

F&A RECEIVED 751085
JUL 13 2011

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BUREAU OF
AIR REGULATION

RECIPROCATING INTERNAL COMBUSTION ENGINES
AIR GENERAL PERMIT REGISTRATION FORM

Part II. Notification to Permitting Office

(Detach and submit to appropriate permitting office; keep copy onsite)

Instructions: To give notice to the Department of an eligible facility's intent to use this air general permit, the owner or operator of the facility must detach and complete this part of the Air General Permit Registration Form and submit it to the appropriate Department of Environmental Protection or local air pollution control program office which has permitting authority. Please type or print clearly all information, and enclose the appropriate air general permit registration processing fee pursuant to Rule 62-4.050, F.A.C. (\$100 as of the effective date of this form)

0210119-001

Registration Type

Check one:

INITIAL REGISTRATION - Notification of intent to:

- Construct and operate a proposed new facility.
- Operate an existing facility not currently using an air general permit (e.g., a facility proposing to go from an air operation permit to an air general permit).

RE-REGISTRATION (for facilities currently using an air general permit) - Notification of intent to:

- Continue operating the facility after expiration of the current term of air general permit use.
- Continue operating the facility after a change of ownership.
- Make an equipment change requiring re-registration pursuant to Rule 62-210.310(2)(e), F.A.C., or any other change not considered an administrative correction under Rule 62-210.310(2)(d), F.A.C.

Surrender of Existing Air Operation Permit(s) - For Initial Registrations Only

If the facility currently holds one or more air operation permits, such permit(s) must be surrendered by the owner or operator upon the effective date of this air general permit. In such case, check the first box, and indicate the operation permits being surrendered. If no air operation permits are held by the facility, check the second box.

- All existing air operation permits for this facility are hereby surrendered upon the effective date of this air general permit; specifically permit number(s): _____
- No air operation permits currently exist for this facility.

General Facility Information

Facility Owner/Company Name (Name of corporation, agency, or individual owner who or which owns, leases, operates, controls, or supervises the facility.)

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Site Name (Name, if any, of the facility site; e.g., Plant A, Metropolis Plant, etc. If more than one facility is owned, a registration form must be completed for each.)

MERRITT PUMP STATION - PICAYUNE STRAND FOREST

Facility Location (Provide the physical location of the facility, not necessarily the mailing address.)

Street Address: 5480 BERSON AVE.

City: NAPLES, FL

County: COLLIER

Zip Code: 34117

Facility Start-Up Date (Estimated start-up date of proposed new facility.)(N/A for existing facility)

JUNE 2012

Owner/Authorized Representative

Name and Position Title (Person who, by signing this form below, certifies that the facility is eligible to use this air general permit.)

Print Name and Title: **TONY JETTINGHOFF, RESIDENT ENGINEER**

Owner/Authorized Representative Mailing Address

Organization/Firm: **U.S. ARMY CORPS OF ENGINEERS**

Street Address: **2225 52ND AVE. SE**

City: **NAPLES**

County: **COLLIER**

Zip Code: **34119**

Owner/Authorized Representative Telephone Numbers

Telephone: **(561) 379-3084**

Fax: **(239) 304-2388**

Cell phone (optional):

Facility Contact (If different from Owner/Authorized Representative)

Name and Position Title (Plant manager or person to be contacted regarding day-to-day operations at the facility.)

Print Name and Title: **SCOT CHAILAND, CHIEF OPERATOR**

Facility Contact Mailing Address

Organization/Firm: **SOUTH FLORIDA WATER MANAGEMENT DISTRICT**

Street Address: **2225 52ND AVE SE**

City: **NAPLES**

County: **COLLIER**

Zip Code: **34119**

Facility Contact Telephone Numbers

Telephone: **(239) 425-7005**

Fax: **(239) 304-2388**

Cell phone (optional):

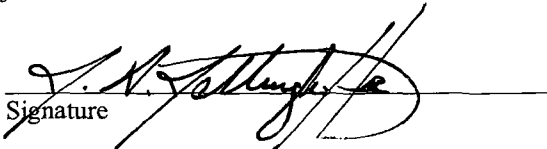
Owner/Authorized Representative Statement

This statement must be signed and dated by the person named above as owner or authorized representative

I, the undersigned, am the owner or authorized representative of the owner or operator of the facility addressed in this Air General Permit Registration Form. I hereby certify, based on information and belief formed after reasonable inquiry, that the facility addressed in this registration form is eligible for use of this air general permit and that the statements made in this registration form are true, accurate and complete. Further, I agree to operate and maintain the facility described in this registration form so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof.

I will promptly notify the Department of any changes to the information contained in this registration form.

Signature



Date

6/23/11

Fuel Consumption

If this is an **initial registration** for reciprocating internal combustion engine operations, provide an estimate of the total amount of fuel expected to be consumed over a 12-month period. Note: the general permit limits fuel consumption by all reciprocating internal combustion engines at the facility to 20,000 gallons per year of gasoline, 250,000 gallons per year of diesel fuel, 1.15 million gallons per year of propane, 40 million standard cubic feet per year of natural gas, or an equivalent prorated amount if multiple fuels are used

THERE WILL BE APPROXIMATELY 51,900 GALLONS OF DIESEL FUEL USED ANNUALLY PER ENGINE AT THIS LOCATION. MULTIPLIED BY FOUR (4) ENGINES THE TOTAL APPROXIMATE FUEL CONSUMPTION EQUALS 207,600 GALLONS

ANNUALLY.

If this is a **re-registration** for reciprocating internal combustion engine operations, provide the highest 12-month total fuel consumption amount, in appropriate units, for the last five years. Indicate the 12-month period over which this fuel consumption occurred.

Description of Facility

Below, or as an attachment to this form, provide a description of the reciprocating internal combustion engine operations at the facility in sufficient detail to demonstrate the facility's eligibility for use of this air general permit and to provide a basis for tracking any future equipment or process changes at the facility. Describe all air pollutant-emitting processes and equipment at the facility, and identify any air pollution control measures or equipment used.

PLEASE ATTACHED DOCUMENTATION.

Item 1:

The engines are sized for pump starting and continuous operation at rated condition. These engines are expected to run at the rated condition for 1000+ hours per year. There are four engines. Assuming the projected usage is accurate, engine fuel consumption will not exceed the limit of 250,000 gallons per year of diesel fuel. Each engine is expected to consume approximately 51,900 gallons of fuel per year.

Item 2:

Quantity four (4) Caterpillar C18 Industrial Engines rated for 575hp at 1800rpm to 2100rpm. The engine load is 1800rpm in this application. The engines are EPA & CARB Tier 3, EU EC Stage IIIA & China Stage II Non-road emissions certified as direct injection, turbocharged, air to air aftercooled, dry exhaust manifold type. The engine emissions will be determined by the cyclical horsepower demand as required by pump and based on the facility/project site design criteria. Please refer to the attached emissions data on the engines which indicates the emissions output at based on a percentage of engine load. No additional air pollution control measures are employed at this facility beyond those that are part of the engine as engine emissions are assured to comply with all emissions limit regulations.

C18 Ind Eng - Merritt PS										
RPM - Engine Rated Load	1800									
HP - Engine Rated Load	575									
Percent of Rated Load	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Horsepower	57.50	115.00	172.50	230.00	287.50	345.00	402.50	460.00	517.50	575.00
Fuel - Liters Per Hour	18.10	27.30	27.50	50.00	63.10	75.20	86.30	95.00	100.00	106.80
Fuel - Gallons Per Hour	4.78	7.21	7.26	13.2	16.66	19.86	22.79	25.09	26.41	28.21

INDUSTRIAL ENGINE PERFORMANCE DATA

SEPTEMBER 23, 2009

For Help Desk Phone Numbers [Click here](#)

Performance Number: DM7698

Change Level:

Sales Model: C18 DITA

Combustion: DI

Aspr: TA

Engine Power: 575 HP

Speed: 2,100 RPM

After Cooler: ATAAC

Manifold Type: DRY

Governor Type: ELEC

After Cooler Temp(F): 120

Turbo Quantity: 1

Engine App: IN

Turbo Arrangement:

Application Type: IND-DIESEL

Engine Rating: IN

Strategy:

Rating Type: IND-A(CONT)

Certification: EPA TIER-3 2005 - ----
EU STAGE -IIIA 2006 - 2010

General Performance Data 1

ENGINE SPEED RPM	ENGINE POWER BHP	ENGINE TORQUE LB.FT	ENGINE BMEP PSI	FUEL BSFC LB/BHP-HR	FUEL RATE GPH	INTAKE MFLD TEMP DEG F	INTAKE MFLD P IN-HG	INTAKE AIR FLOW CFM	EXH MFLD TEMP DEG F	EXH STACK TEMP DEG F	EXH GAS FLOW CFM
2,100	575	1,438.98	196.09	0.37	30.12	120.38	48.09	1,451.43	1,115.42	874.76	3,782.2
2,000	575	1,510.52	205.96	0.37	30.12	123.44	50.43	1,433.78	1,136.48	889.34	3,778.67
1,900	575	1,590.18	216.69	0.36	29.59	120.56	50.28	1,380.8	1,127.48	881.24	3,616.23
1,800	575	1,678.69	228.73	0.35	28.45	115.7	49.45	1,313.71	1,107.86	865.76	3,400.81
1,700	569	1,756.87	239.46	0.35	28.06	115.34	49.84	1,257.2	1,118.3	880.34	3,298.39
1,600	557	1,826.94	249.03	0.34	27.26	113.72	50.37	1,197.17	1,132.34	895.46	3,178.32
1,500	540	1,889.63	257.59	0.35	26.97	113.9	51.59	1,151.26	1,161.5	920.3	3,135.95
1,400	516	1,937.57	264.12	0.35	26.15	113.18	52.56	1,098.29	1,188.14	939.92	3,019.41
1,300	474	1,913.23	260.78	0.35	23.46	102.56	43.18	921.71	1,216.4	979.52	2,595.63
1,200	378	1,653.61	225.39	0.34	18.31	89.42	26.42	660.38	1,222.7	1,012.28	1,906.99
1,100	316	1,509.79	205.81	0.34	15.43	83.66	20.2	522.66	1,230.44	998.06	1,536.19

General Performance Data 2

RATED LOAD = 1800 RPM

ENGINE SPEED RPM	ENGINE POWER BHP	COMPRESS OUT PRESS IN-HG	COMPRESS OUT TEMP DEG F	CHARGE AIRFLOW LB/HR
2,100	575	52.62	327.56	6,361.65
2,000	575	54.67	333.86	6,282.73
1,900	575	54.31	331.7	6,046.61
1,800	575	53.24	327.02	5,751.85
1,700	569	53.24	327.02	5,496.12
1,600	557	53.27	327.92	5,235.53
1,500	540	54.4	334.22	5,042.63
1,400	516	55.05	338.54	4,805.19
1,300	474	45.07	305.24	4,034.01
1,200	378	27.63	237.2	2,886.73
1,100	316	21.14	204.98	2,288.84

Engine Heat Rejection Data

ENGINE SPEED RPM	ENGINE POWER BHP	REJ TO JW BTU/MN	REJ TO ATMOS BTU/MN	REJ TO EXHAUST BTU/MN	EXH RCOV TO 350F BTU/MN	FROM OIL CLR BTU/MN	FROM AFT CLR BTU/MN	WORK ENERGY BTU/MN	LHV ENERGY BTU/MN	HHV ENERGY BTU/MN
2,100	575	7,961.8	6,142.0	25,307.1	13,990.0	3,446.3	5,078.5	24,397.2	64,661.1	68,869.4
2,000	575	7,904.9	6,028.2	25,477.7	14,217.5	3,446.3	5,101.2	24,397.2	64,661.1	68,869.4
1,900	575	7,734.3	6,198.8	24,397.2	13,535.0	3,383.8	4,919.2	24,397.2	63,523.7	67,675.2
1,800	575	7,450.0	5,687.0	22,861.7	12,454.5	3,253.0	4,686.1	24,397.2	61,135.1	65,116.0
1,700	569	7,393.1	5,914.5	22,349.9	12,283.9	3,213.1	4,481.4	24,112.8	60,282.1	64,263.0
1,600	557	7,165.6	5,573.2	21,781.2	12,056.4	3,122.2	4,322.1	23,601.0	58,576.0	62,443.1
1,500	540	7,222.5	5,743.9	21,667.4	12,227.0	3,088.0	4,282.3	22,861.7	58,007.3	61,760.7
1,400	516	7,165.6	5,516.4	21,155.6	12,056.4	2,997.0	4,174.2	21,894.9	56,244.3	59,884.0
1,300	474	6,540.0	5,232.0	18,767.1	10,919.0	2,689.9	3,150.6	20,075.1	50,500.4	53,798.9
1,200	378	5,232.0	5,004.5	14,160.6	8,303.0	2,104.2	1,643.5	16,037.3	39,524.6	42,083.7
1,100	316	4,492.7	5,175.2	11,260.2	6,483.2	1,768.7	1,069.2	13,421.3	33,268.9	35,429.9

RATED LOAD = 1800 RPM

EMISSIONS DATA

EPA TIER-3 2005 - ---- ***** G5
 Gaseous emissions data measurement are consistent with those described in
 in 40 CFR, EU 97/68/EC, ECE Regulation No. 96 and ISO 8178 for measuring
 HC, CO, PM and NOx.

Gaseous emissions values are WEIGHTED CYCLE AVERAGES and are in compliance
 with the following non-road regulations:

LOCALITY	AGENCY/LEVEL	MAX LIMITS - g/kw-hr		
-----	-----	-----	-----	-----
U. S. (incl Calif)	EPA/Tier 3	CO:3.5	NOx + HC:4.0	PM:0.2
Europe	EU/Stage-IIIA	CO:3.5	NOx + HC:4.0	PM:0.2

EU STAGE -IIIA 2006 - 2010 ***** G5
 Gaseous emissions data measurement are consistent with those described in
 in 40 CFR, EU 97/68/EC, ECE Regulation No. 96 and ISO 8178 for measuring
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-----	-----	-----	-----	-----
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Europe	EU/Stage-IIIA	CO:3.5	NOx + HC:4.0	PM:0.2

REFERENCE EXHAUST STACK DIAMETER	--
WET EXHAUST MASS	6,638.1 LB/HR
WET EXHAUST FLOW (874.40 F STACK TEMP)	3,785.74 CFM
WET EXHAUST FLOW RATE (32 DEG F AND 29.98 IN HG)	1,385.00 STD CFM
DRY EXHAUST FLOW RATE (32 DEG F AND 29.98 IN HG)	1,269.21 STD CFM
FUEL FLOW RATE	30 GAL/HR

RATED SPEED "Not to exceed data"

ENGINE SPEED RPM	PERCENT LOAD	ENGINE POWER BHP	TOTAL NOX (AS NO2) LB/HR	TOTAL CO LB/HR	TOTAL HC LB/HR	PART MATTER LB/HR	OXYGEN IN EXHAUST PERCENT
2,100	100	575	4.8500	1.7200	.0500	.1900	11.3000
2,100	75	432	2.2800	.6200	.1100	.1500	12.7000
2,100	50	288	1.3600	.0600	.2000	.2100	14.3000
2,100	25	144	1.5300	1.1800	.0900	.2500	15.5000
2,100	10	58	1.1500	1.3200	.1500	.1400	17.0000

RATED SPEED "Nominal Data"

ENGINE SPEED RPM	PERCENT LOAD	ENGINE POWER BHP	TOTAL NOX (AS NO2) LB/HR	TOTAL CO LB/HR	TOTAL HC LB/HR	TOTAL CO2 LB/HR	PART MATTER LB/HR	OXYGEN IN EXHAUST PERCENT
2,100	100	575	4.4900	.9200	.0300	664.4	.1000	11.3000
2,100	75	432	2.1100	.3300	.0600	551.8	.0800	12.7000
2,100	50	288	1.2600	.0300	.1100	214.7	.1100	14.3000
2,100	25	144	1.4200	.6300	.0500	209	.1300	15.5000
2,100	10	58	1.0700	.7100	.0800	126.1	.0700	17.0000

NOTE THESE ENGINES ARE DESIGNED TO OPERATE AT 1800 RPM
THE ABOVE DATA IS "WORST-CASE" AT MAXIMUM ENGINE SPEED

Altitude Capability Data(Corrected Power Altitude Capability)

Ambient Operating Temp.	50 F	68 F	86 F	104 F	122 F	NORMAL
A l t i t u d e						
0 F	575.3 hp	575.3 hp	575.3 hp	575.3 hp	575.3 hp	575.3 hp
984.25 F	575.3 hp	575.3 hp	575.3 hp	575.3 hp	575.3 hp	575.3 hp
1,640.42 F	575.3 hp	575.3 hp	575.3 hp	575.3 hp	575.3 hp	575.3 hp
3,280.84 F	575.3 hp	575.3 hp	575.3 hp	575.3 hp	575.3 hp	575.3 hp
4,921.26 F	575.3 hp	575.3 hp	575.3 hp	575.3 hp	567.25 hp	575.3 hp
6,561.68 F	575.3 hp	575.3 hp	568.59 hp	549.82 hp	533.73 hp	575.3 hp
8,202.1 F	571.27 hp	552.5 hp	533.73 hp	517.63 hp	501.54 hp	563.23 hp
9,842.52 F	536.41 hp	518.97 hp	501.54 hp	485.45 hp	470.7 hp	535.07 hp
11,482.94 F	504.22 hp	486.79 hp	470.7 hp	455.95 hp	441.2 hp	508.25 hp
13,123.36 F	472.04 hp	455.95 hp	441.2 hp	426.44 hp	413.03 hp	481.43 hp
14,763.78 F	442.54 hp	426.44 hp	413.03 hp	399.62 hp	387.55 hp	455.95 hp

The powers listed above and all the Powers displayed are Corrected Powers

Identification Reference and Notes

Engine Arrangement:	2371955	Lube Oil Press @ Rated Spd(PSI):	--
Effective Serial No:	WJH00865	Piston Speed @ Rated Eng SPD(FT/Min):	2,377.9
Primary Engine Test Spec:	0K4930	Max Operating Altitude(FT):	7,545.9
Performance Parm Ref:	TM5737	PEEC Elect Control Module Ref	
Performance Data Ref:	DM7698	PEEC Personality Cont Mod Ref	
Aux Coolant Pump Perf Ref:			
Cooling System Perf Ref:		Turbocharger Model	GTB5518BS
Certification Ref:	EPA TIER 3 EU IIIA	Fuel Injector	
Certification Year:	2006	Timing-Static (DEG):	--
Compression Ratio:	16.3	Timing-Static Advance (DEG):	--
Combustion System:	DI	Timing-Static (MM):	--
Aftercooler Temperature (F):	120	Unit Injector Timing (MM):	--
Crankcase Blowby Rate(CFH):	--	Torque Rise (percent)	34.6
Fuel Rate (Rated RPM) No Load(Gal/HR):	--	Peak Torque Speed RPM	1400
Lube Oil Press @ Low Idle Spd(PSI):	--	Peak Torque (LB/FT):	1,937.6

From: (239) 261-0055
 Tammy Ortiz
 Harry Pepper & Associates
 5480 Berson Ave.

Origin ID: APFA

FedEx
 Express



J11201104290225

Naples, FL 34117

Ship Date: 12JUL11
 Act/Wgt: 1.0 LB
 CAD: 100441262/INET3180

Delivery Address Bar Code



SHIP TO: (850) 717-9071

BILL SENDER

Dick Dibble
FDEP-Div of Air Resource Mgmt
3800 COMMONWEALTH BLVD # MS-77

TALLAHASSEE, FL 32303

Ref # 768-Engine Permit
 Invoice #
 PO #
 Dept #

WED - 13 JUL A2
 STANDARD OVERNIGHT

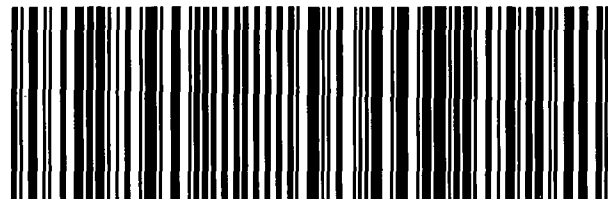
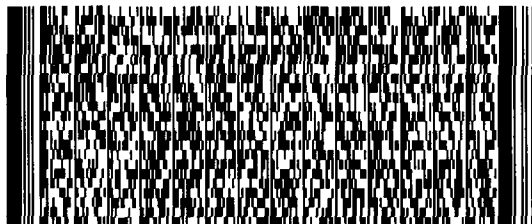
TRK# 7972 9296 6051

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32303

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TLH

XH TLHA

50FG2/F556/F5F4

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

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Harry Pepper & Associates, Inc.
9000 Regency Square Boulevard, Suite 100
Jacksonville, Florida 32211
904.721.3300 • Fax: 904.721.5222
hpepper.com

July 11, 2011

Mr. Dick Dibble
Division of Air Resource Management
Florida Department of Environmental Protection
3800 Commonwealth Boulevard, MS-77
Tallahassee, Florida 32399

RECEIVED

JUL 14 2011

BUREAU OF
AIR REGULATION

Subject: Picayune Strand Restoration Project, Merritt Pump Station, Collier County, Florida
Contract No. W912EP-10-C-0006
General Air Quality Permit

Dear Mr. Dibble:

Hello, my name is Jake Hazewinkel, I am on the construction management team for Harry Pepper & Associates, and presently we are building a large pump station facility for the Army Corps of Engineers here in Naples, Florida (Collier County). In this pump station facility we will be installing several large water pumps powered by diesel engines. It has been brought to our attention that prior to the pump station's operation it is required that we obtain a General Air Quality Permit.

I have been in discussions with Jennifer Nelson and AJ Satyal out of the FDEP South District Office, and it has been decided that my engines fall under the Reciprocating Internal Combustion Engines (RICE) type of general air quality permits. Enclosed with this letter you will find the completed permit registration form for the RICE engines I will be installing. Also attached to the permit is all of the related back-up information for these engines and their respective fuel consumption. Finally, I have enclosed the permit processing fee of \$100.00 made out to FDEP.

Please review and process. If you have any questions or need any additional information please feel free to contact me at the email address or any of the numbers listed below.

Sincerely,

HARRY PEPPER AND ASSOCIATES, INC.



Jake Hazewinkel
Assistant Project Manager
(239) 261-0055 office
(850) 637-2682 cell
jhazewinkel@hpepper.com

**HARRY PEPPER & ASSOCIATES, INC.
LETTER OF TRANSMITTAL**

Harry Pepper & Associates, Inc.
222 Industrial Blvd. #115
Naples, FL. 34104
Phone: 239-261-0055
Fax: 239-261-1955

RECEIVED

Date: July 11, 2011

JUL 14 2011

BUREAU OF
AIR REGULATION

Attention: Dick Dibble

TO:
FDEP - Division of Air Resource Management
3800 Commonwealth Blvd, MS-77
Tallahassee, Florida 32399
(850) 717-9071

RE: Picayune Strand Restoration
Project - Merritt Pump Station
Collier County, Florida

Via: Fed Ex

QTY	DATE	DESCRIPTION
1	7/11/11	Reciprocating Internal Combustion Engines Air General Permit
		Registration Form
1	7/11/11	Engine & Fuel Consumption Back-up Documentation

THESE ARE TRANSMITTED as checked below:

- | | | |
|---|---|--|
| <input type="checkbox"/> For Information | <input checked="" type="checkbox"/> For approval | <input type="checkbox"/> Approval as submitted |
| <input checked="" type="checkbox"/> For your use | <input type="checkbox"/> Approval as noted | <input type="checkbox"/> As requested |
| <input type="checkbox"/> Returned for corrections | <input type="checkbox"/> For review and comment | <input type="checkbox"/> Other |

NOTE: Please see attached Cover Letter.

SIGNED: *Jake Hazewinkel*