PSEG Power Connecticut LLC
New Haven Harbor Station, 600 Connecticut Avenue, New Haven, CT 06512-1714

PSEG
Power Connecticut LLC

February 29, 2012

Linda Roberts, Executive Director
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

RE: Notification for Pipe Cleaning as per Connecticut Siting Council Docket No. NT-2010 Decision and Order

Dear Ms. Roberts:

The purpose of this letter is to provide notification to the Connecticut Siting Council that PSEG New Haven LLC (PSEG) will be performing pipe cleaning operations to support the construction of three GE LM6000 gas turbines located at 600 Connecticut Avenue in New Haven. This notice is required by the Connecticut Siting Council Docket No. NT-2010 Decision and Order (the "Decision"), Item # 2.

In further compliance with the above-referenced Decision, PSEG will be utilizing water (hydrolazing) and compressed air to perform cleaning on newly constructed piping prior to introduction of any fuel into the piping system. Attached is the documentation supporting the notification. All relevant safety and environmental regulations will be observed.

Should you have any questions or require additional information, feel free to contact me at 203-551-6001.

Very truly yours,

Michael V. Stagliola
Plant Manager

cc: Melanie Bachman, CSC
New Haven Mayor John DeStefano, Jr.
Robert Silvestri, PSEG
Neil Brown, PSEG
Leilani M. Holgado, PSEG

Docket No. NT-2010, Decision & Order, Item #2.

a. Identification of the cleaning media to be used;

- Water (hydrolaze at high pressure)
- Air (blow with compressed air)

b. Identification of any known hazards through use of the selected cleaning media;

Although the selected cleaning media (water and air) do not pose significant known hazards, typical hazards associated with operations involving high pressure water and compressed air include the following:

- operating equipment
- water discharge
- exiting debris
- sudden hose movements
- high noise environment
- see Cogen Cleaning Technology (CCT) Gas/Fuel Oil Line Air Blow Procedure, Section 4.0 and Hydrolazing Procedure, Section 3 for further details

c. Description of how known hazards will be mitigated, including identification of any applicable state or federal regulations concerning hazard mitigation measures for such media;

PSEG will conform to all applicable OSHA and NFPA requirements, including OSHA 1926, Safety and Health Regulations for Construction and NFPA 56, Fire and Explosion Prevention During Cleaning and Purging of Flammable Gas Piping Systems, for air blows. As part of these procedures the below measures will be used:

- standard PPE (personal protective equipment)
- hearing protection
- hazardous areas barricaded
- temporary piping/hoses secured
- high pressure water discharge contained within the piping
- low pressure water discharge directed to containment, on-site treatment, and disposal to sewer in accordance with CT Department of Energy and Environment Protection General Permit for Miscellaneous Discharges of Sewer Compatible Wastewater
- compressed air discharge to exhausters in a barricaded area
- exhausters to capture debris and attenuate noise
- see CCT Gas/Fuel Oil Line Air Blow Procedure, Section 4.0 and Hydrolazing Procedure, Section 3 for further details

d. Identification and description of accepted industry practices or relevant regulations concerning the proper use of such media;

- OSHA 1926
- NFPA 56
- Job Hazard Analyses
- Pre-job briefs

e. Provide detailed specifications (narratives/drawings) indicating the location and procedures to be used during the pipe cleaning process, including any necessary worker safety exclusion zones;

- Hydrolazing utilizes a high pressure water pump, hoses, rotating device with anti-withdrawal feature and cleaning nozzles to deliver water at high pressure into a pipe and knock the scale and other debris off the side of the walls of the pipe. After contacting the pipe wall, the water is captured in a catch basin and conveyed to frac tanks for later discharge to the local sewer system under CT DEEP's General Permit for Miscellaneous Discharges. See Hydrolazing Procedure attached.
- The air blow uses an air receiver, air compressor, temporary piping targets for verification and isolation valves. The air receiver has a safety relief valve on it to ensure the pressure does not exceed the design pressure of the receiver. Once the pressure reaches the specified pressure (under 120 PSIG), the pressure is released into the piping system at low pressure and high velocity to move any debris through the piping in to an exhauster that captures the debris and attenuates the noise. See CCT Gas/Fuel Oil Line Air Blow Procedure attached.

f. Identification of the contractor or personnel performing the work, including a description of past project experience and the level of training and qualifications necessary for performance of the work;

- Cogen Cleaning Technology experience list attached
- Matt Johnson
- Richard Tydlacka
- Kevin Wakeem
- Stephen Doyle

All of the above CCT support staff have received specialized training on the processes and equipment used in the air blow and hydrolazing operations and have passed the OSHA 10 safety training course. Resumes are attached.

g. Contact information for a special inspector hired by the Certificate Holder who is a Connecticut Registered Engineer with specific knowledge and experience regarding electric generating facilities or a National Board of Boiler and Pressure Vessel Inspector and written approval of such special inspector by the local fire marshal and building inspector;

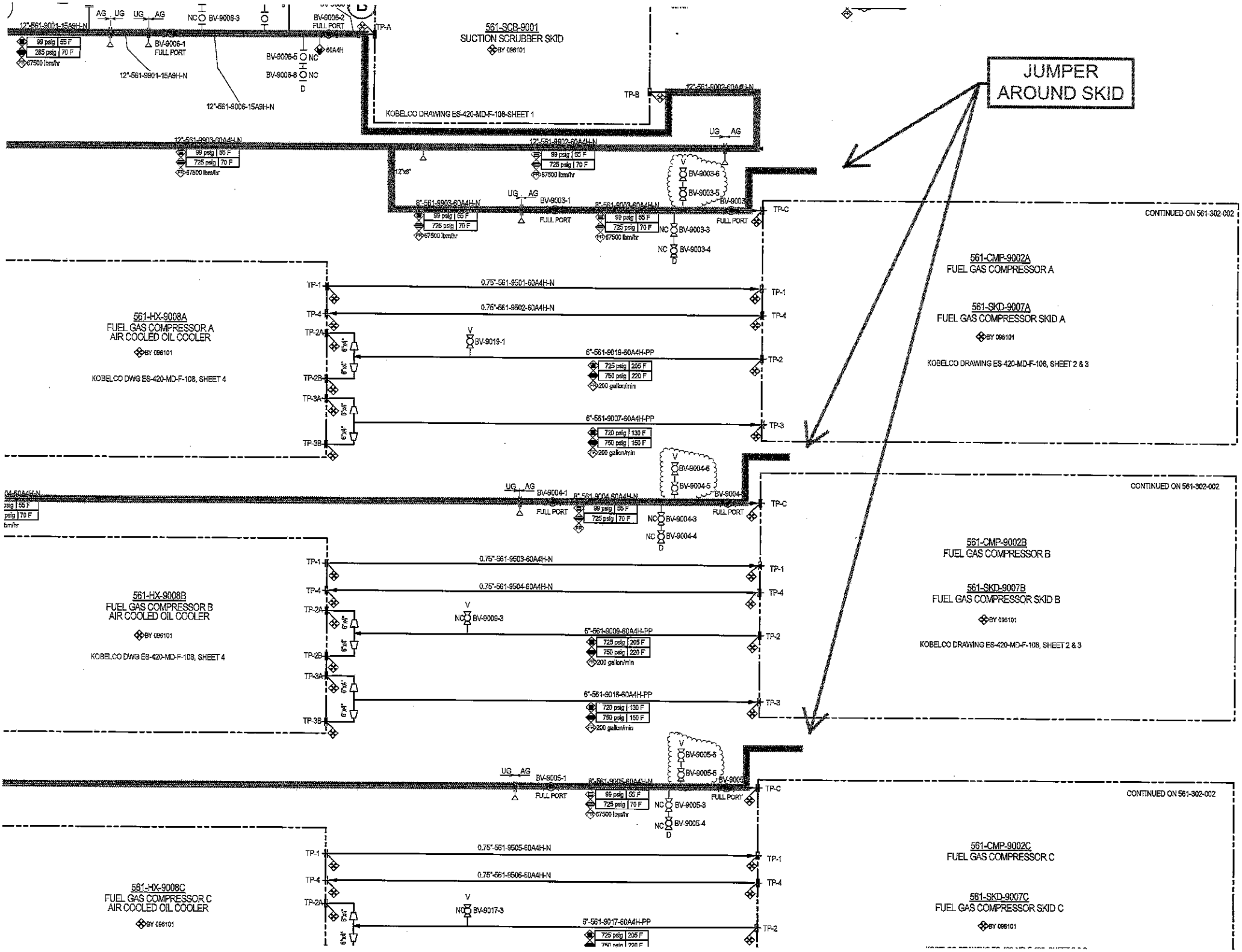
Leonard Pellegrino, PE, CWI
LAP Power Engineering, LLC
800 Village Walk, #237
Guilford, Connecticut 06437
203-464-9123
203-488-3439 (F)
lap.power.engineering@comcast.net

h. Certification of notice regarding pipe cleaning operations to all state agencies listed in General Statutes § 16-50j(h), the Department of Consumer Protection, Department of Labor, Department of Public Safety, Department of Public Works, Department of Emergency Management and Homeland Security, and the local Fire Marshal.

PSEG is concurrently providing notification to the following agencies:

- CT Department of Energy & Environmental Protection
- CT Department Public Health
- CT Council on Environmental Quality
- CT Department of Agriculture
- CT Public Utility Regulatory Authority
- CT Office of Policy & Management
- CT Economic & Community Development
- CT Department of Transportation

- CT Department of Consumer Protection
- CT Department of Labor
- CT Department of Public Safety
- CT Department of Public Works
- CT Department of Emergency Management & Homeland Security
- New Haven Fire Marshal


JUMPER AROUND SKID
561-SCB-9001
SUCTION SCRUBBER SKID
BY 096101
KOBELCO DRAWING ES-420-MD-F-108-SHEET 1
12"-561-9901-15A9H-N
12"-561-9902-60A4H-N
12"-561-9903-60A4H-N
12"-561-9906-15A9H-N
99 psig | 55 F
285 psig | 70 F
725 psig | 70 F
67500 lbm/hr
BV-9006-1 FULL PORT
BV-9006-2 FULL PORT
BV-9006-3
BV-9006-5 NC
BV-9006-8 NC
TP-A
TP-B
TP-C
AG UG UG AG
BV-9003-1 FULL PORT
BV-9003-3
BV-9003-4
BV-9003-5
BV-9003-6
6"-561-9903-60A4H-N
6"-561-9902-60A4H-N
CONTINUED ON 561-302-002
561-CMP-9002A
FUEL GAS COMPRESSOR A
561-SKD-9007A
FUEL GAS COMPRESSOR SKID A
BY 096101
KOBELCO DRAWING ES-420-MD-F-108, SHEET 2 & 3
561-HX-9008A
FUEL GAS COMPRESSOR A
AIR COOLED OIL COOLER
BY 096101
KOBELCO DWG ES-420-MD-F-108, SHEET 4
TP-1
TP-4
TP-2A
TP-2B
TP-3A
TP-3B
TP-2
TP-3
0.75"-561-9501-60A4H-N
0.75"-561-9502-60A4H-N
BV-9019-1
6"-561-9018-60A4H-PP
6"-561-9007-60A4H-PP
725 psig | 205 F
750 psig | 220 F
720 psig | 130 F
750 psig | 150 F
200 gallon/min
BV-9004-1 FULL PORT
BV-9004-3
BV-9004-4
BV-9004-5
BV-9004-6
561-CMP-9002B
FUEL GAS COMPRESSOR B
561-SKD-9007B
FUEL GAS COMPRESSOR SKID B
561-HX-9008B
FUEL GAS COMPRESSOR B
AIR COOLED OIL COOLER
0.75"-561-9503-60A4H-N
0.75"-561-9504-60A4H-N
BV-9009-3
6"-561-9009-60A4H-PP
6"-561-9016-60A4H-PP
BV-9005-1 FULL PORT
BV-9005-3
BV-9005-4
BV-9005-5
BV-9005-6
561-CMP-9002C
FUEL GAS COMPRESSOR C
561-SKD-9007C
FUEL GAS COMPRESSOR SKID C
561-HX-9008C
FUEL GAS COMPRESSOR C
AIR COOLED OIL COOLER
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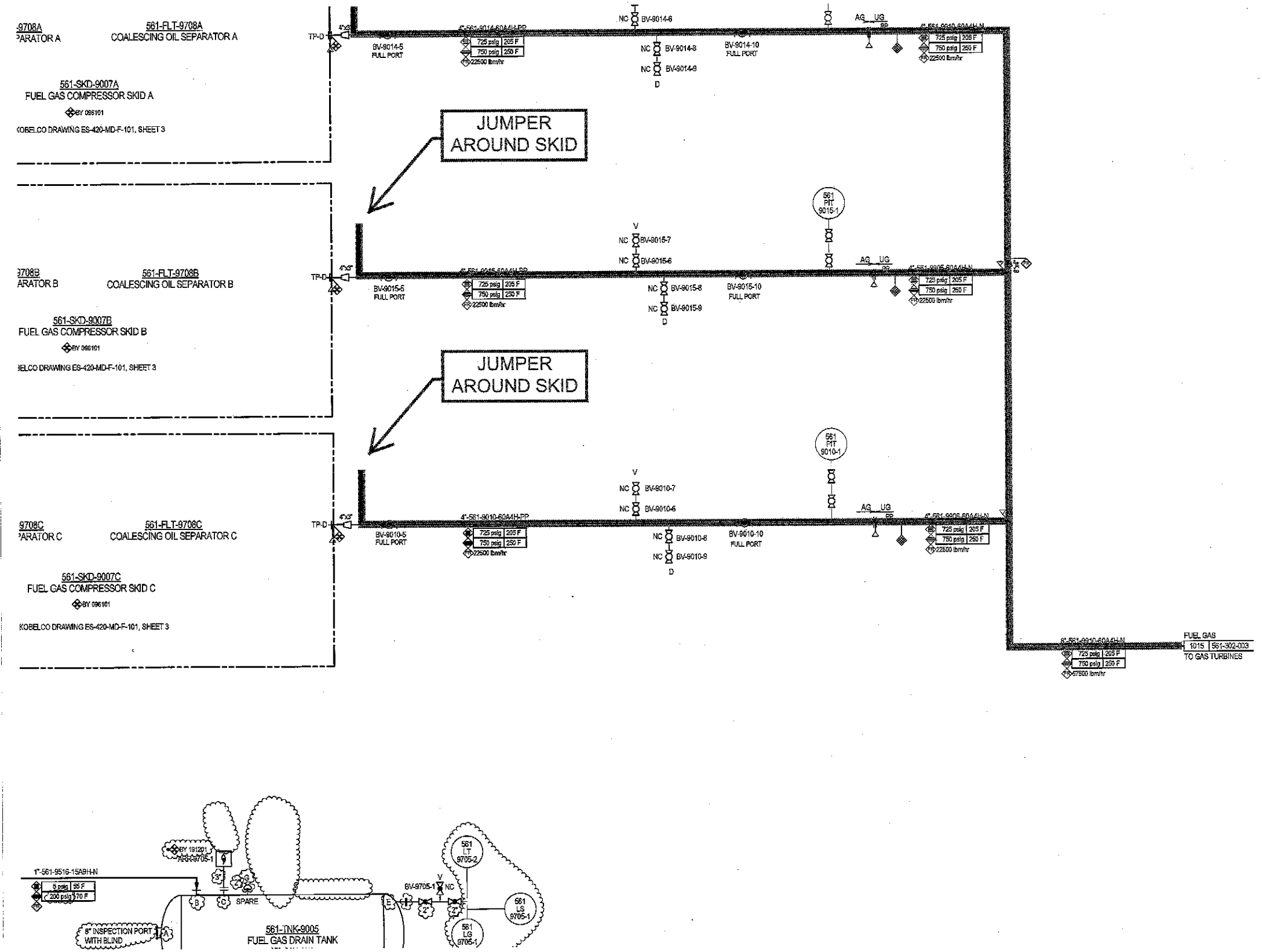
0.75"-561-9506-60A4H-N
BV-9017-3
6"-561-9017-60A4H-PP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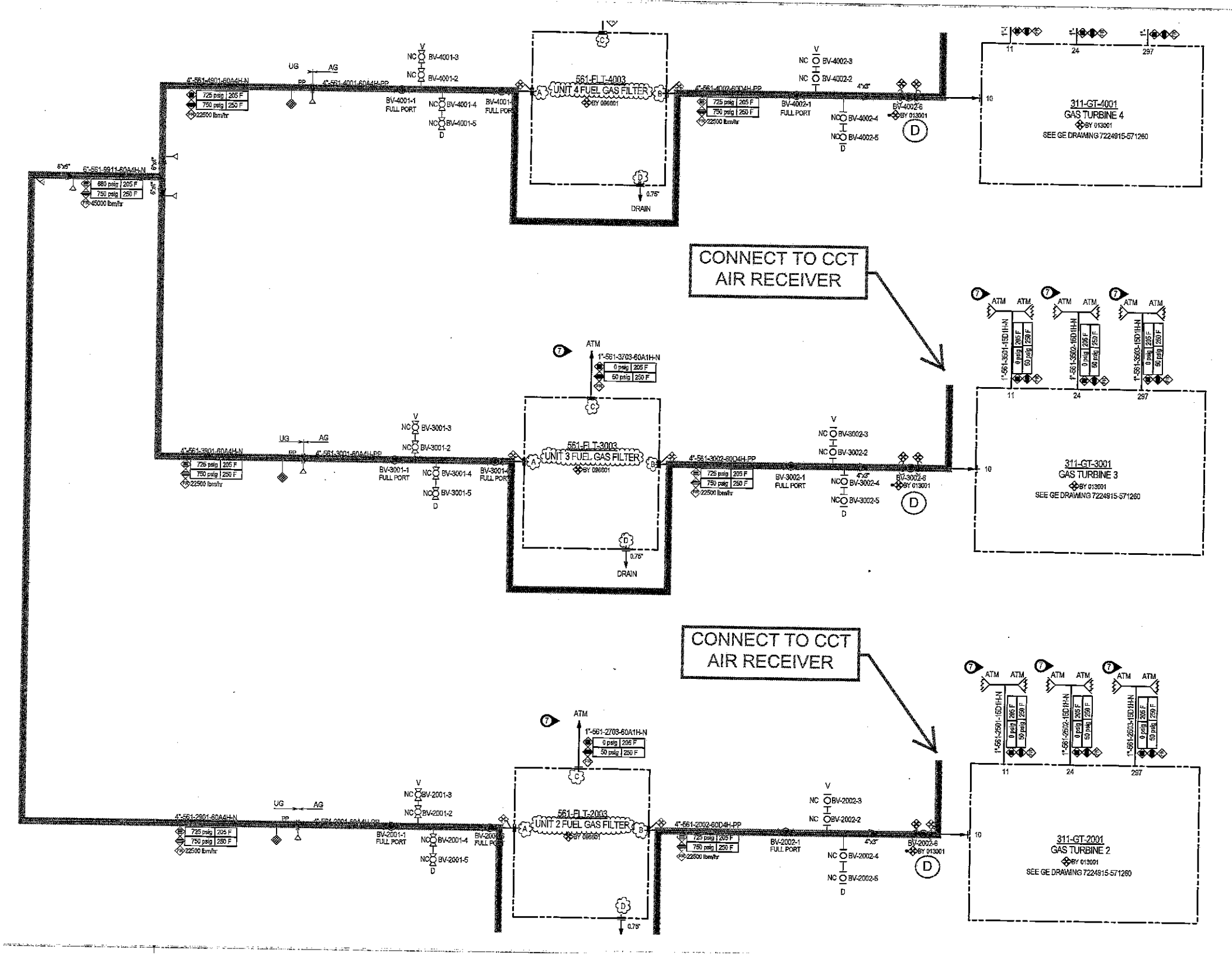
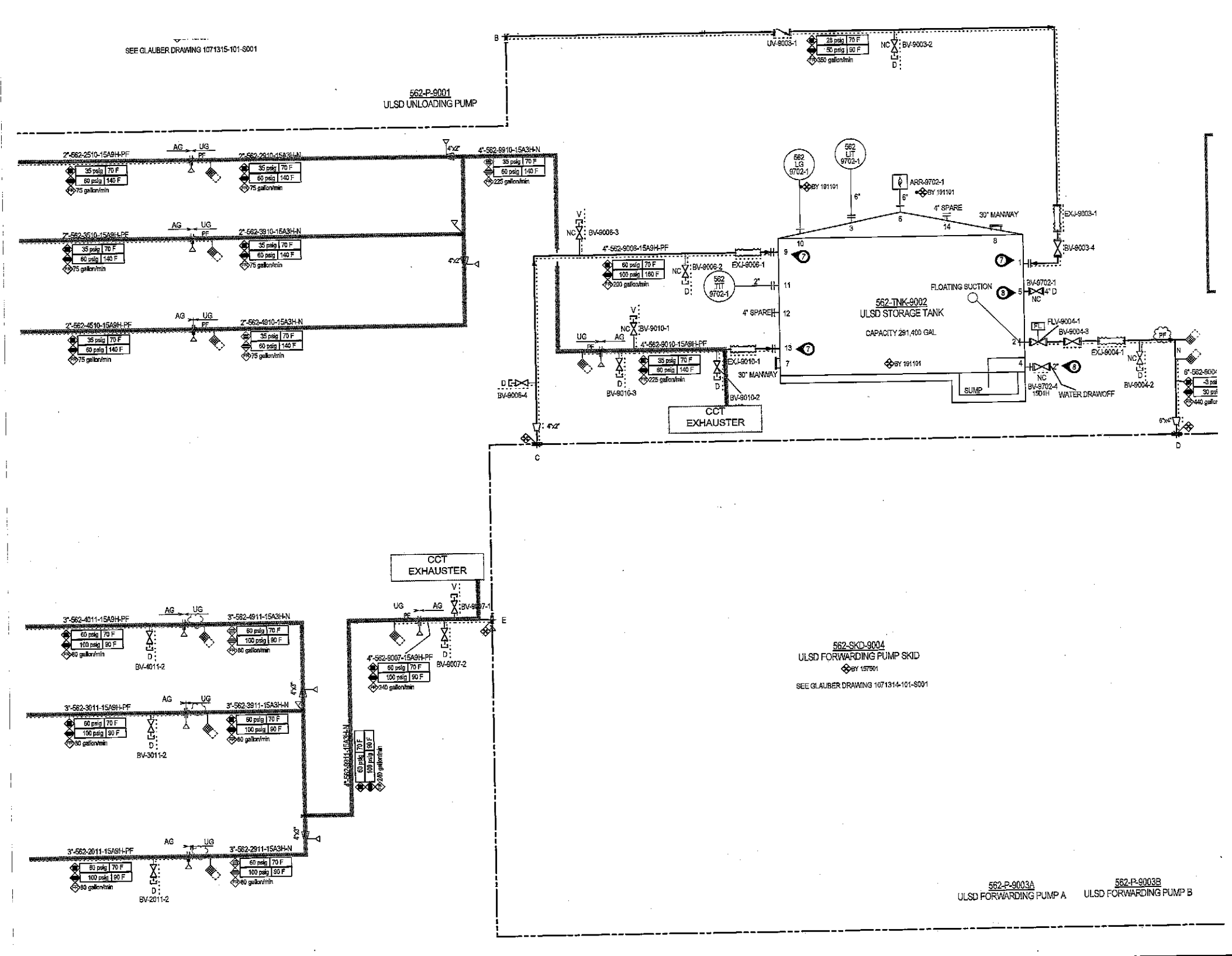
COALESCING OIL SEPARATOR A
561-SKD-9007A
FUEL GAS COMPRESSOR SKID A
KOBELCO DRAWING ES-420-MD-F-101, SHEET 3
JUMPER AROUND SKID
561-FLT-9708B
COALESCING OIL SEPARATOR B
561-SKD-9007B
FUEL GAS COMPRESSOR SKID B
JUMPER AROUND SKID
561-FLT-9708C
COALESCING OIL SEPARATOR C
561-SKD-9007C
FUEL GAS COMPRESSOR SKID C
BV-9014-5
BV-9014-6
BV-9014-8
BV-9014-9
BV-9014-10
BV-9015-5
BV-9015-6
BV-9015-7
BV-9015-8
BV-9015-9
BV-9015-10
BV-9010-5
BV-9010-6
BV-9010-7
BV-9010-8
BV-9010-9
BV-9010-10
561 PIT 9015-1
561 PIT 9010-1
FULL PORT
725 psig 205 F
750 psig 250 F
22500 lbm/hr
67500 lbm/hr
FUEL GAS
1015 561-302-003
TO GAS TURBINES
561-TNK-9005
FUEL GAS DRAIN TANK
8" INSPECTION PORT WITH BLIND
SPARE
561 LT 9705-2
561 LS 9705-1
561 LG 9705-1
BV-9705-1


561-FLT-4003
UNIT 4 FUEL GAS FILTER
311-GT-4001
GAS TURBINE 4
SEE GE DRAWING 7224915-571260
CONNECT TO CCT
AIR RECEIVER
561-FLT-3003
UNIT 3 FUEL GAS FILTER
311-GT-3001
GAS TURBINE 3
SEE GE DRAWING 7224915-571260
CONNECT TO CCT
AIR RECEIVER
561-FLT-2003
UNIT 2 FUEL GAS FILTER
311-GT-2001
GAS TURBINE 2
SEE GE DRAWING 7224915-571260
DRAIN
DRAIN
DRAIN


SEE GLAUBER DRAWING 1071315-101-S001
562-P-9001
ULSD UNLOADING PUMP
UV-9003-1
BV-9003-2
2"-562-2510-15A9H-PF
2"-562-2910-15A3H-N
4"-562-9910-15A3H-N
2"-562-3510-15A9H-PF
2"-562-3910-15A3H-N
2"-562-4510-15A9H-PF
2"-562-4910-15A3H-N
BV-9006-3
4"-562-9006-15A9H-PF
BV-9006-2
EXJ-9006-1
BV-9006-4
562 LG 9702-1
562 LIT 9702-1
562 TIT 9702-1
ARR-9702-1
4" SPARE
30" MANWAY
EXJ-9003-1
BV-9003-4
FLOATING SUCTION
BV-9702-1
562-TNK-9002
ULSD STORAGE TANK
CAPACITY 291,400 GAL
FLV-9004-1
BV-9004-3
EXJ-9004-1
BV-9004-2
BV-9702-4
WATER DRAWOFF
SUMP
BV-9010-1
4"-562-9010-15A9H-PF
BV-9010-3
EXJ-9010-1
BV-9010-2
CCT EXHAUSTER
CCT EXHAUSTER
BV-9007-1
4"-562-9007-15A9H-PF
BV-9007-2
3"-562-4011-15A9H-PF
3"-562-4911-15A3H-N
BV-4011-2
3"-562-3011-15A9H-PF
3"-562-3911-15A3H-N
BV-3011-2
3"-562-2011-15A9H-PF
3"-562-2911-15A3H-N
BV-2011-2
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ULSD FORWARDING PUMP SKID
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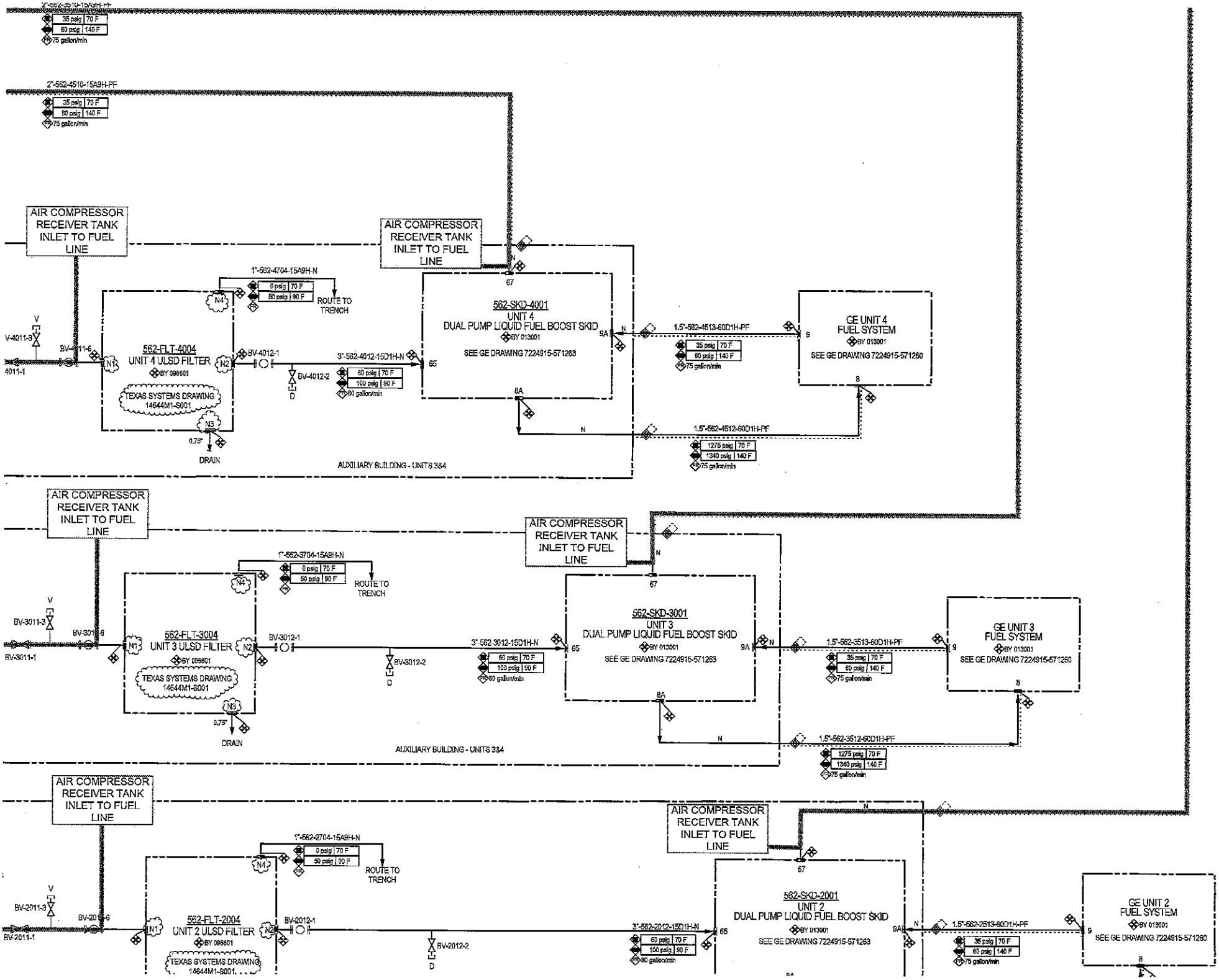
562-P-9003B
ULSD FORWARDING PUMP B


2"-562-4510-15A9H-PF
35 psig | 70 F
60 psig | 140 F
75 gallon/min
AIR COMPRESSOR RECEIVER TANK INLET TO FUEL LINE
AIR COMPRESSOR RECEIVER TANK INLET TO FUEL LINE
1"-562-4704-15A9H-N
0 psig | 70 F
50 psig | 90 F
ROUTE TO TRENCH
N4
V
V-4011-3
BV-4011-6
4011-1
N1
562-FLT-4004
UNIT 4 ULSD FILTER
BY 096601
TEXAS SYSTEMS DRAWING 14644M1-S001
N2
BV-4012-1
3"-562-4012-15D1H-N
BV-4012-2
D
60 psig | 70 F
100 psig | 90 F
60 gallon/min
65
562-SKD-4001
UNIT 4
DUAL PUMP LIQUID FUEL BOOST SKID
BY 013001
SEE GE DRAWING 7224915-571263
67
9A
N
1.5"-562-4513-60D1H-PF
35 psig | 70 F
60 psig | 140 F
75 gallon/min
9
GE UNIT 4
FUEL SYSTEM
BY 013001
SEE GE DRAWING 7224915-571260
8
8A
N3
0.75"
DRAIN
1.5"-562-4512-60D1H-PF
1275 psig | 70 F
1340 psig | 140 F
75 gallon/min
AUXILIARY BUILDING - UNITS 3&4
AIR COMPRESSOR RECEIVER TANK INLET TO FUEL LINE
AIR COMPRESSOR RECEIVER TANK INLET TO FUEL LINE
1"-562-3704-15A9H-N
0 psig | 70 F
50 psig | 90 F
ROUTE TO TRENCH
N4
V
BV-3011-3
BV-3011-6
BV-3011-1
N1
562-FLT-3004
UNIT 3 ULSD FILTER
BY 096601
TEXAS SYSTEMS DRAWING 14644M1-S001
N2
BV-3012-1
3"-562-3012-15D1H-N
BV-3012-2
D
60 psig | 70 F
100 psig | 90 F
60 gallon/min
65
562-SKD-3001
UNIT 3
DUAL PUMP LIQUID FUEL BOOST SKID
BY 013001
SEE GE DRAWING 7224915-571263
67
9A
N
1.5"-562-3513-60D1H-PF
35 psig | 70 F
60 psig | 140 F
75 gallon/min
9
GE UNIT 3
FUEL SYSTEM
BY 013001
SEE GE DRAWING 7224915-571260
8
8A
N3
0.75"
DRAIN
1.5"-562-3512-60D1H-PF
1275 psig | 70 F
1340 psig | 140 F
75 gallon/min
AUXILIARY BUILDING - UNITS 3&4
AIR COMPRESSOR RECEIVER TANK INLET TO FUEL LINE
AIR COMPRESSOR RECEIVER TANK INLET TO FUEL LINE
1"-562-2704-15A9H-N
0 psig | 70 F
50 psig | 90 F
ROUTE TO TRENCH
N4
V
BV-2011-3
BV-2011-6
BV-2011-1
N1
562-FLT-2004
UNIT 2 ULSD FILTER
BY 096601
TEXAS SYSTEMS DRAWING 14644M1-S001
N2
BV-2012-1
3"-562-2012-15D1H-N
BV-2012-2
D
60 psig | 70 F
100 psig | 90 F
60 gallon/min
65
562-SKD-2001
UNIT 2
DUAL PUMP LIQUID FUEL BOOST SKID
BY 013001
SEE GE DRAWING 7224915-571263
67
9A
N
1.5"-562-2513-60D1H-PF
35 psig | 70 F
60 psig | 140 F
75 gallon/min
9
GE UNIT 2
FUEL SYSTEM
BY 013001
SEE GE DRAWING 7224915-571260
8

New Haven Peaking Project

Fuel Gas and Fuel Oil System

PSEG Power Connecticut

New Haven, CT.

Hydrolazing Procedure

TABLE OF CONTENTS

1.0 PURPOSE

1.1 The purpose of this procedure is to provide a general outline and guide to the requirements to safely and efficiently perform hydrolaze cleaning. Modifications listed in this procedure are mechanical changes to help facilitate this process. It is not intended, nor shall it be acceptable to permanently alter or re-engineer the system in any way without direction from the applicable engineering department. This procedure is based on drawings and general descriptions provided by PSEG.

1.2 This procedure is not intended to be the final revision. The Company representative is responsible for a thorough review of all modifications, revised drawings and/or client/vendor-supplied literature; prior to implementation of this procedure. All applicable documents, including field generated redlines, used during this process shall be assembled and attached to this procedure for review.

1.3 The company administrator for the hydrolaze cleaning will be: **John Evans**

1.4 The company point of contact for all hydrolazing will be: **Sam Kemper**

1.5 Any changes will be mutually agreed upon prior to or during implementation of this procedure by company and company.

1.6 Sign-offs for acceptance shall be designated inspectors from PSEG.

2.0 SYSTEM SCOPE

2.1 Fuel Gas System

2.2 Fuel Oil System

3.0 SAFETY

The following precautions apply specifically to hydrolaze cleaning. Personal Protective Equipment (PPE) must be worn at all times when inside the plant (except in designated areas). Additional eye/face protection, hearing protection and other safety equipment shall be donned as appropriate to specific tasks.

3.1 Only qualified personnel shall work on or near the equipment being hydrolazed in this procedure.

3.2 Hydrolaze pump shall not be operated with a safety device, trip or interlock defeated.

3.3 A manned control station shall be created at the point of entry location. The control station will remain in constant communication with key field personnel.

3.4 All Material Safety Data Sheets (MSDS's) and/or any other necessary safety information shall be attached to this procedure when applicable. Expected Chemical Exposures: **NONE**

3.5 In addition to the preceding, all workers must adhere to all applicable safety guidelines established by OSHA, PSEG and Cogen Cleaning Technologies.

3.6 A company service person will conduct a mandatory pre-hydrolaze meeting to discuss all facets of the job (safety, this procedure, communications, etc.) and to address any additional questions and/or concerns.

3.7 Hearing protection will be worn in the immediate vicinity of equipment.

3.8 The entry and exit points will require barricade tape boundary.

3.9 A company service person will need to have communication with the company representative.

3.10 Scaffolding will be inspected and approved by safety.

4.0 SERVICE REQUIREMENTS

4.1 A suitable location with a firm and flat surface within 350 ft of work

4.2 Equipment footprint is 16' long and 8 ½' wide and 8' tall

4.3 Plant craft personnel to open entry points

4.4 Company will provide crane and forklift to off load / reload company service equipment if necessary.

4.5 Service water (60gpm at 60psig)

4.6 PSEG will provide Compressed air at 125 psig / 185 cfm.

4.7 Access to pipe to be cleaned with minimum 4" opening or 8" x 42" clearance at a rolled valve or flanged entries

4.8 Office space to log and file reports

4.9 Scaffold, if required

4.10 Removal of any items in the permanent system which could be damaged from the process (check valves, control valves, etc.)

4.11 Necessary modifications of permanent pipe (See system specific attachments 13.1)

4.12 Diesel fuel for unit approximately 150 gallons per shift

4.13 Supply 110 volt hook up for unit and pumps

4.14 Barricade tape to surround the entry points

4.15 Disposal of hydrolaze water will be done by PSEG.

5.0 CONSTRUCTION REQUIREMENTS

5.1 The project personnel will walk the entire system to determine the system is ready for the cleaning to begin.

5.2 A company safety representative will have the final say on all site-specific requirements.

5.3 A company representative will have final say on all hydrolazing equipment being used and determine the operation is safe and ready to implement.

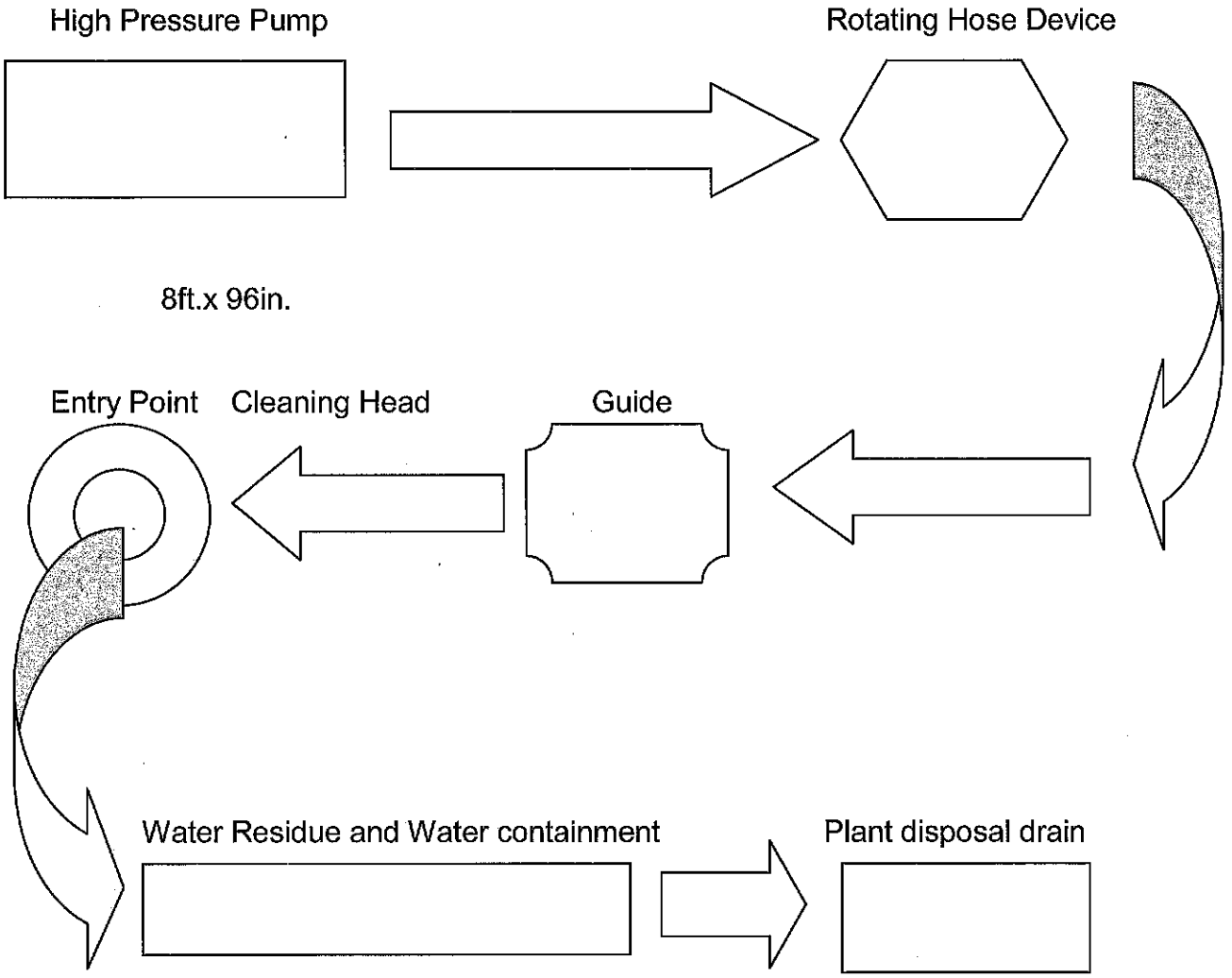
6.0 TECHNICAL OVERVIEW

6.1 Hydrolazing is a specialized system of water blasting that focuses energy ranging from 15,000 PSI at 48gpm to 20,000 PSI at 32gpm onto a very narrow surface area. The system employs a high-pressure pump, which via high-pressure hose feeds a rotating hose device from which a rotating hose is inserted through a guide into a given entry for cleaning. A cutting nozzle is attached to the end of the rotating hose. Various size nozzles are employed depending upon application. Using a side force jet the nozzle travels the circumference of the pipe while rotating across the surface of the pipe, which is being cleaned by the cutting jets. The high- pressure pump is started at the unit. Once the unit is started, the pump is controlled by a manual control device that is manned at the HP pump. The rotating hose device is an air driven motor that is manually controlled for speed adjustment once the air valve is opened. The feeder/ antiwithdraw device is a series of wheels that are manually adjusted to the diameter of the pipe. A stainless protection hose attaches to the guide and leads to the entry point. Once the system is in place and the nozzle inserted it is a hands free system that is remotely controlled.

6.2 Safety is paramount at the entry point, which must be clear of any personnel prior to operation. During operation sight and radio communication from the rotating hose device to the tracker are employed. The distance between the rotating hose device and the guide will be manually guarded. The feed hoses leading from the high pressure pump to the rotating hose device will be identified using caution tape. All non-rotating hoses will secured with hose whips. Standard PPE is adequate for hydrolazing personnel.

6.3 Locating the high-pressure pump in a central area will increase efficiency and reduce the amount of feed hose between the pump and the rotating hose device.

7.0 PROCESS FLOW DIAGRAM



8.0 APPLICATIONS GUIDE

Encrustations	*Recommended Pressures*
Latex, phosphates, resins, calcium	15,000 PSI
Carbonate, coke, flyash, drilling	15,000 PSI
Mastic-covered cement	12,000 PSI
Metal burrs, sulphur black	12,000 PSI
Deep stains, bonded paint, tight rust, millscales, product deposits, asphalt	12,000 PSI
Liquor silicates, water scale, lime & polymers	10,000 PSI
Cement, barnacles, loose paint, rust, tar, pvc	10,000 PSI
Loose paint, rust, asphalt, mastic marine growth , masonry stains, mortar, & calcium	10,000 PSI
Concrete curing films, water scale, potash asbestos, PVA, iron oxide	10,000 PSI
Roots, sediments wood pulp, paraffin, wax, grease	N/A
Dirt, mud, grease, algae, vegetation scum	N/A

Note: Non-applicable as rate range will not be below 7500 CCT for cleaning.

9.0 WATER CONSUMPTION

9.1 Water consumption during the hydro-lazing process is figured by the volume of water moved by the high pressure pump multiplied by the total footage of each system. Total footage is doubled because of two-pass cleaning. The rate of consumption is figured at a cleaning speed of 2.5 foot per minute.

Example:

System ft. x 2 (2 pass cleaning) = total ft.

Fuel Gas System	1,612'
Fuel Oil System	2,115'
Total	3,727' x 2 = 7,454' ft
Water Consumption	@ 31gpm = 77,024 gals

10.0 HIGH PRESSURE WATER CLEANING PROCEDURE

10.1 Spot cleaning unit and equipment.

10.2 Remove all necessary hose, rotating devices, feed mechanisms and catch basins

10.3 Walk the line to be cleaned from the entry point to the finish point and identify all open drainage points.

10.4 Place feed mechanism in the appropriate working area in front of the entry point.

10.5 Roll rotating hose device to appropriate working area between the cleaning unit and the feed mechanism.

10.6 Attach, couple, and secure with hose whips the high-pressure water lines from the cleaning unit to the rotating hose device.

10.7 Secure the high pressure feed line to the cleaning unit.

10.8 Attach and couple the high-pressure water lines from the rotating hose device to the feed mechanism.

10.9 Attach the protective stainless hose from the feed mechanism to the entry point.

10.10 Insert the high-pressure rotating hose through the protective stainless hose to the entry point.

10.11 Attach the nozzle to the high pressure rotating hose and insert into the entry point.

10.12 Attach and secure with hose whips the air hose from the air supply to the rotating hose device.

10.13 Attach suction hoses from catch basins to the suction side of the gas or sump pumps or route to the nearest drain if using a gravity feed.

10.14 Attach lay flat hose from the discharge side of the gas or sump pumps to the appropriate collection and disposal area.

10.15 Mark and barricade the working area.

10.16 Open ball valve to water inlet line on the cleaning unit.

10.17 Adjust and tighten feed mechanism.

10.18 Start the cleaning unit.

10.19 Engage pump.

10.20 Gradually increase the RPM's on the cleaning unit to increase working pressure to the specified working pressure.

10.21 Open air valve to the rotating hose device.

10.22 Check entry point, feed mechanism, and cleaning machine for any inappropriate stresses.

11.0 CLEANLINESS CRITERIA

11.1 Piping shall be determined as clean by any singular or combination of the following methods: visual inspection, video inspection, or boroscope inspection.

11.2 PSE&G shall verify acceptance by signature of system cleaned on the vendor provided acceptance sheet.

11.3 PSE&G will provide suitable inspection forms.

12.0 SITE SAFETY PLAN

12.1 Originally submitted for procedure approval can be duplicated upon request.

13.0 SYSTEM SPECIFIC ATTACHMENTS

13.1 Modifications & Disassembles

13.1.1 Remove FGS 12" spool at metering station (NHPU-2-DW-561-302-001)

13.1.2 Remove FGS 12" inlet spool at suction scrubber skid (NHPU-2-DW-561-302-001)

13.1.3 Remove FGS 12" outlet spool at suction scrubber skid (NHPU-2-DW-561-302-001)

13.1.4 Remove FGS 8" inlet spool at check valve on compress A (NHPU-2-DW-561-302-001)

13.1.5 Remove FGS 8" inlet spool at check valve on compress B (NHPU-2-DW-561-302-001)

13.1.6 Remove FGS 8" inlet spool at check valve on compress C (NHPU-2-DW-561-302-001)

13.1.7 Remove FGS 8" outlet spool at check valve on compress A (NHPU-2-DW-561-302-002)

13.1.8 Remove FGS 8" outlet spool at check valve on compress B (NHPU-2-DW-561-302-002)

13.1.9 Remove FGS 8" outlet spool at check valve on compress C (NHPU-2-DW-561-302-002)

13.1.10 Remove FGS 4" inlet spool at unit 2 filter skid (NHPU-2-DW-561-302-003)

13.1.11 Remove FGS 4" inlet spool at unit 3 filter skid (NHPU-2-DW-561-302-003)

13.1.12 Remove FGS 4" inlet spool at unit 4 filter skid (NHPU-2-DW-561-302-003)

13.1.13 Remove FOS 2"x4" inlet spool at forwarding pump skid (NHPU-2-DW-562-302-001)

13.1.14 Remove FOS 4" outlet spool at forwarding pump skid (NHPU-2-DW-562-302-001)

13.1.15 Remove FOS 3" inlet spool at unit 2 ULSD Filter skid (NHPU-2-DW-562-302-002)

13.1.15 Remove FOS 3" inlet spool at unit 3 ULSD Filter skid (NHPU-2-DW-562-302-002)

13.1.15 Remove FOS 3" inlet spool at unit 4 ULSD Filter skid (NHPU-2-DW-562-302-002)

14.0 SPECIFIC PROCEDURE STEPS

Setup up equipment on site

14.1.1 Rig to FGS removed 12" spool (NHPU-2-DW-561-302-001)

14.1.2 Hydrolaze from metering station toward suction scrubber skid

14.1.3 Rig to FGS removed 12" outlet spool at suction scrubber skid (NHPU-2-DW-561-302-0001)

14.1.4 Hydrolaze toward compressors A, B and C

14.1.5 Rig to FGS 8" inlet compressor A line (NHPU-2-DW-561-302-001)

14.1.6 Hydrolaze from compressor A toward main header

14.1.7 Rig to FGS 8" inlet compressor line B (NHPU-2-DW-561-302-001)

14.1.8 *Hydrolaze from compressor B toward main header*

14.1.9 Rig to FGS 8" inlet compressor C line (NHPU-2-DW-561-302-001)

14.1.10 Hydrolaze from compressor C toward main header

14.1.11 Rig to FGS 8" outlet compressor A line (NHPU-2-DW-561-302-002)

14.1.12 *Hydrolaze from compressor A toward unit 2 FG filter*

14.1.13 Rig to FGS 8" outlet compressor B line (NHPU-2-DW-561-302-002)

14.1.14 *Hydrolaze from compressor B toward unit 2 FG filter*

14.1.15 Rig to FGS 8" outlet compressor C line (NHPU-2-DW-561-302-002)

14.1.16 *Hydrolaze from compressor C toward unit 2 FG filter*

14.1.17 Rig to 4" FGS line at FG filter 2 (NHPU-2-DW-561-302-003)

14.1.18 *Hydrolaze from FG filter 2 towards FGS compressors*

14.1.19 Rig to 4" FGS line at FG filter 3 (NHPU-2-DW-561-302-003)

14.1.20 Hydrolaze from FG filter 3 towards FGS compressors

14.1.21 Rig to 4" FGS line at FG filter 4 (NHPU-2-DW-561-302-003)

14.1.22 Hydrolaze from FG filter 4 towards FGS compressors

14.1.23 Rig to 4" FOS suction line at forwarding pump skid (NHPU-2-561-302-1)

14.1.24 Hydrolaze 4" FOS suction line at forwarding pump skid to storage tank

14.1.25 Rig to 4" FOS return line at storage tank (NHPU-2-561-302-1)

14.1.26 Hydrolaze 4" FOS return line from storage tank back toward 4x2 reducer underground

14.1.27 Rig to 4" FOS discharge line at forwarding pump skid (NHPU-2-561-302-1)

14.1.28 Hydrolaze 4" FOS discharge line from forwarding pump skid toward booster pump

14.1.29 Rig to 3" FOS suction line at booster pump (NHPU-2-561-302-1)

14.1.30 Hydrolaze 3" FOS suction line from booster pump toward forwarding pump skid

Rig down and remove equipment off site.

GAS/FUEL OIL LINE AIR BLOW PROCEDURE

FOR

PSE&G

New Haven Peaking Project
New Haven, Connecticut

CCT PROJECT 2011-1910

Approved _____ Date: _____
PSE&G

Approved _____ Date: _____
General Electric

Revisions

REV	ISSUE DATE	SECTIONS	DESCRIPTION	INITIALS

Table of Contents

PSEG

New Haven Peaking Project
Gas Line Air Blow Procedure

1.0 Scope

Cogen Cleaning Technology has been contracted to clean the fuel system of this facility supplying gas to eight (3) General Electric LM6000 combustion turbines, using air as a cleaning medium. CCT's air blow method delivers high velocity air at lower pressure (120-125 psig), achieving identifiable results. Using air as a cleaning medium for gas lines is a safe and acceptable alternative to using natural gas. Air is much denser than methane and will provide cleaning forces much greater at a lower pressure than the full gas pressure required in some blows of gas lines. Acceptance criteria for the fuel gas line air blows is contained in Section 8 of this procedure.

The air blows will remove loose material, water, and construction debris from all piping as well as the underground piping. Piping with caked in mud or filled with rocks will need to be hydrolazed and vacuumed out prior to air blowing.

If the CCT Technical Service Supervisor determines that a more effective method can be utilized while continuing to achieve the owner's and manufacturer's acceptance criteria in a timely manner, he will discuss with PSE&G to pursue this more effective manner.

Boundaries

Fuel gas piping from gas yard to three (3) GE LM6000 combustion turbines including all common piping – Target blow each line to each combustion turbine
Fuel oil line from fuel storage tank to each of three (3) GE LM6000 Combustion turbines including return lines – Target blow from each turbine

2.0 Service Requirements (CCT)

- Technical Service Supervisors to perform the air blow services – one (1) per (12) hour shift, (2) shifts per day for six (6) days.
- Technical Supervisor mobilizations: one (1) mobilization of personnel.
- Engineering Package which includes process design procedures and drawings, equipment requirement and layout, operating and safety procedures, and drawings. One (1) engineer for one (1) site visit for two (2) days as part of the mobilization for the Hydrolazing.
- CCT Air Blow Equipment Mobilization: One (1) mobilization
- One (1) 700 SCFM or larger compressor for up to 10 days including delivery and return. (Does not include diesel fuel or lubricants - customer to provide)
- CCT Equipment on site for rig up, all services, and rig down ten (10) days.
- CCT Equipment Package moved from Kearny Site
- Two (2) Standard Target Injection Devices and (150) targets
- Temporary piping from permanent exit point to air exhauster up to 100'. This piping is sent to the site in random length 150# flanged spools. The diameters range from 6" to 36" (as required).
- Required 6" hose to allow condensate to exit air exhauster
- Freight for all CCT equipment: Up to two (2) truckloads moved from Kearny site.
- Daily logs of all activities

- Spreadsheet to document real time DFR's
- Daily logs of all activities
- Required PPE
- Compliance with CCT service specific safety requirements, site specific safety requirements and OSHA general safety requirements.

3.0 Service Requirements (PSEG)

- Qualified labor to off load, position, install, rig down and load out CCT equipment. This may require some field fabrication onsite. Crane and forklift to offload, position, install, rig down and reload CCT service equipment. Craft support during the blow to operate permanent equipment and to support CCT personnel. Supervision of craft labor
- Sewer access or drainage for water from air exhauster
- Compressor or Plant Air for Target Injection Device
- Suitable flange to allow tie in of temporary pipe to the permanent pipe
- Timbers or pipe stands, adequate number to support the schedule 40 temporary pipe and fabrication and installation
- Hoses to connect to the steam decelerating devices (typically 2") & Air hose from air source to Target Injection Device (100 PSI)
- Barricade tape to surround the temporary pipe & temporary blanket type insulation on target spool
- Scaffold, if required, to reach Target Injection Device
- Removal of any items in the permanent system which could be damaged from air blow.

4.0 Safety

4.1 Hearing protection should be worn in the immediate vicinity of the temporary equipment.

4.2 Barricade tape should be erected around the temporary pipe and equipment, especially the exhauster (vent to atmosphere) locations, since construction debris will be entrained in the exhausting air streams, as well as water during the initial purges of the piping.

4.3 All temporary bypass hosing shall be secured to permanent structures or sand bagged to prevent violent movement during the cleaning process, as if any water is removed will cause the hoses to react violently.

4.4 The CCT service supervisor will need to have a site coordinator with radio communication. The air blow entry and exit points might have obstructed line-of-sight communication.

4.5 Scaffolding/shoring (if required) will be inspected.

4.6 Adequate lighting will be required for night shift air blows.

4.7 Water will be purged from the permanent pipe as the initial step of this air blow procedure. Pressures will start low and then be increased until any potential water is purged.

4.8 The PSE&G Company project safety representative will have the final say on all site specific requirements.

4.9 Any plant wide announcements indicating air blow releases will be governed by the onsite safety department.

4.10 Any waste generated, normally water blown from lines that does not become airborne, can be captured and placed in a waste disposal tank. Disposal of this waste will be the responsibility of PSEG.

5.0 Requirements Prior to Air blow

5.1 The permanent pipe shall have completed hydro testing and hydrolazing prior to beginning the gas line air blows.

5.2 The permanent pipe will be modified where necessary to provide flanged connections for the CCT pipe.

5.3 All gas meters will be spooled through at each CT and an attachment will be made for the CCT air receiver and compressor to connect to at the 3"-300# connection at the CT enclosure.

5.4 The first spool on the gas inlet on each gas compressor, and the gas compressor discharge first spool will be rolled out and adaptors and hose bypass jumpers attached. This will effectively remove all gas compressor components that are not to be blown from the air blow flow path.

5.5 The first spool inlet to the suction scrubber, and the line to the inlet of the gas compressors will be rolled to allow attachment of adaptors and hose bypass jumpers. After the gross debris has been removed from the system, the suction scrubber will be reinstated and air blow shall be through the suction scrubber for the balance of blows.

5.6 The inlet heater and filter at each combustion turbine shall be bypassed for duration of all blows.

5.7 All lines disconnected will have caps/covers installed on open end to keep equipment clean.

5.8 Project personnel and the CCT technical supervisor will walk the entire system prior to pressurizing the piping to verify everything is properly assembled and adequately secured before the fuel gas line is pressurized with air.

5.9 Any lines removed to bypass certain flow paths shall be hand cleaned prior to reinstatement.

6.0 Air Blow Sequence

GAS LINE

6.1 During all gas line blows, when the maximum pressure has been reach on each line, the drains will be blown down to remove any debris that may accumulate. This will also ensure a cleaner target if debris is removed.

6.2 Each CT gas line will be blown backwards from the CT inlet to the CCT exhauster in the gas yard bypassing the fuel filters and gas compressors.

6.3 The first setup will be with the scrubber and gas compressors bypassed, and with the compressor and receiver setup at Unit 2. This unit is the greatest distance from the gas compressor yard and will clean the most line.

6.4 Refer to marked P&IDs for reference on what items need to be modified to allow the highest quality blow possible.

6.5 During the gas compressor bypass blows all vessels will initially be blown from Unit 2 through the scrubber bypass line until there is a clean air plume exiting the exhauster, after which all temporary vessel bypass lines will be removed and scrubber visually inspected for debris and cleaned if necessary prior to reinstatement to blow through the scrubber until a clean target is obtained.

6.6 Flow path two: Unit 2 will be blown to a clean target per Section 8.

6.7 Flow path three: Air compressor and air receiver will move to Unit 3 and it will be blown to a clean target per Section 8.

6.8 Flow path four: Air compressor and air receiver will move to Unit 4 which will be blown to a clean target per Section 8.

6.9 Flow path five: Air compressor and receiver tank will move back to Unit 2 for a final blow to ensure that no debris was blown back that way.

FUEL OIL LINE

6.10 During all fuel oil line blows, when the maximum pressure has been reach on each line, the drains will be blown down to remove any debris that may accumulate. This will also

ensure a cleaner target if debris is removed.

6.11 Each CT fuel line will be blown backwards from the fuel oil filter to the fuel oil forwarding skid.

6.12 The first setup will be with the compressor and receiver setup at Unit 2 filter inlet. This unit is the greatest distance from the fuel forwarding skid and will clean the most line. This line will be blown to a clean target per Section 8.

6.13 Flow path two: Air compressor and air receiver will move to Unit 3 and it will be blown to a clean target per Section 8.

6.14 Flow path three: Air compressor and air receiver will move to Unit 4 which will be blown to a clean target per Section 8.

6.15 Flow path four: Air compressor and receiver tank will move back to Unit 2 for a final blow to ensure that no debris was blown back that way.

6.16 Flow path five: Air compressor and receiver tank will move to the discharge of the fuel booster skid discharge at Unit 2 back to the fuel storage tank. This 2" line will be blown co an exhauster stationed at the fuel storage tank and blown to a clean target per Section 8.

6.17 Flow path six: Air compressor and receiver tank will move to the discharge of the fuel booster skid discharge at Unit 3 back to the fuel storage tank. This 2" line will be blown co an exhauster stationed at the fuel storage tank and blown to a clean target per Section 8.

6.18 Flow path six: Air compressor and receiver tank will move to the discharge of the fuel booster skid discharge at Unit 4 back to the fuel storage tank. This 2" line will be blown co an exhauster stationed at the fuel storage tank and blown to a clean target per Section 8.

7.0 Air Blow Procedure (To be followed for each gas/fuel line being blown.)

Walk System

Prior to each air blow the system being blown will be walked down by PSEG and CCT personnel to ensure that the flow path is correct and that any branch lines not being blown are blocked as required.

Purge water from piping

NOTE: Even after the main piping has been purged of water, the branches might have low points and still retain water. Branch lines will be purged of water to prevent damage caused by water hammer prior to their full pressure air blows.

7.1 Configure the temporary and permanent piping for the flow path to be blown. Isolate the other branch paths.

7.2 Close the discharge air blow valve at the exit of the line.

7.3 Open the temporary butterfly valve between the air receiver and the fuel gas piping.

7.4 Radio communication must now be maintained between the exit and entrance locations. Pressurize the CCT air receiver to 15 psig. Then close the valve from the compressor to the air receiver.

CAUTION: This step might move water out of the piping.

7.5 Slowly open the discharge air blow valve at the exit of the now pressurized line. If necessary, throttle the discharge air blow valve to control the flow of water that is being discharged.

7.6 Continue steps 7.2 through 7.5 until water stops exiting.

7.7 Charge up the CCT air receiver to 30 psig and repeat steps 7.2 through 7.5, continuing to purge the system until only moist air is exiting.

7.8 Increase the air receiver pressure to 80 psig and purge water from the system as before.

NOTE: You might only need to let the system pressure decay to 50 psig to effectively purge water. This will reduce the pump up time required to get back to 80 psig.

7.9 Charge the air receiver to 100 psig and do a final water purge. After this final purge, the system should be free of standing water.

Full pressure air blow

7.10 Charge the CCT air receiver to 120 to 125 psig.
7.11 Quickly open the discharge air blow valve in the gas yard.
7.12 Once the air receiver pressure has decayed to around 80 psig, close the discharge air blow valve.
7.13 Repeat steps 7.10 through 7.12 four more times. If debris continues to be heard pinging against the temporary exit pipe, continue with more air blows until the pinging stops.

Target the line

7.14 To shoot a target, block in the CCT air compressor and ensure the system pressure is exhausted to 0 psig by leaving the discharge air blow valve open.
7.15 Insert a target into the line.
7.16 Close the discharge air blow valve.
7.18 Then re-pressurize the piping to the previous pressure setting and quickly open the discharge air blow valve.
7.19 Leave the discharge air blow valve open and block in the CCT air compressor.
7.20 Once air stops exiting the piping, remove the target and inspect it visually.
7.21 If an acceptable target has been achieved, insert a second target and perform another air blow.
7.22 If the second target is not acceptable, do additional air blows without a target in the line, then re-target the line.
7.23 Once 2 consecutive good targets have been achieved, shut down the air compressors, ensure the system is at 0 psig pressure, and reconfigure for the next blow.
7.24 Continue the above process until all the lines are clean.

8.0 Target acceptance

8.1 Brass targets will be used for all gas line air blows.
8.2 Two consecutive targets shall be required that have
- 8.2.1 No Impact Mark ≥ 0.5 mm anywhere on target,
- 8.2.2 No raised edges on any impact anywhere on the target,
- 8.2.3 Less than 2 impacts that are ≥ 0.2 mm and < 0.5 mm,
- 8.2.4 Less than 10 impacts that are ≥ 0.1 mm and < 0.2 mm
- 8.2.5 Less than 20 impacts of any size < 0.1 mm.
- 8.2.6 Acceptable impacts that exhibit non-uniform distribution over target surface.

8.3 Acceptable targets, once inserted into the line, shall have the date and time written on the back of the target and delivered to PSEG. These targets shall be turned over to the plant operator for their records.

9.0 Restoration

9.2 At the completion of gas line testing, all insulating gaskets and filters will be installed in the filter canisters for normal operation of the turbines.
9.3 After restoration by PSEG, the gas lines will be laid up with a nitrogen purge and maintained at 5 psig.

This completes the air blow procedure.

PSE&G

New Haven Peaking Project

New Haven, Connecticut

Confirmation of Service Completion

This confirms completion of this Gas Line Air Blow Procedure on the following system:

Fuel gas underground piping Unit 2 to gas compressor yard.

NOTE: CCT cannot warrant or guarantee cleanliness of piping systems beyond completion of its services and acceptance by PSE&G.

By: _____ Date: _____
PSE&G

By: _____ Date: _____
General Electric

By: _____ Date: _____
Cogen Cleaning Technology

PSE&G

New Haven Peaking Project

New Haven, Connecticut

Confirmation of Service Completion

This confirms completion of this Gas Line Air Blow Procedure on the following system:

Fuel gas underground piping Unit 3 to gas compressor yard.

NOTE: CCT cannot warrant or guarantee cleanliness of piping systems beyond completion of its services and acceptance by PSE&G.

By: _____ Date: _____
PSE&G

By: _____ Date: _____
General Electric

By: _____ Date: _____
Cogen Cleaning Technology

PSE&G

New Haven Peaking Project

New Haven, Connecticut

Confirmation of Service Completion

This confirms completion of this Gas Line Air Blow Procedure on the following system:

Fuel gas underground piping Unit 4 to gas compressor yard.

NOTE: CCT cannot warrant or guarantee cleanliness of piping systems beyond completion of its services and acceptance by PSE&G.

By: _____ Date: _____
PSE&G

By: _____ Date: _____
General Electric

By: _____ Date: _____
Cogen Cleaning Technology

PSE&G

New Haven Peaking Project

New Haven, Connecticut

Confirmation of Service Completion

This confirms completion of this Gas Line Air Blow Procedure on the following system:

Fuel Oil piping to from Unit 2 to forwarding pump skid

NOTE: CCT cannot warrant or guarantee cleanliness of piping systems beyond completion of its services and acceptance by PSE&G.

By: _____ Date: _____
PSE&G

By: _____ Date: _____
General Electric

By: _____ Date: _____
Cogen Cleaning Technology

PSE&G

New Haven Peaking Project

New Haven, Connecticut

Confirmation of Service Completion

This confirms completion of this Gas Line Air Blow Procedure on the following system:

Fuel Oil piping to from Unit 3 to forwarding pump skid

NOTE: CCT cannot warrant or guarantee cleanliness of piping systems beyond completion of its services and acceptance by PSE&G.

By: _____ Date: _____
PSE&G

By: _____ Date: _____
General Electric

By: _____ Date: _____
Cogen Cleaning Technology

PSE&G

New Haven Peaking Project

New Haven, Connecticut

Confirmation of Service Completion

This confirms completion of this Gas Line Air Blow Procedure on the following system:

Fuel Oil piping to from Unit 4 to forwarding pump skid

NOTE: CCT cannot warrant or guarantee cleanliness of piping systems beyond completion of its services and acceptance by PSE&G.

By: _____ Date: _____
PSE&G

By: _____ Date: _____
General Electric

By: _____ Date: _____
Cogen Cleaning Technology

PSE&G

New Haven Peaking Project

New Haven, Connecticut

Confirmation of Service Completion

This confirms completion of this Gas Line Air Blow Procedure on the following system:

Fuel Oil piping to from Unit 2 to Storage Tank

NOTE: CCT cannot warrant or guarantee cleanliness of piping systems beyond completion of its services and acceptance by PSE&G.

By: _____ Date: _____
PSE&G

By: _____ Date: _____
General Electric

By: _____ Date: _____
Cogen Cleaning Technology

PSE&G

New Haven Peaking Project

New Haven, Connecticut

Confirmation of Service Completion

This confirms completion of this Gas Line Air Blow Procedure on the following system:

Fuel Oil piping to from Unit 3 to Storage Tank

NOTE: CCT cannot warrant or guarantee cleanliness of piping systems beyond completion of its services and acceptance by PSE&G.

By: _____ Date: _____
PSE&G

By: _____ Date: _____
General Electric

By: _____ Date: _____
Cogen Cleaning Technology

PSE&G

New Haven Peaking Project

New Haven, Connecticut

Confirmation of Service Completion

This confirms completion of this Gas Line Air Blow Procedure on the following system:

Fuel Oil piping to from Unit 4 to Storage Tank

NOTE: CCT cannot warrant or guarantee cleanliness of piping systems beyond completion of its services and acceptance by PSE&G.

By: _____ Date: _____
PSE&G

By: _____ Date: _____
General Electric

By: _____ Date: _____
Cogen Cleaning Technology

LUBE OIL FLUSHING
CHEMICAL CLEAN
STEAM BLOWS
COGEN CLEANING TECHNOLOGY
"The Pre-Op Cleaning Specialists"

Cogen Cleaning Tech

The Pre-Op Cleaning S

We provide specialized, pre-operational cleaning industrial facilities. Rent the equipment from us o services.

Home • Experience List • Pre-Operational Cleaning Services • Enginee Equipment Rental Services • PowerPro Package • Heated & Circulat Coal-Fired Chemical Cleaning Circulation Setup • Steam Blow • Site

Experience List

Year	Customer	Description
2004	A&R Mechanical Contractors, Inc.	Steam Blow
2004	AES Delano	Steam Blow
2006	Air Products and Chemicals	Chemical Clean
2006	Air Products and Chemicals	Hydrolazing
2006	Air Products and Chemicals	Air Blow
2006	Air Products and Chemicals	Steam Blow
	Air Products and Chemicals	Steam Blow
2006	Air Products and Chemicals	Hydrolaze
2006	Air Products and Chemicals	Auxillary Boiler
2006	Air Products and Chemicals	Chemical Clean
2006	Air Products and Chemicals	Oil Flush
2006	Air Products and Chemicals	Steam Blow
2009	Air Products and Chemicals	Steam Blow
2010	Air Products and Chemicals	Steam Blow
2010	Air Products and Chemicals	Hydrolaze
2009	Air Products and Chemicals	Hydrolaze
2009	Aker Kvaerner	Oil Flush
2006	Aker Kvaerner Songer	Air Blow
2006	Aker Kvaerner Songer	Hydrotest

2006	Aker Kvaerner Songer	Oil Flush
2010	Aker Solutions	Chemical Clean
	AKSI/McCartin	Chemical Clean
2003	Alberici	Hydrotest
2009	Algoma Essar	Steam Blow
2009	Alston APCompower	Hydrotest
2009	Amercian Acryl	Steam Blow
2008	American Electric Power	Hydrolaze
2006	APS Energy	Steam Blow
2008	Aramark Facility Services	Steam Blow
2010	Archer Daniels Midland	Hydrolaze
2010	AZCO INC.	Hydrolaze
2010	B&W Fluid Dynamics Inc.	Steam Blow
2006	Barlow Project IVC	Degrease
2006	Barlow Project IVC	Steam Blow
2006	Barlow Project IVC	Oil Flush
2010	Basin Electric Power Cooperative	Air Blow
2010	Basin Electric Power Cooperative	Chemical Clean
2010	Basin Electric Power Cooperative	Steam Blow
2004	BE&K Construction	Degrease
2004	BE&K Construction	Steam Blow
	BE&K Construction	Degrease
	BE&K Construction	Chemical Clean
2002	BE&K Construction	Steam Blow
2002	BE&K Construction	Degrease
2010	BE&K Construction	Chemical Clean
2010	BE&K Construction	Oil Flush
2005	Bechtel	Chemical Clean
	Bechtel	Chemical Clean
	Bechtel	Hydrotest
2010	Bechtel Power Co.	Equipment Rental
2003	Binksy & Snyder	Steam Blow
2009	Black & Veatch	Steam Blow
2010	Black & Veatch	Degrease
2010	Black & Veatch	Hydrolaze
2010	Black & Veatch	Oil Flush
	Black & Veatch	Chemical Clean
	Black & Veatch	Oil Flush
	Black & Veatch	Hydrolazing

	Black & Veatch	Gas Line Air Blow
	Black & Veatch	Steam Blow
	Black & Veatch	Degrease
	Black & Veatch	Steam Blow
	Black & Veatch	Chemical Clean (Rental)
2005	Black & Veatch	Chemical Clean
2006	Black & Veatch	Steam Blow
2006	Black & Veatch	Air Blow
2006	Black & Veatch	Chemical Clean
2006	Black & Veatch	Gas Line Air Blow
2006	Black & Veatch	Hydrolaze
2006	Black & Veatch	Hydrotest
2006	Black & Veatch	Oil Flush
2006	Black & Veatch	Steam Blow
2009	Black & Veatch	Chemical Clean
2009	Black & Veatch	Hydrolaze
2009	Black & Veatch	Hydrolaze
2009	Black & Veatch	Hydrotest
2009	Black & Veatch	Steam Blow
2007	Black Hills Generation	Auxillary Boiler
2007	Black Hills Generation	Chemical Clean
2007	Black Hills Generation	Hydrolaze
2007	Black Hills Generation	Steam Blow
2006	Bluewater Energy	Equipment Rental
2009	Bluewater Energy	Air Blow
2009	Bluewater Energy	Chemical Clean
2009	Bluewater Energy	Gas Line Air Blow
2009	Bluewater Energy	Hydroblast
2009	Bluewater Energy	Hydrolaze
2009	Bluewater Energy	Hydrolaze
2009	Bluewater Energy	Hydrolaze
2009	Bluewater Energy	Hydrolaze
2009	Bluewater Energy	Hydrolaze
2009	Bluewater Energy	Hydrolaze
2009	Bluewater Energy	Oil Flush
2009	Bluewater Energy	Oil Flush
2009	Bluewater Energy	Steam Blow
	Bluewater Energy	Hydrolazing
	Bluewater Energy	Steam Blow-E

2006	Brazos Electric Co-op	Chemical Clean
2006	Brazos Electric Co-op	Hydrotest
2006	Brazos Electric Co-op	Steam Blow
2006	Brazos Electric Co-op	Hydrolazing
2006	Brazos Electric Co-op	Chemical Clean
2006	Brazos Electric Co-op	Hydrolaze
2006	Brazos Electric Co-op	Hydrotest
2006	Brazos Electric Co-op	Steam Blow
2007	Bull's Eye Construction Co.	Hydrolaze
2002	Burns & McDonnell	Hydrolazing
2002	Burns & McDonnell	Chemical Clean
2002	Burns & McDonnell	Steam Blow (Rental)
2003	Burns & McDonnell	Degrease
2010	Burns & McDonnell	Hydrolaze
2010	Burns & McDonnell	Hydrolaze
2010	Burns & McDonnell	Degrease
2010	Burns & McDonnell	Steam Blow
2009	Burns & McDonnell	Hydrolaze
2001	BVZ Power Partners	Chemical Clean
2001	BVZ Power Partners	Oil Flush
2001	BVZ Power Partners	Steam Blow
2003	BVZ Power Partners	Oil Flush
2002	BVZ Power Partners	Chemical Clean
2002	BVZ Power Partners	Hydrolazing
2002	BVZ Power Partners	Hydrotest
2002	BVZ Power Partners	Lube Oil Flush
2002	BVZ Power Partners	Steam Blow
2000	Calpine Corporation	Steam Blow
2004	Calpine Corporation	Chemical Clean
2004	Calpine Corporation	Air Blow
2004	Calpine Corporation	Steam Blow
2004	Calpine Corporation	Steam Blow
	Calpine Corporation	Chemical Clean
	Calpine Corporation	Steam Blow
2006	Calpine Corporation	Engineering & Design
2006	Calpine Corporation	Chemical Clean
2003	Celulosa Arauco	Steam Blow
2003	Celulosa Arauco	Hydrolazing
2005	Chevron Corporation	Steam Blow

2005	Chevron Corporation	Steam Blow
	Chevron Corporation	Steam Blow
2006	Chevron Corporation	Steam Blow (Rental)
2006	Chevron Corporation	Steam Blow
2008	Chevron Corporation	Steam Blow
2003	Collins & Collins	Steam Blow
2004	Collins & Collins	Steam Blow
2009	Combined Cycle Power Plant Rosarito B	Chemical Clean
2009	Combined Cycle Power Plant Rosarito B	Steam Blow
2007	Con Edison	Hydrolaze
2006	Conoco Phillips	Steam Blow
2006	Conoco Phillips	Steam Blow
2001	Constructors, Inc.	Oil Flush
2009	Covanta	Steam Blow
2007	CryoInfra SA de CV	Degrease
2001	Dick Corporation	Hydrotest
2001	Dick Corporation	Steam Blow
2001	Dick Corporation	Chemical Clean
2008	Dow Chemical	Equipment Rental
2001	Duke/Fluor Daniel	Oil Flush
2001	Duke/Fluor Daniel	Steam Blow
2001	Duke/Fluor Daniel	Surge Flush
2002	Duke/Fluor Daniel	Hydrolazing
2002	Duke/Fluor Daniel	Steam Blow
2002	Duke/Fluor Daniel	Steam Blow
2002	Duke/Fluor Daniel	Steam Blow
2002	Duke/Fluor Daniel	Steam Blow
2002	Duke/Fluor Daniel	Degrease
2002	Duke/Fluor Daniel	Steam Blow
2002	Duke/Fluor Daniel	Surge Flush
2002	Duke/Fluor Daniel	Steam Blow
2002	Duke/Fluor Daniel	Degrease
2002	Duke/Fluor Daniel	Steam Blow
2002	Duke/Fluor Daniel	Hydrolazing
2003	Duke/Fluor Daniel	Steam Blow
2009	E.ON Services Inc.	Equipment Rental
2008	Emerald Power Plant Services	Degrease
2008	Emerald Power Plant Services	Hydrolaze
2008	Emerald Power Plant Services	Steam Blow

2003	Empire District	Surge Flush
2003	Empire District	Air Blow
2003	Empire District	Hydrotest
2003	Empire District	Oil Flush
2010	Empire Generating Project	Hydrotest
2001	Equistar LP/Lyondell	Steam Blow
2010	eSolar Procurement	Chemical Clean
2010	eSolar Procurement	Degrease
2010	eSolar Procurement	Steam Blow
2008	Esso Belgium	Chemical Clean
	Exxon	Proc Review
2007	Flour	Chemical Clean
2001	Fluor Constructors International, Inc.	Degrease
2001	Fluor Constructors International, Inc.	Oil Flush
2001	Fluor Constructors International, Inc.	Steam Blow
2001	Fluor Constructors International, Inc.	Surge Flush
2003	Fluor Constructors International, Inc.	Steam Blow
2002	Fluor Constructors International, Inc.	Air Blow
2002	Fluor Constructors International, Inc.	Degrease
2002	Fluor Constructors International, Inc.	Hydrolazing
2002	Fluor Constructors International, Inc.	Oil Flush
2002	Fluor Constructors International, Inc.	Steam Blow
2002	Fluor Constructors International, Inc.	Gas Line Air Blow
2002	Fluor Constructors International, Inc.	Hydrotest
2002	Fluor Constructors International, Inc.	Surge Flush
2002	Fluor Constructors International, Inc.	High Velocity Water Flush
2002	Fluor Constructors International, Inc.	Oil Flush
2002	Fluor Constructors International, Inc.	Steam Blow
2003	Fluor Constructors International, Inc.	Air Blow
2009	Fluor Enterprises	Oil Flush
2009	Foley Company	Chemical Clean
2003	Frank Lill & Son	Degrease
2003	Frank Lill & Son	Citric Acid Cleaning
2008	Frontier Refining Inc.	Steam Blow
2010	GAMA	Steam Blow
2008	Gateway Power	Chemical Clean
2008	Gateway Power	Steam Blow
2002	GBV- Alabama	Chemical Clean
2002	GBV- Alabama	Oil Flush

2002	GBV- Alabama	Steam Blow
2010	Gemma Power Systems	Air Blow
2010	Gemma Power Systems	Hydrolaze
2010	Gemma Power Systems	Chemical Clean
2010	Gemma Power Systems	Hydrolaze
2010	Gemma Power Systems	Steam Blow
2002	Gemma Power Systems	Air Blow
2002	Gemma Power Systems	Chemical Clean
2002	Gemma Power Systems	Fuel Oil Flush
2002	Gemma Power Systems	Hydrolazing
2002	Gemma Power Systems	Borescope
2002	Gemma Power Systems	Verification Steam Blow
2002	Gemma Power Systems	Air Blow
2002	Gemma Power Systems	Degrease
2002	Gemma Power Systems	Oil Flush
2002	Gemma Power Systems	Steam Blow
2003	Gemma Power Systems	Air Blow
2003	Gemma Power Systems	Degrease
2003	Gemma Power Systems	Hydrolazing
2003	Gemma Power Systems	Hydrotest
2003	Gemma Power Systems	Oil Flush
2003	Gemma Power Systems	Verification Steam Blow
2003	Gemma Power Systems	Air Blow
2003	Gemma Power Systems	Degrease
2003	Gemma Power Systems	Hydrolazing
2003	Gemma Power Systems	Hydrotest
2003	Gemma Power Systems	Oil Flush
2003	Gemma Power Systems	Verification Steam Blow
2008	Gemma Power Systems	Air Blow
2008	Gemma Power Systems	Auxillary Boiler
2008	Gemma Power Systems	Hydrolaze
2008	Gemma Power Systems	Degrease
2008	Gemma Power Systems	Air Blow
2008	Gemma Power Systems	Pipe Line Air Blow
	General Electric Company	Chemical Clean
	General Electric Company	Air Blow
	General Electric Company	Hydrolaze
2004	General Electric Company	Oil Flush
2008	General Electric Company	Chemical Clean

2008	General Electric Company	Air Blow
2008	General Electric Company	Chemical Clean
2008	General Electric Company	Hydrolaze
2008	General Electric Company	Oil Flush
2008	General Electric Company	Steam Blow
2007	Georgia-Pacific:2005-1387	Steam Blow
2004	Gilbert Southern Corp.	Hydrolazing
2004	Gilbert Southern Corp.	Steam Blow
2008	Grays Harbor Energy	Degrease
2008	Grays Harbor Energy	Steam Blow
	Haskell Corporation	Steam Blow
	Haskell Corporation	Hydrolaze
2006	Haskell Corporation	Hydrolaze
2006	Haskell Corporation	Steam Blow
	Hexion	Steam Blow
2009	Hillabee Power & Energy	Auxillary Boiler
2009	Hillabee Power & Energy	Steam Blow
2010	Holman Boiler Works	Steam Blow
2003	ICA Fluor Daniel	Steam Blow
2009	Industrial Develop. Board Monroe County	Steam Blow
	Invenergy	Steam Blow
	Invenergy	Chemical Clean
2009	IPS	Steam Blow
2009	Islands Mechanical Contractor	Chemical Clean
2006	James Construction Group	Chemical Clean
2005	JD Power & Associates	Lube Oil Flush
2005	Jefferson County Power Partners	Chemical Clean
2007	JH Kelly	Chemical Clean
2007	JH Kelly	Hydrolaze
2007	JH Kelly	Hydrotest
2007	JH Kelly	Steam Blow
2008	JH Kelly	Hydrotest
2008	JV Industrial	Hydrotest
2009	KBV Springfield	Steam Blow
2006	Kellogg Brown & Root	Steam Blow
	Lauren Engineers & Constructors	Steam Blow
2009	Lauren Engineers & Constructors	Chemical Clean
2009	Lauren Engineers & Constructors	Hydrolaze
2009	Lauren Engineers & Constructors	Hydrotest

2009	Lauren Engineers & Constructors	Steam Blow
2007	Lauren Engineers & Constructors	Air Blow
2007	Lauren Engineers & Constructors	Auxiliary Boiler
2007	Lauren Engineers & Constructors	Degrease
2007	Lauren Engineers & Constructors	Hydrolaze
2008	Lurgi, Inc.	Steam Blow
2008	Marathon Petroleum Company	Steam Blow
2009	Marathon Petroleum Company	Steam Blow
2004	Marelich Mechanical	Degrease
2004	Marelich Mechanical	Steam Blow
2004	Marelich Mechanical	Air Blow
2009	Midland Cogeneration Venture	Steam Blow
	Mint Farm	Chemical Clean
	Mint Farm	Steam Blow
2009	Mitsubishi Power Systems	Oil Flush
2004	Murphy Company	Degrease
2004	Murphy Company	Hydrolazing
2004	Murphy Company	Steam Blow
2004	Murphy Company	Gas Line Air Blow
2004	Murphy Company	Fuel Oil Flush
2007	Navasota Energy Partners	Degrease
2007	Navasota Energy Partners	Hydrolaze
2007	Navasota Energy Partners	Hydrotest
2007	Navasota Energy Partners	Steam Blow
	Navasota Energy Partners	ALL
	Navasota Energy Partners	ALL
2007	Navasota Energy Partners	Degrease
2007	Navasota Energy Partners	Hydrolaze
2007	Navasota Energy Partners	Hydrotest
2007	Navasota Energy Partners	Steam Blow
2009	Nesbitt Associates	Equipment Rental
2007	New Harquahala Generating Company	Degrease
2007	New Harquahala Generating Company	Gas Line Air Blow
2009	NuCostal Power Holding	Hydrolaze
2003	O'Connor Constructors	Steam Blow
2009	Olin	Steam Blow
2009	Omaha Public Power District	Chemical Clean
2008	Panda Ethanol	Steam Blow
2003	PCE Constructors	Oil Flush

2009	Performance Mechanical, Inc	Hydrolaze
2009	Performance Mechanical, Inc	Steam Blow
2010	Porter Company	Degrease
2010	Porter Company	Gas Line Air Blow
2010	Porter Company	Steam Blow
2008	Proctor & Gamble Manufactura	Steam Blow
2005	Progress Energy Services Company	Chemical Clean
2005	Progress Energy Services Company	Air Blow
2005	Progress Energy Services Company	Hydrolazing
	Progress Energy Services Company	Steam Blow
	Progress Energy Services Company	Chemical Clean
	Progress Energy Services Company	Hydrolaze
2007	Progress Energy Services Company	Air Blow
2007	Progress Energy Services Company	Chemical Clean
2007	Progress Energy Services Company	Hydrolaze
2008	Progress Energy Services Company	Degrease
2005	PSEG Fossil LLC	Steam Blow
2005	PSEG Fossil LLC	Chemical Clean
2005	PSEG Fossil LLC	Steam Blow
2008	Roquette America, Inc.	Steam Blow
2007	Roquette America, Inc.	Steam Blow
2008	Roquette America, Inc.	Steam Blow
2007	S & B Engineers and Constructors	Equipment Rental
2007	S & B Engineers and Constructors	Hydrotest
2009	Sauer Inc,	Steam Blow
2009	Sauer Inc.	Hydrolaze
2009	Schweizer Dipple, Inc.	Steam Blow
2009	Shaw Constructors	Steam Blow
2009	Shaw Constructors, Inc.	Steam Blow
2003	Shaw Constructors, Inc.	Chemical Clean
2003	Shaw Constructors, Inc.	Gas Line Air Blow
2003	Shaw Constructors, Inc.	Hydrolazing
2003	Shaw Constructors, Inc.	Steam Blow
2003	Shaw Constructors, Inc.	Hydrotest
2009	Shell Norco	Steam Blow
2004	Skanska USA	Steam Blow
2002	Slattery Skanska	Oil Flush
2003	Slattery Skanska	Chemical Clean
2003	Slattery Skanska	Hydrolazing

2003	Slattery Skanska	Air Blow
2003	Slattery Skanska	Oil Flush
2003	Slattery Skanska	Hydrotest
2004	Slattery Skanska	Degrease
2004	Slattery Skanska	Surge Flush
2004	Slattery Skanska	Hydrolazing
2001	SLZ Channelview	Air Blow
2001	SLZ Channelview	Chemical Clean
2001	SLZ Channelview	Degrease
2001	SLZ Channelview	Hydrotest
2001	SLZ Channelview	Steam Blow
2001	SLZ Pine Bluff	Chemical Clean
2001	SLZ Pine Bluff	Degrease
2001	SLZ Pine Bluff	Gas Line Air Blow
2001	SLZ Pine Bluff	Hydrotest
2001	SLZ Pine Bluff	Oil Flush
2001	SLZ Pine Bluff	Steam Blow
2003	SNC-Lavalin	Degrease
2003	SNC-Lavalin	Oil Flush
2003	SNC-Lavalin	Steam Blow
2008	Snowflake White Mountain Power	Steam Blow
2008	Solar Turbines	Degrease
2003	South Houston Green Power	Degrease
2003	South Houston Green Power	Gas Line Air Blow
2003	South Houston Green Power	Hydrolazing
2007	Southern Power Company	Oil Flush
2003	Tampa Electric Company	Air Blow
2007	Tampa Electric Company	Auxillary Boiler
2007	Tampa Electric Company	Chemical Clean
2007	Tampa Electric Company	Pipe Line Air Blow
2007	TECO – Thermal Energy Corporation	Steam Blow
	TECO Energy	Chemical Clean
	TECO Energy	Air Blow
2010	Tesoro Golden Eagle Refinery	Steam Blow
2008	Teton Industrial Construction, Inc	Hydrotest
2003	The Industrial Company	Oil Flush
2006	The McCartin Group	Chemical Clean
2006	The McCartin Group	Hydrolazing
2009	Thompson River Power	Steam Blow

2008	Thompson River Power	Steam Blow
2009	TIC- The Industrial Company	Degrease
2009	TIC- The Industrial Company	Gas Line Air Blow
	TIC- The Industrial Company	Chemical Clean
	TIC- The Industrial Company	Hydrolaze
	TIC- The Industrial Company	Air Blow
2007	TIC- The Industrial Company	Air Blow
2007	TIC- The Industrial Company	Chemical Clean
2007	TIC- The Industrial Company	Hydrolaze
2007	TIC- The Industrial Company	Hydrotest
2007	TIC- The Industrial Company	Steam Blow
2002	Trigen-Cinergy	Oil Flush
2002	Trigen-Cinergy	Gas Line Air Blow
2006	Valero Houston Refinery	Steam Blow
2006	Valero Houston Refinery	Hydrolazing
	Valero Houston Refinery	Steam Blow
	Valero Houston Refinery	Surge Flush
2007	Valero Houston Refinery	Steam Blow
2010	Wanzek Construction	Chemical Clean
2008	Westlake Petrochem	Steam Blow
2007	Wisconsin Public Services	Auxillary Boiler
2007	Wisconsin Public Services	Chemical Clean
2007	Wisconsin Public Services	Steam Blow
	Wisconsin Public Services	Chemical Clean
	Wisconsin Public Services	Steam Blow
2009	Wrigley Mechanical	Chemical Clean
2009	Wrigley Mechanical	Steam Blow
2007	Zachry	Hydrolaze
2003	Zachry Construction	Oil Flush
2003	Zachry Construction	Oil Flush
2007	Zachry Construction	Equipment Rental
2006	Zachry Construction	Steam Blow
2008	Zachry Industrial, Inc.	Steam Blow
2008	Zachry Industrial, Inc.	Chemical Clean
2008	Zachry Industrial, Inc.	Hydrotest
2009	Zachry Industrial, Inc.	Pipe Line Air Blow
2009	Zachry Industrial, Inc.	Chemical Clean
2009	Zachry Industrial, Inc.	Hydrolaze
2009	Zachry Industrial, Inc.	Hydrolaze

2009	Zachry Industrial, Inc.	Hydrolaze
2009	Zachry Industrial, Inc.	Hydrotest
2009	Zachry Industrial, Inc.	Oil Flush
2009	Zachry Industrial, Inc.	Steam Blow
2010	Zachry Industrial, Inc.	Chemical Clean
2010	Zachry Industrial, Inc.	Hydrolaze
2010	Zachry Industrial, Inc.	Steam Blow
2010	Zachry Industrial, Inc.	Chemical Clean
2010	Zachry Industrial, Inc.	Steam Blow
2010	Zachry Industrial, Inc.	Chemical Clean
2010	Zachry Industrial, Inc.	Hydrotest
2010	Zachry Industrial, Inc.	Steam Blow
2008	Zachry Industrial, Inc.	Oil Flush

KEVIN C. WAKEEM

P.O. Box 3591 Houston, Texas 77253 Mobile: 832-423-7068 E-mail: kwakeem@yahoo.com

PROFILE

Energy Professional with exceptional business analysis, project management, and consulting experience effective business solutions. Industry expertise encompasses a wealth of knowledge in the arena of Energy Markets, Financial Markets, Oil and Gas Industry, Computer Services, Engineering and Construction. Results oriented and motivated professional, with strong work ethic, who successfully interacts with management, customers, and counter parties to add shareholder value. Extensive knowledge of corporate reporting and financial modeling. Demonstrate excellent organization, verbal and written communication skills as well as outstanding quantitative and analytical skills.

EXPERIENCE

Project manager, January 2006-Present

- Developed, presented, and executed project proposals, organizing teams, managing purchase and cost controls, budgeting, and scheduling for multiple projects averaging a million dollars for multibillion dollar plants from power plants to supper major internationals identify and develop expansion opportunities
- Managed projects from start to finish, coordinating with various Client's plant operations and construction groups (Startup and Routine Maintenance schedule groups – Plant Schedule Reports, JSA, Manpower, etc.), to ensure successful delivery and adherence to company quality standards cross functional teams for chemical and steam cleaning projects
- Responsible for total client satisfaction and project completion by coordinating subcontractors and plant operations on 24 hour activities (12 hour shifts) for pre-commissioning steam systems and chemical cleaning
- Energy market training thorough Oxford Princeton Programme, and trading markets training through Optionetics and Optionxpress

Client: **Duke Energy**, Buck Combined Cycle **GE** Turbine project with **Shaw Group** for **Cogen Cleaning Technology**
Lead pre-commissioning project manager provided solutions for client to engineered services through team support. Executed pre-commission start up project plan and coordinated cross functional activities. Ensured quality standards were met and process documented using Ovation.

Client: **First Energy**, Longview Super Critical **Siemens** project **Aker Constuction Inc** for **Cogen Cleaning Technology**
Provided technical support for pre-commission start up project per engineered project plan and coordinated cross functional activities. Ensured quality standards were met and process documented.

Client: **Basin Electric**, Dry Fork Super Critical **Mitsubishi** project for **Cogen Cleaning Technology**
Provided technical support for pre-commission start up project per engineered project plan and coordinated cross functional activities. Ensured quality standards were met and process documented.

Client: **Shell**, Pearl GTL project Qatar with **KBR** for **Gulf Strategic Partners**
Administrated contract for process analysis and implementation. Created and maintained process for document reporting of pre-commissioning activates for EPC and QC. Developed process forms, checklists, control points, and roles and responsibilities. Developed Business process and business requirements. Organize and train team for start up activities.

Client: **QCS** Qatar Chemical **Shell,** Chemical project with **Chiyoda Technip Join Venture** for **Gulf Strategic Partners**
Managed mobilization of equipment from procurement to scheduling. Provided technical support for pre-commission start up project per engineered project plan and coordinated cross functional activities. Ensured quality standards were met and process documented.

Client: **QGX** Qatar Gas **Exxon**, LNG project with **Chiyoda Technip Join Venture** for **Gulf Strategic Partners**
Managed mobilization of equipment from procurement to scheduling. Provided technical support for pre-commission start up project per engineered project plan and coordinated cross functional activities. Ensured quality standards were met and process documented.

Client: **RLOC** Qatar **Chevron/Conocophillips** , Olefins project with **Technip** for **Gulf Strategic Partners**
Pre-Commissioning project manager for multiple start up projects. Managed total client contract support from identifying new project or expanded scope or to mobilization, execution, and demobilization coordinating cross functional activities for critical path projects. Created technical procedures for projects. Ensured quality standards were met and process documented.

Client: Electricidad Mexico, Combined Cycle Turbine project with **GE** for **Boil Energy Services Technolgy**
Provided technical support for pre-commission start up project per engineered project plan and coordinated cross functional activities. Ensured quality standards were met and process documented.

Client: **Origin Energy**, Darling Downs Combined Cycle **GE** Turbine project for **Ver Chem**
Provided technical support for pre-commission start up project per engineered project plan and coordinated cross functional activities. Ensured quality standards were met and process documented.

KEVIN C. WAKEEM

Client: **Tennessee Valley Authority,** Cumberland Power plant project for HYDROCHEM(Aquilex)
Provided technical support for pre-commission start up project. Ensured quality standards were met and process documented.

Client: **Petronas** , Petronas Methanol Labuan project for HYDROCHEM(Aquilex)
Provided technical support for pre-commission start up. Ensured quality standards were met and process documented.

Senior Ad Valorem Representative, El Paso Corporation/Enterprise Houston, Texas July 2001-2006

- Analyze financials and inspected plants to perform an appraisal to accurately and timely report assets of various business entities in their respective industries for assessment by taxing authorities for over 1100 accounts in 7 states
- Negotiate with taxing authorities or their appraisers to reach a settlement on value differences or prepared and presented arguments before Appraisal Review Board for value reductions in order to achieve the associated tax reductions
- Advise business leaders of tax implications on acquisitions along with annual budget estimates responsible

Special Accomplishments

- Negotiated reductions in taxes for new holding company of over $4 million in taxes saving first year

Business Service Analyst, Electronic Data Systems-Plano, Texas June 2000-July 2001

- Created Ad-hoc reports for Internal Financial Reporting (Corporate Controller Group) and Corporate Reporting (U.S. GAAP Consulting and Reporting, Treasury Accounting, Tax, ...) with specialized reporting needs
- Maintained data integrity and organizational structure in Oracle based financial warehouse and coordinated financial organization activities with Corporate Calendar and Bulletin Board updates
- Provided advising support for New Business Costing tool in support of sales

Special Accomplishments

- Performed Project Management for Response Time Testing and assisted setup of Help Desk for SAP BW deployment
- Attended Project Management training for ISO9000

Financial Analyst, Electronic Data Systems-Plano, Texas February 1998-June 2000

- Administrated accounting functions with over 100 cost centers and four managers with a total annual net budget of over 25 million through property tax compliance, journal entries, accruals, month end close, and balance sheet reconciliation in addition to accounts payable and accounts receivable
- Consulted management on zero base budgeting with continually analyzing and recommended changes to outlooks through out the year with detailed financial variance analysis on a monthly basis summarizing monthly and yearly actual numbers compared to budget numbers
- Researched and reported financial statements and other financial related systems through Profit & Loss, General Ledger, Accounts payable system, Oracle Queries, and other on line systems

Special Accomplishments

- Audited vehicle service center accounting system to correct errors and maintain financial controls
- Organized financial team project on matrixing and presented assignment

Consultant, G&W Investments Development, El Paso, Texas April 1997-November 1997

- Created Financial Models and Income Estimates including Cash Flow Analysis, Capitalization Schedule, and calculated Net Present Value, Internal Rate of Return, and Return On Investment
- Worked with management and contractors for Process Planning and construction of a manufactured home park

Ski Instructor, Ski Apache, Mescalero Resort, Ruidoso, New Mexico November 1991–April 1997

- Instructed all levels and all abilities Nationally Certified through Professional Ski Instructors of America for Skiing and Snowboarding
- Provided Public Relations and Sales

EDUCATION:

Colorado State University, Ft. Collins, CO

- Bachelor of Business Administration
- Concentration: **Finance/Real Estate**
- Cumulative GPA: **3.18 (4.0 scale)**
- Graduation Date: **August, 1996**

HONORS AND ACTIVITIES:

*Golden Key National Honor Society at CSU
*Spanish Study Abroad In Salamanca, Spain

Matthew W. Johnson
1013 23rd Street North
Jacksonville Beach, Florida 32250
Home: (904) 249-4152
Cell: (904) 860-7357

SUMMARY

I have worked in the industrial cleaning industry for 20 years, mostly in the chemical cleaning area. I have done work in all areas of chemical cleaning, from start up work to online cleaning, vapor phasing, lube oil flushes air blows and steam, blows all shipboard work. I am looking forward to working with your company and helping in any way I can.

I AM CURRENTLY WORKING COGEN CLEANING TECHNOLOGY

EDUCATION

- **Florida Community College**, Jacksonville, Florida
  - **ACCOUNTING**
- **Class A CDL** with Hazmat (1992 – Present)
- **Chemical Cleaning** Schools 1 an
- **Managing Personnel** 1 and 2

HYDROCHEM INDUSTRAIL SEVICES (1992 – 2005)

ACCOUNTS/OPERATIONS MANAGER

Started as an Equipment Operator (1992 – 1995) where responsibilities included maintenance, trouble-shooting, delivering, and setting-up equipment. Promoted to Supervisor (1995 – 1998) where responsibilities included overall coordinator for each job; dealt directly with customer for customer satisfaction and job completion; and in charge of all personnel related to job. Promoted to Accts Manager (1998 – 2004) where responsibilities were selling and engineering jobs. Including chemical cleaning hydrolazing steam/air blows oil flushing and many other industrial jobs Promoted to Operations Mgr (2005) coordinating 40 to 45 employees.

North Florida Shipyards (1991 – 1992)

RIGGER

Responsible for maintenance and rigging operations for all Naval Vessels stationed at Mayport Naval Station.

United States Navy (1985 – 1991)

BOATSWAIN'S MATE

Assigned to **USS Yosemite AD-19** and **USS Mobile Bay CG-53**. Trained on small boat operations and anchoring details. Underwent extensive training of scheduled and unscheduled maintenance inventory and quality control. Rigg captain qualified for rigging, fueling, and de-fueling of naval vessels. Also, involved in trouble-shooting and problem resolutions. Worked with VR Squadron 58 in charge of security for the squadron, support for C-9B Aircraft deployed in active areas for **Desert Shield/Storm**. Entered as an E-1 and departed military as an E-6.

Richard L Tydlacka
644 Seagull,
Sargent Tx,77404
richardtydlacka@gmail.com
979-557-425

OBJECTIVE: The opportunity to join a growing organization that has need for Advancement and utilize my skills to the best of my ability.

EXPERIENCE:

9/2009 to Present — Cogen Cleaning Technoloiges_ — Dickerson Tx

Chemical Operator
Oversee chemical cleaning of hrsg and boilers
Hydrolazing,Air blows and steam blows.

3/1994 to 4/2003 — Champion Technologies — Fresno, Tx

Chemical Operator Supervisor
Loaded equipment to transport to job site set up equipment for Chemical cleaning, oversaw job and did analytical testing, did all Paperwork and reports.
Batch processing, chemical cleaning,steam blowing,air blows

2/1992 to 6/1993 — MI Drilling Fluids — Hungerford Tx
Chemical Supervisor
Chemical cleaning, batch processing steam cleaning reactors air blows, high pressure water jetting.
Paperwork and reports.

SKILLS: Supervisor, Chemical Circulator, Skid Pumps and Hydrolazing Steam blows, Air blows and Chemical flushes.

Stephen Doyle
2014 Westwind St
Deer Park , TX
832-640-6475
Stephendoyle32@yahoo.com

OBJECTIVE: The opportunity to join a growing organization that has need for Advancement and utilize my skills to the best of my ability.

EXPERIENCE:

September 2009 To Current — Cogen — Dickinson, TX

Chemical Operator, Steam Blow, Air Blow, Hydrolazer
Oversee chemical cleaning of hrsg and boilers and piping.
Performed Steam Blows and Air Blows

December 2007 To September 2009 — PSC — Deer Park, TX

Chemical Cleaning Supervisor, Hydrolazer
Loaded equipment to transport to job site set up equipment for Chemical cleaning, oversaw job and did analytical testing, did all Paperwork and reports.

October 1994 To November 2007 — Veolia — LaPorte, TX

Chemical Cleaning Supervisor, Air Blow Supervisor
Loaded equipment to transport to job site set up equipment for Chemical cleaning, oversaw job and did analytical testing, did all Paperwork and reports.

SKILLS: Supervisor, CDL License, Chemical Circulator, Skid Pumps and Liquid ring.

Cogen Cleaning Technology, Inc.
Recent Experience - Hydrolaze and Air Blow

Project Name	Hydrolaze	Airblow	Status
Performance Mechanical - Modesto, CA	X	X	HL Finished, AB ongoing
Bayonne Energy Center - Burns and Roe	X	X	HL Finished, AB ongoing
West County Power Partners	X	X	Completed
Gemma Colusa - California	X	X	Completed
Valero - Houston	X	X	Completed
Duke Energy - Indiana	X	X	Completed
US Salt	X	X	Completed
Caterpillar		X	Completed
Sempra Energy - California	X		HL Starts 2/28/12
Air Products - Garyville	X		Completed
Air Producsts - Baton Rouge	X		Completed
Plum Point	X		Completed
Archer Daniel Midland	X		Completed
S & B Engineers - Lyondell	X		Completed