

DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION  
ACTIVITY REPORT: Scheduled Inspection

P042535779

FACILITY: LAKESHORE RECLAMATION & RESALE		SRN / ID: P0425
LOCATION: 9702 PORTAGE ROAD, KALAMAZOO		DISTRICT: Kalamazoo
CITY: KALAMAZOO		COUNTY: KALAMAZOO
CONTACT: Mark DeLisle , CEO		ACTIVITY DATE: 07/21/2016
STAFF: Matthew Deskins	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Scheduled Inspection.		
RESOLVED COMPLAINTS:		

On July 21, 2016 AQD Staff (Matt Deskins) went to conduct a scheduled inspection of the Lakeshore Reclamation and Resale (LRR) facility located in Portage, Kalamazoo County. Also attending the inspection would be Karen Kajiya-Mills, Craig Dechy, and Jerry Brown of the AQD Technical Program Units (TPU) Asbestos Program. LRR has an air permit (PTI No. 34-13A) that was issued to them for a cable wire stripper and a hammer mill that are to be used for the removal of asbestos sheathing around copper wiring that was to be recycled. The asbestos removal operations are also subject to the Federal NESHAP for Asbestos (40 CFR Part 61 Subpart M) and those requirements were included in the PTI. The purpose of the visit was for the TPU personnel to check out the asbestos recycling operations and for district staff it was to conduct an inspection to determine if LRR is in compliance with their permit. Staff departed the district office at approximately 8:20 a.m. since they were to meet the TPU staff there at 9:00 a.m.

Staff arrived at LRR at approximately 8:55 a.m. Staff noted there were quite a few cars in the parking lot so staff had to park out back. Staff then proceeded toward the office area where they noticed the three TPU staff out front talking to Mark DeLisle (owner) and Tyler Allard who is and Industrial Hygienist Tech for LLR. Staff approached the group and introductions were made for those who haven't met before. Staff and TPU staff then proceeded with Mark inside the building where he explained what LRR is doing. The following is a summary of that process.

LRR receives stator bars that come out of various sized electrical generators. The stator bars kind of act as the brushes would on smaller electric motors for generating power. Mark said that General Electric is his main supplier of them and they come to him from 9 different countries currently. Mark said that the bars come in 33 foot lengths and are cut to size by a hydraulic shear. The bar armor surrounding the copper is also "cracked" by the shear to remove it. Mark said that they use to just run the bars after shearing into the hammer mill but the mica that is contained within it was causing equipment issues which led to the cracking process. Staff asked if he uses the wire stripper anymore to which he said that he didn't and that it went back to the original owner. Mark then stated that the bar armor (black sheathing) typically contains 7 to 8 percent asbestos. He stated that the strand sheathing that surrounds each copper rod in the bar sometimes is positive for asbestos and other times is not. When it is positive, it typically contains 3 to 4 percent asbestos. Mark stated that all the shearing and cracking is done inside the enclosure/containment area and all waste is wetted, double bagged, and disposed of as asbestos waste no matter what. When they have enough bags to fill a 20 yard roll-off container, Mark said that they call Waste Management to come in and haul it off to their Westside RDF facility in Three Rivers. He said that if they are operating regularly that might be once a month.

Once the bars have been sheared and cracked, they are then placed on a conveyor that transports them up to the hammer mill for final processing. The hammer mill breaks up the copper into small nuggets approximately the size of marbles. The copper nuggets come out of the hammer mill onto a vibrating conveyor belt/table where it then gets collected. The hammer mill has its emissions controlled by a baghouse that vents inside the containment area. Compressed air is pulse jetted into the baghouse to clean the bags and filters. Mark said the drums that collect the dust have to be emptied about once an hour during heavy operations. They also use a water mister that blows across the waste that's falling out of the baghouse to help control any potential fugitive emissions. Staff then asked Mark if the copper varies at all in purity? Mark stated that the copper that they end up with is 99.9% pure and every load gets tested before being shipped out. Staff then asked Mark how much copper they can get per bar? Mark said that it varies but the bars out of one large generator unit might produce 30,000 pounds of copper. He also stated that they can process approximately 10,000 pounds of bar per week.

Staff then asked about maintenance on the hammer mill operations? Mark said that there are 6(?) hammers on the mill and each one can be rotated 4 times before they need replacement. He said under heavy use each one last about 5 months. He went on to say that they regularly are checking or changing belts and the traps on the system need to be cleaned out about once every 3 weeks.

Mark went on to state that the containment area is equipped with two negative air machines (NAM) and they have at least one more on site for back-up. They are all equipped with several filters with the last one being a HEPA filter. Mark said that currently the HEPAs are changed out twice per year. Mark went on to say that they typically keep the pressure differential between the containment and the outside room between -0.051 and -0.06. Staff then asked about wash downs of the containment area? Mark stated that the entire containment area is washed down either after every load or every three weeks. He stated that the waste water is filtered through several filtering systems and then a HEPA filter prior to discharge to the sanitary sewer. Staff was able to view the operations from outside the containment through an observation window.

After Mark was finished explaining operations to us and TPU folks were done with their questions, staff began to look at the permit conditions with Tyler. Prior to doing this, staff gave Mark a copy of the DEQ's "Environmental Inspection Brochure". The following are the special conditions of PTI No. 34-13A and LLR's compliance status with them.

NOTE: As mentioned earlier, the facility no longer has EUWIRESTRIPPER at the facility.

### SPECIAL CONDITIONS

#### EMISSION UNIT SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Emission Unit ID	Emission Unit Description (Process Equipment & Control Devices)	Installation Date / Modification Date	Flexible Group ID
EUWIRESTRIPPER	Asbestos insulated copper wires are stripped using a commercial wire stripper. The clean copper feeds out of the wire stripper. The waste material (tar impregnated asbestos sheath) is wetted, double bagged and labeled before being transported to an approved landfill. All activities occur within the containment area (enclosure).	8-13-2013	FGCOPPER
EUBARSTRIPPER	Asbestos insulated copper stator bars are cut with a hydraulic shear and conveyed into a hammer mill grinder. The clean copper is separated and conveyed out of the hammer mill. The waste material is collected by the air separation system (baghouse dust collector), wetted, double bagged and labeled before being transported to an approved landfill. All activities occur within the containment area (enclosure).	3-19-2014	FGCOPPER
Changes to the equipment described in this table are subject to the requirements of R 336.1201, except as allowed by R 336.1278 to R 336.1290.			

#### FLEXIBLE GROUP SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGCOPPER	Asbestos insulated copper wire reclamation and recycling operations	EUWIRESTRIPPER,

including a commercial wire stripper, hydraulic shear and hammer mill grinder. The processes occur in a containment area (enclosure) which is equipped with negative air machines with HEPA filters.

EUBARSTRIPPER

The following conditions apply to: FGCOPPER

**DESCRIPTION:** Asbestos insulated copper wire reclamation and recycling operations including a commercial wire stripper, hydraulic shear and hammer mill grinder. The processes occur in a containment area (enclosure) which is equipped with negative air machines with HEPA filters.

Emission Unit IDs: EUWIRESTRIPPER, EUBARSTRIPPER

**POLLUTION CONTROL EQUIPMENT:** Containment area (enclosure), negative air machines with HEPA filters, baghouse dust collector (internally vented)

**I. EMISSION LIMITS**

1. There shall be no visible emissions from FGCOPPER. (R 336.1301(1), 40 CFR 61.145(c), 40 CFR 61.150(a))

AQD Comment: Appears to be in Compliance. No VEs have been documented and none were noted during the inspection.

**II. MATERIAL LIMITS**

1. The permittee shall process only asbestos insulated wire and stator bar materials within FGCOPPER. (R 336.1224, R 336.1225, 40 CFR Part 61 Subpart M)

AQD Comment: Appears to be in Compliance. It appears that stator bars are the only materials being processed now.

**III. PROCESS/OPERATIONAL RESTRICTIONS**

1. The permittee shall vent the containment area (enclosure) exhaust through the negative air machines during operation of FGCOPPER, during asbestos waste preparation, and during decontamination of the containment area (enclosure) in compliance with the provisions of 40 CFR Part 61 Subpart M. (40 CFR 61.145(c), 40 CFR 61.150, R 336.1224)

AQD Comment: Appears to be in Compliance. The facility has and uses negative air machines during their operations.

2. The permittee shall maintain a minimum of -0.02 inches of water column pressure differential between inside and outside the containment area (enclosure) during operation of FGCOPPER including cleaning/decontamination of the process building and equipment. (R 336.1910)

AQD Comment: Appears to be in Compliance. They appear to maintain a differential pressure between 0.05 and 0.06. The pressure was 0.051 during the inspection.

3. The permittee shall store and stockpile all asbestos-containing material within the process building and in leak-tight wrapping at all times. At no time shall asbestos-containing material be stored outdoors of the facility. (R 336.1224, R 336.1225, 40 CFR 61.145(c))

AQD Comment: Appears to be in Compliance. The facility appears to be doing this and no issues were observed during the inspection.

4. The permittee shall change the HEPA filters in the negative air machines associated with FGCOPPER as recommended by the manufacturer. The permittee shall keep a record of the filter change-outs and keep the records on file at the facility and make them available upon request of the AQD. (R 336.1224, R 336.1301, R

336.1910)

**AQD Comment:** Appears to be in Compliance. The facility appears to be changing the filters out as needed and are documenting when it is done.

5. The permittee shall not operate FGCOPPER, perform asbestos waste preparation, or decontaminate the containment area (enclosure) during HEPA filter change-outs on either of the negative air machines. (R 336.1224, R 336.1301, R 336.1910)

**AQD Comment:** Appears to be in Compliance. Staff will have to assume the facility is doing this. The hammer mill was in use during the inspection so staff did not observe decontamination, filter change outs, etc.

6. The permittee shall adequately wet all asbestos-containing material during operation of FGCOPPER as specified in 40 CFR Part 61 Subpart M. (40 CFR 61.145)

**AQD Comment:** Appears to be in Compliance. The facility has approval for dry removal but they do wet and double bag all asbestos containing materials.

7. In lieu of wetting the asbestos-containing material during operation of FGCOPPER, the permittee shall submit a request to, and obtain approval from the AQD District Supervisor and Technical Programs Unit for a dry removal variance prior to operation, and then annually every October 1<sup>st</sup> thereafter. The permittee shall keep the approval for the dry removal variance on file at the facility. (40 CFR Part 61 Subpart M)

**AQD Comment:** Appears to be in Compliance. The facility requested and has received approval for dry removal of asbestos containing material.

8. The permittee shall not operate FGCOPPER unless a malfunction abatement plan (MAP) as described in Rule 911(2) has been submitted to the AQD District Supervisor and Technical Programs Unit within 60 days of permit issuance, and is implemented and maintained. The MAP shall, at a minimum, specify the following:

- a) A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.
- b) An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.
- c) A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.
- d) A description of the procedures to capture, handle, and dispose of all materials to minimize the generation of fugitive emissions.
- e) A description of the procedure for the decontamination of the containment area (enclosure).

If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days, if new equipment is installed or upon request from the AQD District Supervisor and Technical Programs Unit. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor and Technical Programs Unit for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits. (R 336.1910, R 336.1911, R 336.1915)

**AQD Comment:** Appears to be in Compliance with all the above MAP requirements. The MAP has been amended once since the facility received their PTI.

#### **IV. DESIGN/EQUIPMENT PARAMETERS**

1. The permittee shall not operate the EUBARSTRIPPER portion of FGCOPPER unless the dust collector is installed, maintained, and operated in a satisfactory manner. (R 336.1224, R 336.1301, R 336.1910)

AQD Comment: Appears to be in Compliance. They have a dust collector installed and it vents inside the containment area.

2. The permittee shall not operate EUBARSTRIPPER portion of FGCOPPER unless the pressure differential gauge for the dust collector is installed, maintained and operated in a satisfactory manner. (R 336.1331, R 336.1910, 40 CFR 52.21(c) and (d))

AQD Comment: Appears to be in Compliance. The dust collector is equipped with a Magnahelic differential pressure gauge. Staff will assume they are maintaining and operating it properly.

3. The permittee shall not operate FGCOPPER unless all respective HEPA filters are installed, maintained, adequately replaced and operated in a satisfactory manner as defined by the manufacturer's specifications. (R 336.1224, R 336.1301, R 336.1910)

AQD Comment: Appears to be in Compliance. The facility appears to be doing the above in regards to the HEPA filters.

4. The permittee shall meet all applicable requirements of 40 CFR 61.152. Specifically, the containment area (enclosure) shall be constructed and operated properly, and the HEPA filters shall meet the design criteria of 99.97 percent efficiency for 0.3 micron particles as specified under the Air Cleaning section of 40 CFR Part 61 Subpart M. (40 CFR 61.152(b), R 336.1224)

AQD Comment: Appears to be in Compliance. See attached HEPA spec sheet.

5. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to monitor and record the pressure differential between inside and outside the containment area (enclosure) on a continuous basis during operation of FGCOPPER including cleaning/decontamination of the process building. The device shall be equipped with an alarm which sounds when the pressure differential falls out of acceptable range. The device shall be installed such that the alarm is either visible or audible to workers during operation of FGCOPPER. (R 336.1301, R 336.1910)

AQD Comment: Appears to be in Compliance with above requirements.

6. The permittee shall install three negative air machines with HEPA filters within the containment area (enclosure). One will serve as a backup to the primary negative air machines.(R 336.1224,R336.1301, R 336.1910)

AQD Comment: Appears to be in Compliance with above. They also have several negative air machines that they store at the facility.

#### V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. (R 336.1201(3))

1. The permittee shall conduct personal and area air monitoring during all work activities as outlined in the National Institute for Occupational Safety and Health (NIOSH) Method 7400, or another method with prior approval of the AQD Technical Programs Unit. Asbestos air samples shall be collected from areas inside and outside the regulated work area as well as the outlet of the negative air machine. The test results of the NIOSH Method 7400 monitoring shall be at or below the detection limit. (R 336.1224, R 336.1225)

AQD Comment: Appears to be in Compliance with the above requirements.

2. The permittee shall verify test results as required in SC V.1 from an outside third party certified contractor at least once every five days of operation. (R 336.1224, R 336.1225)

AQD Comment: Appears to be in Compliance. The facility uses Steve Moody Labs (SMMS) in Texas as the 3<sup>rd</sup> party QC analyzer.

#### VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1201(3))

1. The permittee shall perform visible emission observations at least once per day while FGCOPPER is operating. The permittee shall not perform the visible emission observations during any time in which there is a threat of safety or asbestos contamination. The permittee shall keep written records at the facility of each visible emission observation, using "yes" or "no" to indicate whether or not there are visible emissions. If visible emissions are observed, the permittee shall shut down FGCOPPER consistent with the provisions of the malfunction abatement plan. (R 336.1301(1), R 336.1910)

AQD Comment: Appears to be in Compliance. The facility is doing the VEs and none have been documented to date.

2. The permittee shall keep records of the air pressure differential between inside and outside the containment area (enclosure) on an hourly basis during operation of FGCOPPER. The permittee shall keep all records on file at the facility and make them available to the Department upon request. (R 336.1301, R 336.1910)

AQD Comment: Appears to be in Compliance with the above. The monitor they use prints out the readings.

3. The permittee shall monitor and record the static pressure drop across the dust collector once per calendar day when the equipment is in operation. (R 336.1331, R 336.1910)

AQD Comment: Appears to be in Compliance. The facility was documenting when it was checked but were not recording the reading. Staff reminded Tyler that they also needed to record what pressure was observed.

4. The permittee shall maintain all records as specified in 40 CFR Part 61 Subpart M, including but not limited to notification forms, amounts and origins of asbestos-containing material and waste shipment records. (40 CFR 61.145(b), 40 CFR 61.150(d)(5))

AQD Comment: Appears to be Compliance with the above.

5. The permittee shall keep on file the manufacturer's specifications indicating 99.97 percent efficiency for 0.3 micron particles of the HEPA filters associated with the negative air machines. (40 CFR 61.152(b), R 336.1224)

AQD Comment: Appears to be in Compliance. See attached HEPA filter spec sheet.

6. The permittee shall keep records of the personal and area air monitoring test results as required in SC V.1. The permittee shall keep all records on file at the facility and make them available to the Department upon request. (R 336.1224, R 336.1225)

AQD Comment: Appears to be in Compliance with the above.

7. The permittee shall keep records of the dates and times on which operation of FGCOPPER occurred, types and amounts of materials processed, and the dates and times on which decontamination of the containment area (enclosure) occurred. The permittee shall keep all records on file at the facility and make them available to the Department upon request. (R 336.1224, R 336.1225, 40 CFR 61.145(b)(4))

AQD Comment: Appears to be in Compliance with the above.

## VII. REPORTING

1. Within 30 days after completion of the installation, construction, reconstruction, relocation, or modification authorized by this Permit to Install, the permittee or the authorized agent pursuant to Rule 204, shall notify the AQD District Supervisor, in writing, of the completion of the activity. Completion of the installation, construction, reconstruction, relocation, or modification is considered to occur not later than commencement of trial operation of FGCOPPER. (R 336.1201(7)(a))

AQD Comment: Appears to be in Compliance. The facility has done this.

2. The permittee shall submit notification to the AQD District Supervisor and Technical Programs Unit at least 10 working days prior to operation of FGCOPPER, or renovation activities in compliance with all provisions of 40

CFR Part 61 Subpart M. The permittee shall revise the notification as necessary pursuant to 40 CFR 61.145(a). (R 336.1224, R 336.1225, 40 CFR 61.145)

AQD Comment: Appears to be in Compliance. The facility has been submitting notifications.

3. The permittee shall submit notification to the AQD District Supervisor and Technical Programs Unit no later than 2 business days after any visible emission reading which results in a shutdown of operation of FGCOPPER. (R 336.1912)

AQD Comment: Appears to be in Compliance. The facility hasn't documented any VEs to date.

**VIII. STACK/VENT RESTRICTIONS:**

The exhaust gases from the stack listed in the table below shall be discharged unobstructed horizontally to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter/ Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVNAM1	10	6	R 336.1224, R 336.1225, 40 CFR 52.21(c) & (d)
2. SVNAM2	10	6	R 336.1224, R 336.1225, 40 CFR 52.21(c) & (d)

AQD Comment: Appears to be in Compliance. The stack appears to meet the height and diameters listed above. Both negative air machines vent out the same place on the side of the building.

**IX. OTHER REQUIREMENTS**

1. The permittee shall strip, collect, transport and dispose of all waste material, including spent HEPA filters, in compliance with all provisions of 40 CFR Part 61 Subpart M. (40 CFR 61.145(c), 40 CFR 61.150)

AQD Comment: Appears to be in Compliance.

2. The permittee shall dispose of all asbestos containing waste at an active waste disposal site that is in compliance with all provisions of 40 CFR Part 61 Subpart M. (40 CFR 61.150, 40 CFR 61.154)

AQD Comment: Appears to be in Compliance. The facility disposes of their asbestos waste at Westside RDF in Three Rivers which is owned by Waste Management, Inc.

3. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 61, Subpart A and Subpart M for asbestos. (40 CFR Part 61, Subpart A and Subpart M).

AQD Comment: Appears to be in Compliance. The facility appears to be following the applicable provisions of the Asbestos NESHAP.

**INSPECTION CONCLUSION:** The facility appears to meeting the requirements of PTI No. 34-13A and the applicable provisions of the Asbestos NESHAP at the present time. Staff thanked Mark and Tyler for their time and staff departed the facility at approximately 11:15 a.m.

NAME Matt Deskin

DATE 8-2-16

SUPERVISOR MA 8/2/2016

