

**Submit to: Maine DEP**  
**Attn: Geraldine Travers**  
**17 State House Station**  
**Augusta, Maine 04333**

**Due annually by February 28th**

**Annual Report Form  
for facilities with  
SOLID WASTE PROCESSING LICENSES  
including those with BENEFICIAL USE LICENSES**

**For YEAR:** 2014

Name of Facility: ReEnergy Lewiston, LLC

Location: 38 Alfred A Plourde Pkwy., Lewiston, ME 04240

e-mail: JGrant@reenergyholdings.com

DEP Processing Facility License Number(s):

S- 013266-WX-H-T

S- 013266-WK-G-A

S- 013266-WK-F-M

S- 013266-WK-E-R

S- \_\_\_\_\_

DEP Beneficial Use License Number(s):

S- \_\_\_\_\_

S- \_\_\_\_\_

S- \_\_\_\_\_

S- \_\_\_\_\_

S- \_\_\_\_\_

Facility Operator: Jason Grant, General Manager Email: JGrant@reenergyholdings.com Phone: (207) 783-2941

Contractor Contact: Charles V. Nelson Email: CNelson@reenergyholdings.com Phone: (603) 496-5175

Billing Contact: Dorothy Clement Email: DClement@reenergyholdings.com Phone: (207) 783-2941

**1. Description of all wastes accepted at the facility:**

**A.** Enter the number or description of each waste type received and the amount (by weight) of each waste type **by state or province of origin**. If measured weight is not available, indicate waste volume and density used to calculate weight entered in the "Explanatory notes and comments" field at the bottom of the table. Please attach in-coming shipment records as available.

Please use the following waste types as applicable to your facility:

- |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ol style="list-style-type: none"> <li>1. Mixed CDD (may include building materials, furniture and carpet, asphalt, wall board, pipes, metal conduit, etc.)</li> <li>2. Landclearing debris (brush, stumps, bark)</li> <li>3. Clean lumber (free from metals, plastics and coatings)</li> <li>4. Treated wood</li> <li>5. Asphalt roofing &amp; shingles</li> <li>6. Sheetrock/wallboard/gypsum</li> <li>7. Furniture</li> <li>8. Carpet</li> <li>9. Glass (<u>describe type or source</u>)</li> <li>10. Metals - ferrous</li> </ol> | <ol style="list-style-type: none"> <li>11. Metals - non-ferrous</li> <li>12. Metals - mixed</li> <li>13. Tires</li> <li>14. Vehicle batteries</li> <li>15. Plastics</li> <li>16. Mixed paper &amp; corrugated cardboard (OCC)</li> <li>17. Coal, oil or multifuel boiler ash</li> <li>18. Oil-contaminated soil, gravel, other aggregate</li> <li>19. Sandblast grit</li> <li>20. Catch basin grit &amp; street sweepings</li> <li>21. Other (<u>describe</u>)</li> </ol> |
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Waste type received	Origin by state or province	Amount received (break out by state/province)	Amount processed	Unit of Measure
Mixed CDD	ME	13,194.34		Tons
Mixed CDD	MA	133,538.63		Tons
Mixed CDD	NH	1,420.90		Tons
Clean Lumber	ME	9,632.42		Tons
Clean Lumber	MA	6,467.28		Tons
Clean Lumber	NH	340.43		Tons

Explanatory notes and comments:

ReEnergy Lewiston has scale records available on-site for all incoming shipments. These are substantial and are available on-site for MEDEP review.

**B. In-coming waste characterization.** Attach results and a summary of all in-coming waste characterization events conducted in the reporting calendar year. This must include all data and results of the characterization of all wastes accepted at the facility, as well as the totals of data from your completed waste characterization forms (e.g., “Data Analysis Form” or other approved form) used to quantify by weight the recyclable and non-recyclable content of waste materials accepted for processing at the facility. (This item is not applicable to processing facilities that do not generate residues requiring disposal.)

**C. Amount of products shipped for beneficial use.** Enter the number or description of each of the following processing product shipped, the amount shipped and the destination (users or facility). If you are using the material on-site, list the destination as “on-site”. Please use the following descriptors:

- a. CDD wood fuel chip
- b. Wood fuel chip
- c. Wood chip for landscaping
- d. Erosion control mix
- e. Tire fuel chip
- f. Tire chip for engineered applications
- g. Other (describe)

Description of processing products	Weight	Unit of measure	Destination – user or facilities
CDD Wood Fuel Chip	2,226.17	Tons	Re-Energy Livermore - Livermore Falls, ME
CDD Wood Fuel Chip	2,651.43	Tons	New Page - Rumford, ME
CDD Wood Fuel Chip	4,563.92	Tons	Lincoln Pulp and Paper - Lincoln, ME
CDD Wood Fuel Chip	590.93	Tons	SAPPI - Westbrook, ME
CDD Wood Fuel Chip	914.90	Tons	Krugar - QC, Canada
Other - CDD Cover Chip	133.67	Tons	City of Lewiston, ME
Other - CDD Process Fines as ADC	110,303.11	Tons	Juniper Ridge Landfill - ME

**D. Residue characterization.** Attach results and a summary of all out-going waste residue characterization events conducted in the reporting calendar year. This must include all data and results of the characterization of all waste residues shipped from the facility for disposal. (This item is not applicable to processing facilities that do not generate residues requiring disposal.)

The two rounds of residue characterization were performed in April and October of 2014. The results indicate that the fines meet the requirements. The laboratory analysis are attached.



**E. Summary of recyclables and residue wastes shipped.** Enter the description and amounts of any recyclables and wastes that were shipped off-site, and the destination facilities.

Recyclable or waste type (use types as listed in 1.A)	Destination State or Province	Weight	Unit of Measure	Destination facility
Aggregate	ME	2,120.5	Tons	City of Lewiston Quarry
Aggregate	ME	7.33	Tons	Schnitzer Northeast
Metals - Ferrous	NH	3,451.99	Tons	LL&S
Metals - Ferrous	ME	519.00	Tons	Schnitzer Northeast
Metals - non-ferrous	ME	70.78	Tons	AIM Recycling
Metals - non-ferrous	ME	264.50	Tons	Schnitzer Northeast
OCC - Cardboard	ME	10.70	Tons	Almighty Waste
CFC	NH	2.58	Tons	North Coast Services
CDD Residue - Bulky Waste	ME	48,113.47	Tons	Juniper Ridge Landfill
See Attached Addenda				

**F. Recycling and beneficial use demonstration.** Describe and demonstrate that all wastes accepted at the facility have been recycled or processed into fuel for combustion to the maximum extent practicable. For this demonstration, “recycle” includes but is not limited to: reuse of waste as shaping, grading or alternative daily cover at landfills; aggregate material in construction; and boiler fuel substitutes. This must include:

- A narrative with a detailed comparison of the wastes accepted at the facility, products and secondary materials produced for recycling/reuse, and residues leaving the facility for disposal.
- A calculated recycling rate for the past year, and a discussion of this recycling rate, including a specific explanation of why that rate represents recycling to the maximum extent practicable, and an explanation and justification for why wastes and residues disposed over the preceding year could not be recycled or reused.
- A demonstration that the facility and its operations are consistent with the recycling provisions of the state waste management and recycling plan as defined at 38 MRS §1303-C(35).

(This item is not applicable to processing facilities that do not generate residues requiring disposal.)

See Attached Addenda

**G. Summary of end-of-year on-site storage.** Enter the amounts of products, recyclables, and wastes stored on site as of 12/31.

Type of product, recyclables and waste stored on site as of 12/31	Weight (tons)	(If converting from cubic yards, use conversion factors from Table 1 of <i>Characterization of Construction/Demolition Debris by the Visual Estimation Method for Use by Solid Waste Processing Facilities</i> , available on-line at <a href="http://www.maine.gov/dep/waste/solidwaste/index.html">www.maine.gov/dep/waste/solidwaste/index.html</a> under "Additional Information and Guidance".
In-Bound Mixed CDD	552.2	
In-Bound Clean Lumber	108.2	
CDD Processing Residue - Fines	390	
CDD Processing Residue - Bulky Waste	565.4	
CDD Wood Chip Fuel	20	
Metal - Ferrous	6	
Aggregate	0	

**2. Operations**

Provide a summary of the processing operation including: a summary of complaints received by the facility during the previous year, a discussion of any odor problems, and any other problems encountered, and follow-up actions taken to address complaints and other identified problems.

See Attached Addenda

**3. Alterations to the facility operations and site**

A description of changes to the facility site or operations that have occurred during the reporting year, and as-built plans as applicable. Also, changes to minor aspects of the facility site proposed to be changed in the current year may be described.

See Attached Addenda

**4. Monitoring (if facility has a monitoring plan).**

A summary and evaluation of past year's monitoring results, monitoring program and equipment; recommended changes may be submitted. Attach additional sheets or provide a separate attachment if additional space is needed.

**Monitoring Results**

Surface water monitoring under the Solid Waste Permit was dropped as a requirement in 2014. Monitoring of the surface water quality continued under a MEPDES Permit. The results of visual observations, compliance monitoring and sampling are contained in the attached 4. Monitoring Results section.

**Monitoring Program**


The Environmental Monitoring Plan was revised in August of 2014 and provided to the Maine DEP for review in September 2014. Those changes increased the monitoring on certain environmental issues to daily. The program has been found to be effective. Therefore, no further changes are recommended at this time.

**Equipment**

No equipment changes are recommended at this time

**Proposed changes (if any)**

There are no proposed changes in the Environmental Monitoring Plan.

*Signature of person completing this form*  \_\_\_\_\_  
*Printed name of person completing this form* Charles V. Nelson

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PLEASE ATTACH ADDITIONAL PAGES AS NEEDED

**ADDENDA TO  
ANNUAL REPORT FORM  
FOR FACILITIES WITH**

**SOLID WASTE PROCESSING LICENSES  
INCLUDING THOSE WITH  
BENEFICIAL USE LICENSES**

**Maine Department of Environmental Protection**

**February 2015**

**1.B. In-coming waste characterization.**

The results and summary of all in-coming waste characterization events are attached. The recycling rate average over the year was 76.1%. Based on scale records of materials shipped, the recycling rate was 73%.

**1.E. Summary of recyclables and residual wastes shipped.**

Other Waste Types	Destination	Weight	Unit	Destination Facility
CFC's Evac.	ME	141	ea	Ozone Savers
CRT's/TV's	ME	2.29	Tons	North Coast Recycling
Medical Sharps	ME	25.5	cf	Stericycle
Fluorescent Bulbs, 4-foot	ME	22	ea	Gilman Electrical Supply
HIV Lamps	ME	86	ea	"
Mercury Switches	ME	0	ea	"
Tanks w/Propane	ME	384	ea	Lavigne's Cleaning Service, Inc
Lead Acid Batteries	ME	7,763	lbs	Schnitzer Northeast

**1.F. Recycling and beneficial use demonstration.**

Construction and Demolition Debris contains a broad range of constituents, most of which is not wood that can be processed in to fuel for combustion. To separate out the wood for beneficial reuse as fuel, to the maximum extent possible, requires a combination of both mechanical and "hand" separation on a picking line. To maximize the wood recovery and enhance the fuel quality, ReEnergy Lewiston (REL) converted the wood recovery process from a negative pick to a positive pick in 2013 and has continued this method thru-out 2014.

Based on the in-coming waste characterization tracking (documented in section **B. In-coming waste characterization**), the Lewiston facility received between 2% and 20% wood on a monthly basis. Based on out-bound shipping information, 6% of REL's materials were shipped as CDD fuel. REL modified the CDD boiler fuel processing chain several times this year in an attempt to generate more CDD fuel. There is also marketing focus on "wood rich" CDD. The 6 – 8% recovery of CDD fuel will remain consistent as long as the in-coming wood percentages remain in the 5 – 20% range.

The overall facility recycling rate was 73% for 2014. Of this 6.5% was CDD boiler fuel, 63% was Alternative Daily Cover (ADC) material, 1% aggregate, and 2.5% is metals and <0.01% of other recyclables (OCC, CFC containing devices, CRTs, tanks w/propane and lead-acid batteries) that are recovered from the incoming waste stream. The 27% process residuals are bulky waste (materials such as furniture and mattresses), treated wood that has no beneficial re-use market at this time, tarps, plastics, roofing materials, insulation, carpet and other materials that have been rendered non-recyclable by virtue of being mixed with CDD materials at job sites.

The 73% recycling/beneficial reuse rate exceeds the statutory recycling requirement of a minimum of not less than 50%. Also, as demonstrated in **Section E.** above, the facility is making an effort to remove a variety of items that are not received in large quantities, but which have important recycling impacts. Additionally, metal recovery rates are increasing because of process line modifications during 2014 (overband magnet on fines line).

## **2. Operations**

The REL facility operated for all 12 months of 2014. There were a total of 164,594 tons of CDD received at the facility. The facility served a variety of projects in Maine, New Hampshire, and Massachusetts. The inventory at the end of the year was 1,645 tons, approximately 355 tons less than at the end of 2013. The scaled out weight of materials leaving the facility was 175,985 tons. This nets out to be approximately a 6.7% increase in weight between materials accepted plus materials from inventory and materials shipped. This is within the range of what other CDD processing facilities experience. The reason for the increase is water absorbed while on-site being processed and snow that falls onto stockpiles. As indicated in Section F. of this report, the recycling rate for the facility was 73%.

There was one dust complaint (as relayed via the MEDEP) received and no odor problems were noted. The dust complaint was generated as part of a discussion between a MEDEP Industrial Stormwater Inspector and an abutter to the REL site. REL spoke with the abutter, who did not feel he had complained. It did provide an opportunity to talk with the abutter about the current improvements at the facility and established a line of communications in the event the abutter does have a concern.

Control of dust continues to be an on-going focus of improvements at the site that will be discussed further in section 3., below. REL erected a new fabric screen that replaced the wooden fence that existed near the OEM machine. Additionally, a combination wooden wall with screen above was installed on the far side of the roadway from the fines loading dock. This contains spillage that occurs during fines loading and catches dust that is generated as the fines are dropped into the transfer trailers.

The site remediation was completed early in the summer of 2014. This provided several months of experience with the new stormwater management system. It was determined that the infiltration trench in the south pond is more susceptible to blocking and will require more frequent maintenance than the similar trench in the north pond. Both pond systems function well and, based on water quality testing, provide the storm water treatment that they were designed to provide. The SWPPP was revised to reflect the changes at the site and training was provided to key personnel in December.

With the completion of the gravel operating pad, it is critical that the site monitor the depth of the thickness of this gravel pad and replenish it as needed. This is an on-going learning process.

Two on-site oil storage tanks, heating oil tank for the shop and the waste oil tank, were replaced and up-graded with compliant, double walled tanks. These were registered with the Fire Marshall's office. The SPCC was updated and training of involved personnel completed in December.



A key fire hydrant at the entrance to the facility was found to be non-functional. It was replaced so that adequate firefighting flows would be available in the area of the woodchip storage barn, maintenance shop and scale/office building.

The marker poles required by the City of Lewiston's Junkyard permit have been implemented since the remediation was completed. Additionally, trees were replaced along the Huetz Oil property line to augment screening.

In September, REL submitted a revised PFOM. As part of this, a new daily facility environmental inspection was implemented. A new PFOM Audit requirement and form were developed and implemented. The results of this audit are the basis of the information contained in this section and Section 3., below.

There was one hydraulic oil spill on the site during the past year. It was reported to the Maine DEP and they visited the site to observe that it had been cleaned up.

### **3. Alterations to the facility operations and site**

In order to increase recycling of higher value constituents of the incoming CDD, REL has modified the operations. The wood for CDD boiler fuel is being positively picked and then batch ground. This has allowed us to implement better quality control measures. Several training sessions have been held with picking line personnel to help identify and remove CCA and other treated wood from the CDD boiler feedstock.

REL installed a cross-belt magnet for ferrous removal from fines and assigns a picker full time to the fines belt to remove non-ferrous metals and larger ferrous metal pieces that could damage the transfer belt. This has been found to be very effective.

An additional smaller excavator has been added to the fleet. It is used primarily to presort bulky tarps and other materials that create problems on the picking line. This has been found to help reduce the tonnage of OBW and make materials recovery on the picking line safer and more efficient.

A concrete pad and block wall has been constructed to store ferrous metals prior to shipping. This enhances the quality of the materials recycled.

REL is evaluating several potential changes to the facility infrastructure and operations. These will be implemented if found to be feasible and if there are adequate funds. Implementation of any significant process change will be discussed with and approved by the Maine DEP prior to implementation.

- A man-lift is used regularly on the site and purchase of one versus rental will be evaluated.
- On a trial basis, REL is re-screening fines via the existing mill line. This provides an opportunity to recover more metals, rock, shingles and ABC materials. It also provides an overs material that appears to meet MWAC's specification for boiler fuel.
- Paving of fines loading dock area and adjustment of drainage in this area.
- Concrete tipping pad for inbound materials
- Build hopper and conveyor belt to feed inbound material to screen at beginning of process line. This will help to reduce dust generated during this step of the processing.
- If MWAC feedstock material that are being tested at this time appear to be a viable outlet, construct a new picking station and fines secondary screener on process fines line.