

## EXHIBIT D



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STATE OF MAINE  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JOHN ELIAS BALDACCI  
GOVERNOR

DAVID P. LITTELL  
COMMISSIONER

July 28, 2010

Mr. Robert Brenna, President  
Berwick Iron & Metal Recycling, Inc  
PO Box 366  
Berwick, ME 03901

RE: Berwick Iron & Metal Recycling, Inc's Application for Chapter 115 New Minor Source

Dear Mr. Brenna:

Your application for an air emission license has been received by the Department of Environmental Protection. The following application tracking number(s) have been assigned to this application: 552837. This application is expected to be addressed in license number A-1041-71-A-N.

If you have any questions concerning your application, write or call Lynn Cornfield, the project manager for your application. Our main office number is (207) 287-2437. Prior to final issuance you will receive a copy of your draft air emission license for your review.

Your application has been accepted for processing. However, if materials that have been submitted are incomplete or additional materials are deemed necessary by the Department, processing of the application will be stopped until the required information has been submitted. This application was considered acceptable for processing on July 27, 2010.

Sincerely,

Marc Allen Robert Cone, P.E.  
Bureau of Air Quality

pc: Air Licensing File  
Alan Morrison, Vice President, Morrison Environmental Engineering, Inc

AUGUSTA  
17 STATE HOUSE STATION  
AUGUSTA, MAINE 04333-0017  
(207) 287-7688 FAX: (207) 287-7826  
RAY BLDG., HOSPITAL ST.

BANGOR  
106 HOGAN ROAD, SUITE 6  
BANGOR, MAINE 04401  
(207) 941-4570 FAX: (207) 941-4584

PORTLAND  
312 CANCO ROAD  
PORTLAND, MAINE 04103  
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE  
1235 CENTRAL DRIVE, SKYWAY PARK  
PRESQUE ISLE, MAINE 04679-2094  
(207) 764-0477 FAX: (207) 760-3143



Form No.	A-L-0018
Effective Date	7/24/09
Revision No.	01
Last Revision Date	7/13/09
Page 1 of 1	

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This application is Accepted for Processing.

- |  |   |
|--|---|
| <input type="checkbox"/> Ch115 Major Modification (A)          | <input type="checkbox"/> Part 70 502(B)(10) Change (A)  |
| <input type="checkbox"/> Ch115 Minor Modification (A)          | <input type="checkbox"/> Part 70 Admin Revision (A)     |
| <input type="checkbox"/> Ch115 Minor Revision (M)              | <input type="checkbox"/> Part 70 Initial License (A)    |
| <input type="checkbox"/> Ch115 New Major Source (N)            | <input type="checkbox"/> Part 70 Minor Modification (A) |
| <input checked="" type="checkbox"/> Ch115 New Minor Source (N) | <input type="checkbox"/> Part 70 Renewal (R)            |
| <input type="checkbox"/> Ch115 Renewal (R or N)                | <input type="checkbox"/> Part 70 Significant Mod (A)    |
| <input type="checkbox"/> Ch115 Transfer (T)                    | <input type="checkbox"/> Part 70 Transfer (T)           |
| <input type="checkbox"/> Ch156 CO2 Budget Source (N)           | <input type="checkbox"/> Tax Exemption (X)              |

Facility # A-001041-71-A-N

Facility Legal Name: Berwick Iron & Metal Recycling, Inc.

Project Manager: NLC Application Tracking Number: 597839

App. Signed on: 6/13/2010 Received on: 7/27/2010 Accepted on: 7/27/2010

After the Fact Jurisdiction: Dept  Board

Application Description: Application for a new air emission license for a diesel powered metal shredder at a metal recycling facility.

Send acceptance letter(s) to:

Name: Mr. Robert Brenna,  
 Title: President,  
 Address: Berwick Iron & Metal Recycling, Inc.,  
P. O. Box 366,  
Berwick, ME 03901

Name: Mr. Alan Morrison,  
 Title: Vice President,  
 Address: Morrison Environmental Engineering, Inc.,  
16 Pine Meadows Lane,  
North Yarmouth, ME 03097

Name: \_\_\_\_\_  
 Title: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

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Morrison  
Environmental  
Engineering

**AIR EMISSION LICENSE  
NEW SOURCE APPLICATION**

**BERWICK IRON AND METAL RECYCLING, INC.  
BERWICK, MAINE**

**JUNE 2010**

**PREPARED BY:**

Morrison Environmental Engineering, Inc.  
16 Pine Meadow Lane  
North Yarmouth, Maine 04097

**ON BEHALF OF**

Berwick Iron & Metal Recycling, Inc.  
P.O. Box 366  
Berwick, Maine 03901

**FOR SUBMITTAL TO:**

Maine Department of Environmental Protection  
Bureau of Air Quality  
17 State House Station  
Augusta, Maine 04333

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Morrison  
Environmental  
Engineering

June 16, 2010

Mr. Marc Cone  
Department of Environmental Protection  
Bureau of Air Quality  
17 State House Station  
Augusta, Maine 04333-0017

Re: New Source Application  
Berwick Iron & Metal Recycling, Inc.

Dear Mr. Cone:

On behalf of Berwick Iron & Metal Recycling, Inc. (BI&MR), Morrison Environmental Engineering, Inc. (MEE) is submitting an application for a new source air emission license. This application is being submitted in accordance with Department of Environmental Protection (DEP) Regulations, Chapter 115, "Major and Minor Source Air Emission License Regulations." The application forms are included as Appendix A. Other required supporting documentation, including a United States Geological Survey Topographic Map, emission calculations, and public notice, are contained in the remaining appendices as detailed below.

**Background**

Berwick Iron & Metal Recycling, Inc. is a ferrous and non-ferrous metal recycling facility located on Route 236 in Berwick, Maine. Appendix B provides a United States Geological Survey (USGS) Topographic Map showing the facility location.

The facility is proposing to install and operate a metal shredder powered by a diesel engine rated at 3600 horsepower, to facilitate the recycling of cars and other large scrap items. The maximum rated fuel input for the diesel drive unit is 200 gallons per hour (GPH), which equates to 27.4 million British thermal units per hour (MMBtu/hr). The "hammer-mill" shredder will be used to process scrap metal to facilitate recycling. Large metal objects such as crushed cars will be processed to reduce the metal to a nominal six-inch size. The shredded metal will be divided into ferrous and non-ferrous components using a large eddy-current electromagnet. All ferrous and non-ferrous components, including aluminum, copper, plastic, and foam, will be sold for further processing.

The diesel engine is not subject to New Source Performance Standards under Title 40 of the Code of Federal Regulations Part 60 (40CFR60) Subpart III, "Standards of Performance for Stationary Compression Ignition Internal Combustion Engines," as the unit was manufactured in 1967, and has not been reconstructed or modified as defined in that regulation.

The shredder is a "Texas Shredder" Model 8104 with an expected throughput of 50-100 tons per hour (TPH) depending on the type of material being processed. The shredder utilizes a

sophisticated computerized control system to maintain optimum engine loading and to minimize emissions.

The following tables summarize the facility's licensed equipment:

Emission Unit	Date of Construction	Maximum Design Capacity
<b>SHREDDER</b>		
Texas Shredder Model 8104	1988, controls updated 2006	50-100 TPH

Emission Unit	Date of Construction	Design Capacity	Maximum Firing Rate	Fuel Type (and % sulfur)
<b>DIESEL ENGINE</b>				
General Motors Model 20-645-E3	1967	27.4 MMBtu/hr	200 gal/hr	Diesel, 0.05%

Note: TPH – Tons per hour  
MMBtu/hr – million British thermal units per hour  
gal/hr – gallons per hour

BI&MR performs additional operations listed as “insignificant or trivial activities” pursuant to Chapter 115, Appendix B. These activities and/or equipment are not required to be listed in the application or to be licensed.

### Best Available Control Technology (BACT)

For any new or modified emission unit, a facility is required to demonstrate that the unit to be constructed, reconstructed or modified will receive Best Available Control Technology (BACT). BACT is defined as an emission limitation based on the maximum degree of reduction for each pollutant emitted through the application of production processes or available methods, systems, and techniques taking into account energy, environmental, and economic impacts and other costs.

BI&MR proposes the following to meet the requirements of BACT:

#### **Shredder**

The potential emissions from the shredder consist of particulate matter (PM and PM10) generated from the physical impact of the shredder hammers on the materials, as well as from the potential heating of the material by the friction in the shredder. The shredder is equipped with water sprays, which will be utilized as needed to minimize visible emissions, thereby minimizing PM emissions. In addition, several new process controls are incorporated in this

shredder, to minimize process emissions and reduce energy usage, which will in turn reduce emissions from the diesel drive unit.

The controls for the shredder process include integrated hardware and software. The plant is equipped with an automatic system for controlling operations such as shredder feed rate, feed roll pressure, engine throttle position, etc. By monitoring relevant variables, these controls maximize drive motor performance and control the feed rate, resulting in increased production efficiency, improved product, increased nonferrous recovery, and reduced power cost per ton. This reduced energy consumption also means that the engine fuel use will be minimized and that the loading is more consistent, reducing the potential for surging and/or lugging, thereby minimizing visible PM emissions from the drive unit.

Another important development in this generation of shredder is an improved power coupling between the drive unit and the shredder. Previous shredders were most often direct-coupled to the drive units at a one to one ratio, which meant that the shredder speed and engine speed were the same in terms of revolutions per minute (RPMs). This resulted in an imperfect compromise between shredder speed and engine speed, with the shredder either running too fast, and/or the engine running too slow for optimum performance. This tended to increase the potential for excessive heating of the metal being processed, which resulted in higher PM emissions, and would also lead to excessive wear on the shredder itself. Also, if the diesel drive unit operates at too low a speed, it may not operate at full output torque, making the unit prone to excessive lugging which can cause elevated PM emissions. BI&MR's proposed shredder uses a simple reduction gear to ensure that the shredder and diesel drive unit both operate at their optimum RPM range to maximize usable torque and minimize emissions. The shredder mill is expected to operate at approximately 600 RPMs, while the engine operates at approximately 850-900 RPMs.

**Diesel Drive Unit**

A 3600 HP 20-cylinder turbocharged General-Motors Model 3410 diesel locomotive engine is proposed to be used to provide power for the shredder. The following is a summary of the control systems proposed to meet the requirements of BACT for this engine.

The unit will burn low sulfur diesel fuel, with a maximum sulfur content of 0.05%. BI&MR is proposing a fuel limit of 300,000 gallons per year, based on 150 GPH, 40 hours per week, and 50 weeks per year of operation. Fuel use will be tracked through purchase records. In the future, the diesel fuel may be directly piped from a nearby bulk fuel tank, which may also be used to fuel other portable or mobile equipment. In that case, the fuel used will be tracked by inventory, i.e.: subtracting the dispenser total from the purchase amounts.

BI&MR will ensure good combustion and maintenance practices for the proper operation of the diesel drive unit. The unit has been fitted with GM Ecotip fuel injectors, which are designed to improve the fuel input pattern and improve fuel efficiency. These injectors reduce visible emissions, PM, carbon monoxide (CO), and volatile organic compound (VOC) emissions significantly, compared to standard injectors. This improves the ability for retarding the timing in order to reduce NOx emissions.

Turbocharged engines use a turbine in the exhaust stream to power a separate compressor turbine in the air intake manifold. This increases the combustion air pressure, which improves engine performance. Unfortunately, a potential drawback with a standard turbocharger is that the adiabatic heating caused by compressing the combustion air can have the tendency to increase NOx emissions. The engine that BI&MR proposes to use was originally equipped with a two-pass aftercooler following the turbocharger, which cools the compressed air in the airbox. This cooling helps increase the density of the combustion air, which increases the density of the air entering the engine, further improving engine performance. BI&MR is proposing to replace the two-pass aftercooler with a four-pass aftercooler, which helps to decrease NOx formation by further decreasing the combustion air temperature. The four-pass aftercooler is manufactured by GM/Electro-Motive, which is the original equipment manufacturer (OEM) for this engine, ensuring that this retrofit is appropriate for this engine. The manufacturer has conducted testing showing that the four-pass aftercooler can reduce NOx emissions by 15% at full load, compared to the standard two-pass model.

The high power rating of the engine will help to prevent excessive engine lugging under load, which will help control visible emissions. Earlier shredders were often coupled with smaller engines, which could be bogged down during loading, potentially leading to concerns about visible emission. This proposed unit is expected to have sufficient power to operate more steadily, especially when used in conjunction with the automated controls described previously.

Emissions tables showing the potential emissions as well as the proposed controlled emissions are included in Appendix C. The proposed emissions are based on the United States Environmental Protection Agency (EPA) AP-42, "*Compilation of Air Pollutant Emission Factors, Volume I*", Table 3.4-1 for Large Stationary Diesels. The controlled NOx emissions values were based on the use of ignition timing retard. The combination of this control as well as the use of an annual fuel limit will control emissions to a level that additional add-on controls would not be economically feasible considering the type of facility and expected mode of operation.

## Regulatory Standards

### Maine Regulations

Chapter 101, *Visible Emissions Regulation*, establishes opacity standards for process operations and fuel burning equipment. Visible emissions from the shredder would be considered "fugitive emissions" according to Maine DEP regulations. Visible emissions from the shredder will need to meet a limit of 20 percent opacity, except for no more than five (5) minutes in any 1-hour period. Compliance will be determined by an aggregate of the individual 15-second opacity observations which may exceed 20 percent in any hour. Visible emissions from the diesel engine will be regulated as "stationary internal combustion units manufactured prior to calendar year 2000", and "shall not exceed an opacity of 30 percent on a six (6) minute block average basis, except for no more than two (2) six (6) minute block averages in a 3-hour period."

Chapter 103, *Fuel Burning Equipment Particulate Emission Standard*, establishes an emission standard for particulate matter based on the type of fuel fired and the date of installation. Chapter 103 requires the diesel drive unit to meet a particulate emissions limit of 0.12 lb/MMBtu.

Chapter 115, "*Major and Minor Source Air Emission License Regulations*," implements new source review and licensing requirements for facilities that have the potential to emit regulated pollutants at a level defined as a major or minor source. BI&MR is requesting a minor source license in accordance with this regulation.

Chapter 137, "*Emission Statements*," establishes requirements for the reporting of emissions from certain sources of air pollution. Based on the minimal potential facility emissions, BI&MR is not subject to the requirement to submit annual emission statements to the DEP.

Chapter 148, "*Emissions from Smaller-Scale Electric Generating Resources*," was promulgated on August 9, 2004 and affects any non-mobile electric generators having a capacity greater than or equal to 50 kW and installed on or after January 1, 2005. BI&MR proposes to install and operate a diesel engine to directly drive the shredder, and does not propose to operate any electric generating units at this time.

#### Federal Regulations

Title 40 Code of Federal Regulations Part 60 (40 CFR 60), Subpart III: "*Standards of Performance for Stationary Compression Ignition Internal Combustion Engines*," applies to diesel generators and other stationary diesels that commence construction, modification, or reconstruction after July 11, 2005 (as defined in 40CFR60). The proposed diesel engine was manufactured in 1967, and has not been modified or reconstructed.

#### Facility Air Emissions

Emission calculations were completed for the diesel drive unit and are provided in pounds per hour as well as tons per year. Emission calculations were estimated using the United States Environmental Protection Agency's (USEPA's) *Compilation of Air Pollution Emission Factors, Fifth Edition* (AP-42), DEP air quality regulations, mass balance techniques, and BACT findings.

Potential emissions are typically based on equipment operating at full capacity for 8,760 hours per year unless enforceable limits are imposed in a license. BI&MR has proposed to meet a fuel use limit of 300,000 gallons per year of low sulfur diesel. Therefore, potential emissions from the diesel unit are based on using low-sulfur diesel fuel and limiting annual fuel use. Table 1 of Appendix C contains the hourly and annual potential emissions for the diesel drive unit.

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Air Emission License Renewal Application  
Berwick Iron and Metal Recycling, Inc.

PM and PM10 emissions from the shredder will be controlled by the use of water sprays and are considered unquantifiable. The emissions from this process are regulated by a visible emission limit as described previously.

An annual emission fee, based on licensed potential emissions, is required for all licensed sources. Based on the proposed emissions limitations, the calculated emissions fee is below the minimum fee, therefore the fee will be the minimum fee of \$353.00, as shown in Table 2. For new sources, the emission fee is required to be submitted at the time of the license application.

**Public Notice**

Appendix D contains a copy of the public notice text, which will run on June 17, 2010 in the Foster's Daily Democrat. A copy of the newspaper tear sheet will be submitted as soon as it is available.

If you have any questions regarding this application or if additional information is needed to accept this application as complete for processing, please call Alan Morrison at (207) 846-9897.

Very truly yours,



Alan Morrison  
Vice President

Enc: Appendix A – Application Forms  
Appendix B – USGS Topographic Map  
Appendix C – Emissions Tables  
Appendix D – Public Notice

cc: Mr. Robert Brenna, President, Berwick Iron and Metal Recycling, Inc.  
Town Clerk, Berwick Town Hall

Appendix A  
Application Forms



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Form No.	A-L-0006
Effective Date	2/15/06
Revision No.	05
Last Revision Date	12/2005
Page 1 of 10	

## CHAPTER 115 AIR EMISSION LICENSE APPLICATION FORMS

State of Maine  
Department of Environmental Protection  
Bureau of Air Quality  
17 State House Station  
Augusta, Maine 04333-0017  
phone: (207) 287-2437 fax: (207) 287-7641

### Section A: FACILITY INFORMATION

Facility Name to Appear on License: Berwick Iron and Metal Recycling, Inc.

Physical Location: Route 236 City/Town: Berwick County: York

Facility Mailing Address: P.O. Box 366

City/Town: Berwick Zip Code: 03901

Facility Phone Number: (207) 698-9933

Facility / Application Description:

Berwick Iron and Metal Recycling, Inc. is a ferrous and non-ferrous metal recycling facility.

Berwick Iron and Metal Recycling, Inc. is submitting an application for an air emission license for the operation of a diesel powered metal shredder at their facility.

Current License #: A-

Application #: A- \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ (to be filled in by the Department)

Check When Done:

- Application Completed
- Copy Sent to Town (date sent: June 16, 2010)
- Public Notice Published  
(paper name: Foster's Daily Democrat date: June 17, 2010)
- Enclosed Public Notice Tear Sheet (to follow when available)
- Signed Signatory Form (section J)
- N/A If applicable, notified abutting landowners (major modification)
- If applicable, enclosed check for fee (new sources)



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**Section B: FUEL BURNING EQUIPMENT**

Emission Unit #	Type of Equipment (boiler, furnace, engine, etc)	Maximum Design Capacity (MMBtu/hr)	Maximum Firing Rate	Fuel Type (and %sulfur)	Date of Manufacture	Date of Installation	Stack #	Control Device
Diesel Drive Unit	IC Engine	27.4	200	Diesel, 0.05%	1967	2010	1	Timing Retarded

Monitors for Fuel Burning Equipment:

If applicable, indicate types of required/operated monitors, including Continuous Emission Monitors (CEM), Continuous Opacity Monitors (COM), parameter monitors for operational purposes, etc.

Emission Unit #	Type of Monitor	Data Measured
<i>(example) Boiler #1</i>	<i>CEM</i>	<i>NO<sub>x</sub></i>

**Section C: INCINERATORS**

N/A

	Incinerator Unit 1	Incinerator Unit 2
Incinerator Type (medical waste, municipal, etc.)		
Waste Type		
Make (Shenandoah, Crawford, etc.)		
Model Number		
Date of Manufacture		
Date of Installation		
Number of Chambers		
Max. Design Feed Rate (per load)	lb	lb
Max. Design Combustion Rate	lb/hr	lb/hr
Heat Recovery? (Yes or No)		
Retention Time	seconds	seconds
Automatic Feeder? (Yes or No)		
Temperature Range		
Primary	to °F	to °F
Secondary	to °F	to °F
Auxiliary Burner - Primary Chamber max. rating (MMBtu/hr)		
type of fuel used		
Auxiliary Burner - Secondary Chamber max. rating (MMBtu/hr)		
type of fuel used		
Annual Waste Combusted for _____ (yr)		
Pollution Control Equipment (if any)		
Stack Number		
Monitors (ie - temperature recorder)		

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**Section D: PROCESS EQUIPMENT**

N/A

Emission Unit #	Type of Equipment	Maximum Raw Material Process Rate (name and rate)	Maximum Finished Material Process Rate (name and rate)	Date of Manufacture	Date of Installation	Stack #	Control Device
<i>Kilns (example)</i>	<i>Drying Kilns</i>	<i>N/A</i>	<i>25 MMBF/year</i>	<i>1990</i>	<i>1990</i>	<i>N/A</i>	<i>None</i>
Shredder	Metal Shredder	50-100 tons/hr	50-100 tons/hr	1988	2010	NA	Water sprays

Parts Washers/Solvent Degreasers

Emission Unit #	Capacity (gallons)	Solvent Used
<i>Degreaser #1 (Example)</i>	<i>15 (Example)</i>	<i>Kerosene (Example)</i>
N/A		

**PROCESS EQUIPMENT (section D cont'd)**

Chemical Usage

Note: Complete this section for any chemicals integral to the process unit, for example, a cementing process for outsoles, dyes, surface coating, printing, cleaning, etc. Attach additional pages or MSDS sheets as needed.

Process	Chemical compound used in process	Actual Compound Usage (gal or lb for yr )	Hazardous chemical(s) in compound	Percent VOC <sup>1</sup> (%)	Percent HAP <sup>2</sup> (%)	Total VOC emitted (lb/year)	Total HAP emitted (lb/year)
N/A							

<sup>1</sup>Volatile Organic Compounds

<sup>2</sup>Hazardous Air Pollutants

Describe method of recordkeeping (ie. monthly calculations from purchase records, flow monitors on solvent tanks, etc.)

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Describe method used to calculate VOC/HAP emitted (ie – test results, if control equipment was taken into account; if conditions exist where solvents remain in the substrate rather than complete volatilization, etc.)

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State of Maine DEP - Bureau of Air Quality  
 Chapter 115 Air Emission License Application  
 Revised 2/15/06

**Section E: STACK DATA**

Stack #	Height above ground (ft)	Inside Diameter (ft)	Exit Temperature °F	Exhaust Flow Rate (ft <sup>3</sup> /sec) (indicate actual or standard)
1	32.0 ft	2	725	365

**Section F: ANNUAL FACILITY FUEL USE**

Total Fuel Consumption by Month for: NA (year)

Fuel Type _____	Low Sulfur Diesel _____	Fuel Type _____	Fuel Type _____
Avg % sulfur (oil) _____	<u>0.05%</u>	Avg % sulfur (oil) _____	Avg % sulfur (oil) _____
Avg % moisture (wood) _____	NA	Avg % moisture (wood) _____	Avg % moisture (wood) _____
(Circle one: <u>gals</u> , tons, scf)		(Circle one: gals, tons, ccf)	(Circle one: gals, tons, scf)
January _____	_____	_____	_____
February _____	_____	_____	_____
March _____	_____	_____	_____
April _____	_____	_____	_____
May _____	_____	_____	_____
June _____	_____	_____	_____
July _____	_____	_____	_____
August _____	_____	_____	_____
September _____	_____	_____	_____
October _____	_____	_____	_____
November _____	_____	_____	_____
December _____	_____	_____	_____
Total _____	_____	_____	_____
Proposed Annual Limit _____	<u>300,000</u>	_____	_____

**Section G: LIQUID ORGANIC MATERIAL STORAGE**

Tank #					
Capacity (gallons)					
Materials Stored					
Reid Vapor Pressure					
Annual Throughput					
Above or Below Ground?					
Tank Type (floating or fixed, riveted or bolted, etc.)					
Physical Description – year installed					
Physical Description – color					
Dimensions – height (ft)					
Dimensions - diameter (ft)					
Construction Type					
Control Device					

**Section H: MISCELLANEOUS**

Note: Use this section to describe any equipment, activities, or other air emission sources that did not fit in any of the above categories. Include descriptions of the associated emissions. Attach additional pages if necessary.

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**Section I: BPT/BACT AND OTHER ATTACHMENTS**

BPT/BACT Analysis:

For license renewals for existing equipment, applicants are required to submit a Best Practical Treatment (BPT) analysis to the Department. A BPT analysis establishes what equipment or requirements are appropriate for control or reduction of emissions of regulated pollutants to the lowest possible level considering the existing state of technology, the effectiveness of available alternatives, and the economic feasibility.

For new licenses or the addition of new equipment to existing licenses, applicants are required to submit a Best Available Control Technology (BACT) analysis. A BACT analysis is a top-down approach to selecting air emission controls. It is done on a case-by-case basis and develops emission limits based on the maximum degree of reduction for each pollutant emitted taking into account economic, environmental and energy impacts.

I certify that, to the best of my knowledge, the control equipment, fuel limitations, and process constraints outlined in this application represent BPT/BACT for the equipment and processes listed.

OR

I have attached a separate BPT / BACT analysis to this application.

Other Attachments:

Please list any attachments included with this application.

- Cover Letter/BACT

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- Appendix A – Application Forms

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- Appendix B – USGS Map

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- Appendix C – Emissions Tables

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- Appendix D – Public Notice

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**Section J: SIGNATORY REQUIREMENT**

Each application submitted to the Department must include the following certification signed by a Responsible Official\*:

"I certify under penalty of law that, based on information and belief formed after reasonable inquiry, I believe the information included in the attached document is true, complete, and accurate."



*Responsible Official Signature*

June 17, 2010

*Date*

Robert Brenna

*Responsible Official (Printed or Typed)*

President

*Title*

\*A Responsible Official is defined by MEDEP Chapter 100 as:

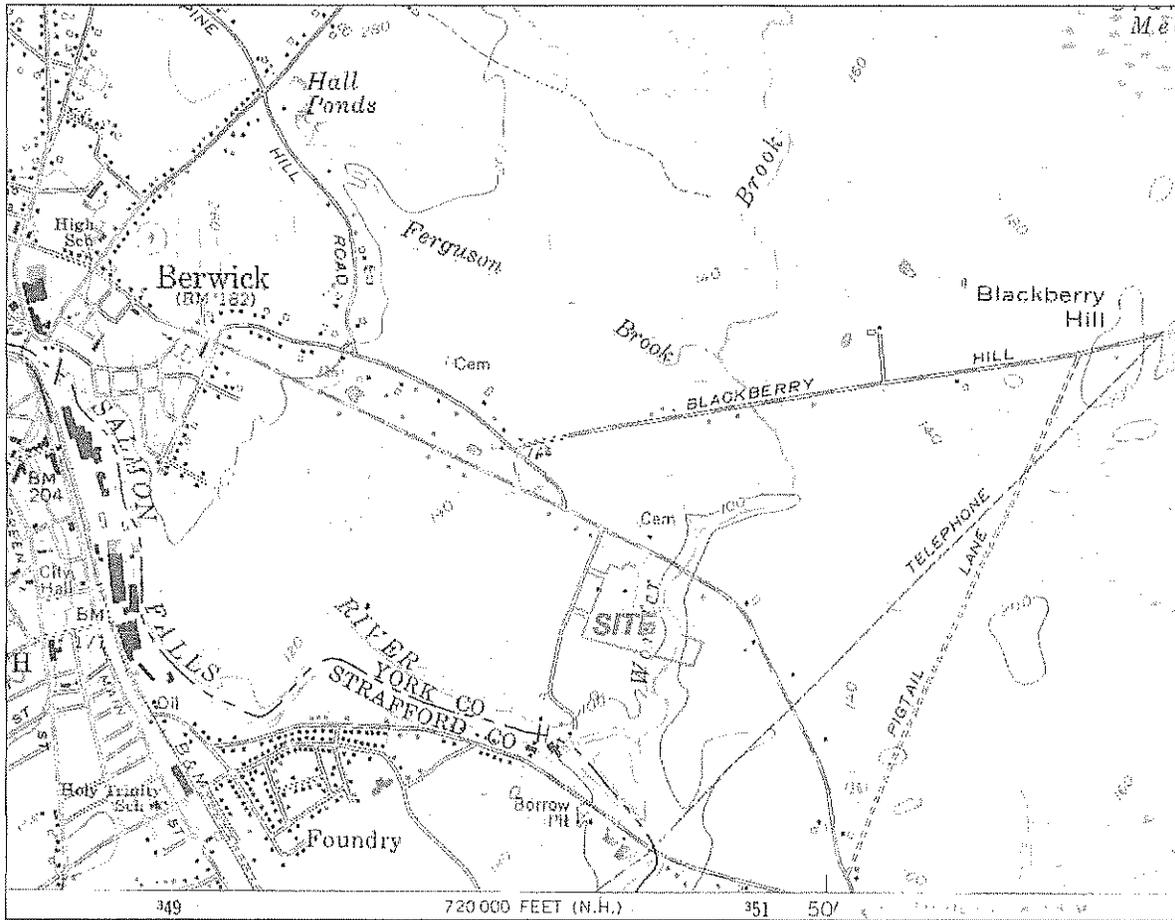
- A. For a corporation: a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:
  - (1) The facilities employ more than 250 persons or have gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars); or
  - (2) The delegation of authority to such representatives is approved in advance by the permitting authority;
- B. For a partnership or sole proprietorship: a general partner or the proprietor, respectively;
- C. For a municipality, State, Federal, or other public agency: Either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of EPA).

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Appendix B

USGS Map

SECTION 3  
TOPOGRAPHIC MAP



Portion of  
**U.S.G.S. SOMERSWORTH, MAINE - N.H. QUADRANGLE**

7.5 Minute Series (TOPOGRAPHIC)

1" ≈ 2000'

1958 (Photorevised 1973)



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Appendix C  
Emissions Tables

**TABLE 1**  
**Controlled Hourly and Annual Emissions from Diesel Drive Unit**

Berwick Iron and Metal Recycling, Inc.  
 Berwick, Maine

**POTENTIAL HOURLY EMISSIONS WITH TIMING RETARDED**

Unit	Maximum Fuel Input (gal/hr)	SO <sub>2</sub> Emissions	NOx Emissions	CO Emissions	PM <sub>10</sub> Emissions	VOC Emissions
Diesel Engine Emission Factors <sup>1,2,3</sup>		0.05 lbs/MMBtu	1.9 lbs/MMBtu	0.85 lbs/MMBtu	0.12 lbs/MMBtu	0.09 lbs/MMBtu
Typical Expected	150	1.03 lbs/hr	39.05 lbs/hr	17.47 lbs/hr	2.47 lbs/hr	1.85 lbs/hr
Maximum Rated	200	1.37 lbs/hr	52.06 lbs/hr	23.29 lbs/hr	3.29 lbs/hr	2.47 lbs/hr

**ANNUAL EMISSIONS WITH LIMITED FUEL USE AND TIMING RETARDED**

Unit	Maximum Expected Fuel Input (gal/hr)	Potential Hours of Operation	Potential Fuel Usage (gal)	Potential SO <sub>2</sub> Emissions	Potential NOx Emissions	Potential CO Emissions	Potential PM <sub>10</sub> Emissions	Potential VOC Emissions
Diesel Engine Emission Factors <sup>1,2,3</sup>				0.05 lbs/MMBtu	1.9 lbs/MMBtu	0.85 lbs/MMBtu	0.12 lbs/MMBtu	0.09 lbs/MMBtu
Diesel Engine	150	2000	300,000	2,055.0 lbs	78,090.0 lbs	34,935.0 lbs	4,932.0 lbs	3,699.0 lbs
	Total Emissions in lbs			2,055.0 lbs	78,090.0 lbs	34,935.0 lbs	4,932.0 lbs	3,699.0 lbs
	Total Emissions in tons			1.03 tons	39.05 tons	17.47 tons	2.47 tons	1.85 tons

- SO<sub>2</sub> emission factor based on mass balance calculation assuming a fuel sulfur content of 0.05%.
- NOx, CO, PM<sub>10</sub>, and VOC emission factors based on EPA AP-42, *Compilation of Air Pollutant Emission Factors, Volume I*, Table 3.4-1 for Large Stationary Diesels
- Potential emissions based on proposed license limit of 2000 hours of operation per year, and "typical" high fuel flow rate.
- Diesel Heating Value assumed to be 0.137 MMBtu/gal.

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**TABLE 2**  
**Fee Calculation**

Berwick Iron and Metal Recycling, Inc.

<b>Potential Facility Emissions</b>	
SO2	1.0 tons/yr
NOx	39.0 tons/yr
PM	2.5 tons/yr
VOC	1.8 tons/yr
<b>Total</b>	<b>44.4 tons/yr</b>

Note: CO is not included in the fee calculations.

<b>2010 Air Emission Fees</b>	
from 1 to 1000 tons	\$7.69 per ton
1001 to 4000 tons	\$15.41 per ton
over 4001 tons	\$23.08 per ton

minimum fee	\$353.00
maximum fee	\$212,593.00

Facility Fee = 44.4 tons x \$7.69 = \$341.44 <\$353.00

<b>Therefore, fee is</b>	<b>\$353.00</b>
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Appendix D

Public Notice

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1. For Renewals, New Minor Sources, Minor Modifications and Transfers: To be advertised once by the applicant in a newspaper of general circulation in the area of the project location, within 30 days prior to the filing of the application.
2. For New Major Source Licenses and Major Modifications: To be advertised for three consecutive weeks in the public notice section of a Sunday or weekend newspaper of general circulation in the region in which the source is located.
3. For major modifications, new major sources, new Part 70 sources, or transfers this notice must also be mailed by certified mail to all abutting landowners, within 30 days prior to the filing of the application.
4. One copy of each of the "published" notices are to be submitted with the application.

### PUBLIC NOTICE OF INTENT TO FILE

Please take notice that **Berwick Iron & Metal Recycling, Inc., 106 Route 236, Berwick (207) 698-9933**

*(name, address, and phone number of applicant)*

intends to file Air Emission License applications with the Maine Department of Environmental Protection (DEP) pursuant to the provisions of 38 M.R.S.A., Section 590

on June 18, 2010 The applications are to obtain air emission licenses  
*(submittal date)*

**for the operation of a metal shredder and diesel drive unit.**

*(summary of project)*

According to Department regulations, interested parties must be publicly notified, written comments invited, and if justified, an opportunity for public hearing given. A request for a public hearing or for the Board of Environmental Protection to assume jurisdiction must be received by the Department, in writing, no later than 20 days after the applications are accepted by the Department as complete for processing.

The applications and supporting documentation are available for review at the Bureau of Air Quality (BAQ) DEP offices in Augusta, (207) 287-2437, during normal working hours. A copy of the applications and supporting documentation will also be available at the municipal offices in Berwick, Maine.

*(town)*

Written public comments may be sent to Marc Cone at the Bureau of Air  
*(project manager)*

Quality, State House Station #17, Augusta, Maine 04333.

Publication Date:

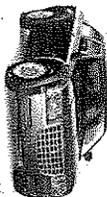
CONSULTANTS

FILE BERWICK IRON & METAL

This E-Sheet is provided as conclusive evidence of work or in any way exploit or repurpose any content.

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Or email [fdads@fosters.com](mailto:fdads@fosters.com)

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Transportation

Announcements

Announcements

Public Notice

Public Notice

**PUBLIC NOTICE OF INTENT TO FILE**

Please take notice that Berwick Iron & Metal Recycling, Inc., 100 Route 230, Berwick, PA 17605-8533 intends to file of Environmental Protection Agency with the Maine Department of Environmental Protection application with the Maine Department of Environmental Protection for the following:

The Dover School District and Joint Building Committee are seeking qualified prospective bidders to provide proposals for the Design/Build - Photovoltaic System at the Home Street Elementary School located at 8 Home Street, Dover, ME.

Specifications may be obtained from the Office of the Superintendent by calling 603-516-0200 or by going online at:

<http://www.watercentralmaine.com/competebids/berwick/>

A mandatory pre-bid meeting will be held on Thursday, June 24, 2010 at 2:00 pm at the construction site. Prospective bidders who attend the mandatory pre-bid meeting will be allowed to submit a proposal. Sealed bids will be accepted until 11:00 am on Friday, July 2, 2010. No bids will be accepted after that time and date. Bids must be submitted by postal mail or hand-carried to: Office of the Superintendent, 603 Central Center, 61 Central Street, Suite 079, Dover, NH 03830. Questions concerning the bid documents should be directed to Michael Bliss, Clerk of the Works, at (603) 817-0972.

MILTON SCHOOL DISTRICT  
OFFICE OF THE SUPERINTENDENT  
18 Commerce Way, Unit #1  
Milton, NH 03851  
603-652-0262

**INVITATION TO BID**

1890 BUILDING, ROOF, DOWNER, CIPROLA PROJECT  
The Milton School District is accepting sealed bids for the roof replacement on the 1890 building, regular project at the Milton High School, in Milton, NH.

The guidelines describing the scope of the work, may be obtained at the Superintendent's Office, 18 Commerce Way, Unit #1, Milton, NH 03851, Teby Eston, 603-652-0262 or at the Milton High School and Library Office by calling 603-652-0262. All bids shall be submitted to the Superintendent's Office by 2:00 PM on Thursday, June 24, 2010. The Milton School District reserves the right to accept, reject, modify or negotiate any and/or all bids, or any portion thereof, in the best interest of the Milton School District.

# Foster's Daily Democrat Classifieds

866-414-7355

Three convenient locations:  
150 Venture Drive, Dover  
90 North Main Street, Rochester  
8 Market Square, Portsmouth  
All offices open 8 a.m. to 5 p.m.  
For today's classifieds and more visit us online at [fosters.com](http://fosters.com)

Thursday, June 17, 2010



Real Estate



Employment



Merchandise



Pets

17 Request for Bids

WAKEFIELD SCHOOL DISTRICT  
OFFICE OF THE SUPERINTENDENT  
18 Commerce Way, Unit #1  
Milton, NH 03851  
603-652-0262

18 Request for Bids

PAUL SCHOOL ROOF REPAIR/REPLACEMENT  
The Wakefield School District is accepting sealed bids for the replacement of the membrane roof section at the Paul School.

19 Request for Bids

ORCSD Lenovo June 2010 RFP  
The Oyster River Cooperative School District is accepting bids on an RFP for Lenovo computers. For a bid package, please email Sonia Gonzalez at Oyster River Cooperative School District, Information Technology Office, [sgonzalez@orcscd.org](mailto:sgonzalez@orcscd.org). Request includes in the subject "Request for Lenovo June 2010 RFP". Bids due date June 25, 2010 at 3pm.

146 Help Wanted

CONSTRUCTION HELP  
Looking to fill the following positions for up coming project Superintendents, Pipe Foreperson, Pipe Layers, equipment operators, Laborers, CD drivers for Tractors and Tractors.

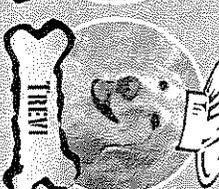
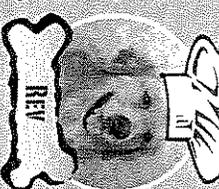
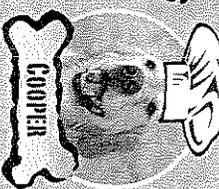
148 Help Wanted

ADOPT: A nurturing, affectionate, and intelligent HOME waits for 1st baby to LOVE forever. Expenses paid. Call Lisa at 603-858-4451

22 Adoption

**COMPETING RESTAURANTS**

- Pink Cailliac Diner
- Granite Steak & Grill
- The 306 Restaurant
- Moe's Italian Subs
- Spinates Brick Oven Pizzeria



- Fat Tony's Italian Grill
- Slim's Tex Mex
- Poor Peoples Pub
- Cooper Hill Pizzeria
- Nipou Lake Golf Club

# ANNUAL CHILL FEST - JUNE 19TH

ALL PROCEEDS GO TO GERRY'S FOOD PANTRY  
BIKERS WELCOME - BIKE DETAILING AVAILABLE  
RAFFLES & GIVE-AWAYS EVERY HOUR

TAKE ON THE BIG BOYS & BRING YOUR CHILL TROPHYS FOR FIRST PLACE BRAGGING RIGHTS FOR A WHOLE YEAR!  
OR JUST COME BY AND SAMPLE SOME OF STRAFFORD COUNTY'S BEST CHILL!!!  
Including a pair of Scripps tickets at the Meadowbrook US Cellular Pavilion  
11:00AM to 4:00PM • \$5 Tasting Donation • Find us on Facebook!  
48 Farmington Road, Rochester, NH  
Exit 15 of Spaulding Turnpike (1.5 Miles South Of Walmar)

877.468.9897 | [ROCHESTERYOYOTA.NET](http://ROCHESTERYOYOTA.NET)  
Meadowbrook US Cellular Pavilion

The public is encouraged to enter in our Chill Fest. Call Dave for details.

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