDE	Y
2007	Q	V	L	57.63	19	1	LO PUMP	P-201C	OUTLET BLOCK	RIGHT SIDE	Y
0192					PUMP 203						
2010	Q	V	L	57.63	19	1	LO PUMP	P 203C	INLET	RIGHT SIDE	Y
2011	Q	V O/E	L	57.63	19	1	LO PUMP	P 203C	SUCTION CLEANOUT	RIGHT SIDE	Y
2012	M	P	L	57.63	19	1	LO PUMP	P 203C	PUMP SEAL	RIGHT SIDE	Y
2013	Q	V	L	57.63	19	1	LO PUMP	P 203C	OUTLET PRESSURE VALVE	RIGHT SIDE	Y
2014	A,V,O	C	L	57.63	19	1	LO PUMP	P 203C	OUTLET PRESSURE GAUGE	RIGHT SIDE	Y
2015	Q	V O/E	L	57.63	19	1	LO PUMP	P 203C	OUTLET PRESSURE	RIGHT SIDE	Y
2016	Q	V	L	57.63	19	1	LO PUMP	P 203C	OUTLET BLOCK	RIGHT SIDE	Y
0193					PUMP 202						
2018	Q	V	L	57.63	19	1	LO PUMP	P 202C	P 202C SUCTION PRESSURE GAUGE VALVE	RIGHT SIDE	Y
2019	Q	V O/E	L	57.63	19	1	LO PUMP	P 202C	SUCTION CLEANOUT	RIGHT SIDE	Y
2020	Q	V	L	57.63	19	1	LO PUMP	P 202C	P 202C SUCTION	RIGHT SIDE	Y
2021	M	P	L	57.63	19	1	LO PUMP	P 202C	PUMP SEAL	RIGHT SIDE	Y
2023	A,V,O	C	L	57.63	19	1	LO PUMP	P 202C	P 202C SUCTION PRESSURE GAUGE	RIGHT SIDE	Y
2024	Q	V O/E	L	57.63	19	1	LO PUMP	P 202C	P 202C SUCTION PRESSURE GAUGE VALVE	RIGHT SIDE	Y
2025	Q	V	L	57.63	19	1	LO PUMP	P 202C	P 202C SUCTION VALVE	RIGHT SIDE	Y
2026	Q	V O/E	L	57.63	19	1	LO PUMP	P 202C	OUTLET SAMPLE	RIGHT SIDE	Y
2027	Q	V	L	57.63	19	1	LO PUMP	P 202C	P 202C	RIGHT SIDE	Y
2028	Q	V O/E	L	57.63	19	1	LO PUMP	PO21/2/3C	DISCHARGE HEADER CLEANOUT	RIGHT SIDE	Y
2029	Q	V O/E	L	57.63	19	1	LO PUMP	PO21/2/3C	SUCTION HEADER CLEANOUT	RIGHT SIDE	Y
0194					TANK 201						
2030	Q	V O/E	L	57.63	19	1	LO TANK	D-201	BOTTOM DRAIN CLEANOUT	LEFT SIDE	Y
2031	Q	V	L	57.63	19	1	LO TANK	D-201	BOTTOM DRAIN	LEFT SIDE	Y
2032	Q	V	L	57.63	19	1	LO TANK	D-201	SIGHT GLASS BOTTOM SIDE VALVE	LEFT SIDE	Y
2033	Q	V O/E	L	57.63	19	1	LO TANK	D-201	SIGHT GLASS DRAIN	LEFT SIDE	Y
2034	Q	V	L	57.63	19	1	LO TANK	D-201	SIGHT GLASS BOTTOM SIDE VALVE	LEFT SIDE	Y
2035	Q	V	L	57.63	19	1	LO TANK	D-201	SIGHT GLASS TOP SIDE VALVE	LEFT SIDE	Y
2036	Q	V	L	57.63	19	1	LO TANK	D-201	SIGHT GLASS TOP SIDE VALVE	LEFT SIDE	Y
2048	Q	V O/E	L	57.63	19	1	LO TANK	D-201	SIGHT GLASS TOP VENT	LEFT SIDE	Y
2037	A,V,O	C	L	57.63	19	1	LO TANK	D-201	MANWAY	LEFT SIDE	Y
2039	Q	V	L	57.63	19	1	LO TANK	D-201	LEVEL CONTROL BOTTOM SIDE VALVE	LEFT SIDE	Y
2040	Q	V O/E	L	57.63	19	1	LO TANK	D-201	LEVEL CONTROL DRAIN	LEFT SIDE	Y
2041	Q	V O/E	L	57.63	19	1	LO TANK	D-201	LEVEL CONTROL TOP VENT	LEFT SIDE	Y
2042	Q	V	L	57.63	19	1	LO TANK	D-201	LEVEL CONTROL TOP SIDE VALVE	LEFT SIDE	Y
2043	Q	V	L	57.63	19	1	LO TANK	D-201	TOP CLEAN OUT/VENT	LEFT SIDE	Y
2044	A	V O/E	L	57.63	19	1	LO TANK	D-201	TOP CLEAN OUT O/E VALVE	LEFT SIDE	DTM
2038	Q	V	L	57.63	19	1	LO TANK	D-201	PRESSURE RELIEF FLOW VALVE	LEFT SIDE	Y
2046	PRV	PRV O/E	L	57.63	19	1	LO TANK	D-201	PRESSURE RELIEF VENT	LEFT SIDE	Y
2047	Q	V	L	57.63	19	1	LO TANK	D-201	LO RETURN COMMON HEADER	LEFT SIDE	Y

0195					TANK 202						
2050	Q	V	L	57.63	19	1	LO TANK	D-202	BOTTOM DRAIN VALVE	LEFT SIDE	Y
2051	Q	V O/E	L	57.63	19	1	LO TANK	D-202	BOTTOM DRAIN CLEANOUT	LEFT SIDE	Y
2052	Q	V	L	57.63	19	1	LO TANK	D-202	SIGHT GLASS BOTTOM SIDE VALVE	SIDE OF TANK	Y
2053	Q	V O/E	L	57.63	19	1	LO TANK	D-202	SIGHT GLASS DRAIN	SIDE OF TANK	Y
2054	Q	V O/E	L	57.63	19	1	LO TANK	D-202	SIGHT GLASS TOP VENT	SIDE OF TANK	Y
2055	Q	V	L	57.63	19	1	LO TANK	D-202	SIGHT GLASS TOP SIDE VALVE	SIDE OF TANK	Y
2056	A,V,O	C	L	57.63	19	1	LO TANK	D-202	MANWAY	SIDE OF TANK	Y
2058	Q	V	L	57.63	19	1	LO TANK	D-202	LEVEL CONTROL BOTTOM SIDE VALVE	SIDE OF TANK	Y
2059	Q	V O/E	L	57.63	19	1	LO TANK	D-202	LEVEL CONTROL DRAIN	SIDE OF TANK	Y
2060	Q	V O/E	L	57.63	19	1	LO TANK	D-202	LEVEL CONTROL TOP VENT	SIDE OF TANK	Y
2061	Q	V	L	57.63	19	1	LO TANK	D-202	LEVEL CONTROL TOP SIDE VALVE	SIDE OF TANK	Y
2063	A	PRV O/E	L	57.63	19	1	LO TANK	D-202	PRESSURE RELIEF VENT	TOP OF TANK	DTM
2064	A	V	L	57.63	19	1	LO TANK	D-202	PRESSURE RELIEF FLOW VALVE	TOP OF TANK	DTM
2057	A	V	L	57.63	19	1	LO TANK	D-202	VENT LINE COMMON HEADER	TOP OF TANK	DTM
2065	Q	V	L	57.63	19	1	LO TANK	D-202	LO RETURN COMMON HEADER	TOP OF TANK	Y
2082	Q	V O/E	L	57.63	19	1	LO TANK	D-202	TOP CLEANOUT	TOP OF TANK	Y
0196					TANK 203						
2070	Q	V	L	57.63	19	1	LO TANK	D-203	BOTTOM DRAIN	LEFT SIDE	Y
2071	Q	V O/E	L	57.63	19	1	LO TANK	D-203	BOTTOM DRAIN CLEANOUT	LEFT SIDE	Y
2072	Q	V	L	57.63	19	1	LO TANK	D-203	LEVEL CONTROL BOTTOM SIDE VALVE	LEFT SIDE	Y
2073	Q	V O/E	L	57.63	19	1	LO TANK	D-203	LEVEL CONTROL DRAIN	LEFT SIDE	Y
2074	Q	V O/E	L	57.63	19	1	LO TANK	D-203	LEVEL CONTROL TOP VENT	LEFT SIDE	Y
2075	Q	V	L	57.63	19	1	LO TANK	D-203	LEVEL CONTROL TOP SIDE VALVE	LEFT SIDE	Y
2076	A,V,O	C	L	57.63	19	1	LO TANK	D-203	MAN WAY	LEFT SIDE	Y
2077	A	V	L	57.63	19	1	LO TANK	D-203	PRESSURE RELIEF FLOW VALVE	LEFT SIDE	DTM
2078	Q	V O/E	L	57.63	19	1	LO TANK	D-203	OPEN END (SIGHT GLASS REMOVED)	LEFT SIDE	Y
2079	Q	V O/E	L	57.63	19	1	LO TANK	D-203	OPEN END TOP SIDE (SIGHT GLASS REMOVED)	LEFT SIDE	Y
2080	A	PRV O/E	L	57.63	19	1	LO TANK	D-203	PRESSURE RELIEF VENT	LEFT SIDE	DTM
2081	A	V	L	57.63	19	1	LO TANK	D-203	VENT LINE COMMON HEADER	LEFT SIDE	DTM
2083	A	V	L	57.63	19	1	LO TANK	D-203	LO RETURN COMMON HEADER	LEFT SIDE	DTM
2085	Q	V	L	57.63	19	1	LO TANK	D-201/2/3	DRAIN LINE COMMON HEADER BLOCKING VALVE	LEFT SIDE	Y
2086	Q	V	L	57.63	19	1	LO TANK	D-201/2/3	COMMON DRAIN LINE O/E VALVE	LEFT SIDE	Y
2087	Q	V	L	57.63	19	1	LO TANK	D-203	TOP CLEANOUT	LEFT SIDE	Y
0197					CONTROL STATION						
2090	Q	V	L	57.63	19	1	LO TANK	D-201/2/3	BLOCKING VALVE FROM #2	BESIDE STAIRS	Y
2091	Q	V O/E	L	57.63	19	1	LO TANK	D-201/2/3	CLEAN OUT VALVE FROM #2	BESIDE STAIRS	Y
2092	Q	V	L	57.63	19	1	LO TANK	LICV 2011	CONTROL VALVE FROM #2	BESIDE STAIRS	Y
2093	Q	V O/E	L	57.63	19	1	LO TANK	D-201/2/3	CLEANOUT VALVE FROM # 2	BESIDE STAIRS	Y
2094	Q	V	L	57.63	19	1	LO TANK	D-201/2/3	BLOCKING VALVE FROM #2	BESIDE STAIRS	Y
2095	Q	V	L	57.63	19	1	LO TANK	D-201/2/3	BYPASS VALVE FROM #2	BESIDE STAIRS	Y
2096	A,V,O	C	L	57.63	19	1	LO TANK	D-201/2/3	ORIFICE PLATE	BESIDE STAIRS	Y
2097	A,V,O	C	L	57.63	19	1	LO TANK	D-201/2/3	ORIFICE PLATE	BESIDE STAIRS	Y
OTHER											
2066	Q	V	L	57.63	19	1	LO TANK	D-201/2/3	LO RETURN TO #2	LEFT SIDE	Y
2067	A	V	L	57.63	19	1	LO TANK	D-201/2/3	LO FROM FINAL COOLERS	LEFT SIDE	DTM
2084	A	V	L	57.63	19	1	LO TANK	D-201/2/3	VENT EQUALIZER TO FINAL COOLERS	LEFT SIDE	DTM
	A,V,O	C(x5)	L	57.63	19	1	LO TANK	D-201/2/3	SITE GLASS-LEVEL CONTROL CONNECTORS		Y
	DTM-A,V,O	C(x5)	L	57.63	19	1	LO TANK	D-201/2/3	VENT EQUALIZER TO FINAL COOLERS		DTM

ED_002508A_00000154-00022

TABLE 20
REGISTRATION OF COMPONENTS IN BENZENE SERVICE
FINAL COOLER AREA

Tag Identification	Monitoring Frequency	Component Type	Phase	Benzene Concentration	Figure #	Control Room					
201											
2100	Q	V	L	57.63	20	1	LO TANK	D-201/2/3	LO OUTLET LINE BLOCKING VALVE	CONTROL STA	Y
2101	Q	V O/E	L	57.63	20	1	LO TANK	D-201/2/3	LO OUTLET LINE CLEAN OUT VALVE	CONTROL STA	Y
2102	Q	V	L	57.63	20	1	LO TANK	D-201/2/3	LO OUTLET LINE CONTROL VALVE	CONTROL STA	Y
2103	Q	V O/E	L	57.63	20	1	LO TANK	D-201/2/3	LO OUTLET LINE CLEANOUT VALVE	CONTROL STA	Y
2104	Q	V	L	57.63	20	1	LO TANK	D-201/2/3	LO OUTLET LINE BLOCKING VALVE	CONTROL STA	Y
2105	Q	V	L	57.63	20	1	LO TANK	D-201/2/3	LO OUTLET LINE BYPASS VALVE	CONTROL STA	Y
2110	A	V O/E	L	57.63	20	1	TRPL VALVE	V-5	TRIPLE VALVE BYPASS LOOP CLEANOUT		DTM
2111	A	V	L	57.63	20	1	TRPL VALVE	V-5	TRIPLE VALVE BYPASS LOOP	GRND LVL, 12'	DTM
2112	A	V	L	57.63	20	1	TRPL VALVE	V-5	TRIPLE VALVE	GRND LVL, 12'	DTM
2113	A	V	L	57.63	20	1	TRPL VALVE	V-5	TRIPLE VALVE BYPASS LOOP	GRND LVL, 12'	DTM
2114	A	V	L	57.63	20	1	TRPL VALVE	V-5	TRIPLE VALVE BYPASS LOOP	GRND LVL, 10'	DTM
2115	Q	V O/E	L	57.63	20	1	TRPL VALVE	V-5	TRIPLE VALVE BYPASS LOOP CLEANOUT	GRND LVL, 8'	Y
2116	A	V	L	57.63	20	1	TRPL VALVE	V-5	TRIPLE VALVE BYPASS LOOP	GRND LVL, 10'	DTM
2118	M	AGI	L	57.63	20	1	AGITATOR	T-201	LIGHT OIL SCREEN DEMISTER	TOP LEVEL, IN PROTECTIVE BOX	Y
2128	M	AGI	L	57.63	20	1	AGITATOR	T-202	LIGHT OIL SCREEN DEMISTER	TOP LEVEL, IN PROTECTIVE BOX	Y
2138	M	AGI	L	57.63	20	1	AGITATOR	T-203	LIGHT OIL SCREEN DEMISTER	TOP LEVEL, IN PROTECTIVE BOX	Y
2148	M	AGI	L	57.63	20	1	AGITATOR	T-206	LIGHT OIL SCREEN DEMISTER	TOP LEVEL, IN PROTECTIVE BOX	Y
202											
2100	Q	V O/E	L	57.63	20	1	FINAL COOL	T-201/2/3	LO VENT EQUALIZER VALVE VENT		Y
2160	Q	V	G	57.63	20	1	FINAL COOL	T-201	LO VENT EQUALIZER VALVE	TOP LEVEL	Y
2161	Q	V	G	57.63	20	1	FINAL COOL	T-201	LO VENT EQUALIZER VALVE	GRND LEVEL???	Y
2170	Q	V	G	57.63	20	1	FINAL COOL	T-202	LO VENT EQUALIZER VALVE	GRND LEVEL	Y
2171	A	V O/E	G	57.63	20	1	FINAL COOL	T-202	LO VENT EQUALIZER O/E VALVE	GRND LEVEL	DTM
2172	A	V O/E	G	57.63	20	1	FINAL COOL	T-202	LO VENT EQUALIZER O/E VALVE	GRND LEVEL	DTM
2173	Q	V	G	57.63	20	1	FINAL COOL	T-202	LO VENT EQUALIZER VALVE	TOP LEVEL	Y
2180	A	V	G	57.63	20	1	FINAL COOL	T-203	LO VENT EQUALIZER VALVE	GRND LEVEL	DTM
2181	A	V O/E	G	57.63	20	1	FINAL COOL	T-203	LO VENT EQUALIZER O/E VALVE	GRND LEVEL	DTM
2182	Q	V	G	57.63	20	1	FINAL COOL	T-203	LO VENT EQUALIZER VALVE	TOP LEVEL	Y
2183	A	V O/E	G	57.63	20	1	FINAL COOL	T-203	LO VENT EQUALIZER O/E VALVE	GRND LEVEL	DTM
203											
2162	Q	V	L	57.63	20	1	FINAL COOL	T-201	LO DRAIN LINE VALVE	GRND LVL	Y
2163	Q	V	L	57.63	20	1	FINAL COOL	T-201	LO DRAIN LINE VALVE	TOP LEVEL	Y
2164	Q	V O/E	L	57.63	20	1	FINAL COOL	T-201	LO DRAIN LINE VALVE	1ST LEVEL	Y
2165	Q	V	L	57.63	20	1	FINAL COOL	T-201	LO DRAIN LINE VALVE	1ST LEVEL	Y
2166	Q	V	L	57.63	20	1	FINAL COOL	T-201	LO DRAIN LINE VALVE	1ST LEVEL	Y
2189	Q	V O/E	L	57.63	20	1	FINAL COOL	T-201	LO DRAIN LINE O/E VALVE	GRND LEVEL, 12'	Y
2107	Q	V O/E	L	57.63	20	1	FINAL COOL	T-202	LO DRAIN LINE O/E VALVE	GRND LEVEL	Y
2108	Q	V O/E	L	57.63	20	1	FINAL COOL	T-202	LO DRAIN LINE O/E VALVE	GRND LEVEL	Y
2174	Q	V	L	57.63	20	1	FINAL COOL	T-202	LO DRAIN LINE VALVE	TOP LEVEL	Y
2175	Q	V	L	57.63	20	1	FINAL COOL	T-202	LO DRAIN LINE VALVE	GRND LEVEL	Y
2176	Q	V	L	57.63	20	1	FINAL COOL	T-202	LO DRAIN LINE VALVE	GRND LEVEL	Y
2184	Q	V	L	57.63	20	1	FINAL COOL	T-203	LO DRAIN LINE VALVE	TOP LEVEL	Y
2185	Q	V	L	57.63	20	1	FINAL COOL	T-203	LO DRAIN LINE VALVE	GRND LEVEL	Y
2186	Q	V O/E	L	57.63	20	1	FINAL COOL	T-203	LO DRAIN LINE O/E VALVE	GRND LEVEL	Y
2187	Q	V O/E	L	57.63	20	1	FINAL COOL	T-203	LO DRAIN LINE O/E VALVE	GRND LEVEL	Y
2150	Q	V	L	57.63	20	1	FINAL COOL	T-206	LO DRAIN LINE VALVE	TOP LEVEL	Y
2151	Q	V	L	57.63	20	1	FINAL COOL	T-206	LO DRAIN LINE VALVE	TOP LEVEL	Y

ED_002508A_00000154-00023

2152	Q	V	L	57.63	20	1	FINAL COOL	T-206	LO DRAIN LINE BFW VALVE	TOP LEVEL	Y
2153	Q	V O/E	L	57.63	20	1	FINAL COOL	T-206	LO DRAIN LINE BFW VALVE	TOP LEVEL	Y
204											
2120	A	V	L	57.63	20	1	FINAL COOL	T-206	LO INLET LINE VALVE	GRND LVL, 15'	DTM
2121	Q	V O/E	L	57.63	20	1	FINAL COOL	T-201	LO INLET LINE DRAIN VALVE	GRND LVL	Y
2122	A	V	L	57.63	20	1	FINAL COOL	T-201	LO INLET LINE VALVE	GRND LVL	DTM
2123	A	V	L	57.63	20	1	FINAL COOL	T-201	LO INLET LINE VALVE	GRND LVL, 15'	DTM
2124	A	V O/E	L	57.63	20	1	FINAL COOL	T-201	LO INLET LINE O/E VALVE	GRND LVL, 15'	DTM
2125	A	V O/E	L	57.63	20	1	FINAL COOL	T-201	LO INLET LINE O/E VALVE	GRND LVL, 15'	DTM
2167	Q	V	L	57.63	20	1	FINAL COOL	T-201	LO INLET VALVE BELOW WALKWAY	TOP LEVEL, BELOW CATWALK	Y
2130	Q	V	L	57.63	20	1	FINAL COOL	T-202	LO INLET LINE VALVE	1ST LEVEL	Y
2131	Q	V O/E	L	57.63	20	1	FINAL COOL	T-202	LO INLET LINE O/E VALVE	1ST LEVEL	Y
2135	Q	V O/E	L	57.63	20	1	FINAL COOL	T-202	LO INLET LINE O/E VALVE	GRND LVL	Y
2142	Q	V	L	57.63	20	1	FINAL COOL	T-202	LO INLET LINE VALVE	GRND LVL	Y
2177	Q	V	L	57.63	20	1	FINAL COOL	T-202	LO INLET VALVE BELOW WALKWAY	TOP LEVEL, BELOW CATWALK	Y
2132	Q	V	L	57.63	20	1	FINAL COOL	T-203	LO INLET LINE VALVE	GRND LVL	Y
2140	Q	V	L	57.63	20	1	FINAL COOL	T-203	LO INLET LINE VALVE	1ST LEVEL	Y
2141	Q	V O/E	L	57.63	20	1	FINAL COOL	T-203	LO INLET LINE O/E VALVE	1ST LEVEL	Y
2188	Q	V	L	57.63	20	1	FINAL COOL	T-203	LO INLET VALVE BELOW WALKWAY	TOP LEVEL, BELOW CATWALK	Y
2154	Q	V	L	57.63	20	1	FINAL COOL	T-206	LO INLET LINE VALVE	TOP LEVEL	Y
2155	Q	V O/E	L	57.63	20	1	FINAL COOL	T-206	LO INLET LINE VALVE	TOP LEVEL	Y
2156	Q	V	L	57.63	20	1	FINAL COOL	T-206	LO INLET LINE VALVE	TOP LEVEL	Y
2157	Q	V O/E	L	57.63	20	1	FINAL COOL	T-206	LO INLET LINE O/E VALVE	TOP LEVEL	Y
2117	Q	V O/E	L	57.63	20	1	MAIN HEADER	V-5	LO INLET MAIN LINE HEADER DRAIN VALVE	GRND LVL, 8'	Y
	A,V,O	C(x4)	L	57.63	20	1	FINAL COOL	D-201/2/3	LIGHT OIL INLET LINE FLANGES TO FINAL COOLERS	TOP LEVEL	Y

ED_002508A_00000154-00024

TABLE 21
REGISTRATION OF COMPONENTS IN BENZENE SERVICE
SUPER STILL AREA

4 Monthly Components, 40 Quarterly Components, 5 Annual Components, 1 UTM Components

Tag Identification	Monitoring Frequency	Component Type	Phase	Benzene Concentration	Figure #	Control Room					
211									SUPER STILL LO VALVE		Y
2216	Q	V	L	57.63	21	1	PUMP	P-207D	SUPER STILL LO VALVE		Y
2217	Q	V	L	57.63	21	1	PUMP	P-207D	SUPER STILL LO VALVE CLEANOUT	TOP PUMP	Y
2218	Q	V O/E	L	57.63	21	1	PUMP	P-207D	SUPER STILL LO RECIRCULATING PUMP SEAL		Y
2220	M	P	L	57.63	21	1	PUMP	P-207D	BOTTOM OF PUMP		Y
2221	Q	V O/E	L	57.63	21	1	PUMP	P-207D	TOP SIDE		Y
2222	Q	V O/E	L	57.63	21	1	PUMP	P-207D	BOTTOM SIDE		Y
2223	Q	V	L	57.63	21	1	PUMP	P-207C	BOTTOM SIDE, 2ND VALVE		Y
2224	Q	V O/E	L	57.63	21	1	PUMP	P-207D	SUPER STILL LO CHECK VALVE		Y
2226	Q	V	L	57.63	21	1	PUMP	P-207D	SUPER STILL LO VALVE		Y
2227	Q	V O/E	L	57.63	21	1	PUMP	P-207D	SUPER STILL LO VALVE		Y
2228	Q	V	L	57.63	21	1	PUMP	P-207D	SUPER STILL LO VALVE		Y
2235	Q	V	L	57.63	21	1	PUMP	P-207C	SUPER STILL LO VALVE		Y
2236	Q	V	L	57.63	21	1	PUMP	P-207C	SUPER STILL LO VALVE		Y
2237	Q	V O/E	L	57.63	21	1	PUMP	P-207C	SUPER STILL LO VALVE CLEANOUT		Y
2238	M	P	L	57.63	21	1	PUMP	P-207C	SUPER STILL LO RECIRCULATING PUMP SEAL		Y
2239	Q	V	L	57.63	21	1	PUMP	P-207C	SUPER STILL LO VALVE	TOP PUMP	Y
2240	Q	V O/E	L	57.63	21	1	PUMP	P-207C	SUPER STILL LO VALVE		Y
2241	Q	V O/E	L	57.63	21	1	PUMP	P-207C	SUPER STILL LO VALVE		Y
2242	Q	V O/E	L	57.63	21	1	PUMP	P-207C	SUPER STILL LO VALVE	PUMP DISCHARGE LINE	Y
2243	Q	V	L	57.63	21	1	PUMP	P-207C	SUPER STILL LO VALVE CHECKING	PUMP DISCHARGE LINE	Y
2244	Q	V O/E	L	57.63	21	1	PUMP	P-207C	SUPER STILL LO VALVE	PUMP DISCHARGE LINE	Y
2245	Q	V	L	57.63	21	1	PUMP	P-207C	SUPER STILL LO VALVE	PUMP DISCHARGE LINE	Y
2246	A	PRV O/E	L	57.63	21	1	SUPER STILL	P-207C/D	COOLER OUTLET RELIEF VALVE	LO SEP BOTTOM DISCHARGE	DTM
2258	Q	V O/E	L	57.63	21	1	LO SEP	T-208B	LO SEPARATOR BOTTOM DRAIN		Y
2257	Q	V	L	57.63	21	1	LO SEP	T-208B	LO SEPARATOR BOTTOM DRAIN	LO SEP BOTTOM DISCHARGE	Y
2229	Q	V	L	57.63	21	1	LO SEP	T-208B	LO SEPARATOR BOTTOM DRAIN,2ND VALVE	LO SEP BOTTOM DISCHARGE	Y
2230	Q	V O/E	L	57.63	21	1	LO SEP	T-208B	LO SEPARATOR BOTTOM DRAIN,3RD VALVE	LO SEP BOTTOM DISCHARGE	Y
2231	Q	V O/E	L	57.63	21	1	LO SEP	T-208B	LO SEPARATOR BOTTOM DRAIN	LO SEP BOTTOM DISCHARGE	Y
2256	Q	V	L	57.63	21	1	LO SEP	T-208B	LO SEPARATOR BOTTOM DRAIN BLOCKING	LO SEP BOTTOM DISCHARGE	Y
2255	Q	V O/E	L	57.63	21	1	LO SEP	T-208B	LO SEPARATOR BOTTOM DRAIN	LO SEP BOTTOM DISCHARGE	Y
2259	A	V O/E	L	57.63	21	1	LO SEP	T-208B	SPIRAL COOLER FEED BLOCKING VALVE		DTM
2260	A	V O/E	L	57.63	21	1	LO SEP	T-208B	SIGHT GLASS/LEVEL CONTROL VALVE	Reachable from catwalk on East Side	DTM
2266	A	V	L	57.63	21	1	LO SEP	T-208B	PRESSURE RELIEF VALVE BLOCKING VALVE	Reachable from 2nd Level w/ extension	DTM
2267	A	PRV O/E	L	57.63	21	1	LO SEP	T-208B	PRESSURE RELIEF VALVE	Reachable from 2nd Level w/ extension	DTM
2270	Q	V	L	57.63	21	1	PUMP	P-207G	INLET BLOCKING		Y
2271	M	P	L	57.63	21	1	PUMP	P-207G	PUMP SEAL	BELOW T-208B	Y
2272	Q	V	L	57.63	21	1	PUMP	P-207G	OUTLET BLOCKING		Y
2274	Q	V	L	57.63	21	1	PUMP	P-207H	INLET BLOCKING	GROUND LEVEL	Y
2275	M	P	L	57.63	21	1	PUMP	P-207H	PUMP SEAL	BELOW T-208B	Y
2276	Q	V	L	57.63	21	1	PUMP	P-207H	LO RECIRCULATION AND TRANSFER LOOP VALVE		Y
2277	Q	V	L	57.63	21	1	LO SEP	T-208B	LO RECIRCULATION AND TRANSFER LOOP VALVE		Y
2279	Q	V	L	57.63	21	1	LO SEP	T-208B	LO RECIRCULATION AND TRANSFER LOOP VALVE		Y
2281	Q	V	L	57.63	21	1	LO SEP	T-208B	LO RECIRCULATION AND TRANSFER LOOP VALVE		Y
2284	Q	V	L	57.63	21	1	LO SEP	T-208B	LO RECIRCULATION AND TRANSFER LOOP VALVE		Y
2282	Q	V	L	57.63	21	1	LO SEP	T-208B	LO RECIRCULATION AND TRANSFER LOOP VALVE CLEANOUT		Y
2285	Q	V	L	57.63	21	1	LO SEP	T-208B	TRANSFER LOOP BYPASS VALVE		Y
2273	Q	V	L	57.63	21	1	LO SEP	T-208B	LINE LEADING OVER ROADWAY	4' HIGH	Y

2286	UTM	V O/E	L	57.63	21	1	LO SEP	T-208B	LO RETURN DRAIN VALVE OVER ROADWAY	15' UP	N
2290	N/A(vac)	PRV O/E	GV	5.4	21	1	SUPER STILL	T-207	RELIEF VALVE	TOP OF STILL	N
2291	N/A(vac)	V O/E	GV	5.4	21	2	SUPER STILL	T-207	CONTROL STATION BLOCKING VALVE TO MVM	TOP OF STILL	Y
2292	N/A(vac)	V	GV	5.4	21	2	SUPER STILL	T-207	CONTROL VALVE TO MVM	TOP OF STILL	Y
2293	N/A(vac)	V	GV	5.4	21	2	SUPER STILL	T-207	CONTROL STATION BLOCKING VALVE TO MVM	TOP OF STILL	Y
2294	N/A(vac)	V	GV	5.4	21	2	SUPER STILL	T-207	MVM BLOCKING	TOP OF STILL	Y
2295	N/A(vac)	V	GV	5.4	21	2	SUPER STILL	T-207	MVM BYPASS VALVE	TOP OF STILL	Y
2296	N/A(vac)	V	GV	5.4	21	2	SUPER STILL	T-207	BLOCKING VALVE LINE TO MVM	TOP OF STILL	Y
	A,V,O	C(x5)	L	57.63	21	1		T-208A/B	MANWAYS AND BLIND FLANGES W/O IDENTIFICATION		N

ED_002508A_00000154-00026

TABLE 22
REGISTRATION OF COMPONENTS IN BENZENE SERVICE
SUPER STILL AREA

42 Quarterly Components, 12 Annual Components

Tag Identification	Monitoring Frequency	Component Type	Phase	Benzene Concentration	Figure #	Control Room		
221								
2300	Q	V	L	57.63	22	1	SUPER STILL	SPIRAL 1
2301	Q	V O/E	L	57.63	22	1	SUPER STILL	SPIRAL 1
2302	Q	V O/E	L	57.63	22	1	SUPER STILL	SPIRAL 1
2303	Q	V	L	57.63	22	1	SUPER STILL	SPIRAL 1
2304	Q	V	L	57.63	22	1	SUPER STILL	SPIRAL 1
2305	Q	V O/E	L	57.63	22	1	SUPER STILL	SPIRAL 1
2306	Q	V O/E	L	57.63	22	1	SUPER STILL	SPIRAL 1
2307	Q	V	L	57.63	22	1	SUPER STILL	SPIRAL 2
2308	Q	V O/E	L	57.63	22	1	SUPER STILL	SPIRAL 2
2309	Q	V O/E	L	57.63	22	1	SUPER STILL	SPIRAL 2
2310	Q	V	L	57.63	22	1	SUPER STILL	SPIRAL 2
2311	Q	V	L	57.63	22	1	SUPER STILL	SPIRAL 3
2312	Q	V O/E	L	57.63	22	1	SUPER STILL	SPIRAL 3
2313	Q	V O/E	L	57.63	22	1	SUPER STILL	SPIRAL 3
2314	Q	V	L	57.63	22	1	SUPER STILL	SPIRAL 3
2315	Q	V	L	57.63	22	1	SUPER STILL	SPIRAL 4
2316	Q	V O/E	L	57.63	22	1	SUPER STILL	SPIRAL 4
2317	Q	V	L	57.63	22	1	SUPER STILL	SPIRAL 4
2318	Q	V O/E	L	57.63	22	1	SUPER STILL	SPIRAL 4
2319	Q	V	L	57.63	22	1	SUPER STILL	SPIRAL 5
2320	Q	V O/E	L	57.63	22	1	SUPER STILL	SPIRAL 5
2321	Q	V O/E	L	57.63	22	1	SUPER STILL	SPIRAL 5
2323	Q	V	L	57.63	22	1	SUPER STILL	SPIRAL 5
2324	Q	V	L	57.63	22	1	SUPER STILL	SPIRAL 6
2325	Q	V O/E	L	57.63	22	1	SUPER STILL	SPIRAL 6
2326	Q	V O/E	L	57.63	22	1	SUPER STILL	SPIRAL 6
2327	Q	V	L	57.63	22	1	SUPER STILL	SPIRAL 6
2328	Q	V O/E	L	57.63	22	1	SUPER STILL	SPIRAL 6
2329	A	V	L	57.63	22	1	SUPER STILL	SPIRAL 7
2330	Q	V	L	57.63	22	1	SUPER STILL	SPIRAL 7
2331	Q	V O/E	L	57.63	22	1	SUPER STILL	SPIRAL 7
2332	Q	V O/E	L	57.63	22	1	SUPER STILL	SPIRAL 7
2333	A	V	L	57.63	22	1	SUPER STILL	SPIRAL 7
2334	A	V	L	57.63	22	1	SUPER STILL	SPIRAL 8
2335	Q	V O/E	L	57.63	22	1	SUPER STILL	SPIRAL 8
2336	Q	V O/E	L	57.63	22	1	SUPER STILL	SPIRAL 8
2337	A	V	L	57.63	22	1	SUPER STILL	SPIRAL 8
2338	A	V	L	57.63	22	1	SUPER STILL	SPIRAL 9
2339	Q	V O/E	L	57.63	22	1	SUPER STILL	SPIRAL 9
2340	Q	V O/E	L	57.63	22	1	SUPER STILL	SPIRAL 9
2341	A	V	L	57.63	22	1	SUPER STILL	SPIRAL 9
2342	A	V	L	57.63	22	1	SUPER STILL	SPIRAL 10
2343	Q	V O/E	L	57.63	22	1	SUPER STILL	SPIRAL 10
2344	Q	V O/E	L	57.63	22	1	SUPER STILL	SPIRAL 10
2345	A	V	L	57.63	22	1	SUPER STILL	SPIRAL 10
2346	A	V	L	57.63	22	1	SUPER STILL	SPIRAL 11
2347	Q	V O/E	L	57.63	22	1	SUPER STILL	SPIRAL 11

SUPER STILL LO VALVE	#1 IN	Y
SUPER STILL LO VALVE DRAIN	#1 IN	Y
SUPER STILL LO VALVE CLEANOUT	#1 IN	Y
SUPER STILL LO VALVE	#1 OUT	Y
SUPER STILL LO VALVE	#1 OUT	Y
SUPER STILL LO VALVE	#1 OUT	Y
SUPER STILL LO VALVE	#1 OUT	Y
SUPER STILL LO VALVE	#2 IN	Y
SUPER STILL LO VALVE DRAIN	#2 IN	Y
SUPER STILL LO VALVE	#2 OUT	Y
SUPER STILL LO VALVE	#2 OUT	Y
SUPER STILL LO VALVE	#3 IN	Y
SUPER STILL LO VALVE DRAIN	#3 IN	Y
SUPER STILL LO VALVE	#3 OUT	Y
SUPER STILL LO VALVE	#3 OUT	Y
SUPER STILL LO VALVE	#4 IN	Y
SUPER STILL LO VALVE DRAIN	#4 IN	Y
SUPER STILL LO VALVE	#4 OUT	Y
SUPER STILL LO VALVE CLEANOUT	#4 OUT	Y
SUPER STILL LO VALVE	#5 IN	Y
SUPER STILL LO VALVE DRAIN	#5 IN	Y
SUPER STILL LO VALVE CLEANOUT	#5 OUT	Y
SUPER STILL LO VALVE	#5 OUT	Y
SUPER STILL LO VALVE	#6 IN	Y
SUPER STILL LO VALVE DRAIN	#6 IN	Y
SUPER STILL LO VALVE CLEANOUT	#6 OUT	Y
SUPER STILL LO VALVE	#6 OUT	Y
SUPER STILL LO VALVE	#6 OUT	Y
SUPER STILL LO VALVE	#7 IN	DTM
SUPER STILL LO VALVE DRAIN	#7 IN	Y
SUPER STILL SPIRAL 7 INLET CLEANOUT	#7 IN	Y
SUPER STILL LO VALVE DRAIN	#7 OUT 8' UP	Y
SUPER STILL LO VALVE	#7 OUT	DTM
SUPER STILL LO VALVE	#8 IN	DTM
SUPER STILL LO VALVE DRAIN	#8 IN	Y
SUPER STILL LO VALVE DRAIN	#8 OUT 8'UP	Y
SUPER STILL LO VALVE	#8 OUT	DTM
SUPER STILL LO VALVE	#9 IN	DTM
SUPER STILL LO VALVE DRAIN	#9 IN	Y
SUPER STILL LO VALVE DRAIN	#9 OUT 8' UP	Y
SUPER STILL LO VALVE	#9 OUT	DTM
SUPER STILL LO VALVE	#10 IN	DTM
SUPER STILL LO VALVE DRAIN	#10 IN	Y
SUPER STILL LO VALVE DRAIN	#10 OUT 8' UP	Y
SUPER STILL LO VALVE	#10 OUT	DTM
SUPER STILL LO VALVE	#11 IN	DTM
SUPER STILL LO VALVE	#11 IN	Y

2348	Q	V O/E	L	57.63	22	1	SUPER STILL	SPIRAL 11	SUPER STILL LO VALVE DRAIN	#11 OUT 8' UP	Y
2349	A	V	L	57.63	22	1	SUPER STILL	SPIRAL 11	SUPER STILL LO VALVE	#11 OUT	DTM
2350	A	V	L	57.63	22	1	SUPER STILL	SPIRAL 12	SUPER STILL LO VALVE	#12 IN	DTM
2352	Q	V O/E	L	57.63	22	1	SUPER STILL	SPIRAL 12	SUPER STILL SPIRAL 12 INLET CLEANOUT	#12 IN	Y
2353	Q	V O/E	L	57.63	22	1	SUPER STILL	SPIRAL 12	SUPER STILL LO VALVE DRAIN	#12 OUT	Y

TABLE 23
REGISTRATION OF COMPONENTS IN BENZENE SERVICE
VACUUM MACHINE C-500

Tag Identification	Monitoring Frequency	Component Type	Phase	Figure #	Control Room				
0231		**STEAM EDUCTOR SYSTEM**							
3099	Q	EXH	G	23	2	VAC MACH	C-500	VACUUM MACHINE C-500 EXHAUSTER SHAFT AND SEAL	EXHAUSTER SEAL	Y
3000	N/A(vac)	V	GV	23	2	VAC MACH	C-500	STEAM EDUCTOR LINE	STEAM	Y
3001	N/A(vac)	V O/E	GV	23	2	VAC MACH	C-500	STEAM EDUCTOR LINE CLEANOUT	STEAM	Y
3002	N/A(vac)	V	GV	23	2	VAC MACH	C-500	STEAM EDUCTOR LINE	STEAM	Y
3003	N/A(vac)	V	GV	23	2	VAC MACH	C-500	STEAM EDUCTOR LINE	STEAM	Y
3004	N/A(vac)	V O/E	GV	23	2	VAC MACH	C-500	STEAM EDUCTOR LINE	STEAM	Y
3005	N/A(vac)	C	GV	23	2	VAC MACH	C-500	STEAM EDUCTOR LINE GAUGE	STEAM	Y
3006	N/A(vac)	V	GV	23	2	VAC MACH	C-500	STEAM EDUCTOR PRESSURE TAP	STEAM	Y
3007	N/A(vac)	V	GV	23	2	VAC MACH	C-500	STEAM EDUCTOR PRESSURE TAP	STEAM	Y
3008	N/A(vac)	C	GV	23	2	VAC MACH	C-500	STEAM EDUCTOR LINE GAUGE	STEAM	Y
3009	N/A(vac)	V	GV	23	2	VAC MACH	C-500	STEAM EDUCTOR PRESSURE TAP	STEAM	Y
3010	N/A(vac)	C	GV	23	2	VAC MACH	C-500	STEAM EDUCTOR GAUGE	STEAM	Y
3011	N/A(vac)	V	GV	23	2	VAC MACH	C-500	STEAM EDUCTOR LINE	STEAM	Y
0232		**SEAL OIL RETURN SYSTEM**							
3020	Q	V O/E	G	23	2	VAC MACH	C-500	SEAL OIL RETURN VALVE	SEAL OIL	Y
3021	A,V,O	C(x2)	G	23	2	VAC MACH	C-500	SEAL OIL RETURN SIGHT GLASS	SEAL OIL	Y
3022	Q	V O/E	G	23	2	VAC MACH	C-500	SEAL OIL RETURN VALVE	SEAL OIL	Y
3023	A,V,O	C(x2)	G	23	2	VAC MACH	C-500	SEAL OIL RETURN SIGHT GLASS	SEAL OIL	Y
3024	Q	V O/E	G	23	2	VAC MACH	C-500	SEAL OIL RETURN VALVE	SEAL OIL	Y
3025	A,V,O	C(x2)	G	23	2	VAC MACH	C-500	SEAL OIL RETURN SIGHT GLASS	SEAL OIL	Y
3026	Q	V O/E	G	23	2	VAC MACH	C-500	SEAL OIL RETURN VALVE	SEAL OIL	Y
3027	A,V,O	C(x2)	G	23	2	VAC MACH	C-500	SEAL OIL RETURN SIGHT GLASS	SEAL OIL	Y
0303		**RECYCLE SYSTEM**							
3030	Q	V O/E	G	23	2	VAC MACH	C-500	EXHAUST SEAL GAS RECYCLE LINE DRAIN	RECYCLE	Y
3031	Q	V O/E	G	23	2	VAC MACH	C-500	EXHAUST SEAL GAS RECYCLE LINE VALVE	RECYCLE	Y
3032	Q	V O/E	G	23	2	VAC MACH	C-500	EXHAUST SEAL GAS RECYCLE LINE VALVE	RECYCLE	Y
3033	Q	V	G	23	2	VAC MACH	C-500	EXHAUST SEAL GAS RECYCLE LINE VALVE	RECYCLE	Y
0304		**SAFETY AND CLEANOUT SYSTEM**							
3040	N/A(vac)	V O/E	GV	23	2	VAC MACH	C-500	FIRST STAGE CLEANOUT	SAFETY	Y
3041	N/A(vac)	V	GV	23	2	VAC MACH	C-500	FIRST STAGE SAFETY WATER	SAFETY	Y
3042	N/A(vac)	V O/E	GV	23	2	VAC MACH	C-500	FIRST STAGE SAFETY WATER CLEANOUT	SAFETY	Y
3043	Q	V	G	23	2	VAC MACH	C-500	SECOND STAGE SAFETY WATER	SAFETY	Y
0305		**SEAL OIL INLET SYSTEM**							
3050	A,V,O	C	G	23	2	VAC MACH	C-500	SEAL OIL INLET GAUGE	SEAL OIL	Y
3051	Q	V	G	23	2	VAC MACH	C-500	SEAL OIL INLET PRESSURE TAP	SEAL OIL	Y
3052	Q	V O/E	G	23	2	VAC MACH	C-500	SEAL OIL INLET	SEAL OIL	Y
3053	Q	V	G	23	2	VAC MACH	C-500	SEAL OIL INLET	SEAL OIL	Y
3054	Q	V	G	23	2	VAC MACH	C-500	SEAL OIL INLET	SEAL OIL	Y
3055	Q	V O/E	G	23	2	VAC MACH	C-500	SEAL OIL INLET	SEAL OIL	Y
3056	Q	V	G	23	2	VAC MACH	C-500	SEAL OIL INLET	SEAL OIL	Y
3057	Q	V O/E	G	23	2	VAC MACH	C-500	SEAL OIL INLET	SEAL OIL	Y
3058	Q	V	G	23	2	VAC MACH	C-500	SEAL OIL INLET	SEAL OIL	Y
3059	A,V,O	C	G	23	2	VAC MACH	C-500	SEAL OIL INLET PRESSURE TAP	SEAL OIL	Y
0306		**INJECTION WATER SYSTEM**						SEAL OIL INLET GAUGE	SEAL OIL	Y
3070	Q	V	G	23	2	VAC MACH	C-500	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
3071	Q	V	G	23	2	VAC MACH	C-500	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
3072	Q	V	G	23	2	VAC MACH	C-500	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
3073	Q	V	G	23	2	VAC MACH	C-500	INJECTION WATER SECOND STAGE	INJECTION WAT	Y
3074	Q	V	G	23	2	VAC MACH	C-500	INJECTION WATER SECOND STAGE CONTROL VALVE	INJECTION WAT	Y
3075	Q	V	G	23	2	VAC MACH	C-500	INJECTION WATER SECOND STAGE	INJECTION WAT	Y
3076	UTM	V	G	23	2	VAC MACH	C-500	INJECTION WATER SECOND STAGE	INJECTION WAT	UTM
3077	Q	V	G	23	2	VAC MACH	C-500	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
3078	Q	V O/E	G	23	2	VAC MACH	C-500	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
3079	Q	V	G	23	2	VAC MACH	C-500	INJECTION WATER FIRST STAGE CONTROL VALVE	INJECTION WAT	Y

0307	HEADER SYSTEM									
3080	N/A(vac)	V	GV	23	2	VAC MACH	C-500	SUB GAS SUCTION HEADER BLOCK	IN / OUT	N
3081	N/A(vac)	V	GV	23	2	VAC MACH	C-500	SUB GAS BYPASS VALVE	IN / OUT	N
3082	UTM	V	G	23	2	VAC MACH	C-500	SUB GAS DISCHARGE CHECK	IN / OUT	UTM
3083	UTM	V	G	23	2	VAC MACH	C-500	SUB GAS DISCHARGE HEADER BLOCK	IN / OUT	UTM
3084	UTM	V O/E	G	23	2	VAC MACH	C-500	SUB GAS DISCHARGE CLEANOUT	IN / OUT	UTM
3085	UTM	V	G	23	2	VAC MACH	C-500	SUB GAS DISCHARGE BLOCK	IN / OUT	UTM
3090	UTM	PRV	G	23	2	VAC MACH	C-500	PRESSURE RELIEF VALVE	IN / OUT	UTM

TABLE 24
REGISTRATION OF COMPONENTS IN BENZENE SERVICE
VACUUM MACHINE C-503

Tag Identification	Monitoring Frequency	Component Type	Phase	Figure #	Control Room				
0241		**STEAM EDUCTOR SYSTEM**							
3099	Q	EXH	G	24	2	VAC MACH	C-503	VACUUM MACHINE C-503 EXHAUSTER SHAFT AND SEAL	EXHAUSTER SEAL	Y
3100	N/A(vac)	V	GV	24	2	VAC MACH	C-503	STEAM EDUCTOR LINE VALVE	STEAM	Y
3101	N/A(vac)	V	GV	24	2	VAC MACH	C-503	STEAM EDUCTOR LINE VALVE	STEAM	Y
3102	N/A(vac)	V	GV	24	2	VAC MACH	C-503	STEAM EDUCTOR LINE VALVE	STEAM	Y
3103	N/A(vac)	V	GV	24	2	VAC MACH	C-503	STEAM EDUCTOR LINE VALVE	STEAM	Y
3104	N/A(vac)	V	GV	24	2	VAC MACH	C-503	STEAM EDUCTOR LINE VALVE	STEAM	N
3106	N/A(vac)	V	GV	24	2	VAC MACH	C-503	STEAM EDUCTOR LINE PRESSURE TAP	STEAM	Y
3107	N/A(vac)	G	GV	24	2	VAC MACH	C-503	STEAM EDUCTOR LINE GAUGE	STEAM	Y
3108	N/A(vac)	V	GV	24	2	VAC MACH	C-503	STEAM EDUCTOR LINE VALVE	STEAM	Y
0242		**SEAL OIL RETURN SYSTEM**							
3120	Q	V O/E	G	24	2	VAC MACH	C-503	SEAL OIL RETURN CLEANOUT VALVE	SEAL OIL	Y
3121	A,V,O	C(x2)	G	24	2	VAC MACH	C-503	SEAL OIL RETURN SIGHT GLASS	SEAL OIL	Y
3122	Q	V O/E	G	24	2	VAC MACH	C-503	SEAL OIL RETURN	SEAL OIL	Y
3123	A,V,O	C(x2)	G	24	2	VAC MACH	C-503	SEAL OIL RETURN SIGHT GLASS	SEAL OIL	Y
3124	Q	V O/E	G	24	2	VAC MACH	C-503	SEAL OIL RETURN	SEAL OIL	Y
3125	A,V,O	C(x2)	G	24	2	VAC MACH	C-503	SEAL OIL RETURN SIGHT GLASS	SEAL OIL	Y
3126	Q	V O/E	G	24	2	VAC MACH	C-503	SEAL OIL RETURN	SEAL OIL	Y
3127	A,V,O	C(x2)	G	24	2	VAC MACH	C-503	SEAL OIL RETURN SIGHT GLASS	SEAL OIL	Y
0243		**RECYCLE SYSTEM**							
3130	Q	V	G	24	2	VAC MACH	C-503	EXHAUST SEAL GAS RECYCLE LINE DRAIN	RECYCLE	Y
3131	Q	V O/E	G	24	2	VAC MACH	C-503	EXHAUST SEAL GAS RECYCLE LINE	RECYCLE	Y
3132	Q	V O/E	G	24	2	VAC MACH	C-503	EXHAUST SEAL GAS RECYCLE LINE	RECYCLE	Y
3133	Q	V	G	24	2	VAC MACH	C-503	EXHAUST SEAL GAS RECYCLE LINE	RECYCLE	Y
0244		**SAFETY AND CLEANOUT SYSTEM**							
3140	N/A(vac)	V O/E	GV	24	2	VAC MACH	C-503	FIRST STAGE INLET CLEANOUT	SAFETY	Y
3141	N/A(vac)	V	GV	24	2	VAC MACH	C-503	FIRST STAGE SAFETY WATER	SAFETY	Y
3142	N/A(vac)	V O/E	GV	24	2	VAC MACH	C-503	FIRST STAGE SAFETY WATER	SAFETY	Y
0245		**SEAL OIL INLET SYSTEM**							
3150	A,V,O	C	G	24	2	VAC MACH	C-503	SEAL OIL INLET GAUGE	SEAL OIL	Y
3151	Q	V	G	24	2	VAC MACH	C-503	SEAL OIL INLET PRESSURE TAP	SEAL OIL	Y
3152	Q	V O/E	G	24	2	VAC MACH	C-503	SEAL OIL INLET VALVE GREASE FITTING	SEAL OIL	Y
3153	Q	V	G	24	2	VAC MACH	C-503	SEAL OIL INLET VALVE	SEAL OIL	Y
3154	Q	V	G	24	2	VAC MACH	C-503	SEAL OIL INLET VALVE	SEAL OIL	Y
3155	Q	V	G	24	2	VAC MACH	C-503	SEAL OIL INLET VALVE GREASE FITTING	SEAL OIL	Y
3156	Q	V	G	24	2	VAC MACH	C-503	SEAL OIL INLET PRESSURE TAP	SEAL OIL	Y
3157	A,V,O	C	G	24	2	VAC MACH	C-503	SEAL OIL INLET GAUGE	SEAL OIL	Y
0246		**INJECTION/SAFETY WATER SYSTEM**							
3170	Q	V	G	24	2	VAC MACH	C-503	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
3171	Q	V	G	24	2	VAC MACH	C-503	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
3172	Q	V O/E	G	24	2	VAC MACH	C-503	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
3173	Q	V	G	24	2	VAC MACH	C-503	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
3174	Q	V	G	24	2	VAC MACH	C-503	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
3159	Q	V	G	24	2	VAC MACH	C-503	INJECTION WATER SECOND STAGE	INJECTION WAT	Y
3160	Q	V O/E	G	24	2	VAC MACH	C-503	INJECTION WATER SECOND STAGE	INJECTION WAT	Y
3161	Q	V	G	24	2	VAC MACH	C-503	INJECTION WATER SECOND STAGE	INJECTION WAT	Y
3175	Q	V O/E	G	24	2	VAC MACH	C-503	SAFETY WATER SECOND STAGE	SAFETY WAT	Y
3176	Q	V	G	24	2	VAC MACH	C-503	SAFETY WATER SECOND STAGE	SAFETY WAT	Y
3177	Q	V	G	24	2	VAC MACH	C-503	SAFETY WATER SECOND STAGE	SAFETY WAT	Y
3178	Q	V	G	24	2	VAC MACH	C-503	SAFETY WATER SECOND STAGE	SAFETY WAT	Y
3179	UTM	V	G	24	2	VAC MACH	C-503	SAFETY WATER SECOND STAGE	SAFETY WAT	UTM
0247		**HEADER SYSTEM**							
3180	N/A(vac)	V	GV	24	2	VAC MACH	C-503	SUB GAS INLET HEADER BLOCKING VALVE	IN / OUT	N
3181	N/A(vac)	V	GV	24	2	VAC MACH	C-503	SUB GAS BYPASS VALVE	IN / OUT	N
3182	UTM	V	G	24	2	VAC MACH	C-503	SUB GAS DISCHARGE CHECK VALVE	IN / OUT	UTM
3183	UTM	V	G	24	2	VAC MACH	C-503	SUB GAS DISCHARGE BLOCKING VALVE	IN / OUT	UTM
3184	UTM	V O/E	G	24	2	VAC MACH	C-503	SUB GAS DISCHARGE CLEAN OUT	IN / OUT	UTM
3185	UTM	V	G	24	2	VAC MACH	C-503	SUB GAS DISCHARGE HEADER BLOCKING VALVE	IN / OUT	UTM
3186	UTM	V	G	24	2	VAC MACH	C-503	FIRST/SECOND STAGE CROSSOVER CLEANOUT	IN / OUT	UTM
3187	UTM	V	G	24	2	VAC MACH	C-503	FIRST/SECOND STAGE CROSSOVER CLEANOUT	IN / OUT	UTM
3190	UTM	PRV	G	24	2	VAC MACH	C-503	PRESSURE RELIEF VALVE	IN / OUT	UTM

ED_002508A_00000154-00031

TABLE 25
REGISTRATION OF COMPONENTS IN BENZENE SERVICE
VACUUM MACHINE C-506

Tag Identification	Monitoring Frequency	Component Type	Phase	Figure #	Control Room				
0251		**STEAM EDUCTOR SYSTEM**							
3299	Q	EXH	G	25	2	VAC MACH	C-506	VACUUM MACHINE C-506 EXHAUSTER SHAFT AND SEAL	EXHAUSTER SEAL	Y
3200	N/A(vac)	V	GV	25	2	VAC MACH	C-506	STEAM EDUCTOR LINE VALVE	STEAM	Y
3201	N/A(vac)	V	GV	25	2	VAC MACH	C-506	STEAM EDUCTOR LINE VALVE	STEAM	Y
3202	N/A(vac)	V	GV	25	2	VAC MACH	C-506	STEAM EDUCTOR LINE VALVE	STEAM	Y
3203	N/A(vac)	V O/E	GV	25	2	VAC MACH	C-506	STEAM EDUCTOR LINE VALVE	STEAM	Y
3204	N/A(vac)	V O/E	GV	25	2	VAC MACH	C-506	STEAM EDUCTOR LINE VALVE	STEAM	Y
3207	N/A(vac)	V O/E	GV	25	2	VAC MACH	C-506	STEAM EDUCTOR LINE VALVE	STEAM	Y
3208	N/A(vac)	V	GV	25	2	VAC MACH	C-506	STEAM EDUCTOR LINE VALVE	STEAM	Y
3209	N/A(vac)	C	GV	25	2	VAC MACH	C-506	STEAM EDUCTOR LINE GAUGE	STEAM	Y
0252		**SEAL OIL RETURN SYSTEM**							
3220	Q	V O/E	G	25	2	VAC MACH	C-506	SEAL OIL RETURN	SEAL OIL	Y
3221	A,V,O	C(x2)	G	25	2	VAC MACH	C-506	SEAL OIL RETURN SIGHT GLASS	SEAL OIL	Y
3222	Q	V O/E	G	25	2	VAC MACH	C-506	SEAL OIL RETURN	SEAL OIL	Y
3223	A,V,O	C(x2)	G	25	2	VAC MACH	C-506	SEAL OIL RETURN SIGHT GLASS	SEAL OIL	Y
3224	Q	V O/E	G	25	2	VAC MACH	C-506	SEAL OIL RETURN	SEAL OIL	Y
3225	A,V,O	C(x2)	G	25	2	VAC MACH	C-506	SEAL OIL RETURN SIGHT GLASS	SEAL OIL	Y
3226	Q	V O/E	G	25	2	VAC MACH	C-506	SEAL OIL RETURN	SEAL OIL	Y
3227	A,V,O	C(x2)	G	25	2	VAC MACH	C-506	SEAL OIL RETURN SIGHT GLASS	SEAL OIL	Y
0253		**RECYCLE SYSTEM**							
3230	Q	V O/E	G	25	2	VAC MACH	C-506	EXHAUST SEAL GAS RECYCLE LINE DRAIN	RECYCLE	Y
3231	Q	V O/E	G	25	2	VAC MACH	C-506	EXHAUST SEAL GAS RECYCLE LINE	RECYCLE	Y
3232	Q	V	G	25	2	VAC MACH	C-506	EXHAUST SEAL GAS RECYCLE LINE	RECYCLE	Y
0254		**SAFETY AND CLEANOUT SYSTEM**							
3240	N/A(vac)	V O/E	GV	25	2	VAC MACH	C-506	FIRST STAGE INLET CLEANOUT O/E VALVE	SAFETY	Y
3241	N/A(vac)	V	GV	25	2	VAC MACH	C-506	FIRST STAGE INLET CLEANOUT	SAFETY	Y
3242	N/A(vac)	V	GV	25	2	VAC MACH	C-506	FIRST STAGE SAFETY WATER	SAFETY	Y
3243	Q	V	G	25	2	VAC MACH	C-506	SECOND STAGE SAFETY WATER	SAFETY	Y
3244	Q	V O/E	G	25	2	VAC MACH	C-506	SECOND STAGE SAFETY WATER CLEANOUT	SAFETY	Y
0255		**SEAL OIL INLET SYSTEM**							
3250	A,V,O	C	G	25	2	VAC MACH	C-506	SEAL OIL INLET PRESSURE GAUGE	SEAL OIL	Y
3251	Q	V	G	25	2	VAC MACH	C-506	SEAL OIL PRESSURE TAP	SEAL OIL	Y
3252	Q	V	G	25	2	VAC MACH	C-506	SEAL OIL BLOCKING	SEAL OIL	Y
3253	Q	V	G	25	2	VAC MACH	C-506	SEAL OIL INLET LINE VALVE	SEAL OIL	Y
3254	Q	V	G	25	2	VAC MACH	C-506	SECOND STAGE SAFETY WATER	SEAL OIL	Y
3255	A,V,O	C	G	25	2	VAC MACH	C-506	SEAL OIL INLET GAUGE	SEAL OIL	Y
0256		**INJECTION WATER SYSTEM**							
3270	Q	V	G	25	2	VAC MACH	C-506	INJECTION WATER SECOND STAGE	INJECTION WAT	Y
3271	Q	V	G	25	2	VAC MACH	C-506	INJECTION WATER SECOND STAGE	INJECTION WAT	Y
3272	UTM	V	G	25	2	VAC MACH	C-506	INJECTION WATER SECOND STAGE	INJECTION WAT	UTM
3273	Q	V	G	25	2	VAC MACH	C-506	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
3274	Q	V	G	25	2	VAC MACH	C-506	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
3275	Q	V	G	25	2	VAC MACH	C-506	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
3276	Q	V	G	25	2	VAC MACH	C-506	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
3277	Q	V	G	25	2	VAC MACH	C-506	INJECTION WATER SECOND STAGE	INJECTION WAT	Y
0257		**HEADER SYSTEM**							
3280	N/A(vac)	V	GV	25	2	VAC MACH	C-506	SUB GAS SUCTION HEADER BLOCKING VALVE	IN/OUT	N
3281	N/A(vac)	V	GV	25	2	VAC MACH	C-506	SUB GAS RECYCLE VALVE	IN/OUT	N
3282	UTM	V	G	25	2	VAC MACH	C-506	SUB GAS DISCHARGE CHECK VALVE	IN/OUT	UTM
3283	UTM	V	G	25	2	VAC MACH	C-506	SUB GAS DISCHARGE BLOCKING VALVE	IN/OUT	UTM
3284	UTM	V O/E	G	25	2	VAC MACH	C-506	SUB GAS DISCHARGE CLEANOUT VALVE	IN/OUT	UTM
3285	UTM	V	G	25	2	VAC MACH	C-506	SUB GAS DISCHARGE BLOCKING VALVE	IN/OUT	UTM
3290	UTM	PRV	G	25	2	VAC MACH	C-506	PRESSURE RELIEF VALVE	IN/OUT	UTM

ED_002508A_00000154-00032

TABLE 26
REGISTRATION OF COMPONENTS IN BENZENE SERVICE
VACUUM MACHINE C-509

Tag Identification	Monitoring Frequency	Component Type	Phase	Figure #	Control Room				
0261		**STEAM EDUCTOR SYSTEM**							
3299	Q	EXH	G	26	2	VAC MACH	C-509	VACUUM MACHINE C-509 EXHAUSTER SHAFT AND SEAL	EXHAUSTER SEAL	Y
3300	N/A(vac)	V	GV	26	2	VAC MACH	C-509	STEAM EDUCTOR LINE VALVE	STEAM	Y
3301	N/A(vac)	V	GV	26	2	VAC MACH	C-509	STEAM EDUCTOR LINE VALVE	STEAM	Y
3302	N/A(vac)	V	GV	26	2	VAC MACH	C-509	STEAM EDUCTOR LINE VALVE	STEAM	Y
3303	N/A(vac)	V O/E	GV	26	2	VAC MACH	C-509	STEAM EDUCTOR LINE VALVE	STEAM	Y
3304	N/A(vac)	V O/E	GV	26	2	VAC MACH	C-509	STEAM EDUCTOR LINE VALVE	STEAM	Y
3305	N/A(vac)	V	GV	26	2	VAC MACH	C-509	STEAM EDUCTOR LINE PRESSURE TAP	STEAM	Y
3306	N/A(vac)	C	GV	26	2	VAC MACH	C-509	STEAM EDUCTOR LINE GAUGE	STEAM	Y
3307	N/A(vac)	V	GV	26	2	VAC MACH	C-509	STEAM EJECTOR LINE VALVE	STEAM	N
3308	N/A(vac)	V	GV	26	2	VAC MACH	C-509	STEAM EDUCTOR LINE PRESSURE TAP	STEAM	Y
3309	N/A(vac)	C	GV	26	2	VAC MACH	C-509	STEAM EDUCTOR LINE GAUGE	STEAM	Y
3310	N/A(vac)	C	GV	26	2	VAC MACH	C-509	STEAM EDUCTOR LINE GAUGE	STEAM	Y
3311	N/A(vac)	V	GV	26	2	VAC MACH	C-509	STEAM EDUCTOR LINE PRESSURE TAP	STEAM	Y
0262		**SEAL OIL RETURN SYSTEM**								
3320	Q	V O/E	G	26	2	VAC MACH	C-509	SEAL OIL RETURN	SEAL OIL	Y
3321	A,V,O	C(x2)	G	26	2	VAC MACH	C-509	SEAL OIL RETURN SIGHT GLASS	SEAL OIL	Y
3322	Q	V O/E	G	26	2	VAC MACH	C-509	SEAL OIL RETURN	SEAL OIL	Y
3323	A,V,O	C(x2)	G	26	2	VAC MACH	C-509	SEAL OIL RETURN SIGHT GLASS	SEAL OIL	Y
3324	Q	V O/E	G	26	2	VAC MACH	C-509	SEAL OIL RETURN	SEAL OIL	Y
3325	A,V,O	C(x2)	G	26	2	VAC MACH	C-509	SEAL OIL RETURN SIGHT GLASS	SEAL OIL	Y
3326	A,V,O	C(x2)	G	26	2	VAC MACH	C-509	SEAL OIL RETURN SIGHT GLASS	SEAL OIL	Y
0263		**RECYCLE SYSTEM**								
3330	Q	V O/E	G	26	2	VAC MACH	C-509	EXHAUST SEAL GAS RECYCLE LINE DRAIN	RECYCLE	Y
3331	Q	V O/E	G	26	2	VAC MACH	C-509	EXHAUST SEAL GAS RECYCLE LINE	RECYCLE	Y
3332	Q	V O/E	G	26	2	VAC MACH	C-509	EXHAUST SEAL GAS RECYCLE LINE	RECYCLE	Y
3333	Q	V	G	26	2	VAC MACH	C-509	EXHAUST SEAL GAS RECYCLE LINE	RECYCLE	Y
0264		**SAFETY AND CLEANOUT SYSTEM**								
3340	N/A(vac)	V O/E	GV	26	2	VAC MACH	C-509	STAGE 1 INLET CLEANOUT		Y
3342	N/A(vac)	V	GV	26	2	VAC MACH	C-509	FIRST STAGE SAFETY WATER		Y
3343	Q	V	G	26	2	VAC MACH	C-509	SECOND STAGE SAFETY WATER		Y
3368	A,V,O	C	G	26	2	VAC MACH	C-509	SECOND STAGE EXHAUST GAUGE		Y
3369	Q	V	G	26	2	VAC MACH	C-509	SECOND STAGE DISCHARGE CLEANOUT		Y
0265		**SEAL OIL INLET SYSTEM**								
3350	A,V,O	C	G	26	2	VAC MACH	C-509	SEAL OIL INLET LINE GAUGE	SEAL OIL	Y
3351	Q	V O/E	G	26	2	VAC MACH	C-509	SEAL OIL INLET VALVE	SEAL OIL	Y
3352	Q	V	G	26	2	VAC MACH	C-509	SEAL OIL INLET LINE VALVE	SEAL OIL	Y
3353	Q	V	G	26	2	VAC MACH	C-509	SEAL OIL INLET VALVE	SEAL OIL	Y
3354	Q	V	G	26	2	VAC MACH	C-509	SEAL OIL INLET LINE VALVE	SEAL OIL	Y
3355	Q	V	G	26	2	VAC MACH	C-509	SEAL OIL INLET LINE VALVE	SEAL OIL	Y
3356	A,V,O	C	G	26	2	VAC MACH	C-509	SEAL OIL INLET GAUGE	SEAL OIL	Y
0266		**INJECTION WATER SYSTEM**								
3370	Q	V	G	26	2	VAC MACH	C-509	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
3371	Q	V	G	26	2	VAC MACH	C-509	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
3372	Q	V	G	26	2	VAC MACH	C-509	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
3373	Q	V O/E	G	26	2	VAC MACH	C-509	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
3374	Q	V	G	26	2	VAC MACH	C-509	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
3375	Q	V	G	26	2	VAC MACH	C-509	INJECTION WATER SECOND STAGE	INJECTION WAT	Y
3376	UTM	V	G	26	2	VAC MACH	C-509	INJECTION WATER SECOND STAGE	INJECTION WAT	UTM
3378	Q	V	G	26	2	VAC MACH	C-509	INJECTION WATER SECOND STAGE	INJECTION WAT	Y
3379	Q	V	G	26	2	VAC MACH	C-509	INJECTION WATER SECOND STAGE	INJECTION WAT	Y
0267		**HEADER SYSTEM**								
3380	N/A(vac)	V	GV	26	2	VAC MACH	C-509	SUB GAS SUCTION HEADER BLOCKING VALVE	IN/OUT	N
3381	N/A(vac)	V	GV	26	2	VAC MACH	C-509	SUB GAS BYPASS VALVE	IN/OUT	N
3382	UTM	V	G	26	2	VAC MACH	C-509	SUB GAS DISCHARGE CHECK VALVE	IN/OUT	UTM
3383	UTM	V	G	26	2	VAC MACH	C-509	SUB GAS DISCHARGE HEADER BLOCKING VALVE	IN/OUT	UTM
3384	UTM	V O/E	G	26	2	VAC MACH	C-509	SUB GAS DISCHARGE CLEANOUT VALVE	IN/OUT	UTM
3385	UTM	V	G	26	2	VAC MACH	C-509	SUB GAS DISCHARGE BLOCKING VALVE	IN/OUT	UTM
3390	UTM	PRV	G	26	2	VAC MACH	C-509	PRESSURE RELIEF VALVE		UTM

ED_002508A_00000154-00033

TABLE 27
REGISTRATION OF COMPONENTS IN BENZENE SERVICE
VACUUM MACHINE C-512

Tag Identification	Monitoring Frequency	Component Type	Phase	Figure #	Control Room				
0271		STEAM EDUCTOR SYSTEM							
3399	Q	EXH	G	27	2	VAC MACH	C-512	VACUUM MACHINE C-512 EXHAUSTER SHAFT AND SEAL	EXHAUSTER SEAL	Y
3400	N/A(vac)	V	GV	27	2	VAC MACH	C-512	STEAM EDUCTOR LINE VALVE	STEAM	Y
3401	N/A(vac)	V	GV	27	2	VAC MACH	C-512	STEAM EDUCTOR LINE VALVE	STEAM	Y
3402	N/A(vac)	V	GV	27	2	VAC MACH	C-512	STEAM EDUCTOR LINE VALVE	STEAM	Y
3403	N/A(vac)	V O/E	GV	27	2	VAC MACH	C-512	STEAM EDUCTOR LINE VALVE	STEAM	Y
3404	N/A(vac)	V O/E	GV	27	2	VAC MACH	C-512	STEAM EDUCTOR LINE VALVE	STEAM	Y
3405	N/A(vac)	C	GV	27	2	VAC MACH	C-512	STEAM EDUCTOR LINE GAUGE	STEAM	Y
3406	N/A(vac)	V	GV	27	2	VAC MACH	C-512	STEAM EDUCTOR LINE PRESSURE TAP	STEAM	Y
3407	N/A(vac)	V O/E	GV	27	2	VAC MACH	C-512	STEAM EDUCTOR LINE VALVE	STEAM	Y
0272		SEAL OIL RETURN SYSTEM							
3420	A,V,O	C(x2)	G	27	2	VAC MACH	C-512	SEAL OIL RETURN SIGHT GLASS	SEAL OIL	Y
3421	Q	V O/E	G	27	2	VAC MACH	C-512	SEAL OIL RETURN	SEAL OIL	Y
3422	A,V,O	C(x2)	G	27	2	VAC MACH	C-512	SEAL OIL RETURN SIGHT GLASS	SEAL OIL	Y
3423	Q	V O/E	G	27	2	VAC MACH	C-512	SEAL OIL RETURN	SEAL OIL	Y
3424	A,V,O	C(x2)	G	27	2	VAC MACH	C-512	SEAL OIL RETURN SIGHT GLASS	SEAL OIL	Y
3425	Q	V O/E	G	27	2	VAC MACH	C-512	SEAL OIL RETURN CLEANOUT	SEAL OIL	Y
3426	A,V,O	C(x2)	G	27	2	VAC MACH	C-512	SEAL OIL RETURN SIGHT GLASS	SEAL OIL	Y
0273		RECYCLE SYSTEM							
3430	Q	V O/E	GV	27	2	VAC MACH	C-512	EXHAUST SEAL GAS RECYCLE LINE DRAIN	RECYCLE	Y
3431	Q	V O/E	G	27	2	VAC MACH	C-512	EXHAUST SEAL GAS RECYCLE LINE	RECYCLE	Y
3432	Q	V O/E	G	27	2	VAC MACH	C-512	EXHAUST SEAL GAS RECYCLE LINE	RECYCLE	Y
3433	Q	V	G	27	2	VAC MACH	C-512	EXHAUST SEAL GAS RECYCLE LINE	RECYCLE	Y
0274		SAFETY AND CLEANOUT SYSTEM							
3440	N/A(vac)	V O/E	GV	27	2	VAC MACH	C-512	FIRST STAGE INLET CLEANOUT		Y
3441	N/A(vac)	V	GV	27	2	VAC MACH	C-512	FIRST STAGE SAFETY WATER		Y
3442	Q	V	G	27	2	VAC MACH	C-512	SECOND STAGE SAFETY WATER		Y
0275		SEAL OIL INLET SYSTEM							
3450	A,V,O	C	G	27	2	VAC MACH	C-512	SEAL OIL INLET GAUGE	SEAL OIL	Y
3451	Q	V O/E	G	27	2	VAC MACH	C-512	SEAL OIL INLET LINE CLEANOUT	SEAL OIL	Y
3452	Q	V	G	27	2	VAC MACH	C-512	SEAL OIL INLET PRESSURE TAP	SEAL OIL	Y
3453	Q	V	G	27	2	VAC MACH	C-512	SEAL OIL INLET VALVE	SEAL OIL	Y
3454	Q	V	G	27	2	VAC MACH	C-512	SEAL OIL INLET LINE VALVE	SEAL OIL	Y
3455	Q	V	G	27	2	VAC MACH	C-512	SEAL OIL INLET LINE PRESSURE TAP	SEAL OIL	Y
3456	A,V,O	C	G	27	2	VAC MACH	C-512	SEAL OIL INLET LINE GAUGE	SEAL OIL	Y
3469	UTM	V O/E	G	27	2	VAC MACH	C-512	FIRST/SECOND STAGE CROSSOVER CLEANOUT		UTM
0276		INJECTION WATER SYSTEM							
3470	Q	V	G	27	2	VAC MACH	C-512	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
3471	Q	V	G	27	2	VAC MACH	C-512	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
3472	Q	V	G	27	2	VAC MACH	C-512	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
3473	Q	V	G	27	2	VAC MACH	C-512	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
3475	Q	V O/E	G	27	2	VAC MACH	C-512	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
3476	Q	V O/E	G	27	2	VAC MACH	C-512	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
3477	Q	V	G	27	2	VAC MACH	C-512	INJECTION WATER SECOND STAGE	INJECTION WAT	Y
3478	Q	V	G	27	2	VAC MACH	C-512	INJECTION WATER SECOND STAGE	INJECTION WAT	Y
3479	UTM	V	G	27	2	VAC MACH	C-512	INJECTION WATER SECOND STAGE	INJECTION WAT	UTM
0277		HEADER SYSTEM							
3480	N/A(vac)	V	GV	27	2	VAC MACH	C-512	SUB GAS SUCTION HEADER BLOCKING VALVE	IN/OUT	N
3481	N/A(vac)	V	GV	27	2	VAC MACH	C-512	SUB GAS BYPASS VALVE	IN/OUT	N
3482	UTM	V	G	27	2	VAC MACH	C-512	SUB GAS DISCHARGE CHECK VALVE	IN/OUT	UTM
3483	UTM	V	G	27	2	VAC MACH	C-512	SUB GAS DISCHARGE BLOCKING VALVE	IN/OUT	UTM
3484	UTM	V O/E	G	27	2	VAC MACH	C-512	SUB GAS DISCHARGE CLEANOUT VALVE	IN/OUT	UTM
3485	UTM	V	G	27	2	VAC MACH	C-512	SUB GAS DISCHARGE HEADER BLOCKING VALVE	IN/OUT	UTM
3490	UTM	PRV	G	27	2	VAC MACH	C-512	PRESSURE RELIEF VALVE	IN/OUT	UTM

ED_002508A_00000154-00034

TABLE 28
REGISTRATION OF COMPONENTS IN BENZENE SERVICE
VACUUM MACHINE C-515

Tag Identification	Monitoring Frequency	Component Type	Phase	Figure #	Control Room				
0281		**STEAM EDUCTOR SYSTEM**							
3499	Q	EXH	G	28	2	VAC MACH	C-515	VACUUM MACHINE C-515 EXHAUSTER SHAFT AND SEAL	EXHAUSTER SEAL	Y
3500	N/A(vac)	N/A(vac)	GV	28	2	VAC MACH	C-515	STEAM EDUCTOR LINE VALVE	STEAM	Y
3501	N/A(vac)	V	GV	28	2	VAC MACH	C-515	STEAM EDUCTOR LINE VALVE	STEAM	Y
3502	N/A(vac)	V	GV	28	2	VAC MACH	C-515	STEAM EDUCTOR LINE VALVE	STEAM	Y
3503	N/A(vac)	V O/E	GV	28	2	VAC MACH	C-515	STEAM EDUCTOR LINE VALVE	STEAM	Y
3504	N/A(vac)	V O/E	GV	28	2	VAC MACH	C-515	STEAM EDUCTOR LINE VALVE	STEAM	Y
3505	N/A(vac)	C	GV	28	2	VAC MACH	C-515	STEAM EDUCTOR LINE GAUGE	STEAM	Y
3506	N/A(vac)	V	GV	28	2	VAC MACH	C-515	STEAM EDUCTOR LINE PRESSURE TAP	STEAM	Y
3507	N/A(vac)	V	GV	28	2	VAC MACH	C-515	STEAM EDUCTOR LINE PRESSURE TAP	STEAM	Y
3508	N/A(vac)	C	GV	28	2	VAC MACH	C-515	STEAM EDUCTOR LINE GAUGE	STEAM	Y
3509	N/A(vac)	C	GV	28	2	VAC MACH	C-515	STEAM EDUCTOR LINE GAUGE	STEAM	Y
3510	N/A(vac)	V	GV	28	2	VAC MACH	C-515	STEAM EDUCTOR LINE PRESSURE TAP	STEAM	Y
3511	N/A(vac)	V	GV	28	2	VAC MACH	C-515	STEAM EDUCTOR LINE VALVE	STEAM	N
0282		**SEAL OIL RETURN SYSTEM**							
3520	Q	V O/E	G	28	2	VAC MACH	C-515	SEAL OIL RETURN	SEAL OIL	Y
3521	A,V,O	C(x2)	G	28	2	VAC MACH	C-515	SEAL OIL RETURN SIGHT GLASS	SEAL OIL	Y
3522	Q	V O/E	G	28	2	VAC MACH	C-515	SEAL OIL RETURN	SEAL OIL	Y
3523	A,V,O	C(x2)	G	28	2	VAC MACH	C-515	SEAL OIL RETURN SIGHT GLASS	SEAL OIL	Y
3524	A,V,O	C(x2)	G	28	2	VAC MACH	C-515	SEAL OIL RETURN SIGHT GLASS	SEAL OIL	Y
3525	A,V,O	C(x2)	G	28	2	VAC MACH	C-515	SEAL OIL RETURN SIGHT GLASS	SEAL OIL	Y
0283		**RECYCLE SYSTEM**							
3530	Q	V O/E	G	28	2	VAC MACH	C-515	EXHAUST SEAL GAS RECYCLE LINE DRAIN	RECYCLE	Y
3531	Q	V O/E	G	28	2	VAC MACH	C-515	EXHAUST SEAL GAS RECYCLE LINE	RECYCLE	Y
3532	Q	V O/E	G	28	2	VAC MACH	C-515	EXHAUST SEAL GAS RECYCLE LINE	RECYCLE	Y
3533	Q	V	G	28	2	VAC MACH	C-515	EXHAUST SEAL GAS RECYCLE LINE	RECYCLE	Y
0284		**SAFETY AND CLEANOUT SYSTEM**							
3540	N/A(vac)	V O/E	GV	28	2	VAC MACH	C-515	FIRST STAGE INLET CLEANOUT	SAFETY	Y
3541	N/A(vac)	V O/E	GV	28	2	VAC MACH	C-515	FIRST STAGE SAFETY WATER	SAFETY	Y
3542	Q	V	G	28	2	VAC MACH	C-515	SECOND STAGE SAFETY WATER	SAFETY	Y
0285		**SEAL OIL INLET SYSTEM**							
3550	A,V,O	C	G	28	2	VAC MACH	C-515	SEAL OIL INLET VALVE	SEAL OIL	Y
3551	Q	V	G	28	2	VAC MACH	C-515	SEAL OIL INLET VALVE	SEAL OIL	Y
3552	Q	V	G	28	2	VAC MACH	C-515	SEAL OIL INLET VALVE	SEAL OIL	Y
3553	Q	V	G	28	2	VAC MACH	C-515	SEAL OIL INLET LINE VALVE	SEAL OIL	Y
3554	Q	V O/E	G	28	2	VAC MACH	C-515	SEAL OIL INLET LINE VALVE	SEAL OIL	Y
3555	A,V,O	C	G	28	2	VAC MACH	C-515	SEAL OIL INLET GAUGE	SEAL OIL	Y
3556	Q	V	G	28	2	VAC MACH	C-515	SEAL OIL INLET PRESSURE TAP	SEAL OIL	Y
0286		**INJECTION WATER SYSTEM**							
3570	Q	V	G	28	2	VAC MACH	C-515	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
3571	Q	V	G	28	2	VAC MACH	C-515	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
3572	Q	V	G	28	2	VAC MACH	C-515	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
3573	Q	V	G	28	2	VAC MACH	C-515	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
3574	Q	V O/E	G	28	2	VAC MACH	C-515	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
3575	Q	V	G	28	2	VAC MACH	C-515	INJECTION WATER SECOND STAGE	INJECTION WAT	Y
3577	Q	V	G	28	2	VAC MACH	C-515	INJECTION WATER SECOND STAGE	INJECTION WAT	Y
3578	Q	V	G	28	2	VAC MACH	C-515	INJECTION WATER SECOND STAGE	INJECTION WAT	Y
3579	Q	V	G	28	2	VAC MACH	C-515	INJECTION WATER SECOND STAGE	INJECTION WAT	Y

0287	HEADER SYSTEM									
3580	N/A(vac)	V	GV	28	2	VAC MACH	C-515	SUB GAS SUCTION HEADER BLOCKING VALVE	IN / OUT	UTM
3581	N/A(vac)	V	GV	28	2	VAC MACH	C-515	SUB GAS BYPASS VALVE	IN / OUT	UTM
3582	UTM	V	G	28	2	VAC MACH	C-515	SUB GAS DISCHARGE CHECK VALVE	IN / OUT	UTM
3583	UTM	V	G	28	2	VAC MACH	C-515	SUB GAS DISCHARGE HEADER BLOCKING VALVE	IN / OUT	UTM
3584	UTM	V O/E	G	28	2	VAC MACH	C-515	SUB GAS DISCHARGE CLEANOUT VALVE	IN / OUT	UTM
3585	UTM	V	G	28	2	VAC MACH	C-515	SUB GAS DISCHARGE BLOCKING VALVE	IN / OUT	UTM
3586	UTM	V O/E	G	28	2	VAC MACH	C-515	SECOND STAGE DISCHARGE CLEANOUT	IN / OUT	UTM
3590	UTM	PRV	G	28	2	VAC MACH	C-515	PRESSURE RELIEF VALVE	IN / OUT	UTM

TABLE 29
REGISTRATION OF COMPONENTS IN BENZENE SERVICE
VACUUM MACHINE C-518

Tag Identification	Monitoring Frequency	Component Type	Phase	Figure #	Control Room				
0291		**STEAM EDUCTOR SYSTEM**							
3699	Q	EXH	G	29	2	VAC MACH	C-518	VACUUM MACHINE C-518 EXHAUSTER SHAFT AND SEAL	EXHAUSTER SEAL	Y
3600	N/A(vac)	V	GV	29	2	VAC MACH	C-518	STEAM EDUCTOR LINE VALVE	STEAM	Y
3601	N/A(vac)	V	GV	29	2	VAC MACH	C-518	STEAM EDUCTOR LINE VALVE	STEAM	Y
3602	N/A(vac)	V	GV	29	2	VAC MACH	C-518	STEAM EDUCTOR LINE VALVE	STEAM	Y
3603	N/A(vac)	V O/E	GV	29	2	VAC MACH	C-518	STEAM EDUCTOR LINE VALVE	STEAM	Y
3604	N/A(vac)	V O/E	GV	29	2	VAC MACH	C-518	STEAM EDUCTOR LINE VALVE	STEAM	Y
3605	N/A(vac)	C	GV	29	2	VAC MACH	C-518	STEAM EDUCTOR LINE GAUGE	STEAM	Y
3606	N/A(vac)	V	GV	29	2	VAC MACH	C-518	STEAM EDUCTOR LINE VALVE	STEAM	N
3607	N/A(vac)	V	GV	29	2	VAC MACH	C-518	STEAM EDUCTOR LINE VALVE	STEAM	Y
3608	N/A(vac)	C	GV	29	2	VAC MACH	C-518	STEAM EDUCTOR LINE GAUGE	STEAM	Y
3609	N/A(vac)	V	GV	29	2	VAC MACH	C-518	STEAM EDUCTOR PRESSURE TAP	STEAM	Y
3610	N/A(vac)	C	GV	29	2	VAC MACH	C-518	STEAM EDUCTOR LINE GAUGE	STEAM	Y
0292		**SEAL OIL RETURN SYSTEM**							
3620	Q	V O/E	G	29	2	VAC MACH	C-518	SEAL OIL RETURN CLEANOUT VALVE	SEAL OIL	Y
3621	A,V,O	C(x2)	G	29	2	VAC MACH	C-518	SEAL OIL SIGHT GLASS	SEAL OIL	Y
3622	Q	V O/E	G	29	2	VAC MACH	C-518	SEAL OIL CLEANOUT VALVE	SEAL OIL	Y
3623	A,V,O	C(x2)	G	29	2	VAC MACH	C-518	SEAL OIL SIGHT GLASS	SEAL OIL	Y
3624	Q	V O/E	G	29	2	VAC MACH	C-518	SEAL OIL CLEANOUT VALVE	SEAL OIL	Y
3625	A,V,O	C(x2)	G	29	2	VAC MACH	C-518	SEAL OIL SIGHT GLASS	SEAL OIL	Y
3626	A,V,O	C(x2)	G	29	2	VAC MACH	C-518	SEAL OIL SIGHT GLASS	SEAL OIL	Y
3627	Q	V O/E	G	29	2	VAC MACH	C-518	SEAL OIL CLEANOUT VALVE	SEAL OIL	Y
0293		**RECYCLE SYSTEM**							
3630	Q	V O/E	G	29	2	VAC MACH	C-518	EXHAUST SEAL GAS RECYCLE LINE DRAIN	RECYCLE	Y
3631	Q	V O/E	G	29	2	VAC MACH	C-518	EXHAUST SEAL GAS RECYCLE LINE VALVE	RECYCLE	Y
3632	Q	V O/E	G	29	2	VAC MACH	C-518	EXHAUST SEAL GAS RECYCLE LINE VALVE	RECYCLE	Y
3633	Q	V	G	29	2	VAC MACH	C-518	EXHAUST SEAL GAS RECYCLE LINE VALVE	RECYCLE	Y
0294		**SAFETY AND CLEANOUT SYSTEM**							
3640	N/A(vac)	V O/E	GV	29	2	VAC MACH	C-518	FIRST STAGE CLEANOUT		Y
3642	N/A(vac)	V	GV	29	2	VAC MACH	C-518	FIRST STAGE SAFETY WATER		Y
3641	Q	V	G	29	2	VAC MACH	C-518	SECOND STAGE SAFETY WATER		Y
3662	Q	V O/E	G	29	2	VAC MACH	C-518	SECOND STAGE CLEANOUT VALVE		Y
0295		**SEAL OIL INLET SYSTEM**							
3650	A,V,O	C	G	29	2	VAC MACH	C-518	SEAL OIL INLET GAUGE	SEAL OIL	Y
3651	Q	V	G	29	2	VAC MACH	C-518	SEAL OIL INLET PRESSURE TAP	SEAL OIL	Y
3652	Q	V	G	29	2	VAC MACH	C-518	SEAL OIL INLET PRESSURE TAP	SEAL OIL	Y
3653	Q	V O/E	G	29	2	VAC MACH	C-518	SEAL OIL INLET VALVE	SEAL OIL	Y
3654	Q	V	G	29	2	VAC MACH	C-518	SEAL OIL INLET VALVE	SEAL OIL	Y
3655	Q	V	G	29	2	VAC MACH	C-518	SEAL OIL INLET VALVE	SEAL OIL	Y
3656	Q	V	G	29	2	VAC MACH	C-518	SEAL OIL INLET PRESSURE TAP	SEAL OIL	Y
3657	A,V,O	C	G	29	2	VAC MACH	C-518	SEAL OIL INLET GAUGE	SEAL OIL	Y
0296		**INJECTION WATER SYSTEM**							
3663	UTM	V	G	29	2	VAC MACH	C-518	INJECTION WATER SECOND STAGE	INJECTION WAT	UTM
3664	Q	V	G	29	2	VAC MACH	C-518	INJECTION WATER SECOND STAGE	INJECTION WAT	Y
3665	Q	V	G	29	2	VAC MACH	C-518	INJECTION WATER SECOND STAGE	INJECTION WAT	Y
3666	Q	V O/E	G	29	2	VAC MACH	C-518	INJECTION WATER SECOND STAGE	INJECTION WAT	Y
3667	Q	V O/E	G	29	2	VAC MACH	C-518	INJECTION WATER SECOND STAGE	INJECTION WAT	Y
3668	Q	V	G	29	2	VAC MACH	C-518	INJECTION WATER SECOND STAGE	INJECTION WAT	Y
3669	Q	V	G	29	2	VAC MACH	C-518	INJECTION WATER SECOND STAGE	INJECTION WAT	Y
3670	Q	V	G	29	2	VAC MACH	C-518	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
3671	Q	V	G	29	2	VAC MACH	C-518	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
3672	Q	V	G	29	2	VAC MACH	C-518	INJECTION WATER FIRST STAGE	INJECTION WAT	Y

TABLE 29 (continued)

3673	Q	V	G	29	2	VAC MACH	C-518	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
3674	Q	V	G	29	2	VAC MACH	C-518	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
3675	Q	V	G	29	2	VAC MACH	C-518	INJECTION WATER SECOND STAGE	INJECTION WAT	Y
3676	Q	V O/E	G	29	2	VAC MACH	C-518	INJECTION WATER SECOND STAGE	INJECTION WAT	Y
3677	Q	V O/E	G	29	2	VAC MACH	C-518	INJECTION WATER SECOND STAGE	INJECTION WAT	Y
3678	Q	V	G	29	2	VAC MACH	C-518	INJECTION WATER SECOND STAGE	INJECTION WAT	Y
3679	A,V,O	C	G	29	2	VAC MACH	C-518	INJECTION WATER SECOND STAGE	INJECTION WAT	Y
0297	HEADER SYSTEM									
3680	N/A(vac)	V	GV	29	2	VAC MACH	C-518	SUB GAS SUCTION HEADER BLOCKING VALVE	IN/OUT	UTM
3681	N/A(vac)	V	GV	29	2	VAC MACH	C-518	SUB GAS BYPASS VALVE	IN/OUT	UTM
3682	UTM	V	G	29	2	VAC MACH	C-518	SUB GAS DISCHARGE CHECK VALVE	IN/OUT	UTM
3683	UTM	V	G	29	2	VAC MACH	C-518	SUB GAS DISCHARGE HEADER VALVE	IN/OUT	UTM
3684	UTM	V O/E	G	29	2	VAC MACH	C-518	SUB GAS DISCHARGE CLEANOUT VALVE	IN/OUT	UTM
3685	UTM	V	G	29	2	VAC MACH	C-518	SUB GAS DISCHARGE BLOCKING VALVE	IN/OUT	UTM
3686	UTM	V O/E	G	29	2	VAC MACH	C-518	2ND STAGE NOISE SUPPRESSOR TOP CLEANOUT	IN/OUT	UTM
3690	UTM	PRV	G	29	2	VAC MACH	C-518	PRESSURE RELIEF VALVE	IN/OUT	UTM

ED_002508A_00000154-00038

TABLE 30
REGISTRATION OF COMPONENTS IN BENZENE SERVICE
VACUUM MACHINE C-521

Tag Identification	Monitoring Frequency	Component Type	Phase	Figure #	Control Room				
0301		**STEAM EDUCTOR SYSTEM**							
3799	Q	EXH	G	30	2	VAC MACH	C-521	VACUUM MACHINE C-521 EXHAUSTER SHAFT AND SEAL	EXHAUSTER SEAL	Y
3700	N/A(vac)	V	GV	30	2	VAC MACH	C-521	STEAM EDUCTOR LINE VALVE	STEAM	Y
3701	N/A(vac)	V	GV	30	2	VAC MACH	C-521	STEAM EDUCTOR LINE VALVE	STEAM	Y
3702	N/A(vac)	V	GV	30	2	VAC MACH	C-521	STEAM EDUCTOR LINE VALVE	STEAM	Y
3703	N/A(vac)	V O/E	GV	30	2	VAC MACH	C-521	STEAM EDUCTOR LINE VALVE	STEAM	Y
3704	N/A(vac)	V O/E	GV	30	2	VAC MACH	C-521	STEAM EDUCTOR LINE VALVE	STEAM	Y
3705	N/A(vac)	V	GV	30	2	VAC MACH	C-521	STEAM EDUCTOR LINE VALVE	STEAM	Y
3706	N/A(vac)	C	GV	30	2	VAC MACH	C-521	STEAM EDUCTOR LINE GAUGE	STEAM	Y
3707	N/A(vac)	V	GV	30	2	VAC MACH	C-521	STEAM EDUCTOR LINE PRESSURE TAP	STEAM	Y
3708	N/A(vac)	C	GV	30	2	VAC MACH	C-521	STEAM EDUCTOR LINE GAUGE	STEAM	Y
0302		**SEAL OIL RETURN SYSTEM**							
3721	Q	V O/E	G	30	2	VAC MACH	C-521	SEAL OIL RETURN	SEAL OIL	Y
3722	A,V,O	C(x2)	G	30	2	VAC MACH	C-521	SEAL OIL RETURN SIGHT GLASS	SEAL OIL	Y
3720	Q	V O/E	G	30	2	VAC MACH	C-521	SEAL OIL RETURN	SEAL OIL	Y
3723	A,V,O	C(x2)	G	30	2	VAC MACH	C-521	SEAL OIL RETURN SIGHT GLASS	SEAL OIL	Y
3724	Q	V O/E	G	30	2	VAC MACH	C-521	SEAL OIL RETURN	SEAL OIL	Y
3725	A,V,O	C(x2)	G	30	2	VAC MACH	C-521	SEAL OIL RETURN SIGHT GLASS	SEAL OIL	Y
3726	N/A(vac)	V	GV	30	2	VAC MACH	C-521	STEAM EDUCTOR LINE PRESSURE TAP	STEAM	Y
3727	N/A(vac)	C	GV	30	2	VAC MACH	C-521	STEAM EDUCTOR LINE GAUGE	STEAM	Y
3728	A,V,O	C(x2)	G	30	2	VAC MACH	C-521	SEAL OIL RETURN SIGHT GLASS	SEAL OIL	Y
0303		**RECYCLE SYSTEM**							
3730	Q	V O/E	G	30	2	VAC MACH	C-521	EXHAUST SEAL GAS RECYCLE LINE DRAIN	RECYCLE	Y
3731	Q	V O/E	G	30	2	VAC MACH	C-521	EXHAUST SEAL GAS RECYCLE LINE VALVE	RECYCLE	Y
3732	Q	V O/E	G	30	2	VAC MACH	C-521	EXHAUST SEAL GAS RECYCLE LINE VALVE	RECYCLE	Y
3733	Q	V	G	30	2	VAC MACH	C-521	EXHAUST SEAL GAS RECYCLE LINE VALVE	RECYCLE	Y
0304		**SAFETY AND CLEANOUT SYSTEM**							
3740	N/A(vac)	V O/E	GV	30	2	VAC MACH	C-521	FIRST STAGE INLET CLEANOUT		Y
3741	N/A(vac)	V	GV	30	2	VAC MACH	C-521	FIRST STAGE SAFETY WATER		Y
3742	Q	V	G	30	2	VAC MACH	C-521	SECOND STAGE SAFETY WATER		Y
0305		**SEAL OIL INLET SYSTEM**							
3750	Q	V O/E	G	30	2	VAC MACH	C-521	SEAL OIL INLET VALVE	SEAL OIL	Y
3751	Q	V	G	30	2	VAC MACH	C-521	SEAL OIL INLET PRESSURE TAP	SEAL OIL	Y
3752	A,V,O	C	G	30	2	VAC MACH	C-521	SEAL OIL INLET GAUGE	SEAL OIL	Y
3753	Q	V	G	30	2	VAC MACH	C-521	SEAL OIL INLET VALVE	SEAL OIL	Y
3754	Q	V	G	30	2	VAC MACH	C-521	SEAL OIL INLET PRESSURE TAP	SEAL OIL	Y
3755	A,V,O	C	G	30	2	VAC MACH	C-521	SEAL OIL INLET GAUGE	SEAL OIL	Y
3756	Q	V	G	30	2	VAC MACH	C-521	SEAL OIL INLET VALVE	SEAL OIL	Y
3757	Q	V	G	30	2	VAC MACH	C-521	SEAL OIL INLET VALVE	SEAL OIL	Y
3758	Q	V	G	30	2	VAC MACH	C-521	SEAL OIL INLET PRESSURE TAP	SEAL OIL	Y
3759	A,V,O	C	G	30	2	VAC MACH	C-521	SEAL OIL INLET GAUGE	SEAL OIL	Y
3760	Q	V O/E	G	30	2	VAC MACH	C-521	SEAL OIL INLET VALVE	SEAL OIL	Y
0306		**INJECTION WATER SYSTEM**							
3777	Q	V	G	30	2	VAC MACH	C-521	INJECTION WATER SECOND STAGE	INJECTION WAT	Y
3787	UTM	V	G	30	2	VAC MACH	C-521	INJECTION WATER SECOND STAGE	INJECTION WAT	UTM
3778	Q	V	G	30	2	VAC MACH	C-521	INJECTION WATER SECOND STAGE	AUTO VALVE	Y
3779	Q	V	G	30	2	VAC MACH	C-521	INJECTION WATER SECOND STAGE	INJECTION WAT	Y
3761	Q	V O/E	G	30	2	VAC MACH	C-521	INJECTION WATER SECOND STAGE	CLEANOUT VALVE	Y
3770	Q	V	G	30	2	VAC MACH	C-521	INJECTION WATER SECOND STAGE	INJECTION WAT	Y
3771	Q	V	G	30	2	VAC MACH	C-521	INJECTION WATER FIRST STAGE TEMPERATURE CONTROLLER	INJECTION WAT	Y
3772	Q	V	G	30	2	VAC MACH	C-521	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
3773	Q	V O/E	G	30	2	VAC MACH	C-521	INJECTION WATER FIRST STAGE	CLEANOUT VALVE	Y
3774	Q	V	G	30	2	VAC MACH	C-521	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
3775	Q	V O/E	G	30	2	VAC MACH	C-521	INJECTION WATER FIRST STAGE	CLEANOUT VALVE	Y
3776	Q	V	G	30	2	VAC MACH	C-521	INJECTION WATER FIRST STAGE	INJECTION WAT	Y

0307	HEADER SYSTEM									
3734	Q	V O/E	G	30	2	VAC MACH	C-521	1ST STAGE EXHAUST CLEAN OUT	IN/OUT	Y
3780	N/A(vac)	V	GV	30	2	VAC MACH	C-521	SUB GAS SUCTION HEADER BLOCKING VALVE	IN/OUT	N
3781	N/A(vac)	V	GV	30	2	VAC MACH	C-521	SUB GAS BYPASS	IN/OUT	N
3782	UTM	V O/E	G	30	2	VAC MACH	C-521	2ND STAGE EXHAUST CLEAN OUT	IN/OUT	UTM
3783	UTM	V	G	30	2	VAC MACH	C-521	SUBGAS DISCHARGE CHECK VALVE	IN/OUT	UTM
3784	UTM	V	G	30	2	VAC MACH	C-521	SUB GAS DISCHARGE HEADER BLOCKING VALVE	IN/OUT	UTM
3785	UTM	V O/E	G	30	2	VAC MACH	C-521	SUB GAS DISCHARGE CLEANOUT VALVE	IN/OUT	UTM
3786	UTM	V	G	30	2	VAC MACH	C-521	SUB GAS DISCHARGE HEADER BLOCKING VALVE	IN/OUT	UTM
3790	UTM	PRV	G	30	2	VAC MACH	C-521	SUB GAS DISCHARGE BLOCKING VALVE	IN/OUT	UTM

TABLE 31
REGISTRATION OF COMPONENTS IN BENZENE SERVICE
VACUUM MACHINE C-524

Tag Identification	Monitoring Frequency	Component Type	Phase	Figure #	Control Points			
0311		**STEAM EDUCTOR SYSTEM**						
3899	Q	EXH	G	31	2	VAC MACH	C-524	VACUUM MACHINE C-524 EXHAUSTER SHAFT AND SEAL	EXHAUSTER SEAL	Y
3800	N/A(vac)	V	GV	31	2	VAC MACH	C-524	STEAM EDUCTOR LINE VALVE	STEAM	Y
3801	N/A(vac)	V	GV	31	2	VAC MACH	C-524	STEAM EDUCTOR LINE VALVE	STEAM	Y
3802	N/A(vac)	V	GV	31	2	VAC MACH	C-524	STEAM EDUCTOR LINE VALVE	STEAM	Y
3803	N/A(vac)	V O/E	GV	31	2	VAC MACH	C-524	STEAM EDUCTOR LINE VALVE	STEAM	Y
3804	N/A(vac)	V O/E	GV	31	2	VAC MACH	C-524	STEAM EDUCTOR LINE VALVE	STEAM	Y
3805	N/A(vac)	V	GV	31	2	VAC MACH	C-524	STEAM EDUCTOR PRESSURE TAP	STEAM	Y
3806	N/A(vac)	C	GV	31	2	VAC MACH	C-524	STEAM EDUCTOR LINE GAUGE	STEAM	Y
3807	N/A(vac)	V O/E	GV	31	2	VAC MACH	C-524	STEAM EDUCTOR PRESSURE TAP	STEAM	Y
3808	N/A(vac)	V	GV	31	2	VAC MACH	C-524	STEAM EDUCTOR LINE VALVE	STEAM	Y
3809	N/A(vac)	V	GV	31	2	VAC MACH	C-524	STEAM EDUCTOR LINE VALVE	STEAM	Y
3810	N/A(vac)	C	GV	31	2	VAC MACH	C-524	STEAM EDUCTOR LINE GAUGE	STEAM	Y
0312		**SEAL OIL RETURN SYSTEM**								
3820	Q	V O/E	G	31	2	VAC MACH	C-524	SEAL OIL RETURN	SEAL OIL	Y
3821	A,V,O	C(x2)	G	31	2	VAC MACH	C-524	SEAL OIL RETURN SIGHT GLASS	SEAL OIL	Y
3822	Q	V O/E	G	31	2	VAC MACH	C-524	SEAL OIL RETURN	SEAL OIL	Y
3823	A,V,O	C(x2)	G	31	2	VAC MACH	C-524	SEAL OIL RETURN SIGHT GLASS	SEAL OIL	Y
3824	Q	V O/E	G	31	2	VAC MACH	C-524	SEAL OIL RETURN	SEAL OIL	Y
3825	A,V,O	C(x2)	G	31	2	VAC MACH	C-524	SEAL OIL RETURN SIGHT GLASS	SEAL OIL	Y
3826	Q	V O/E	G	31	2	VAC MACH	C-524	SEAL OIL RETURN	SEAL OIL	Y
3827	A,V,O	C(x2)	G	31	2	VAC MACH	C-524	SEAL OIL RETURN SIGHT GLASS	SEAL OIL	Y
0313		**RECYCLE SYSTEM**								
3830	Q	V O/E	G	31	2	VAC MACH	C-524	EXHAUST SEAL GAS RECYCLE LINE DRAIN	SEAL GAS	Y
3831	Q	V O/E	G	31	2	VAC MACH	C-524	EXHAUST SEAL GAS RECYCLE LINE VALVE	SEAL GAS	Y
3832	Q	V O/E	G	31	2	VAC MACH	C-524	EXHAUST SEAL GAS RECYCLE LINE VALVE	SEAL GAS	Y
3833	Q	V	G	31	2	VAC MACH	C-524	EXHAUST SEAL GAS RECYCLE LINE VALVE	SEAL GAS	Y
0314		**SAFETY AND CLEANOUT SYSTEM**								
3840	N/A(vac)	V O/E	GV	31	2	VAC MACH	C-524	FIRST STAGE INLET CLEANOUT		Y
3841	N/A(vac)	V	GV	31	2	VAC MACH	C-524	FIRST STAGE SAFETY WATER		Y
3842	Q	V	G	31	2	VAC MACH	C-524	SECOND STAGE SAFETY WATER		Y
3843	Q	V O/E	G	31	2	VAC MACH	C-524	FIRST /SECOND STAGE CROSSOVER CLEANOUT		Y
0315		**SEAL OIL INLET SYSTEM**								
3850	Q	V	G	31	2	VAC MACH	C-524	SEAL OIL INLET PRESSURE GAUGE VALVE	SEAL OIL	Y
3851	A,V,O	C	G	31	2	VAC MACH	C-524	SEAL OIL INLET GAUGE	SEAL OIL	Y
3852	Q	V O/E	G	31	2	VAC MACH	C-524	SEAL OIL INLET VALVE WITH OPEN END	SEAL OIL	Y
3853	Q	V	G	31	2	VAC MACH	C-524	SEAL OIL INLET VALVE	SEAL OIL	Y
3854	Q	V	G	31	2	VAC MACH	C-524	SEAL OIL INLET VALVE	SEAL OIL	Y
3855	Q	V	G	31	2	VAC MACH	C-524	SEAL OIL INLET PRESSURE GAUGE VALVE	SEAL OIL	Y
3856	A,V,O	C	G	31	2	VAC MACH	C-524	SEAL OIL INLET GAUGE	SEAL OIL	Y
3857	Q	V	G	31	2	VAC MACH	C-524	SEAL OIL INLET VALVE	SEAL OIL	Y
3867	Q	V	G	31	2	VAC MACH	C-524	SEAL OIL INLET PRESSURE GAUGE VALVE	SEAL OIL	Y
3868	A,V,O	C	G	31	2	VAC MACH	C-524	SEAL OIL INLET GAUGE	SEAL OIL	Y
0316		**INJECTION WATER SYSTEM**								
3870	Q	V	G	31	2	VAC MACH	C-524	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
3871	Q	V	G	31	2	VAC MACH	C-524	INJECTION WATER FIRST STAGE TEMPERATURE CONTROLLER	INJECTION WAT	Y
3872	Q	V	G	31	2	VAC MACH	C-524	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
3873	Q	V O/E	G	31	2	VAC MACH	C-524	INJECTION WATER FIRST STAGE CLEANOUT	INJECTION WAT	Y
3874	Q	V	G	31	2	VAC MACH	C-524	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
3875	Q	V O/E	G	31	2	VAC MACH	C-524	INJECTION WATER FIRST STAGE CLEANOUT	INJECTION WAT	Y
3876	Q	V	G	31	2	VAC MACH	C-524	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
3877	Q	V	G	31	2	VAC MACH	C-524	INJECTION WATER SECOND STAGE	INJECTION WAT	Y
3869	Q	V	G	31	2	VAC MACH	C-524	INJECTION WATER SECOND STAGE CONTROL VALVE	INJECTION WAT	Y
3828	Q	V	G	31	2	VAC MACH	C-524	INJECTION WATER SECOND STAGE	INJECTION WAT	Y
3829	Q	V O/E	G	31	2	VAC MACH	C-524	INJECTION WATER SECOND STAGE CLEANOUT	INJECTION WAT	Y
3878	UTM	V	G	31	2	VAC MACH	C-524	INJECTION WATER SECOND STAGE	INJECTION WAT	UTM

ED_002508A_00000154-00041

0317	HEADER SYSTEM									
3834	Q	V O/E	G	31	2	VAC MACH	C-524	SECOND STAGE DISCHARGE BOTTOM CLEANOUT	IN/OUT	Y
3835	Q	V O/E	G	31	2	VAC MACH	C-524	SECOND STAGE DISCHARGE BOTTOM CLEANOUT	IN/OUT	Y
3880	N/A(vac)	V	GV	31	2	VAC MACH	C-524	SUB GAS SUCTION HEADER BLOCKING VALVE	IN/OUT	N
3881	N/A(vac)	V	GV	31	2	VAC MACH	C-524	SUB GAS BYPASS VALVE	IN/OUT	N
3882	UTM	V	G	31	2	VAC MACH	C-524	SUB GAS DISCHARGE CHECK VALVE	IN/OUT	UTM
3883	UTM	V	G	31	2	VAC MACH	C-524	SUB GAS DISCHARGE HEADER BLOCKING VALVE	IN/OUT	UTM
3884	UTM	V O/E	G	31	2	VAC MACH	C-524	SUB GAS DISCHARGE CLEANOUT VALVE	IN/OUT	UTM
3885	UTM	V	G	31	2	VAC MACH	C-524	SUB GAS DISCHARGE BLOCKING LINE	IN/OUT	UTM
3886	UTM	V O/E	G	31	2	VAC MACH	C-524	SECOND STAGE DISCHARGE TOP CLEANOUT	IN/OUT	UTM
3890	UTM	PRV	G	31	2	VAC MACH	C-524	PRESSURE RELIEF VALVE	IN/OUT	UTM

TABLE 32
REGISTRATION OF COMPONENTS IN BENZENE SERVICE
VACUUM MACHINE C-527

Tag Identification	Monitoring Frequency	Component Type	Phase	Figure #	Control Room				
0321		**STEAM EDUCTOR SYSTEM**							
3999	Q	EXH	G	32	2	VAC MACH	C-527	VACUUM MACHINE C-527 EXHAUSTER SHAFT AND SEAL	EXHAUSTER SEAL	Y
3900	N/A(vac)	V	GV	32	2	VAC MACH	C-527	STEAM EDUCTOR LINE VALVE	STEAM	Y
3901	N/A(vac)	V	GV	32	2	VAC MACH	C-527	STEAM EDUCTOR LINE VALVE	STEAM	Y
3902	N/A(vac)	V	GV	32	2	VAC MACH	C-527	STEAM EDUCTOR LINE VALVE	STEAM	Y
3903	N/A(vac)	V O/E	GV	32	2	VAC MACH	C-527	STEAM EDUCTOR LINE VALVE	STEAM	Y
3904	N/A(vac)	V O/E	GV	32	2	VAC MACH	C-527	STEAM EDUCTOR LINE VALVE	STEAM	Y
3905	N/A(vac)	V	GV	32	2	VAC MACH	C-527	STEAM EDUCTOR PRESSURE TAP	STEAM	Y
3906	N/A(vac)	C	GV	32	2	VAC MACH	C-527	STEAM EDUCTOR LINE GAUGE	STEAM	Y
3907	N/A(vac)	V	GV	32	2	VAC MACH	C-527	STEAM EDUCTOR PRESSURE TAP	STEAM	Y
3908	N/A(vac)	C	GV	32	2	VAC MACH	C-527	STEAM EDUCTOR LINE GAUGE	STEAM	Y
3909	N/A(vac)	C	GV	32	2	VAC MACH	C-527	STEAM EDUCTOR LINE GAUGE	STEAM	Y
3910	N/A(vac)	V	GV	32	2	VAC MACH	C-527	STEAM EDUCTOR PRESSURE TAP	STEAM	Y
3911	N/A(vac)	V	GV	32	2	VAC MACH	C-527	STEAM EDUCTOR LINE VALVE	STEAM	N
0322		**SEAL OIL RETURN SYSTEM**								
3920	Q	V O/E	G	32	2	VAC MACH	C-524	SEAL OIL RETURN	SEAL OIL	Y
3921	A,V,O	C(x2)	G	32	2	VAC MACH	C-524	SEAL OIL RETURN SIGHT GLASS	SEAL OIL	Y
3922	Q	V O/E	G	32	2	VAC MACH	C-524	SEAL OIL RETURN	SEAL OIL	Y
3923	A,V,O	C(x2)	G	32	2	VAC MACH	C-524	SEAL OIL RETURN SIGHT GLASS	SEAL OIL	Y
3924	Q	V O/E	G	32	2	VAC MACH	C-524	SEAL OIL RETURN	SEAL OIL	Y
3925	A,V,O	C(x2)	G	32	2	VAC MACH	C-524	SEAL OIL RETURN SIGHT GLASS	SEAL OIL	Y
3926	Q	V O/E	G	32	2	VAC MACH	C-524	SEAL OIL RETURN	SEAL OIL	Y
3927	A,V,O	C(x2)	G	32	2	VAC MACH	C-524	SEAL OIL RETURN SIGHT GLASS	SEAL OIL	Y
0323		**RECYCLE SYSTEM**								
3930	Q	V O/E	G	32	2	VAC MACH	C-527	EXHAUST SEAL GAS RECYCLE LINE	RECYCLE	Y
3931	Q	V O/E	G	32	2	VAC MACH	C-527	EXHAUST SEAL GAS RECYCLE LINE	RECYCLE	Y
3932	Q	V O/E	G	32	2	VAC MACH	C-527	EXHAUST SEAL GAS RECYCLE LINE	RECYCLE	Y
3933	Q	V	G	32	2	VAC MACH	C-527	EXHAUST SEAL GAS RECYCLE LINE DRAIN	RECYCLE	Y
3934	UTM	V	G	32	2	VAC MACH	C-527	EXHAUST SEAL GAS RECYCLE LINE	RECYCLE	UTM
0324		**SAFETY AND CLEANOUT SYSTEM**								
3940	N/A(vac)	V O/E	GV	32	2	VAC MACH	C-527	FIRST STAGE INLET CLEANOUT		Y
3941	N/A(vac)	V	GV	32	2	VAC MACH	C-527	FIRST STAGE SAFETY WATER		Y
3958	Q	V	G	32	2	VAC MACH	C-527	SECOND STAGE SAFETY WATER		Y
0325		**SEAL OIL INLET SYSTEM**								
3935	Q	V O/E	G	32	2	VAC MACH	C-527	SEAL OIL INLET CLEANOUT VALVE	SEAL OIL	Y
3942	Q	V	G	32	2	VAC MACH	C-527	SEAL OIL INLET GAUGE VALVE	SEAL OIL	Y
3950	A,V,O	C	G	32	2	VAC MACH	C-527	SEAL OIL INLET GAUGE	SEAL OIL	Y
3951	Q	V	G	32	2	VAC MACH	C-527	SEAL OIL INLET VALVE	SEAL OIL	Y
3952	Q	V	G	32	2	VAC MACH	C-527	SEAL OIL INLET VALVE	SEAL OIL	Y
3953	Q	V	G	32	2	VAC MACH	C-527	SEAL OIL INLET VALVE	SEAL OIL	Y
3954	Q	V	G	32	2	VAC MACH	C-527	SEAL OIL INLET VALVE	SEAL OIL	Y
3955	Q	V	G	32	2	VAC MACH	C-527	SEAL OIL INLET GAUGE VALVE	SEAL OIL	Y
3956	A,V,O	C	G	32	2	VAC MACH	C-527	SEAL OIL INLET GAUGE	SEAL OIL	Y
3957	Q	V O/E	G	32	2	VAC MACH	C-527	SEAL OIL INLET CLEANOUT VALVE	SEAL OIL	Y
0326		**INJECTION WATER SYSTEM**								
3970	Q	V	G	32	2	VAC MACH	C-527	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
3971	Q	V	G	32	2	VAC MACH	C-527	INJECTION WATER FIRST STAGE TEMPERATURE CONTROLLER	INJECTION WAT	Y
3972	Q	V	G	32	2	VAC MACH	C-527	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
3973	Q	V O/E	G	32	2	VAC MACH	C-527	INJECTION WATER FIRST STAGE CLEANOUT	INJECTION WAT	Y
3974	Q	V	G	32	2	VAC MACH	C-527	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
3975	Q	V O/E	G	32	2	VAC MACH	C-527	INJECTION WATER FIRST STAGE CLEANOUT	INJECTION WAT	Y
3976	Q	V	G	32	2	VAC MACH	C-527	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
3977	Q	V	G	32	2	VAC MACH	C-527	INJECTION WATER SECOND STAGE	INJECTION WAT	Y
3978	Q	V	G	32	2	VAC MACH	C-527	INJECTION WATER SECOND STAGE CONTROL VALVE	INJECTION WAT	Y
3959	Q	V	G	32	2	VAC MACH	C-527	INJECTION WATER SECOND STAGE	INJECTION WAT	Y
3969	Q	V O/E	G	32	2	VAC MACH	C-527	INJECTION WATER SECOND STAGE CLEANOUT	INJECTION WAT	Y
3979	UTM	V	G	32	2	VAC MACH	C-527	INJECTION WATER SECOND STAGE	INJECTION WAT	UTM

0327	HEADER SYSTEM								
3943	Q	V O/E	G	32	2	VAC MACH	C-527	SECOND STAGE DISCHARGE BOTTOM CLEANOUT	IN/OUT	Y
3980	N/A(vac)	V	GV	32	2	VAC MACH	C-527	SUB GAS SUCTION HEADER BLOCKING VALVE	IN/OUT	UTM
3981	N/A(vac)	V	GV	32	2	VAC MACH	C-527	SUB GAS BYPASS VALVE	IN/OUT	UTM
3982	UTM	V	G	32	2	VAC MACH	C-527	SUB GAS DISCHARGE CHECK VALVE	IN/OUT	UTM
3983	UTM	V	G	32	2	VAC MACH	C-527	SUB GAS DISCHARGE BLOCKING VALVE	IN/OUT	UTM
3984	UTM	V O/E	G	32	2	VAC MACH	C-527	SUB GAS DISCHARGE CLEANOUT VALVE	IN/OUT	UTM
3985	UTM	V	G	32	2	VAC MACH	C-527	SUB GAS DISCHARGE HEADER BLOCKING VALVE	IN/OUT	UTM
3990	UTM	PRV	G	32	2	VAC MACH	C-527	PRESSURE RELIEF VALVE	IN/OUT	UTM

ED_002508A_00000154-00044

TABLE 33
REGISTRATION OF COMPONENTS IN BENZENE SERVICE
VACUUM MACHINE C-530

Tag Identification	Monitoring Frequency	Component Type	Phase	Figure #	Control Room				
0331		STEAM EDUCTOR SYSTEM							
4099	Q	EXH	G	33	2	VAC MACH	C-530	VACUUM MACHINE C-530 EXHAUSTER SHAFT AND SEAL	EXHAUSTER SEAL	Y
4000	N/A(vac)	V	GV	33	2	VAC MACH	C-530	STEAM EDUCTOR LINE VALVE	STEAM	Y
4001	N/A(vac)	V	GV	33	2	VAC MACH	C-530	STEAM EDUCTOR LINE VALVE	STEAM	Y
4002	N/A(vac)	V	GV	33	2	VAC MACH	C-530	STEAM EDUCTOR LINE VALVE	STEAM	Y
4003	N/A(vac)	V O/E	GV	33	2	VAC MACH	C-530	STEAM EDUCTOR LINE VALVE	STEAM	Y
4004	N/A(vac)	V O/E	GV	33	2	VAC MACH	C-530	STEAM EDUCTOR LINE VALVE	STEAM	Y
4005	N/A(vac)	C	GV	33	2	VAC MACH	C-530	STEAM EDUCTOR LINE GAUGE	STEAM	Y
4006	N/A(vac)	V	GV	33	2	VAC MACH	C-530	STEAM EDUCTOR PRESSURE TAP	STEAM	Y
4007	N/A(vac)	V	GV	33	2	VAC MACH	C-530	STEAM EDUCTOR PRESSURE TAP	STEAM	Y
4008	N/A(vac)	C	GV	33	2	VAC MACH	C-530	STEAM EDUCTOR LINE GAUGE	STEAM	Y
4009	N/A(vac)	C	GV	33	2	VAC MACH	C-530	STEAM EDUCTOR LINE GAUGE	STEAM	Y
4010	N/A(vac)	V	GV	33	2	VAC MACH	C-530	STEAM EDUCTOR PRESSURE TAP	STEAM	Y
0332		SEAL OIL RETURN SYSTEM							
4020	Q	V O/E	G	33	2	VAC MACH	C-524	SEAL OIL RETURN	SEAL OIL	Y
4021	A,V,O	C(x2)	G	33	2	VAC MACH	C-524	SEAL OIL RETURN SIGHT GLASS	SEAL OIL	Y
4022	Q	V O/E	G	33	2	VAC MACH	C-524	SEAL OIL RETURN	SEAL OIL	Y
4023	A,V,O	C(x2)	G	33	2	VAC MACH	C-524	SEAL OIL RETURN SIGHT GLASS	SEAL OIL	Y
4024	Q	V O/E	G	33	2	VAC MACH	C-524	SEAL OIL RETURN	SEAL OIL	Y
4025	A,V,O	C(x2)	G	33	2	VAC MACH	C-524	SEAL OIL RETURN SIGHT GLASS	SEAL OIL	Y
4026	Q	V O/E	G	33	2	VAC MACH	C-524	SEAL OIL RETURN	SEAL OIL	Y
4027	A,V,O	C(x2)	G	33	2	VAC MACH	C-524	SEAL OIL RETURN SIGHT GLASS	SEAL OIL	Y
0333		RECYCLE SYSTEM							
4030	Q	V O/E	G	33	2	VAC MACH	C-530	EXHAUST SEAL GAS RECYCLE LINE DRAIN	RECYCLE	Y
4031	Q	V O/E	G	33	2	VAC MACH	C-530	EXHAUST SEAL GAS RECYCLE LINE	RECYCLE	Y
4034	Q	V O/E	G	33	2	VAC MACH	C-530	EXHAUST SEAL GAS RECYCLE LINE	RECYCLE	Y
4032	Q	V O/E	G	33	2	VAC MACH	C-530	EXHAUST SEAL GAS RECYCLE LINE	RECYCLE	Y
4033	Q	V	G	33	2	VAC MACH	C-530	EXHAUST SEAL GAS RECYCLE LINE	RECYCLE	Y
4035	UTM	V	G	33	2	VAC MACH	C-530	EXHAUST SEAL GAS RECYCLE LINE	RECYCLE	UTM
0334		SAFETY AND CLEANOUT SYSTEM							
4040	N/A(vac)	V O/E	GV	33	2	VAC MACH	C-530	FIRST STAGE INLET CLEANOUT		Y
4041	N/A(vac)	V	GV	33	2	VAC MACH	C-530	FIRST STAGE SAFETY WATER		Y
4042	Q	V	G	33	2	VAC MACH	C-530	SECOND STAGE SAFETY WATER		Y
0335		SEAL OIL INLET SYSTEM							
4050	Q	V O/E	G	33	2	VAC MACH	C-530	SEAL OIL INLET CLEANOUT VALVE	SEAL OIL	Y
4051	Q	V	G	33	2	VAC MACH	C-530	SEAL OIL INLET GAUGE VALVE	SEAL OIL	Y
4052	A,V,O	C	G	33	2	VAC MACH	C-530	SEAL OIL INLET GAUGE	SEAL OIL	Y
4053	Q	V	G	33	2	VAC MACH	C-530	SEAL OIL INLET VALVE	SEAL OIL	Y
4054	Q	V	G	33	2	VAC MACH	C-530	SEAL OIL INLET VALVE	SEAL OIL	Y
4055	Q	V	G	33	2	VAC MACH	C-530	SEAL OIL INLET VALVE	SEAL OIL	Y
4056	Q	V	G	33	2	VAC MACH	C-530	SEAL OIL INLET VALVE	SEAL OIL	Y
4057	Q	V	G	33	2	VAC MACH	C-530	SEAL OIL INLET GAUGE VALVE	SEAL OIL	Y
4058	A,V,O	C	G	33	2	VAC MACH	C-530	SEAL OIL INLET GAUGE	SEAL OIL	Y
4059	Q	V O/E	G	33	2	VAC MACH	C-530	SEAL OIL INLET CLEANOUT VALVE	SEAL OIL	Y
0336		INJECTION WATER SYSTEM							
4070	Q	V	G	33	2	VAC MACH	C-530	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
4071	Q	V	G	33	2	VAC MACH	C-530	INJECTION WATER FIRST STAGE TEMPERATURE CONTROLLER	INJECTION WAT	Y
4072	Q	V	G	33	2	VAC MACH	C-530	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
4073	Q	V O/E	G	33	2	VAC MACH	C-530	INJECTION WATER FIRST STAGE CLEANOUT	INJECTION WAT	Y
4074	Q	V	G	33	2	VAC MACH	C-530	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
4075	Q	V O/E	G	33	2	VAC MACH	C-530	INJECTION WATER FIRST STAGE CLEANOUT	INJECTION WAT	Y
4076	Q	V	G	33	2	VAC MACH	C-530	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
4028	Q	V	G	33	2	VAC MACH	C-530	INJECTION WATER SECOND STAGE	INJECTION WAT	Y
4029	Q	V	G	33	2	VAC MACH	C-530	INJECTION WATER SECOND STAGE CONTROL VALVE	INJECTION WAT	Y
4189	Q	V	G	33	2	VAC MACH	C-530	INJECTION WATER SECOND STAGE	INJECTION WAT	Y
4184	Q	V O/E	G	33	2	VAC MACH	C-530	INJECTION WATER SECOND STAGE CLEANOUT	INJECTION WAT	Y
4088	UTM	V	G	33	2	VAC MACH	C-530	INJECTION WATER SECOND STAGE	INJECTION WAT	UTM

0337	HEADER SYSTEM									
4080	N/A(vac)	V	GV	33	2	VAC MACH	C-530	SUB GAS SUCTION HEADER BLOCKING VALVE	IN/OUT	N
4081	N/A(vac)	V	GV	33	2	VAC MACH	C-530	SUB GAS BYPASS VALVE	IN/OUT	N
4082	UTM	V	G	33	2	VAC MACH	C-530	SUBGAS DISCHARGE CHECK VALVE	IN/OUT	UTM
4083	UTM	V	G	33	2	VAC MACH	C-530	SUB GAS DISCHARGE HEADER BLOCKING VALVE	IN/OUT	UTM
4084	UTM	V O/E	G	33	2	VAC MACH	C-530	SUBGAS DISCHARGE CLEANOUT VALVE	IN/OUT	UTM
4085	UTM	V	G	33	2	VAC MACH	C-530	SUB GAS DISCHARGE BLOCKING VALVE	IN/OUT	UTM
4090	UTM	PRV	G	33	2	VAC MACH	C-530	PRESSURE RELIEF VALVE	IN/OUT	UTM

ED_002508A_00000154-00046

TABLE 34
REGISTRATION OF COMPONENTS IN BENZENE SERVICE
VACUUM MACHINE C-533

Tag Identification	Monitoring Frequency	Component Type	Phase	Figure #	Control Room				
0341		**STEAM EDUCTOR SYSTEM**							
4199	Q	EXH	G	34	2	VAC MACH	C-533	VACUUM MACHINE C-533 EXHAUSTER SHAFT AND SEAL	EXHAUSTER SEAL	Y
4112	N/A(vac)	V	GV	34	2	VAC MACH	C-533	STEAM INJECTOR LINE VALVE	STEAM	Y
4113	N/A(vac)	V	GV	34	2	VAC MACH	C-533	STEAM EDUCTOR LINE VALVE	STEAM	Y
4114	N/A(vac)	V	GV	34	2	VAC MACH	C-533	SEAL GAS RECYCLE LINE DRAIN	STEAM	Y
4115	N/A(vac)	V O/E	GV	34	2	VAC MACH	C-533	SEAL GAS RECYCLE LINE	STEAM	Y
4116	N/A(vac)	V O/E	GV	34	2	VAC MACH	C-533	STEAM EDUCTOR LINE VALVE	STEAM	Y
4105	N/A(vac)	C	GV	34	2	VAC MACH	C-533	STEAM INJECTOR LINE GAUGE	STEAM	Y
4106	N/A(vac)	V	GV	34	2	VAC MACH	C-533	STEAM INJECTOR PRESSURE TAP	STEAM	Y
4107	N/A(vac)	V	GV	34	2	VAC MACH	C-533	STEAM INJECTOR LINE VALVE	STEAM	Y
4108	N/A(vac)	C	GV	34	2	VAC MACH	C-533	STEAM INJECTOR LINE GAUGE	STEAM	Y
4109	N/A(vac)	C	GV	34	2	VAC MACH	C-533	STEAM INJECTOR LINE GAUGE	STEAM	Y
4110	N/A(vac)	V	GV	34	2	VAC MACH	C-533	STEAM INJECTOR PRESSURE TAP	STEAM	Y
4111	N/A(vac)	V	GV	34	2	VAC MACH	C-533	STEAM EDUCTOR LINE VALVE	STEAM	N
0342		**SEAL OIL RETURN SYSTEM**							
4120	Q	V O/E	G	34	2	VAC MACH	C-533	SEAL OIL RETURN	SEAL OIL	Y
4121	A,V,O	C(x2)	G	34	2	VAC MACH	C-533	SEAL OIL RETURN SIGHT GLASS	SEAL OIL	Y
4122	Q	V O/E	G	34	2	VAC MACH	C-533	SEAL OIL RETURN	SEAL OIL	Y
4123	A,V,O	C(x2)	G	34	2	VAC MACH	C-533	SEAL OIL RETURN SIGHT GLASS	SEAL OIL	Y
4124	Q	V O/E	G	34	2	VAC MACH	C-533	SEAL OIL RETURN	SEAL OIL	Y
4125	A,V,O	C(x2)	G	34	2	VAC MACH	C-533	SEAL OIL RETURN SIGHT GLASS	SEAL OIL	Y
4126	Q	V O/E	G	34	2	VAC MACH	C-533	SEAL OIL RETURN CLEANOUT VALVE	SEAL OIL	Y
4127	A,V,O	C(x2)	G	34	2	VAC MACH	C-533	SEAL OIL RETURN SIGHT GLASS	SEAL OIL	Y
0343		**RECYCLE SYSTEM**							
4100	Q	V O/E	G	34	2	VAC MACH	C-533	EXHAUST SEAL GAS RECYCLE LINE DRAIN	RECYCLE	Y
4101	Q	V O/E	G	34	2	VAC MACH	C-533	EXHAUST SEAL GAS RECYCLE LINE	RECYCLE	Y
4102	Q	V O/E	G	34	2	VAC MACH	C-533	EXHAUST SEAL GAS RECYCLE LINE	RECYCLE	Y
4103	Q	V	G	34	2	VAC MACH	C-533	EXHAUST SEAL GAS RECYCLE LINE	RECYCLE	Y
0344		**SAFETY AND CLEANOUT SYSTEM**							
4140	N/A(vac)	V	GV	34	2	VAC MACH	C-533	FIRST STAGE INLET CLEANOUT		Y
4141	N/A(vac)	V	GV	34	2	VAC MACH	C-533	FIRST STAGE SAFETY WATER		Y
4142	Q	V	G	34	2	VAC MACH	C-533	SECOND STAGE SAFETY WATER		Y
4143	Q	V O/E	G	34	2	VAC MACH	C-533	FIRST/SECOND STAGE CROSSOVER CLEANOUT		Y
0345		**SEAL OIL INLET SYSTEM**							
4150	A,V,O	C	G	34	2	VAC MACH	C-533	SEAL OIL INLET GAUGE	SEAL OIL	Y
4151	Q	V	G	34	2	VAC MACH	C-533	SEAL OIL INLET PRESSURE TAP	SEAL OIL	Y
4152	Q	V	G	34	2	VAC MACH	C-533	SEAL OIL INLET VALVE	SEAL OIL	Y
4158	Q	V	G	34	2	VAC MACH	C-533	SEAL OIL INLET VALVE	SEAL OIL	Y
4153	Q	V	G	34	2	VAC MACH	C-533	SEAL OIL INLET VALVE	SEAL OIL	Y
4154	Q	V	G	34	2	VAC MACH	C-533	SEAL OIL INLET VALVE	SEAL OIL	Y
4155	A,V,O	C	G	34	2	VAC MACH	C-533	SEAL OIL INLET LINE GAUGE	SEAL OIL	Y
4156	Q	V	G	34	2	VAC MACH	C-533	SEAL OIL INLET PRESSURE TAP	SEAL OIL	Y
4157	Q	V O/E	G	34	2	VAC MACH	C-533	SEAL OIL CLEANOUT VALVE	SEAL OIL	Y
0346		**INJECTION WATER SYSTEM**							
4170	Q	V	G	34	2	VAC MACH	C-533	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
4171	Q	V	G	34	2	VAC MACH	C-533	INJECTION WATER FIRST STAGE TEMPERATURE CONTROLLER	INJECTION WAT	Y
4172	Q	V	G	34	2	VAC MACH	C-533	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
4173	Q	V O/E	G	34	2	VAC MACH	C-533	INJECTION WATER FIRST STAGE CLEANOUT	INJECTION WAT	Y
4174	Q	V	G	34	2	VAC MACH	C-533	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
4175	Q	V	G	34	2	VAC MACH	C-533	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
4176	Q	V	G	34	2	VAC MACH	C-533	INJECTION WATER SECOND STAGE	INJECTION WAT	Y
4177	Q	V	G	34	2	VAC MACH	C-533	INJECTION WATER SECOND STAGE CONTROL VALVE	INJECTION WAT	Y
4178	Q	V	G	34	2	VAC MACH	C-533	INJECTION WATER SECOND STAGE	INJECTION WAT	Y
4179	Q	V O/E	G	34	2	VAC MACH	C-533	INJECTION WATER SECOND STAGE CLEANOUT	INJECTION WAT	Y
4160	UTM	V	G	34	2	VAC MACH	C-533	INJECTION WATER SECOND STAGE	INJECTION WAT	UTM

ED_002508A_00000154-00047

0347	HEADER SYSTEM									
4180	N/A(vac)	V	GV	34	2	VAC MACH	C-533	SUB GAS SUCTION HEADER BLOCKING VALVE	IN/OUT	N
4181	N/A(vac)	V	GV	34	2	VAC MACH	C-533	SUB GAS BYPASS VALVE	IN/OUT	N
4182	UTM	V	G	34	2	VAC MACH	C-533	SUBGAS DISCHARGE CHECK VALVE	IN/OUT	UTM
4183	UTM	V	G	34	2	VAC MACH	C-533	SUB GAS DISCHARGE HEADER BLOCKING VALVE	IN/OUT	UTM
4184	UTM	V O/E	G	34	2	VAC MACH	C-533	SUBGAS DISCHARGE CLEANOUT VALVE	IN/OUT	UTM
4185	UTM	V	G	34	2	VAC MACH	C-533	SUB GAS DISCHARGE BLOCKING VALVE	IN/OUT	UTM
4186	UTM	V O/E	G	34	2	VAC MACH	C-533	SUB GAS DISCHARGE HEADER CLEANOUT	IN/OUT	UTM
4187	UTM	V O/E	G	34	2	VAC MACH	C-533	SUB GAS DISCHARGE HEADER CLEANOUT	IN/OUT	UTM
4190	UTM	PRV	G	34	2	VAC MACH	C-533	PRESSURE RELIEF VALVE	IN/OUT	UTM

ED_002508A_00000154-00048

TABLE 36
REGISTRATION OF COMPONENTS IN BENZENE SERVICE
VACUUM MACHINE C-539

Tag Identification	Monitoring Frequency	Component Type	Phase	Figure #	Control Room				
0361		**STEAM EDUCTOR SYSTEM**							
4299	Q	EXH	G	36	2	VAC MACH	C-539	VACUUM MACHINE C-539 EXHAUSTER SHAFT AND SEAL	EXHAUSTER SEAL	Y
4300	N/A(vac)	V	GV	36	2	VAC MACH	C-539	STEAM INDUCTOR LINE VALVE	STEAM	Y
4301	N/A(vac)	V	GV	36	2	VAC MACH	C-539	STEAM INDUCTOR LINE VALVE	STEAM	Y
4302	N/A(vac)	V	GV	36	2	VAC MACH	C-539	STEAM INDUCTOR LINE VALVE	STEAM	Y
4303	N/A(vac)	V O/E	GV	36	2	VAC MACH	C-539	STEAM INDUCTOR LINE PRESSURE TAP	STEAM	Y
4304	N/A(vac)	V	GV	36	2	VAC MACH	C-539	STEAM INDUCTOR LINE VALVE	STEAM	Y
4305	N/A(vac)	C	GV	36	2	VAC MACH	C-539	STEAM INDUCTOR LINE GAUGE	STEAM	Y
4306	N/A(vac)	C	GV	36	2	VAC MACH	C-539	STEAM INDUCTOR LINE GAUGE	STEAM	Y
4307	N/A(vac)	V	GV	36	2	VAC MACH	C-539	STEAM INDUCTOR LINE PRESSURE TAP	STEAM	Y
4308	N/A(vac)	V	GV	36	2	VAC MACH	C-539	STEAM INDUCTOR LINE VALVE	STEAM	N
4309	N/A(vac)	V	GV	36	2	VAC MACH	C-539	STEAM INDUCTOR LINE VALVE	STEAM	Y
0362		**SEAL OIL RETURN SYSTEM**								
4320	Q	V O/E	G	36	2	VAC MACH	C-539	SEAL OIL RETURN	SEAL OIL	Y
4321	A,V,O	C(x2)	G	36	2	VAC MACH	C-539	SEAL OIL RETURN SIGHT GLASS	SEAL OIL	Y
4322	Q	V O/E	G	36	2	VAC MACH	C-539	SEAL OIL RETURN	SEAL OIL	Y
4323	A,V,O	C(x2)	G	36	2	VAC MACH	C-539	SEAL OIL RETURN SIGHT GLASS	SEAL OIL	Y
4324	Q	V O/E	G	36	2	VAC MACH	C-539	SEAL OIL RETURN	SEAL OIL	Y
4325	A,V,O	C(x2)	G	36	2	VAC MACH	C-539	SEAL OIL RETURN SIGHT GLASS	SEAL OIL	Y
4326	Q	V O/E	G	36	2	VAC MACH	C-539	SEAL OIL RETURN	SEAL OIL	Y
4327	A,V,O	C(x2)	G	36	2	VAC MACH	C-539	SEAL OIL RETURN SIGHT GLASS	SEAL OIL	Y
0363		**RECYCLE SYSTEM**								
4330	Q	V O/E	G	36	2	VAC MACH	C-539	EXHAUST SEAL GAS RECYCLE DRAIN	RECYCLE	Y
4331	Q	V O/E	G	36	2	VAC MACH	C-539	EXHAUST SEAL GAS RECYCLE LINE	RECYCLE	Y
4332	Q	V O/E	G	36	2	VAC MACH	C-539	EXHAUST SEAL GAS RECYCLE LINE	RECYCLE	Y
4333	Q	V	G	36	2	VAC MACH	C-539	EXHAUST SEAL GAS RECYCLE LINE	RECYCLE	Y
0364		**SAFETY AND CLEANOUT SYSTEM**								
4340	N/A(vac)	V	GV	36	2	VAC MACH	C-539	FIRST STAGE INLET CLEANOUT		Y
4341	N/A(vac)	V	GV	36	2	VAC MACH	C-539	FIRST STAGE SAFETY WATER		Y
4342	Q	V	G	36	2	VAC MACH	C-539	SECOND STAGE SAFETY WATER		Y
4368	Q	V O/E	G	36	2	VAC MACH	C-539	SECOND STAGE DISCHARGE CLEANOUT		Y
0365		**SEAL OIL INLET SYSTEM**								
4350	Q	V O/E	G	36	2	VAC MACH	C-539	SEAL OIL INLET VALVE	SEAL OIL	Y
4351	Q	V O/E	G	36	2	VAC MACH	C-539	SEAL OIL INLET VALVE	SEAL OIL	Y
4352	Q	V	G	36	2	VAC MACH	C-539	SEAL OIL INLET VALVE	SEAL OIL	Y
4353	Q	V	G	36	2	VAC MACH	C-539	SEAL OIL INLET PRESSURE TAP	SEAL OIL	Y
4354	A,V,O	C	G	36	2	VAC MACH	C-539	SEAL OIL INLET GAUGE	SEAL OIL	Y
4355	Q	V	G	36	2	VAC MACH	C-539	SEAL OIL INLET VALVE	SEAL OIL	Y
4356	Q	V	G	36	2	VAC MACH	C-539	SEAL OIL INLET VALVE	SEAL OIL	Y
4358	Q	V O/E	G	36	2	VAC MACH	C-539	SEAL OIL INLET VALVE	SEAL OIL	Y
4357	A,V,O	C	G	36	2	VAC MACH	C-539	SEAL OIL INLET GAUGE	SEAL OIL	Y
0366		**INJECTION WATER SYSTEM**								
4370	Q	V	G	36	2	VAC MACH	C-539	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
4373	Q	V	G	36	2	VAC MACH	C-539	INJECTION WATER FIRST STAGE TEMPERATURE CONTROLLER	INJECTION WAT	Y
4372	Q	V	G	36	2	VAC MACH	C-539	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
4371	Q	V O/E	G	36	2	VAC MACH	C-539	INJECTION WATER FIRST STAGE CLEANOUT	INJECTION WAT	Y
4374	Q	V	G	36	2	VAC MACH	C-539	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
4375	Q	V O/E	G	36	2	VAC MACH	C-539	INJECTION WATER FIRST STAGE CLEANOUT	INJECTION WAT	Y
4376	Q	V	G	36	2	VAC MACH	C-539	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
4377	Q	V	G	36	2	VAC MACH	C-539	INJECTION WATER SECOND STAGE	INJECTION WAT	Y
4378	Q	V	G	36	2	VAC MACH	C-539	INJECTION WATER SECOND STAGE CONTROL VALVE	INJECTION WAT	Y
4369	Q	V	G	36	2	VAC MACH	C-539	INJECTION WATER SECOND STAGE	INJECTION WAT	Y
4359	Q	V O/E	G	36	2	VAC MACH	C-539	INJECTION WATER SECOND STAGE CLEANOUT	INJECTION WAT	Y
4379	UTM	V	G	36	2	VAC MACH	C-539	INJECTION WATER SECOND STAGE	INJECTION WAT	UTM

ED_002508A_00000154-00049

0367	HEADER SYSTEM									
4380	N/A(vac)	V	GV	36	2	VAC MACH	C-539	SUB GAS SUCTION HEADER BLOCKING VALVE	IN/OUT	N
4381	N/A(vac)	V O/E	GV	36	2	VAC MACH	C-539	SUB SUB GAS SUCTION HEADER BLOCK VALVE	IN/OUT	N
4382	N/A(vac)	V	GV	36	2	VAC MACH	C-539	SUB GAS BYPASS VALVE	IN/OUT	N
4383	UTM	V	G	36	2	VAC MACH	C-539	SUBGAS DISCHARGE CHECK VALVE	IN/OUT	UTM
4384	UTM	V	G	36	2	VAC MACH	C-539	SUB GAS DISCHARGE HEADER BLOCKING VALVE	IN/OUT	UTM
4385	UTM	V O/E	G	36	2	VAC MACH	C-539	SUBGAS DISCHARGE CLEANOUT VALVE	IN/OUT	UTM
4386	UTM	V	G	36	2	VAC MACH	C-539	SUB GAS DISCHARGE BLOCKING VALVE	IN/OUT	UTM
4387	UTM	V	G	36	2	VAC MACH	C-539	SUB SUB GAS DISCHARGE HEADER BLOCK VALVE	IN/OUT	UTM
4388	UTM	V	G	36	2	VAC MACH	C-539	SUB SUB GAS DISCHARGE BLOCKING VALVE	IN/OUT	UTM
4389	UTM	V O/E	G	36	2	VAC MACH	C-539	SUB GAS DISCHARGE HEADER CLEANOUT	IN/OUT	UTM
4390	UTM	PRV	G	36	2	VAC MACH	C-539	PRESSURE RELIEF VALVE	IN/OUT	UTM
4391	UTM	V O/E	G	36	2	VAC MACH	C-539	EXHAUST NOISE SUPPRESSOR CLEAN OUT		UTM
4392	UTM	V O/E	G	36	2	VAC MACH	C-539	EXHAUST NOISE SUPPRESSOR CLEAN OUT		UTM

ED_002508A_00000154-00050

TABLE 37
REGISTRATION OF COMPONENTS IN BENZENE SERVICE
VACUUM MACHINE C-542

Tag Identification	Monitoring Frequency	Component Type	Phase	Figure #	Control Room				
0371		**STEAM EDUCTOR SYSTEM**							
4499	Q	EXH	G	37	2	VAC MACH	C-542	VACUUM MACHINE C-542 EXHAUSTER SHAFT AND SEAL	EXHAUSTER SEAL	Y
4400	N/A(vac)	V	GV	37	2	VAC MACH	C-542	STEAM EDUCTOR LINE VALVE	STEAM	Y
4401	N/A(vac)	V	GV	37	2	VAC MACH	C-542	STEAM EDUCTOR LINE VALVE	STEAM	Y
4402	N/A(vac)	V	GV	37	2	VAC MACH	C-542	STEAM EDUCTOR LINE VALVE	STEAM	Y
4403	N/A(vac)	V O/E	GV	37	2	VAC MACH	C-542	STEAM EDUCTOR LINE CLEANOUT VALVE	STEAM	Y
4404	N/A(vac)	V O/E	GV	37	2	VAC MACH	C-542	STEAM EDUCTOR LINE CLEANOUT VALVE	STEAM	Y
4405	N/A(vac)	V	GV	37	2	VAC MACH	C-542	STEAM EDUCTOR LINE PRESSURE TAP	STEAM	Y
4406	N/A(vac)	C	GV	37	2	VAC MACH	C-542	STEAM EDUCTOR LINE GAUGE	STEAM	Y
4407	N/A(vac)	V	GV	37	2	VAC MACH	C-542	STEAM EDUCTOR LINE PRESSURE TAP	STEAM	Y
4408	N/A(vac)	C	GV	37	2	VAC MACH	C-542	STEAM EDUCTOR LINE GAUGE	STEAM	Y
4409	N/A(vac)	V	GV	37	2	VAC MACH	C-542	STEAM EDUCTOR LINE PRESSURE TAP	STEAM	Y
4410	N/A(vac)	C	GV	37	2	VAC MACH	C-542	STEAM EDUCTOR LINE GAUGE	STEAM	Y
4411	N/A(vac)	V	GV	37	2	VAC MACH	C-542	STEAM EDUCTOR LINE VALVE	STEAM	N
0372		**SEAL OIL RETURN SYSTEM**							
4420	Q	V O/E	G	37	2	VAC MACH	C-542	SEAL OIL RETURN	SEAL OIL	Y
4421	A,V,O	C(x2)	G	37	2	VAC MACH	C-542	SEAL OIL RETURN SIGHT GLASS	SEAL OIL	Y
4422	Q	V O/E	G	37	2	VAC MACH	C-542	SEAL OIL RETURN	SEAL OIL	Y
4423	A,V,O	C(x2)	G	37	2	VAC MACH	C-542	SEAL OIL RETURN SIGHT GLASS	SEAL OIL	Y
4424	Q	V O/E	G	37	2	VAC MACH	C-542	SEAL OIL RETURN	SEAL OIL	Y
4425	A,V,O	C(x2)	G	37	2	VAC MACH	C-542	SEAL OIL RETURN SIGHT GLASS	SEAL OIL	Y
4426	Q	V O/E	G	37	2	VAC MACH	C-542	SEAL OIL RETURN	SEAL OIL	Y
4427	A,V,O	C(x2)	G	37	2	VAC MACH	C-542	SEAL OIL RETURN SIGHT GLASS	SEAL OIL	Y
0373		**RECYCLE SYSTEM**							
4430	Q	V O/E	G	37	2	VAC MACH	C-542	EXHAUST SEAL GAS RECYCLE LINE VALVE	RECYCLE	Y
4431	Q	V O/E	G	37	2	VAC MACH	C-542	EXHAUST SEAL GAS RECYCLE LINE VALVE	RECYCLE	Y
4432	Q	V O/E	G	37	2	VAC MACH	C-542	EXHAUST SEAL GAS RECYCLE LINE VALVE	RECYCLE	Y
4433	Q	V	G	37	2	VAC MACH	C-542	EXHAUST SEAL GAS RECYCLE LINE DRAIN	RECYCLE	Y
0374		**SAFETY AND CLEANOUT SYSTEM**							
4440	N/A(vac)	V	GV	37	2	VAC MACH	C-542	FIRST STAGE INLET CLEANOUT		Y
4441	N/A(vac)	V	GV	37	2	VAC MACH	C-542	FIRST STAGE SAFETY WATER		Y
4479	Q	V	G	37	2	VAC MACH	C-542	SECOND STAGE SAFETY WATER		Y
0375		**SEAL OIL INLET SYSTEM**							
4450	Q	V O/E	G	37	2	VAC MACH	C-542	SEAL OIL INLET VALVE	SEAL OIL	Y
4451	Q	V	G	37	2	VAC MACH	C-542	SEAL OIL INLET PRESSURE TAP	SEAL OIL	Y
4452	A,V,O	C	G	37	2	VAC MACH	C-542	SEAL OIL INLET GAUGE	SEAL OIL	Y
4453	Q	V	G	37	2	VAC MACH	C-542	SEAL OIL INLET VALVE	SEAL OIL	Y
4454	Q	V	G	37	2	VAC MACH	C-542	SEAL OIL INLET PRESSURE TAP	SEAL OIL	Y
4455	A,V,O	C	G	37	2	VAC MACH	C-542	SEAL OIL INLET GAUGE	SEAL OIL	Y
4456	Q	V	G	37	2	VAC MACH	C-542	SEAL OIL INLET VALVE	SEAL OIL	Y
4457	Q	V	G	37	2	VAC MACH	C-542	SEAL OIL INLET VALVE	SEAL OIL	Y
4458	Q	V	G	37	2	VAC MACH	C-542	SEAL OIL INLET PRESSURE TAP	SEAL OIL	Y
4459	A,V,O	C	G	37	2	VAC MACH	C-542	SEAL OIL INLET GAUGE	SEAL OIL	Y
4460	Q	V O/E	G	37	2	VAC MACH	C-542	SEAL OIL INLET VALVE	SEAL OIL	Y
0306		**INJECTION WATER SYSTEM**							
4470	Q	V	G	37	2	VAC MACH	C-542	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
4473	Q	V	G	37	2	VAC MACH	C-542	INJECTION WATER FIRST STAGE TEMPERATURE CONTROLLER	INJECTION WAT	Y
4472	Q	V	G	37	2	VAC MACH	C-542	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
4471	Q	V O/E	G	37	2	VAC MACH	C-542	INJECTION WATER FIRST STAGE CLEANOUT	INJECTION WAT	Y
4474	Q	V	G	37	2	VAC MACH	C-542	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
4475	Q	V	G	37	2	VAC MACH	C-542	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
4476	Q	V	G	37	2	VAC MACH	C-542	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
4442	Q	V	G	37	2	VAC MACH	C-542	INJECTION WATER SECOND STAGE	INJECTION WAT	Y
4478	Q	V	G	37	2	VAC MACH	C-542	INJECTION WATER SECOND STAGE	INJECTION WAT	Y
4477	Q	V O/E	G	37	2	VAC MACH	C-542	INJECTION WATER SECOND STAGE CLEANOUT	INJECTION WAT	Y
4489	UTM	V	G	37	2	VAC MACH	C-542	INJECTION WATER SECOND STAGE	INJECTION WAT	UTM

0377	HEADER SYSTEM									
4480	N/A(vac)	V	GV	37	2	VAC MACH	C-542	SUB GAS SUCTION HEADER BLOCKING VALVE	IN/OUT	N
4481	N/A(vac)	V	GV	37	2	VAC MACH	C-542	SUB SUB GAS SUCTION HEADER CLEANOUT	IN/OUT	N
4482	N/A(vac)	V	GV	37	2	VAC MACH	C-542	SUB GAS BYPASS	IN/OUT	N
4483	UTM	V	G	37	2	VAC MACH	C-542	SUB GAS DISCHARGE CHECK VALVE	IN/OUT	UTM
4484	UTM	V	G	37	2	VAC MACH	C-542	SUB GAS DISCHARGE HEADER BLOCK VALVE	IN/OUT	UTM
4485	UTM	V O/E	G	37	2	VAC MACH	C-542	SUB GAS DISCHARGE CLEANOUT VALVE	IN/OUT	UTM
4486	UTM	V	G	37	2	VAC MACH	C-542	SUB GAS DISCHARGE BLOCKING VALVE	IN/OUT	UTM
4487	UTM	V	G	37	2	VAC MACH	C-542	SUB SUB GAS DISCHARGE HEADER BLOCK VALVE	IN/OUT	UTM
4488	UTM	V	G	37	2	VAC MACH	C-542	SUB SUB GAS DISCHARGE BLOCKING VALVE	IN/OUT	UTM
4490	UTM	PRV	G	37	2	VAC MACH	C-542	PRESSURE RELIEF VALVE	IN/OUT	UTM

TABLE 38
REGISTRATION OF COMPONENTS IN BENZENE SERVICE
VACUUM MACHINE C-545

Tag Identification	Monitoring Frequency	Component Type	Phase	Figure #	Control Room				
0381		**STEAM EDUCTOR SYSTEM**							
4499	Q	EXH	G	38	2	VAC MACH	C-545	VACUUM MACHINE C-545 EXHAUSTER SHAFT AND SEAL	EXHAUSTER SEAL	Y
4500	N/A(vac)	V	GV	38	2	VAC MACH	C-545	STEAM EDUCTOR LINE VALVE	STEAM	Y
4501	N/A(vac)	V	GV	38	2	VAC MACH	C-545	STEAM EDUCTOR LINE VALVE	STEAM	Y
4502	N/A(vac)	V	GV	38	2	VAC MACH	C-545	STEAM EDUCTOR LINE VALVE	STEAM	Y
4503	N/A(vac)	V O/E	GV	38	2	VAC MACH	C-545	STEAM EDUCTOR LINE VALVE	STEAM	Y
4504	N/A(vac)	V O/E	GV	38	2	VAC MACH	C-545	STEAM EDUCTOR LINE VALVE	STEAM	Y
4505	N/A(vac)	V	GV	38	2	VAC MACH	C-545	STEAM EDUCTOR PRESSURE TAP	STEAM	Y
4506	N/A(vac)	C	GV	38	2	VAC MACH	C-545	STEAM EDUCTOR LINE GAUGE	STEAM	Y
4507	N/A(vac)	V	GV	38	2	VAC MACH	C-545	STEAM EDUCTOR PRESSURE TAP	STEAM	Y
4508	N/A(vac)	C	GV	38	2	VAC MACH	C-545	STEAM EDUCTOR LINE GAUGE	STEAM	Y
4509	N/A(vac)	V	GV	38	2	VAC MACH	C-545	STEAM EDUCTOR LINE VALVE	STEAM	Y
4510	N/A(vac)	C	GV	38	2	VAC MACH	C-545	STEAM EDUCTOR LINE GAUGE	STEAM	Y
4511	N/A(vac)	V	GV	38	2	VAC MACH	C-545	STEAM EDUCTOR PRESSURE TAP	STEAM	Y
0382		**SEAL OIL RETURN SYSTEM**							
4520	Q	V O/E	G	38	2	VAC MACH	C-545	SEAL OIL RETURN	SEAL OIL	Y
4521	A,V,O	C(x2)	G	38	2	VAC MACH	C-545	SEAL OIL RETURN SIGHT GLASS	SEAL OIL	Y
4522	Q	O/E	G	38	2	VAC MACH	C-545	SEAL OIL RETURN MISSING VALVE (O/E CAP)	SEAL OIL	Y
4523	A,V,O	C(x2)	G	38	2	VAC MACH	C-545	SEAL OIL RETURN SIGHT GLASS	SEAL OIL	Y
4524	Q	V O/E	G	38	2	VAC MACH	C-545	SEAL OIL RETURN	SEAL OIL	Y
4525	A,V,O	C(x2)	G	38	2	VAC MACH	C-545	SEAL OIL RETURN SIGHT GLASS	SEAL OIL	Y
4526	Q	V O/E	G	38	2	VAC MACH	C-545	SEAL OIL RETURN	SEAL OIL	Y
4527	A,V,O	C(x2)	G	38	2	VAC MACH	C-545	SEAL OIL RETURN SIGHT GLASS	SEAL OIL	Y
0383		**RECYCLE SYSTEM**							
4530	Q	V O/E	G	38	2	VAC MACH	C-545	EXHAUST SEAL RECYCLE LINE VALVE	RECYCLE	Y
4531	Q	V O/E	G	38	2	VAC MACH	C-545	EXHAUST SEAL RECYCLE LINE VALVE	RECYCLE	Y
4532	Q	V O/E	G	38	2	VAC MACH	C-545	EXHAUST SEAL RECYCLE LINE VALVE	RECYCLE	Y
4533	Q	V	G	38	2	VAC MACH	C-545	EXHAUST SEAL RECYCLE LINE DRAIN	RECYCLE	Y
0384		**SAFETY AND CLEANOUT SYSTEM**							
4540	N/A(vac)	V O/E	GV	38	2	VAC MACH	C-545	FIRST STAGE INLET CLEANOUT		Y
4541	N/A(vac)	V	GV	38	2	VAC MACH	C-545	FIRST STAGE SAFETY WATER		Y
4542	Q	V	G	38	2	VAC MACH	C-545	SECOND STAGE SAFETY WATER		Y
0385		**SEAL OIL INLET SYSTEM**							
4550	Q	V	G	38	2	VAC MACH	C-545	SEAL OIL INLET LINE VALVE	SEAL OIL	Y
4551	A,V,O	C	G	38	2	VAC MACH	C-545	SEAL OIL INLET LINE GAUGE	SEAL OIL	Y
4552	Q	V	G	38	2	VAC MACH	C-545	SEAL OIL INLET PRESSURE TAP	SEAL OIL	Y
4553	Q	V	G	38	2	VAC MACH	C-545	SEAL OIL INLET LINE VALVE	SEAL OIL	Y
4554	Q	V	G	38	2	VAC MACH	C-545	SEAL OIL INLET LINE VALVE	SEAL OIL	Y
4555	Q	V O/E	G	38	2	VAC MACH	C-545	SEAL OIL INLET PRESSURE TAP	SEAL OIL	Y
4556	A,V,O	C	G	38	2	VAC MACH	C-545	SEAL OIL INLET LINE GAUGE	SEAL OIL	Y
0386		**INJECTION WATER SYSTEM**							
4576	Q	V	G	38	2	VAC MACH	C-545	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
4570	Q	V	G	38	2	VAC MACH	C-545	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
4571	Q	V	G	38	2	VAC MACH	C-545	INJECTION WATER FIRST STAGE TEMPERATURE CONTROLLER	INJECTION WAT	Y
4572	Q	V O/E	G	38	2	VAC MACH	C-545	INJECTION WATER FIRST STAGE CLEANOUT	INJECTION WAT	Y
4573	Q	V	G	38	2	VAC MACH	C-545	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
4574	Q	V	G	38	2	VAC MACH	C-545	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
4575	Q	V O/E	G	38	2	VAC MACH	C-545	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
4577	Q	V	G	38	2	VAC MACH	C-545	INJECTION WATER SECOND STAGE	INJECTION WAT	Y
4578	Q	V	G	38	2	VAC MACH	C-545	INJECTION WATER SECOND STAGE CONTROL VALVE	INJECTION WAT	Y
4535	Q	V	G	38	2	VAC MACH	C-545	INJECTION WATER SECOND STAGE	INJECTION WAT	Y
4536	Q	V O/E	G	38	2	VAC MACH	C-545	INJECTION WATER SECOND STAGE CLEANOUT	INJECTION WAT	Y
4579	UTM	V	G	38	2	VAC MACH	C-545	INJECTION WATER SECOND STAGE	INJECTION WAT	UTM

0387	HEADER SYSTEM								
4334	Q	V O/E	G	38	2	VAC MACH	C-545	SECOND STAGE HEADER CLEANOUT VALVE O/E	INJECTION WAT	Y
4580	N/A(vac)	V	GV	38	2	VAC MACH	C-545	SUB GAS SUCTION HEADER BLOCKING VALVE	IN/OUT	N
4581	N/A(vac)	V	GV	38	2	VAC MACH	C-545	SUBGAS BYPASS	IN/OUT	N
4582	UTM	V	G	38	2	VAC MACH	C-545	SUB GAS DISCHARGE CHECK VALVE	IN/OUT	UTM
4583	UTM	V	G	38	2	VAC MACH	C-545	SUB GAS DISCHARGE HEADER BLOCKING VALVE	IN/OUT	UTM
4584	UTM	V O/E	G	38	2	VAC MACH	C-545	SUB GAS DISCHARGE CLEANOUT VALVE	IN/OUT	UTM
4585	UTM	V	G	38	2	VAC MACH	C-545	SUB GAS DISCHARGE BLOCKING VALVE	IN/OUT	UTM
4590	UTM	PRV	G	38	2	VAC MACH	C-545	PRESSURE RELIEF VALVE	IN/OUT	UTM

ED_002508A_00000154-00054

TABLE 39
REGISTRATION OF COMPONENTS IN BENZENE SERVICE
VACUUM MACHINE C-548

Tag Identification	Monitoring Frequency	Component Type	Phase	Figure #	Control Room			
0391		**STEAM EDUCTOR SYSTEM**						
4599	Q	EXH	G	39	2	VAC MACH	C-548	VACUUM MACHINE C-548 EXHAUSTER SHAFT AND SEAL	EXHAUSTER SEAL	Y
4600	N/A(vac)	V	GV	39	2	VAC MACH	C-548	STEAM EDUCTOR LINE VALVE	STEAM	Y
4601	N/A(vac)	V	GV	39	2	VAC MACH	C-548	STEAM EDUCTOR LINE VALVE	STEAM	Y
4602	N/A(vac)	V	GV	39	2	VAC MACH	C-548	STEAM EDUCTOR LINE VALVE	STEAM	Y
4603	N/A(vac)	V O/E	GV	39	2	VAC MACH	C-548	STEAM EDUCTOR LINE VALVE	STEAM	Y
4604	N/A(vac)	V O/E	GV	39	2	VAC MACH	C-548	STEAM EDUCTOR LINE VALVE	STEAM	Y
4605	N/A(vac)	V	GV	39	2	VAC MACH	C-548	STEAM EDUCTOR PRESSURE TAP	STEAM	Y
4606	N/A(vac)	C	GV	39	2	VAC MACH	C-548	STEAM EDUCTOR LINE GAUGE	STEAM	Y
4607	N/A(vac)	V	GV	39	2	VAC MACH	C-548	STEAM EDUCTOR PRESSURE TAP	STEAM	Y
4608	N/A(vac)	C	GV	39	2	VAC MACH	C-548	STEAM EDUCTOR LINE GAUGE	STEAM	Y
0392		**SEAL OIL RETURN SYSTEM**								
4620	Q	V O/E	G	39	2	VAC MACH	C-548	SEAL OIL RETURN	SEAL OIL	Y
4621	A,V,O	C(x2)	G	39	2	VAC MACH	C-548	SEAL OIL RETURN SIGHT GLASS	SEAL OIL	Y
4622	Q	V O/E	G	39	2	VAC MACH	C-548	SEAL OIL RETURN	SEAL OIL	Y
4623	A,V,O	C(x2)	G	39	2	VAC MACH	C-548	SEAL OIL RETURN SIGHT GLASS	SEAL OIL	Y
4624	Q	V O/E	G	39	2	VAC MACH	C-548	SEAL OIL RETURN	SEAL OIL	Y
4625	A,V,O	C(x2)	G	39	2	VAC MACH	C-548	SEAL OIL RETURN SIGHT GLASS	SEAL OIL	Y
4626	Q	V O/E	G	39	2	VAC MACH	C-548	SEAL OIL RETURN	SEAL OIL	Y
4627	A,V,O	C(x2)	G	39	2	VAC MACH	C-548	SEAL OIL RETURN SIGHT GLASS	SEAL OIL	Y
0393		**RECYCLE SYSTEM**								
4630	Q	V O/E	G	39	2	VAC MACH	C-548	EXHAUST SEAL RECYCLE LINE VALVE	RECYCLE	Y
4631	Q	V O/E	G	39	2	VAC MACH	C-548	EXHAUST SEAL RECYCLE LINE VALVE	RECYCLE	Y
4632	Q	V O/E	G	39	2	VAC MACH	C-548	EXHAUST SEAL RECYCLE LINE VALVE	RECYCLE	Y
4633	Q	V	G	39	2	VAC MACH	C-548	EXHAUST SEAL RECYCLE LINE DRAIN	RECYCLE	Y
0394		**SAFETY AND CLEANOUT SYSTEM**								
4640	N/A(vac)	V O/E	GV	39	2	VAC MACH	C-548	FIRST STAGE INLET CLEANOUT		Y
4641	N/A(vac)	V	GV	39	2	VAC MACH	C-548	FIRST STAGE SAFETY WATER		Y
4642	Q	V	G	39	2	VAC MACH	C-548	SECOND STAGE SAFETY WATER		Y
0395		**SEAL OIL INLET SYSTEM**								
4650	A,V,O	C	G	39	2	VAC MACH	C-548	SEAL OIL INLET GAUGE	SEAL OIL	Y
4651	Q	V	G	39	2	VAC MACH	C-548	SEAL OIL INLET VALVE	SEAL OIL	Y
4652	Q	V	G	39	2	VAC MACH	C-548	SEAL OIL INLET PRESSURE TAP	SEAL OIL	Y
4653	Q	V	G	39	2	VAC MACH	C-548	SEAL OIL INLET VALVE	SEAL OIL	Y
4654	Q	V	G	39	2	VAC MACH	C-548	SEAL OIL INLET VALVE	SEAL OIL	Y
4655	Q	V	G	39	2	VAC MACH	C-548	SEAL OIL INLET PRESSURE TAP	SEAL OIL	Y
4656	Q	V O/E	G	39	2	VAC MACH	C-548	SEAL OIL INLET VALVE	SEAL OIL	Y
4657	A,V,O	C	G	39	2	VAC MACH	C-548	SEAL OIL INLET GAUGE	SEAL OIL	Y
0396		**INJECTION WATER SYSTEM**								
4670	Q	V	G	39	2	VAC MACH	C-548	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
4669	Q	V	G	39	2	VAC MACH	C-548	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
4671	Q	V	G	39	2	VAC MACH	C-548	INJECTION WATER FIRST STAGE TEMPERATURE CONTROLLER	INJECTION WAT	Y
4658	Q	V O/E	G	39	2	VAC MACH	C-548	INJECTION WATER FIRST STAGE CLEANOUT	INJECTION WAT	Y
4672	Q	V	G	39	2	VAC MACH	C-548	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
4674	Q	V	G	39	2	VAC MACH	C-548	INJECTION WATER FIRST STAGE	INJECTION WAT	Y
4675	Q	V	G	39	2	VAC MACH	C-548	INJECTION WATER SECOND STAGE	INJECTION WAT	Y
4677	Q	V	G	39	2	VAC MACH	C-548	INJECTION WATER SECOND STAGE CONTROL VALVE	INJECTION WAT	Y
4673	Q	V	G	39	2	VAC MACH	C-548	INJECTION WATER SECOND STAGE	INJECTION WAT	Y
4676	Q	V O/E	G	39	2	VAC MACH	C-548	INJECTION WATER SECOND STAGE CLEANOUT	INJECTION WAT	Y
4678	UTM	V	G	39	2	VAC MACH	C-548	INJECTION WATER SECOND STAGE	INJECTION WAT	UTM

ED_002508A_00000154-00055

0397	HEADER SYSTEM									
4680	N/A(vac)	V	GV	39	2	VAC MACH	C-548	SUB GAS SUCTION HEADER BLOCKING VALVE	IN/OUT	N
4681	N/A(vac)	V	GV	39	2	VAC MACH	C-548	SUB GAS BYPASS VALVE	IN/OUT	N
4682	UTM	V	G	39	2	VAC MACH	C-548	SUB GAS DISCHARGE CHECK VALVE	IN/OUT	UTM
4683	UTM	V	G	39	2	VAC MACH	C-548	SUB GAS DISCHARGE HEADER BLOCKING VALVE	IN/OUT	UTM
4684	UTM	V O/E	G	39	2	VAC MACH	C-548	SUB GAS DISCHARGE CLEANOUT VALVE	IN/OUT	UTM
4685	UTM	V	G	39	2	VAC MACH	C-548	SUB GAS DISCHARGE BLOCKING VALVE	IN/OUT	UTM
4690	UTM	PRV	G	39	2	VAC MACH	C-548	PRESSURE RELIEF VALVE	IN/OUT	UTM

TABLE 40
REGISTRATION OF COMPONENTS IN BENZENE SERVICE
MAIN QUAD NO. 1

Tag Identification	Monitoring Frequency	Component Type	Phase	Figure #	Control Room				
0401		**MAIN GAS BLOCKING VALVES**							
5000	WASH	V	L	40	2	MAIN QUAD	R-401A	SUB GAS COLD SEPARATOR BLOCKING VALVE	BOTTOM	Y
5001	WASH	V	L	40	2	MAIN QUAD	R-401A	DOWNRIVER GAS COLD SEPARATOR BLOCK VALVE	BOTTOM	Y
5002	WASH	V	L	40	2	MAIN QUAD	R-401A	UNDERFIRE GAS COLD SEPARATOR BLOCK VALVE	BOTTOM	Y
5003	WASH	V	L	40	2	MAIN QUAD	R-401B	SUB GAS COLD SEPARATOR BLOCKING VALVE	BOTTOM	Y
5004	WASH	V	L	40	2	MAIN QUAD	R-401B	DOWNRIVER GAS COLD SEPARATOR BLOCK VALVE	BOTTOM	Y
5005	WASH	V	L	40	2	MAIN QUAD	R-401B	UNDERFIRE GAS COLD SEPARATOR BLOCK VALVE	BOTTOM	Y
5006	WASH	V	L	40	2	MAIN QUAD	R-401C	SUB GAS COLD SEPARATOR BLOCKING VALVE	BOTTOM	Y
5007	WASH	V	L	40	2	MAIN QUAD	R-401C	DOWNRIVER GAS COLD SEPARATOR BLOCK VALVE	BOTTOM	Y
5008	WASH	V	L	40	2	MAIN QUAD	R-401C	UNDERFIRE GAS COLD SEPARATOR BLOCK VALVE	BOTTOM	Y
5009	WASH	V	L	40	2	MAIN QUAD	R-401D	SUB GAS COLD SEPARATOR BLOCKING VALVE	BOTTOM	Y
5010	WASH	V	L	40	2	MAIN QUAD	R-401D	DOWNRIVER COLD SEPARATOR BLOCK VALVE	BOTTOM	Y
5011	WASH	V	L	40	2	MAIN QUAD	R-401D	UNDERFIRE GAS COLD SEPARATOR BLOCK VALVE	BOTTOM	Y
0402		**SUB GAS MANIFOLD / NITROGEN**							
5015	N/A(vac)	V	GV	40	2	MAIN QUAD	QUAD 1	SUB GAS HEADER CLEANOUT VALVE	HEADER	N
5016	N/A(vac)	V	GV	40	2	MAIN QUAD	QUAD 1	BLOCKING VALVE SUB GAS VACUUM LINE	HEADER	Y
5017	N/A(vac)	V	GV	40	2	MAIN QUAD	QUAD 1	BLOCKING VALVE NITROGEN PURGE	HEADER	Y
5018	N/A(vac)	V	GV	40	2	MAIN QUAD	QUAD 1	CLEAN OUT VALVE SUB GAS VACUUM LINE	HEADER	Y
5019	N/A(vac)	V	GV	40	2	MAIN QUAD	QUAD 1	BLEED VALVE SUB GAS VACUUM LINE	HEADER	Y
0403		**UNIT A**							
5020	Q	V	G	40	2	R-401A	West Side	RAW GAS VALVE	TOP #A	Y
5021	Q	V	G	40	2	R-401A	West Side	DOWN RIVER GAS VALVE	TOP #A	Y
5035	UTM	V	L	40	2	R-401A	South Side	TOP LEVEL NORTH STEAM TAP	TOP #A	UTM
5022	Q	V	L	40	2	R-401A	East Side	TOP LEVEL NORTH STEAM TAP EXTENSION	TOP #A	Y
5023	Q	V	G	40	2	R-401A	East Side	UNDER FIRE GAS VALVE	TOP #A	Y
5024	Q	V	G	40	2	R-401A	East Side	SUB GAS VALVE	TOP #A	Y
5025	Q	V	L	40	2	R-401A	North Side	TOP LEVEL SOUTH PRESSURE TAP	TOP #A	N
5026	Q	V	G	40	2	R-401A	East Side	TOP PRESSURE TAP VALVE	TOP #A	Y
5027	Q	V	G	40	2	R-401A	East Side	TOP PRESSURE TAP	TOP #A	Y
5029	Q	V.O/E	G	40	2	R-401A	East Side	TOP PRESSURE TAP	TOP #A	Y
5032	Q	PRV	G	40	2	R-401A	Top Platform	RELIEF VALVE	TOP #A	Y
5033	Q	V	G	40	2	R-401A	Top Platform	BLOCKING VALVE TO PRV	TOP #A	Y
5030	WASH	V	G	40	2	R-401A		MID LEVEL PRESSURE TAP	MIDDLE #A	N
5031	WASH	V	L	40	2	R-401A		LOW LEVEL PRESSURE TAP COLD	BOTTOM #A	N
5034	WASH	V	L	40	2	R-401A		LOW LEVEL PRESS. TAP DRAIN	BOTTOM #A	Y
	A,V,O	C(x3)	G	40	2	R-401A	R-401A	MISCELLANEOUS UNMARKED FLANGES	TOP #A	Y
0404		**UNIT B**							
5040	Q	V	G	40	2	R-401B	West Side	RAW GAS VALVE	TOP #B	Y
5041	Q	V	G	40	2	R-401B	West Side	DOWN RIVER GAS VALVE	TOP #B	Y
5028	UTM	V	L	40	2	R-401B	South Side	TOP LEVEL NORTH STEAM TAP	TOP #B	Y
5043	Q	V	G	40	2	R-401B	East Side	UNDER FIRE GAS VALVE	TOP #B	Y
5044	Q	V	G	40	2	R-401B	East Side	SUB GAS VALVE	TOP #B	Y
5045	UTM	V	L	40	2	R-401B	North Side	TOP LEVEL SOUTH PRESSURE TAP	TOP #B	N
5053	Q	V	L	40	2	R-401B	East Side	TOP LEVEL SOUTH PRESSURE TAP EXTENSION	TOP #B	N
5046	Q	V	G	40	2	R-401B	East Side	TOP PRESSURE TAP VALVE	TOP #B	Y
5047	Q	V O/E	G	40	2	R-401B	East Side	TOP PRESSURE TAP	TOP #B	Y
5050	Q	PRV	G	40	2	R-401B	Top Platform	RELIEF VALVE	TOP #B	Y
5052	Q	V	G	40	2	R-401B	Top Platform	BLOCKING VALVE TO PRV	TOP #B	Y
5048	WASH	V	G	40	2	R-401B	R-401B	MID LEVEL PRESSURE TAP	MIDDLE #B	N
5049	WASH	V	L	40	2	R-401B	R-401B	LOW LEVEL PRESSURE TAP COLD	BOTTOM #B	N
5051	WASH	V	L	40	2	R-401B	R-401B	LOW LEVEL PRESS. TAP DRAIN	BOTTOM #B	Y
	A,V,O	C(x3)	G	40	2	R-401B	R-401B	MISCELLANEOUS UNMARKED FLANGES	TOP #B	Y

ED_002508A_00000154-00057

TABLE 40 (continued)

0405		UNIT C							
5060	Q	V	G	40	2	R-401C	West Side	RAW GAS VALVE	TOP #C	Y
5061	Q	V	G	40	2	R-401C	West Side	DOWN RIVER GAS VALVE	TOP #C	Y
5062	UTM	V	L	40	2	R-401C	North Side	TOP LEVEL NORTH STEAM TAP	TOP #C	Y
5063	Q	V	G	40	2	R-401C	East Side	UNDER FIRE GAS VALVE	TOP #C	Y
5064	Q	V	G	40	2	R-401C	East Side	SUB GAS VALVE	TOP #C	Y
5065	UTM	V	L	40	2	R-401C	South Side	TOP LEVEL SOUTH PRESSURE TAP	TOP #C	N
5066	Q	V	L	40	2	R-401C	East Side	TOP LEVEL SOU PRESSURE TAP EXTENSION	TOP #C	N
5067	Q	V	G	40	2	R-401C	East Side	TOP PRESSURE TAP VALVE	TOP #C	Y
5068	Q	V O/E	G	40	2	R-401C	East Side	TOP PRESSURE TAP	TOP #C	Y
5073	Q	PRV	G	40	2	R-401C	Top Platform	RELIEF VALVE	TOP #C	Y
5075	Q	V	G	40	2	R-401C	Top Platform	BLOCKING VALVE TO PRV	TOP #C	Y
5071	WASH	V	G	40	2	R-401C	R-401C	MID LEVEL PRESSURE TAP	MIDDLE #C	N
5072	WASH	V	L	40	2	R-401C	R-401C	LOW LEVEL PRESSURE TAP COLD	BOTTOM #C	N
5074	WASH	V	L	40	2	R-401C	R-401C	LOW LEVEL PRESS. TAP DRAIN	BOTTOM #C	Y
	A,V,O	C(x3)	G	40	2	R-401C	R-401C	MISCELLANEOUS UNMARKED FLANGES	TOP #C	Y
0406		UNIT D							
5081	Q	V	G	40	2	R-401D	West Side	RAW GAS VALVE	TOP #D	Y
5080	Q	V	G	40	2	R-401D	West Side	DOWN RIVER GAS VALVE	TOP #D	Y
5082	Q	V	L	40	2	R-401D	South Side	TOP LEVEL SOUTH STEAM TAP	TOP #D	Y
5089	Q	V O/E	L	40	2	R-401D	East Side	TOP LEVEL SOUTH STEAM TAP EXTENSION	TOP #D	Y
5083	Q	V	G	40	2	R-401D	East Side	UNDER FIRE GAS VALVE	TOP #D	Y
5084	Q	V	G	40	2	R-401D	East Side	SUB GAS VALVE	TOP #D	Y
5085	UTM	V	L	40	2	R-401D	North Side	TOP LEVEL NORTH PRESSURE TAP	TOP #D	N
5087	Q	V	G	40	2	R-401D	East Side	TOP PRESSURE TAP VALVE	TOP #D	Y
5088	Q	V	G	40	2	R-401D	East Side	TOP PRESSURE TAP	TOP #D	Y
5090	A,V,O	C	G	40	2	R-401D	R-401D	TOP PRESSURE TAP PRESSURE GAUGE	TOP #D	Y
5094	Q	PRV	G	40	2	R-401D	Top Platform	RELIEF VALVE	TOP #D	Y
5096	Q	V	G	40	2	R-401D	Top Platform	BLOCKING VALVE TO PRV	TOP #D	Y
6602	Q	V	G	40	2	R-401D	South of R-401D	BLOCKING VALVE ON MAIN UNDERFIRE HEADER	TOP-SOUTH #D	Y
6603	Q	V	G	40	2	R-401D	South of R-401D	BLOCKING VALVE ON MAIN DOWN RIVER HEADER	TOP-SOUTH #D	Y
7053	UTM	V	G	40	2	R-401D	R-401D	BLOCKING VALVE ON MAIN DOWN RIVER HEADER	TOP-SOUTH #D	N
5092	WASH	V	G	40	2	R-401D	R-401D	MID LEVEL PRESSURE TAP	MIDDLE #D	N
5093	WASH	V	L	40	2	R-401D	R-401D	LOW LEVEL PRESSURE TAP COLD	BOTTOM #D	N
5095	WASH	V	L	40	2	R-401D	R-401D	LOW LEVEL PRESS. TAP DRAIN	BOTTOM #D	Y
	A,V,O	C(x3)	G	40	2	R-401D	R-401D	MISCELLANEOUS UNMARKED FLANGES	TOP #D	Y

ED_002508A_00000154-00058