

Dominion Resources Services, Inc.
5000 Dominion Boulevard, Glen Allen, VA 23060
dom.com



February 18, 2016

BY: U.S. CERTIFIED MAIL, RETURN RECEIPT REQUESTED

9590 9401 0037 5168 3629 18

William F. Durham
Director, Division of Air Quality
WVDEP
601 57th Street
Charleston, WV 25304

RE: **Dominion Transmission, Inc.**
Sweeney Compressor Station
Permit Determination Request

Dear Mr. Durham:

Dominion Transmission, Inc. (Dominion) is submitting this request for permit determination for the replacement of a boiler at our Sweeney Compressor Station, a natural gas compressor station, located near Camden, Lewis County, West Virginia. The Weil-McLain 3.74 MMBtu/hr natural gas fired boiler (BLR01) will be replaced with a Cleaver Brooks 3.5 MMBtu/hr natural gas fired boiler (BLR02). The Weil-McLain boiler will be demolished and removed from site.

Based on potential emissions being below "stationary source" thresholds and the replacement boiler having "no substantive requirements of an emission control rule" as stated under West Virginia's R13 Regulations (§45-13-2), Dominion believes a permit is not necessary for the installation and operation of the replacement boiler (BLR02).

If you require any additional information, please contact Rebekah Remick at 804-273-3536 or via email at Rebekah.J.Remick@dom.com.

Sincerely,

A handwritten signature in blue ink that reads "Amanda B. Tornabene".

Amanda B. Tornabene
Director, Gas Environmental Services



WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF AIR QUALITY
601 57th Street, SE
Charleston, WV 25304
Phone: (304) 926-0475
www.dep.wv.gov/daq

**PERMIT DETERMINATION FORM
(PDF)**

FOR AGENCY USE ONLY: PLANT I.D. # _____
PDF # _____ PERMIT WRITER: _____

1. NAME OF APPLICANT (AS REGISTERED WITH THE WV SECRETARY OF STATE'S OFFICE): Dominion Transmission, Inc.		
2. NAME OF FACILITY (IF DIFFERENT FROM ABOVE): Sweeney Compressor Station		3. NORTH AMERICAN INDUSTRY CLASSIFICATION SYSTEM (NAICS) CODE: 486210
4A. MAILING ADDRESS: 925 White Oaks Blvd., Bridgeport, WV 26330	4B. PHYSICAL ADDRESS: 1835 Fink Creek Road, Camden, WV 26338	
5A. DIRECTIONS TO FACILITY (PLEASE PROVIDE MAP AS ATTACHMENT A): Interstate I-79 North to Weston/Buckhannon exit (Exit 99). Take Route 33 to Weston. Go straight through two stoplights and at the third light (at Main Street), turn left. Go one block to 2nd Street and at the next light, turn right, following Route 33 West. Travel approximately 6 miles to Camden. Turn right on County Route 9 and go 6.3 miles to County Route 6; go 1.7 miles. Station is on the left side of the road across a small bridge.		
5B. NEAREST ROAD: Fink Creek Road	5C. NEAREST CITY OR TOWN: Camden, WV	5D. COUNTY: Lewis
5E. UTM NORTHING (KM): 4328.80	5F. UTM EASTING (KM): 530.50	5G. UTM ZONE: 17
6A. INDIVIDUAL TO CONTACT IF MORE INFORMATION IS REQUIRED: Rebekah (Becky) Remick		6B. TITLE: Environmental Consultant
6C. TELEPHONE: 804-273-3536	6D. FAX: 804-273-2964	6E. E-MAIL: Rebekah.J.Remick@dom.com
7A. DAQ PLANT I.D. NO. (FOR AN EXISTING FACILITY ONLY): 041-00012		7B. PLEASE LIST ALL CURRENT 45CSR13, 45CSR14, 45CSR19 AND/OR TITLE V (45CSR30) PERMIT NUMBERS ASSOCIATED WITH THIS PROCESS (FOR AN EXISTING FACILITY ONLY): R13-2498B, R30-04100012-2012
7C. IS THIS PDF BEING SUBMITTED AS THE RESULT OF AN ENFORCEMENT ACTION? IF YES, PLEASE LIST: No		
8A. TYPE OF EMISSION SOURCE (CHECK ONE): <input checked="" type="checkbox"/> NEW SOURCE <input type="checkbox"/> ADMINISTRATIVE UPDATE <input type="checkbox"/> MODIFICATION <input type="checkbox"/> OTHER (PLEASE EXPLAIN IN 11B)		8B. IF ADMINISTRATIVE UPDATE, DOES DAQ HAVE THE APPLICANT'S CONSENT TO UPDATE THE EXISTING PERMIT WITH THE INFORMATION CONTAINED HEREIN? <input type="checkbox"/> YES <input type="checkbox"/> NO
9. IS <i>DEMOLITION</i> OR PHYSICAL <i>RENOVATION</i> AT AN EXISTING FACILITY INVOLVED? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		
10A. DATE OF ANTICIPATED INSTALLATION OR CHANGE: 5/1/16		10B. DATE OF ANTICIPATED START-UP: 9/5/16
11A. PLEASE PROVIDE A DETAILED PROCESS FLOW DIAGRAM SHOWING EACH PROPOSED OR MODIFIED PROCESS EMISSION POINT AS ATTACHMENT B .		
11B. PLEASE PROVIDE A DETAILED PROCESS DESCRIPTION AS ATTACHMENT C .		
12. PLEASE PROVIDE MATERIAL SAFETY DATA SHEETS (MSDS) FOR ALL MATERIALS PROCESSED, USED OR PRODUCED AS ATTACHMENT D . FOR CHEMICAL PROCESSES, PLEASE PROVIDE A MSDS FOR EACH COMPOUND EMITTED TO AIR.		

13A. REGULATED AIR POLLUTANT EMISSIONS:

⇒ FOR A NEW FACILITY, PLEASE PROVIDE PLANT WIDE EMISSIONS BASED ON THE POTENTIAL TO EMIT (PTE) FOR THE FOLLOWING AIR POLLUTANTS INCLUDING ALL PROCESSES.

⇒ FOR AN EXISTING FACILITY, PLEASE PROVIDE THE PROPOSED CHANGE IN EMISSIONS BASED ON THE PTE OF ALL PROCESS CHANGES FOR THE FOLLOWING AIR POLLUTANTS.

PTE FOR A GIVEN POLLUTANT IS TYPICALLY BEFORE AIR POLLUTION CONTROL DEVICES AND IS COLLECTED BASED ON THE MAXIMUM DESIGN CAPACITY OF PROCESS EQUIPMENT.

POLLUTANT	HOURLY PTE (LB/HR)	YEARLY PTE (TON/YR) (HOURLY PTE MULTIPLIED BY 8760 HR/YR) DIVIDED BY 2000 LB/TON
PM	0.03	0.12
PM ₁₀	0.01	0.03
VOCs	0.02	0.08
CO	0.29	1.29
NO _x	0.35	1.53
SO ₂	< 0.01	0.01
Pb	N/A	N/A
HAPs (AGGREGATE AMOUNT)	0.01	0.03
TAPs (INDIVIDUALLY)*		
OTHER (INDIVIDUALLY)*		

* ATTACH ADDITIONAL PAGES AS NEEDED

13B. PLEASE PROVIDE ALL SUPPORTING CALCULATIONS AS ATTACHMENT E.

CALCULATE AN HOURLY AND YEARLY PTE OF EACH PROCESS EMISSION POINT (SHOWN IN YOUR DETAILED PROCESS FLOW DIAGRAM) FOR ALL AIR POLLUTANTS LISTED ABOVE INCLUDING INDIVIDUAL HAP'S (LISTED IN SECTION 112[b] OF THE 1990 CAAA), TAP'S (LISTED IN 45CSR27), AND OTHER AIR POLLUTANTS (E.G. POLLUTANTS LISTED IN TABLE 45-13A OF 45CSR13, MINERAL ACIDS PER 45CSR7, ETC.).

14. CERTIFICATION OF DATA

I, BRIAN SHEPPARD (TYPE NAME) ATTEST THAT ALL THE REPRESENTATIONS CONTAINED IN THIS APPLICATION, OR APPENDED HERETO, ARE TRUE, ACCURATE, AND COMPLETE TO THE BEST OF MY KNOWLEDGE BASED ON INFORMATION AND BELIEF AFTER REASONABLE INQUIRY, AND THAT I AM A **RESPONSIBLE OFFICIAL**** (PRESIDENT, VICE PRESIDENT, SECRETARY OR TREASURER, GENERAL PARTNER OR SOLE PROPRIETOR) OF THE APPLICANT.

SIGNATURE OF RESPONSIBLE OFFICIAL: 

TITLE: VICE PRESIDENT, PIPELINE OPERATIONS DATE: 02 / 10 / 16

** THE DEFINITION OF THE PHRASE 'RESPONSIBLE OFFICIAL' CAN BE FOUND AT 45CSR13, SECTION 2.23.

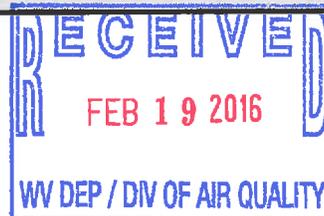
NOTE: PLEASE CHECK ENCLOSED ATTACHMENTS:

ATTACHMENT A ATTACHMENT B ATTACHMENT C ATTACHMENT D ATTACHMENT E

RECORDS ON ALL CHANGES ARE REQUIRED TO BE KEPT AND MAINTAINED ON-SITE FOR TWO (2) YEARS.

THE PERMIT DETERMINATION FORM WITH THE INSTRUCTIONS CAN BE FOUND ON DAQ'S PERMITTING SECTION WEB SITE:

www.dep.wv.gov/daq



Attachment A
Facility Location

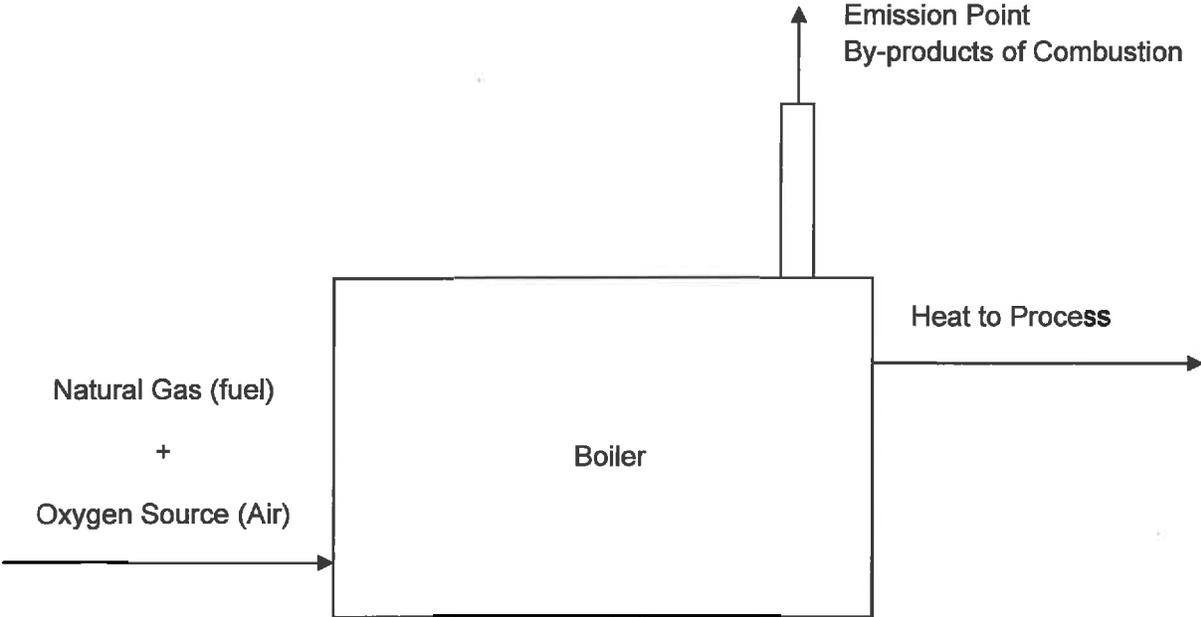


Attachment B

Process Flow Diagram

Process Flow Diagram for the Boiler (BLR02)

Sweeney Compressor Station



Attachment C

Process Description

Process Description

Sweeney Compressor Station is a natural gas storage and compressor station used to pump natural gas into and out of a storage pool for Dominion Transmission, Inc. in West Virginia. Sweeney Station is located in Camden, Lewis County, West Virginia.

The purpose of this permit determination is for the replacement of the natural gas fired Weil-McLain 3.74 MMBtu/hr boiler (BLR01) with a natural gas fired Cleaver Brooks 3.5 MMBtu/hr boiler (BLR02). The Weil-McLain boiler will be demolished and removed from site.

New Source Performance Standards (NSPS) Subpart Dc

The natural gas fired Cleaver Brooks 3.5 MMBtu/hr boiler is not subject to this Subpart as it is below the applicable size threshold of 10 MMBtu/hr (§60.40c(a)).

National Emission Standards for Hazardous Air Pollutants (NESHAP):

Subpart DDDDD

The natural gas fired Cleaver Brooks 3.5 MMBtu/hr boiler is not subject to this Subpart as Sweeney Station is not a major source of HAPs.

Subpart JJJJJJ

The natural gas fired Cleaver Brooks 3.5 MMBtu boiler is not subject to this Subpart as gas-fired boilers are not subject to this Subpart and to any requirements in this Subpart (§63.11195).

West Virginia Minor Source Regulations (R13)

The addition of the Cleaver Brooks 3.5 MMBtu/hr boiler does not trigger permitting as potential to emit calculations are below exemption thresholds of:

- 6 lbs/hr and 10 tons/yr, or
- 144 lbs/day, or
- 2 lbs/hr or 5 tons/yr of HAPs

Pollutant	Old Boiler PTE (BLR01)		New Boiler PTE (BLR02)		Change in PTE Emissions		
	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(lbs/day)	(tons/yr)
PM10/PM2.5	0.01	0.03	0.01	0.03	0.00	0.00	0.00
PM Total	0.03	0.12	0.03	0.12	0.00	0.00	0.00
SO2	< 0.01	0.01	< 0.01	0.01	0.00	0.00	0.00
CO	0.31	1.38	0.29	1.29	- 0.02	- 0.48	- 0.09
NOx	0.37	1.64	0.35	1.53	- 0.02	- 0.48	- 0.11
VOC	0.02	0.09	0.02	0.08	0.00	0.00	- 0.01
HAPs	0.01	0.03	0.01	0.03	0.00	0.00	0.00

In addition, the boiler is not "subject to any substantive requirement of an emission control rule" (i.e. no stack testing is required) as stated above. Therefore, the boiler is not deemed to be a "stationary source" and does not require permitting.

Attachment E

Supporting Calculations

Boiler (BLR02) Potential Emissions
Dominion Transmission, Inc.
Sweeney Compressor Station

Updated: Feb 2016

Input Data: Cleaver Brooks FLX-700-350-160HW (460/3/60)-STD/CFG
 Design Class: Natural Gas-Fired
 Fuel Input: 3.5 MMBtu/hr
 Heating Value of Natural Gas: 1,000 Btu/scf
 Fuel Input: 0.0035 MMscf/hr (manufacturer spec sheet)
 30.66 MMscf/hr
 Maximum Hours of Operation: 8,760 hrs/yr

Emission Calculations

Pollutant	Emission Factor		Potential Emissions		
			(lb/hr)	(lb/day)	(tons/yr)
Criteria Pollutants					
PM (filterable)	1.9	lb/MMscf	6.65E-03	0.16	0.03
PM-10 (filterable)	1.9	lb/MMscf	6.65E-03	0.16	0.03
PM-2.5 (filterable)	1.9	lb/MMscf	6.65E-03	0.16	0.03
PM (condensibles)	5.7	lb/MMscf	0.02	0.48	0.09
SO ₂	0.6	lb/MMscf	2.10E-03	0.05	0.01
CO	84	lb/MMscf	0.29	7.06	1.29
NO _x	100	lb/MMscf	0.35	8.40	1.53
VOC	5.5	lb/MMscf	0.02	0.46	0.08
Greenhouse Gases					
CO ₂	117.0	lb/MMBtu	409.42	9,826.10	1,793.26
CH ₄	2.20E-03	lb/MMBtu	0.01	0.19	0.03
N ₂ O	2.20E-04	lb/MMBtu	0.00	0.02	0.00
CO ₂ e	117.1	lb/MMBtu	409.84	9,836.25	1,795.12
Hazardous Air Pollutants					
Arsenic	2.00E-04	lb/MMscf	7.00E-07	1.68E-05	3.07E-06
Benzene	2.10E-03	lb/MMscf	7.35E-06	1.76E-04	3.22E-05
Beryllium	1.20E-05	lb/MMscf	4.20E-08	1.01E-06	1.84E-07
Cadmium	1.10E-03	lb/MMscf	3.85E-06	9.24E-05	1.69E-05
Chromium	1.40E-03	lb/MMscf	4.90E-06	1.18E-04	2.15E-05
Cobalt	8.40E-05	lb/MMscf	2.94E-07	7.06E-06	1.29E-06
Dichlorobenzene	1.20E-03	lb/MMscf	4.20E-06	1.01E-04	1.84E-05
Formaldehyde	7.50E-02	lb/MMscf	2.63E-04	6.30E-03	1.15E-03
Hexane	1.80E+00	lb/MMscf	6.30E-03	0.15	0.03
Manganese	3.80E-04	lb/MMscf	1.33E-06	3.19E-05	5.83E-06
Mercury	2.60E-04	lb/MMscf	9.10E-07	2.18E-05	3.99E-06
Naphthalene	6.10E-04	lb/MMscf	2.14E-06	5.12E-05	9.35E-06
Nickel	2.10E-03	lb/MMscf	7.35E-06	1.76E-04	3.22E-05
Selenium	2.40E-05	lb/MMscf	8.40E-08	2.02E-06	3.68E-07
Toluene	3.40E-03	lb/MMscf	1.19E-05	2.86E-04	5.21E-05
TOTAL HAP:			0.007		0.029

(1) NO_x and CO emission factors from AP-42, Section 1.4, Natural Gas Combustion, Table 1.4-1, 7/98

(2) PM, PM10, PM2.5, SO₂, and VOC emission factors from AP-42, Section 1.4, Natural Gas Combustion, Table 1.4-2, 7/98

(3) HAP emission factors from AP-42, Section 1.4, Natural Gas Combustion, Tables 1.4-3, 4, 7/98

(4) Lb/MMBtu numbers based on 40 CFR Part 98 Tables C-1 and C-2 for natural gas

For example: CO₂ = (53.06 kg CO₂/MMBtu) / (0.453592 kg/lb) = 117.0 lb/MMBtu

(5) Global Warming Potentials = 25 for CH₄ and 298 for N₂O (per 40 CFR Part 98 Table A-1 to Subpart A)

For example: CO₂e = (117.0 lb/MMBtu) + (0.0022 lb/MMBtu * 25) + (0.00022 lb/MMBtu * 298) = 117.1 lb/MMBtu



PO BOX 421 • MILWAUKEE, WISCONSIN 53201

PROPOSAL

To Randy Shaver
Dominion Transmission Inc

Proposal No. 01140184

Address 6486 Old Mill Rd
Jane Lew, WV 26378

Date 01/28/16

SUBJECT: Dominion Transmission / New Boiler

Item #	Qty.	Description
# 1	1	<p>Watertube Boiler Model: FLX-700-350-160HW (460/3/60)-STD/CFG Project Market: United States Boiler Capacity (Input) at 2000 ft: 3500MBTU (Output: 2800MBTU) Model Dimension (in.): 114x46x91 Shipping Weight: 6200 lbs Application Environment: Indoor - Typical Boiler Room Project NEMA Rating: NEMA 1 Boiler Tube Wall Thickness: 0.095in Fuel: Natural Gas Design Pressure: 160lb HW Boiler Supply Temperature: 180 F Boiler Return Temperature: 160 F Operating Pressure: 60 psig Safety Valve Setting: 100lb Safety Valve Relieving Requirement: Full Capacity Safety Valve Relieving Capacity: 3658 MBtu/Hr Voltage: 460/3/60 Customer Site Voltage: 460 V Electrical Panel Configuration: Control Panel / Entrance Panel Insurance Requirement: CSD-1 Packaged Boiler UL Label: UL</p> <p>Configuration Check: Standard Selections</p>
# 2	1	<p>Product Pricing Basis: Jan15 Price Book in use based on 01/12/2016 effective date for this product configuration. Pricing valid for 30 days. Expiration: 2/11/2016.</p>
# 3	1	<p>Burner Information: Burner Model: V Hinged: Open to Right Altitude: 2000 ft ASL Burner Input Capacity: 3500 MBTU Gas (NG) Emissions Level: Uncontrolled Gas (NG) CO Emissions Level: 150 ppm Minimum Gas Flow: 350 SCFH Maximum Gas Flow: 3500 SCFH Burner Gas Turndown: 10 : 1 Burner Modulation: Full Modulation Burner Ignition Type: Spark Ignited Gas</p>

		Burner Mounting Plate Included Economizer included Separately with Boiler Package: No
# 4	1	Blower Motor: 1 HP ODP (460/3/60)
# 5	3	Blower Motor Fuse Protection: 4 Amp Fuse (Control / Burner Panel)
# 6	1	Blower Motor Starter: IEC (480V)
# 7	1	Safety Valve #1: Kunkle 1" 100lb HW (Full Capacity)
# 8	1	Stack Connection: 12in Flanged
# 9	1	Supply Connection: 6in Flanged 150lb. F.F.
# 10	1	Return Connection: 6in Flanged 150lb. F.F.
# 11	1	Air Vent Connection: 1in NPT
# 12	1	Air Vent Valve: Manual Bronze 1in NPT (SL)
# 13	1	Drain Valve: Gate 1.5in NPT Class 125 Bronze (SL)
# 14	1	Main Low Water Cut-Off: Warrick 3E-1 Manual Reset On/Off External Probe with Sch 80 Carbon Steel Piping (Nema 1/ Left Front)
# 15	1	Auxillary Low Water Cut-Off: MCDM750 Manual Reset Internal Probe with (Nema 1)
# 16	1	Pressure Gauge: 3.5in Dial 0-300 psig
# 17	1	Supply Water Thermometer: 3.5in Dial 30-300 F
# 18	1	Primary Gas Train for Natural Gas (Right): Nema Rating: NEMA 1; Piping Material: Carbon Steel Components from Burner to Customer Connection: Butterfly Valve: 2in Reduced; Manual Valve #2: 2in Butterball; Safety Shutoff Valves: Honeywell Dual Motorized with 1 POC ; SSOV #2: 2in; SSOV #1: 2in; GPR Configuration: RV 2in (Standard Trim); Manual Valve #1: 2 Butterball; customer Connection: 2 Pressure Requirements: Minimum Gas Pressure (@ Inlet of Manual Valve): 11.73 in. w.c. Maximum Gas Pressure (@ Inlet of Manual Valve): 27.7 in. w.c. Customer Supply Gas Pressure (@ Inlet of Manual Valve): 12 in. w.c.
# 19	1	Primary Gas Train High Gas Pressure Switch: Honeywell C6097 Manual Reset
# 20	1	Primary Gas Train Low Gas Pressure Switch: Honeywell C6097 Manual Reset
# 21	2	Primary Gas Train Valve Plugged Leakage Test Cock: 0.25in
# 22	1	Natural Gas Pilot Train (Right): Piping Material: Carbon Steel Customer Inlet Gas Pressure (in. w.c.): 12 in. w.c.
# 23	1	Pilot Gas Train Natural Gas Gas Pressure Regulator: Maxitrol 325-3 in. w.c.
# 24	1	Pilot Gas Train Manual Shutoff Cock: Bronze
# 25	1	Pilot Gas Train Solenoid Valve: Aluminum Body
# 26	1	Pilot Gas Train Regulator Inlet Pressure Gauge: 2.5in Steel with Shutoff Cock (Bronze)
# 27	1	Modulating Motor: Honeywell 0-135 ohm
# 28	1	Modulating Control: T991 (Temperature)
# 29	1	Operating Temperature Limit Control: Honeywell L4008A
# 30	1	High Limit Control: Honeywell
# 31	1	Combustion Safeguard Control: CB780EUV
# 32	1	Entrance Panel Enclosure: Side Mounted NEMA 1 Right (Control Interface Connection / Power Connection)
# 33	1	Control / Burner Panel Enclosure Configuration - Burner Mounted (NEMA 1)
# 34	1	Control Panel Circuit Wire: 16 AWG
# 35	1	Control Panel Single Point Connection: - 460/3/60

# 36	1	Electrical Wiring: Flexible
# 37	1	Main Power Distribution: Rotary UnFused Disconnect 30 AMPS
# 38	1	Control Circuit Transformer: 0.5kVA (Control / Burner Panel)
# 39	3	CCT Fuse Protection: 1.6 (Control / Burner Panel)
# 40	1	Audible Alarm: Electronic Sounder (Control / Burner Panel)
# 41	1	Alarm Silence Switch (Control / Burner Panel)
# 42	1	Common All Function Alarm (Control / Burner Panel)
# 43	1	Panel Lights Label: Standard Labels
# 44	1	Fuel Valve Light Only: Green-22 mm LED (Control / Burner Panel)
# 45	1	Flame Failure Light Only: Red 22 mm LED (Control / Burner Panel)
# 46	1	Low Water Light Only: Red 22 mm LED (Control / Burner Panel)
# 47	1	Load Demand Light Only: White 22 mm LED (Control / Burner Panel)
# 48	1	Labor Startup Allowance: 10 Total Hours Boiler: 10 Hours
# 49	1	Manuals: 750-00154/750-00177-000/750-00237-000/750-00234-000/
# 50	1	Submittals - Dimensional Diagram (FLX)
# 51	1	Submittals - Wiring Diagram (FLX)
# 52	1	Submittals - Test Fire Report (FLX)
# 53	1	<p>Cleaver-Brooks Exhaust Solutions prefabricated Series CBILA 12" diameter Double Wall stack system, constructed of 304 Stainless inner wall and Aluminized Steel outer wall, with 1" Air Gap insulation.</p> <p>System is configured for one stack per boiler, A - Straight up through Roof arrangement, . Stack support hangars, brackets, and primary flashing material constructed of 304 Stainless.</p> <p>Stack system overall dimensions: Vent Connection Height - 92.00 Inches Roof height - 112 Inches Vent Connection to roof - 20.00 Inches Outlet height above roof - 72 Inches Outlet Elevation - 184.00 Inches Roof thickness - 1 Inches.</p>
# 54	1	<p>Boiler Application: Cleaver - Brooks FLX / FLE, 3500 MBTU, Hot Water.</p> <p>NG fueled, 3500 MBTU Input, Non-Condensing Power Fired (III).</p> <p>1076 Lbs/hr at 397 Deg. F. Vent: 12", CB FLX Flange, 0.25 inches w.c. max pressure at vent connection.</p>
# 55	1	Pricing Basis: Aug14 Price Book in use based on 01/12/2016 effective date. (0.925929 exchange rate in use for CAD to USD conversion. As of 7/2/2014 pricing is CAD basis with a fixed exchange to USD .) Pricing valid for 30 days. Expiration: 2/11/2016.
# 56	1	Starting Adapter: CB FLX Flange, 12" dia, 8" length. 304 Stainless inner wall, Aluminized Steel outer wall. Includes drain.
# 57	1	Straight section, 48L, 47"L, 12", 304 Stainless inner wall, Aluminized Steel outer wall.
# 58	1	Straight section, 12L, 11"L, 12", 304 Stainless inner wall, Aluminized Steel outer wall.
# 59	1	Stack Termination: Velocity Cone (EC), 12", 304 Stainless inner wall, Aluminized Steel outer wall.
# 60	1	Roof Firestop, flat plate Firetop (FS), 12", Galvanized Steel material. Refer to installation

		manual for minimum clearance to building structure and combustibles.
# 61	1	Roof Flashing: Pitched Flashing (AF), roof pitch: 6 in 12, 12", Galvanized Steel material. Roof curb, drip egde, etc. by others.
# 62	1	Storm Collar (SC), 12", Galvanized Steel material.
# 63	1	Roof Support: RS, 12", Carbon Steel material. Roof curb/roof structural steel by others.
# 64	1	LOT: Sealant: Number of tubes as required for complete installation. Inner joints. Adchem X-Trasil H.T. or equal. Exterior joints: Adchem Adsil 4809 or equal.
# 65	1	Dimensional Drawing (PDF)

Freight (EXW - Included
Ex Works
Factory):

Total: \$56775.00

Unloading by others.

Approx. Shipping Weight

Payment Terms: Net 30 Days from Shipment

Approximate Shipment after Receipt of
Order and Complete Details in Milwaukee

PRICE ADJUSTMENT all prices in this proposal are subject to price adjustment in accordance with Cleaver-Brooks Price Adjustment Policy

Cleaver-Brooks, Inc. offers to furnish the Equipment described herein for the purchase price noted, exclusive of all taxes. Prices quoted are firm for 30 days from the date of Proposal subject to adjustment as noted. Standard Cleaver-Brooks **payment terms** are *unconditional net 30 from the date of readiness for shipment or unless otherwise specified in this proposal*. Cleaver-Brooks will review your order prior to acceptance (and acknowledgment) and order entry. Until acceptance and order entry, the Equipment is **subject to prior sale**. Incorporation of technical specifications or requirements different from or additional to the Cleaver-Brooks proposal and not previously reviewed by Cleaver-Brooks will extend the order review process and may postpone or prevent acceptance of your order and order entry.

Cleaver-Brooks does not agree and will not agree to **INCIDENTAL, CONSEQUENTIAL AND LIQUIDATED DAMAGES OR IMPLIED WARRANTIES**. Cleaver-Brooks does not agree and will not agree to, unless specifically set forth in an agreement in writing having an authorized Cleaver-Brooks signature: (1) **terms and conditions** in your order that are different from or additional to those of Cleaver-Brooks' Proposal; (2) **technical specifications**, technical requirements or descriptions of the goods and services ordered that are different from or additional to those of Cleaver-Brooks' Proposal; or (3) **generalized expressions** such as "per plans and specs."

THE TERMS AND CONDITIONS OF SALE ON THE REVERSE SIDE ARE PART OF THIS PROPOSAL

Date ACCEPTED _____
 By _____
 Purchaser

Please return one signed copy of this proposal, or **submit your purchase order addressed to Cleaver-Brooks, Inc.**, in care of your Cleaver-Brooks Sales Representative referencing this Proposal by number and date.

PROPOSAL FURNISHED BY
 Michael Lutestanski
 Delval Equipment Corporation
 (724)743-0410
 MikeL@delval.com
 SALES REPRESENTATIVE

TERMS AND CONDITIONS OF SALE

Cleaver-Brooks, Inc offers to sell the Equipment described herein upon the following terms and conditions of sale. Additional or inconsistent terms and conditions of Buyer's purchase order are applicable only upon the Company's written acceptance thereof.

1. TERMS AND PRICES

(a) All orders are accepted by the Company at its home office. Standard terms of payment for projects valued at less than \$250,000 are thirty (30) days net from the date of invoice for completion of agreed performance milestones for payment, including readiness of the Equipment for shipment. Partial shipments of units under multiple unit orders shall be invoiced and paid separately. Payment terms on projects valued at or above \$250,000 will require Progress Payments based on specific milestones, including but not limited to 20% upon issuance of submittals, 30% upon release for production and 50% upon readiness to ship.

(b) In addition to the purchase price, Buyer shall pay any excise, sales, privilege, use or any other local, State, or federal taxes which the Company may be required to pay arising from the sale or delivery of the Equipment or the use thereof. Prepaid freight, if applicable, will be added to the purchase price and invoiced separately. Where the price includes allowed transportation or other shipping charges, any increases in transportation rates or other shipping charges from date of quotation or purchase order shall be for the account of and paid by Buyer.

(c) If Buyer requests changes in the Equipment or delays progress of the production of the Equipment, the contract price and delivery schedule shall be equitably adjusted to reflect changes caused thereby.

2. DELIVERY

Unless otherwise offered in this Proposal, delivery is ExWorks (INCOTERMS 2000), at the Company's plant of origin. Risk of loss shall pass to Buyer upon the Company's tender of delivery to Buyer's transporting carrier. If Buyer requests, in writing, a deferral of shipment of Equipment, the Company may agree on the basis that upon readiness of Equipment for shipment Buyer shall accept transfer of title and risk of loss, and remit payments due upon delivery, and the Company shall be paid for additional costs of handling, transport, and storage arising from such request.

3. WARRANTY

The Company warrants that at the time of delivery the Equipment manufactured by it shall conform to the Company's specifications and to such contract specifications as may be otherwise agreed by the Company. The Company's warranty is conditioned upon the Equipment being properly installed, maintained and operated within the Equipment's capacity under normal load conditions with competent, supervised operators and, if the Equipment uses water, with proper water conditioning. Equipment, accessories and other parts and components not manufactured by the Company are warranted only to the extent of and by the original manufacturer's warranty to the Company; in no event shall such other manufacturer's warranty create any more extensive warranty obligations of the Company to the Buyer than the Company's warranty covering Equipment manufactured by the Company. THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, ORAL OR EXPRESS OR IMPLIED, INCLUDING ANY WARRANTIES THAT EXTEND BEYOND THE DESCRIPTION OF THE EQUIPMENT. THERE ARE NO EXPRESS WARRANTIES OTHER THAN THOSE CONTAINED IN THIS PARAGRAPH AND TO THE EXTENT PERMITTED BY LAW THERE ARE NO IMPLIED WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE. This warranty does not apply or extend, to expendable items; ordinary wear and tear; altered units; units repaired by persons not expressly approved by the Company; materials not of the Company's manufacture; or damage caused by accident, the elements, abuse, misuse, temporary heat, overloading, or by erosive or corrosive substances or by the alien presence of oil, grease, scale, deposits or other contaminants in the Equipment.

4. WARRANTY ADJUSTMENT

Buyer must make claim of any breach of any warranty by written notice to the Company's home office within thirty (30) days of the discovery of any defect within twelve (12) months from the date of initial operation but no more than eighteen (18) months from date of shipment for any part or parts of Equipment, or within one (1) year of shipment for any spare parts shipped under an Equipment order. The Company shall repair or replace, at its option, ExWorks (INCOTERMS 2000) at the Company's plant of origin, BUT NOT INSTALL, part(s) which shall prove to be defective, to the Company's satisfaction (including return to the Company's plant, transportation prepaid, for inspection, if required by the Company). Warranty adjustments shall not extend the initial warranty period. The warranty period for replacements made by the Company shall terminate upon the termination of the initial warranty period. Expenses incurred by Buyer in replacing or repairing or returning the Equipment or any part or parts will not be reimbursed by the Company. This Warranty Adjustment is Buyer's exclusive remedy and the extent of the Company's liability for breach of implied (if any) and express warranties, representations, instructions or defects from any cause in connection with the sale or use of the Equipment.

5. PATENTS

The Company shall defend and hold Buyer harmless in any suits instituted against Buyer for infringement of any claim of any United States Patent covering solely the structure of the Equipment as originally manufactured by the Company per the Company's specifications, exclusive of combination or modification by the Buyer, provided Buyer shall have (i) given the Company immediate notice in writing of any such claim or institution or threat of such suit; (ii) authorized the Company to control settlement of the same, and (iii) given all needed information, assistance and authority to enable the Company to do so. Buyer shall defend and indemnify the Company against all expenses, costs, and loss by reason of any real or alleged infringement to the extent arising from the Company's incorporating a design or modification requested by Buyer. The Company's total liability hereunder is expressly limited to an amount no greater than the sales price of the Equipment and may be satisfied

by the Company's refunding to Buyer at the Company's option, the sales price of the Equipment. In the event the Company elects to defend any such suit and the structure of the said Equipment is held to infringe any such United States Patent and if the Buyer's use thereof is enjoined, the Company shall, at its expense and at its option: (i) obtain for the Buyer the right to continue using the Equipment, or (ii) supply non-infringing Equipment for installation by Buyer, or (iii) modify the Equipment so that it becomes non-infringing, or (iv) refund the then market value of the Equipment.

6. TERMINATION

Orders are not cancelable, but may be terminated for credit with the Company's express written consent if the Buyer is unable to use the ordered item or a similar product: such termination is upon terms and payment to the Company indemnifying the Company against loss, including but not limited to expenses incurred and commitments made by the Company to perform the order. Items already delivered under a terminated order will only be accepted as returns if they are unused and undamaged, such items are in the Company's then current inventory, and subject to a restocking charge.

7. DELAY

The Company shall not be liable for loss or damage to Buyer from delay resulting from causes beyond the Company's reasonable control or caused by strikes or labor difficulties, lockouts, acts or omissions of any governmental authority or the Buyer, insurrection or riot, war, fires, floods, Acts of God, breakdown of essential machinery, accidents, priorities or embargoes, car and material shortages, delays in transportation or inability to obtain labor, materials or parts from usual sources. Any such delay shall be excused for the time reasonably necessary to compensate for the delay. If performance by the Company of this agreement is prohibited or significantly restricted by any governmental agencies, or by laws, rules or regulations of the United States Government, the Company (at its option) may cancel this agreement without liability.

8. WORK BY OTHERS: ACCESSORY AND SAFETY DEVICES; USE BEFORE START UP

The Company, being only a supplier of the Equipment, shall have no responsibility for labor or work of any nature relating to the installation or operation or use of the Equipment, all of which shall be performed by Buyer or others. It is the responsibility of Buyer to furnish such accessory and safety devices as may be desired by it and/or required by law or OSHA standards respecting Buyer's use of the Equipment. Buyer shall be responsible for ascertaining that the Equipment is installed and operated in accordance with all code requirements and other applicable laws, rules, regulations and ordinances. If damage to the Equipment or other property or injury to persons is caused by use or operation of the Equipment prior to its being placed in initial operation ("Start up") by the Company (where start up is included in the purchase price), then Buyer shall indemnify and hold the Company harmless from all liability, costs and expenses for all such damage or injury.

9. BACKCHARGES

Items delivered by the Company may require work or revision after shipment, whether for repair of damage (transit, unloading, handling, damage by other contractors), adaptation to site interface conditions with existing facilities or work of other contractors, or otherwise. If Buyer provides to the Company the necessary information in the situation, the Company shall promptly advise Buyer of the applicable standards or technical guidelines for such work, and the extent of the Company's other obligations, if any, with respect to such work. The Company will use its best efforts in the circumstances to assist Buyer to obtain appropriate resources as may be required for such work. Any work to be done at the Company's expense requires the Company's prior approval as to: scope; identification of who will perform such work; applicable quality standards; arrangements for the time, place and urgency of such work; an agreed price or estimate of cost; and, the opportunity for the Company to have a representative in attendance. Costs claimed for work done without such prior approval shall not be accepted as backcharges.

10. LIMITATION OF LIABILITY

THE COMPANY SHALL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL, INDIRECT OR CONSEQUENTIAL DAMAGES, OR FOR LOSS, DAMAGE OR EXPENSE, DIRECTLY OR INDIRECTLY ARISING FROM THE USE OF THE EQUIPMENT OR FROM ANY OTHER CAUSE, WHETHER BASED ON WARRANTY (EXPRESS OR IMPLIED) OR TORT OR CONTRACT, and regardless of any advice or recommendations that may have been rendered concerning the purchase, installation or use of the Equipment.

11. COMPLETE AGREEMENT

UPON ACCEPTANCE BY THE BUYER, THIS OFFER SHALL BE THE COMPLETE AGREEMENT BETWEEN THE COMPANY AND BUYER AND NO ADDITIONAL OR DIFFERENT TERM OR CONDITION STATED BY BUYER SHALL BE BINDING UNLESS AGREED BY THE COMPANY IN WRITING. No course of prior dealings and no usage of the trade shall be relevant to supplement or explain any terms used in this Agreement. This Agreement may be modified only by a writing signed by both the Company and Buyer and shall be governed by the Uniform Commercial Code as enacted by the State of Wisconsin. The failure of the Company to insist upon strict performance of any of the terms and conditions stated herein shall not be considered a continuing waiver of any such term or condition or any of the Company's rights. Any controversy or claim arising out of or relating to this contract, or the breach thereof, and not amicably resolved within 30 days from referral to senior executives of each party, or to non-binding mediation, shall be settled by arbitration administered by the American Arbitration Association ("AAA") under its Commercial Arbitration Rules (with Expedited Procedures), with proceedings to be held by one arbitrator in AAA's Case Management Center offices located approximately half way between the home office locations of the parties, unless otherwise agreed, and judgment on the award rendered by the arbitrator may be entered in any court having jurisdiction thereof.