

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

B164641303

FACILITY: RIETH RILEY CONSTRUCTION CO., INC.		SRN / ID: B1646
LOCATION: 4150 S. GREYTS RD., LANSING		DISTRICT: Lansing
CITY: LANSING		COUNTY: EATON
CONTACT: Tom Harris , Area Manager		ACTIVITY DATE: 08/30/2017
STAFF: Michelle Luplow	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Unannounced, scheduled inspection to determine compliance with PTI 97-03A, conducted as part of a full compliance evaluation.		
RESOLVED COMPLAINTS:		

Inspected by: Michelle Luplow  
Personnel Present: Tom Harris (tharris@rieth-riley.com), Area Manager  
Dan Larson, Acting Manager

## Other Personnel:

John Berscheit (jberscheit@rieth-riley.com), Technical Services Manager  
Jordan Sines (jsines@rieth-riley.com), Environmental Compliance Specialist

**Purpose**

Conduct an unannounced, scheduled, partial compliance evaluation (PCE) inspection to determine compliance with Rieth-Riley's Opt-Out Permit No. 97-03A, and to follow-up with Rieth-Riley's 2016 violation response to ensure that the non-compliance issues cited in the violation notice had been addressed with updated recordkeeping, etc. This inspection was done as part of a full compliance evaluation (FCE).

**Facility Background/Regulatory Overview**

Rieth-Riley is a hot mix asphalt facility that uses both recycled asphalt (RAP) and virgin aggregate. D. Larson said that the majority of Rieth-Riley's production is for MDOT and county-level projects (including Livingston, Ionia, Eaton, Ingham, Shiawassee and Jackson Counties). They also specialize in parabolic curve paving for proving grounds. This facility was last inspected 8/12/2016.

During the previous inspection, Tom Harris said that Rieth-Riley generally fires up the plant around April 1<sup>st</sup> and operates the plant through November 15<sup>th</sup>. D. Larson said the length of the operating season depends on work load/projects and the weather. If it is too cold, operating the plant becomes costlier. T. Harris said they have 12-hr days for operation, where employees will start working around 3 – 4 a.m. and work until 8 – 9 p.m, but asphalt is not continuously being produced during these times. D. Larson said production will typically start around 5-6 a.m, although there are times when Rieth-Riley will operate through the entire night, depending on the projects. Projects that typically require operation throughout the night include MDOT road work on interstates such as I-127 and I-94. T. Harris said portable Rieth-Riley crushers (predominantly from Petoskey) will come to the site once per year to crush RAP.

T. Harris said Rieth-Riley has not used crumb rubber in approximately 2 years, and that Rieth-Riley has no plans of using it this year as well.

With regard to the plant's production of odors, T. Harris said that none of the mixes they produce are any more or less odorous. He said that the Antistrip PG 64-28 (an ingredient added to Ascro) has a different odor than the rest of the liquid asphalt, but this does not mean it is more odorous than the other liquid asphalt mixtures they use. The most produced mixes Rieth-Riley produces are Ascro; blends of 13A, the most common mix (driveways, parking lots); 36A (second most common mix); 3E10,4E10, LVSP (low volume super pave, similar to 13A, for interstate shoulders), 5E10, 4E1, 5E1 and 3E3,4E3 and 5E3.

Rieth-Riley is an opt-out facility for HAPs.

**Inspection**

At approximately 10:15 a.m. on August 30, 2017, I arrived at Rieth-Riley and met with Dan Larson, Acting Manager, prior to meeting with Tom Harris, Area Manager. From St. Joe Highway to Creyts, upon entering the facility I did not detect any asphaltic odors. Within the facility I could detect level 1 odors. Winds were out of the west. Upon leaving the facility I could detect level 2 odors. A truck was being loaded out at that time (12:55 p.m.). The equipment under EU001 was not operating during the inspection.

April 2017 is when Rieth-Riley started up operations for the paving season.

Table 1 provides a list of equipment located onsite.

Table 1. Equipment

<u>EU</u>	<u>EU Description</u>
EU001	<p>Hot mix asphalt facility, aggregate conveyors, 400 ton/hr counterflow triple drum mixer with fabric filter dust collector. Operations are usually less than the 400 ton/hr threshold.</p> <p>Currently only operates burning natural gas</p> <p>Equipped with "blue smoke package" (scrubber) where exhaust from asphalt loadout and the silos is captured and sent through stainless steel wool</p> <p>Equipped with baghouse to capture particulate from the HMA mixing process prior to exhausting to ambient air</p>
EUACTANKS	<p>Two horizontal liquid asphalt storage tanks; each tank has 2 compartments, and 1 vertical liquid asphalt tank</p> <p>All tanks are heated via heat transfer oil which is continuously cycled and recycled through the unit.</p> <p>The heat transfer oil, which is used to keep the liquid asphalt warm, is heated by combustion of a natural gas-fired boiler, and kept at a temperature of approximately 295°F. D. Larson explained that liquid asphalt cannot be kept at ambient temperatures, as it would become a solid. D. Larson said that liquid asphalt is used during all production days. They will leave the liquid asphalt in the tanks over the winter if there is any remaining product left after the paving season.</p>
EUSILOS	<p>Four silos, all installed in 2003: 3 200-ton and 1 150-ton storage silos for finished product. Coils in the bottom of each silo are heated with heat transfer oil to keep the finished product at a working temperature. T. Harris said the working temperature range for their asphalt is typically between 250-275°F, but can be upwards of 300°F.</p>
EUYARD	<p>Fugitive dust sources:</p> <ul style="list-style-type: none"> <li>-all plant roadways</li> <li>-plant yard</li> <li>-material storage piles</li> <li>-material handling operations</li> </ul>
Generators	<p>These are portable, gasoline-fired generators used strictly for lighting at jobsites where operations are conducted at night; these are exempt under Rule 285(2)(g)</p>
Boiler	<p>Natural gas-fired for heating heat transfer oil exempt under Rule 282(2)(b)(i)</p>

**EU001**

*Emission Limits & Testing*

Emission rates for PM, SO<sub>2</sub>, NO<sub>x</sub>, and VOC are required to be tested upon request by the Department. The emission limits presented in the Emission Limits table, are to be used to calculate emissions if stack test data is not available.

Verification of the CO, HAPs and TACs emission rates was conducted during a 2004 stack test, using recycled used oil as the fuel oil at a rate of 300 tons/hour. See table below for the pollutant, emission limit, and stack test results. SO<sub>2</sub>, NO<sub>x</sub>, VOC, and PM emission rates were not determined during this test.

Table 2: 2004 Stack Test Results

Pollutant/TAC	Stack Test Result (lb/ton HMA material produced)	Emission Limit (lb/ton HMA material produced)	Verified/Compliant?
Lead	4.84E-7	1.5E-5	Yes
Manganese	3.52E-6	5.0E-5	Yes

Nickel	1.02E-6	1E-4	Yes
Benzene	4.0E-5	1.2E-3	Yes
Ethyl benzene	1.3E-4	0.0012	Yes
Toluene	1.4E-4	0.006	Yes
Xylene	Non-detect	0.0012	Yes
Acrolein	5.0E-5	1.0E-3	Yes
Formaldehyde	4.4E-4	0.01	Yes
Naphthalene	1.8E-5	1.0E-3	Yes
Sulfuric Acid	1.7E-4	6.2E-3	Yes
Hydrochloric Acid	Non-detect	0.006	Yes
Carbon Monoxide	0.095	0.20	Yes
Arsenic	1.10E-7	1E-6	Yes

#### Emission Limits & Recordkeeping

Calendar year emissions of CO, SO<sub>2</sub>, NO<sub>x</sub>, VOC and PM are required to be calculated, using stack test data as the emission factor, or the Emission Limits in PTI 97-03A if stack test data is not available. After the 2016 inspection, J. Berscheit said they use "factors determined by various relevant agencies. In order to ensure compliance, the highest factor published for any particular remissions component is used." I informed J. Berscheit that according to PTI 97-03A, only stack test results (if available) or the emission factors present in the Emission Limits table are allowed to be used to calculate emissions. There are no tpy emission limits for SO<sub>2</sub>, NO<sub>x</sub>, VOC, or PM in PTI 97-03A, yet Rieth-Riley is still required to calculate these. J. Berscheit provided me with these emissions: SO<sub>2</sub>, NO<sub>x</sub>, VOC and PM emissions are tabulated on "MDEQ Record Keeping – 2016 Emission Records" and CO emissions can be found on a monthly and 12-month rolling basis on the "MDEQ Record Keeping – Monthly Report." I will remind Rieth-Riley that CO emissions need to be kept on a calendar year basis, but will use their 12-month rolling data to determine compliance at this time, as their actual emissions are less than 50% of the limit during this time period. Table 3 contains the 2015 calendar year emissions.

Table 3. Criteria Pollutant Calendar Year Emissions

Pollutant	2016 Calendar Year (tons)	Emission Limit (Calendar year tpy)	Compliant
CO	31.6	89.9	Yes
SO <sub>2</sub>	12.2	NA	NA
NO <sub>x</sub>	17.4	NA	NA
VOC	8.34	NA	NA
PM	5.8	NA	NA

#### Material Usage Limits & Recordkeeping

Rieth-Riley is limited to a maximum of 50% recycled asphalt (RAP) material based on a monthly average and is required to record the average percent RAP per ton of HMA on a daily basis. As requested, J. Berscheit provided me with August 2016 – July 2017 records of the average monthly percent recycled asphalt material (RAP) used. Rieth-Riley keeps track of the total Hot Mix Asphalt (HMA) produced that contains RAP and the Total RAP aggregate used both on a monthly basis. The highest percent RAP during this time period was reported at 36% in November 2016.

Rieth-Riley is not allowed to use any asbestos tailings or waste materials containing asbestos in their HMA. T. Harris said that they use aggregate mined from pits between Battle Creek, Marshall and Ovid and use a little bit of slag produced at steel mills (slag is used to increase friction on paved surfaces). He said they currently do not use slag, but did use some last year. Asbestos tailings are not used here. Additionally, T. Harris said that their crusher has not yet been to this located to crush RAP this year, but there is the possibility of this occurring in late October.

#### Process/Operational Limits & Recordkeeping

Production at this facility is limited to 850,000 tons of HMA per 12-month rolling period. From August 2016 – July 2017 the 12-month rolling total of HMA produced was 314,002 tons.

In addition to the 12-month rolling limit on HMA produced, there is also a 400 ton/hr HMA limit, based on a daily average. For the purposes of this permit, compliance of this condition is checked by dividing the daily production of HMA by the operating hours for the day to determine if Rieth-Riley is in compliance with the hourly limit. J. Berscheit provided me with snapshots of daily total HMA produced and total hours the plant was in operation for the month of July 2017. The highest hourly HMA production rate was on 7/17/17 at 430 tons per hour. This is a violation of the permit condition; however, prior to citing a violation, I will follow up with Rieth Riley to provide these data for the remaining months in the August 2016 – July 2017 period to determine if this was a one-time occurrence or more frequent. Once the additional records are received, the determination of whether Rieth-Riley will be cited for this exceedance will be made.

Rieth-Riley shall not burn any hazardous waste, blended fuel oil or specification recycled used oil (RUO) containing any contaminant in PTI 97-03A condition 1.6 at greater than the specified ppm by weight, and Rieth-Riley must also have records of the % sulfur, specific gravity, flash point, higher heating value of all fuel oils combusted on a monthly basis. T. Harris said they only burn natural gas; therefore this requirement, as well as the Compliance Monitoring Plan for RUO in Appendix B of the PTI, does not apply to Rieth-Riley operations at this time.

#### *Equipment*

The Preventative Maintenance Program for the fabric filter dust collector (Appendix A in the permit) is required to be implemented and maintained if Rieth-Riley wishes to operate EU001.

The following is a compliance evaluation of the Preventative Maintenance Program for the fabric filter control system:

#### BAGHOUSE OPERATING PRESSURE DROP

The fabric filter dust collector pressure drop is required to be recorded once per day, but continuously measured. The acceptable pressure drop range should be no less than 2 in H<sub>2</sub>O and no greater than 8 in H<sub>2</sub>O. Pressure drop during the inspection was not recorded as the plant was not operating at the time. Rieth-Riley has installed an entirely new monitoring system, which included new digital continuous monitors for the mix temperature, stack temperature (baghouse), the mix design for the current mix being produced, aggregate rates in tons per hour, the production total, and the RAP feed rate in tons per hour. Additionally, they have a new monitor for the pressure drop of the baghouse in units of in H<sub>2</sub>O. As requested, J. Berscheit provided daily pressure drop records for May – July 2017. During this time, all pressure drop ratings were within the permitted range.

#### BAGHOUSE/PLANT ALARM SYSTEM

A high temperature sensor and alarm system should be equipped on the fabric filter dust collector that is designed to set off an alarm when the high temperature set-point has been violated, which should begin immediate sequential shut-down if the situation is not resolved in a short time period. T. Harris said that the set-point is 425°F, at which point the flame on the drum mixer is shut off. He said anything above this temperature would result in the system catching on fire (oil on bags in baghouse could catch on fire). Hank Grifka, plant operator, said that the baghouse bags are BWF Envirotech, which can withstand 500-600°F.

#### HANDLING AND STORAGE OF FABRIC FILTER DUST

Fabric filter dust is required to be disposed of in a manner that minimizes introduction of the particulate to the outer air. T. Harris explained that the fines are collected and then dropped into a conveyor that is fed back into the system. They do not dispose of any particulate.

#### PIPING AND SEALS MAINTENANCE

Piping and seals on the baghouse are required to be replaced as needed. T. Harris said that December 2016 they resiliconed the piping (where the bags fit onto the pipe) to ensure a good seal. He explained that this is usually a spring activity, but the winter was mild enough to work on the piping and seals in December.

#### VISIBLE EMISSIONS AND ACTIONS TO BE TAKEN

In the event that visible emissions, which appear to exceed the 20% 6-minute opacity limit per Method 9, are observed at the discharge point of the stack, certified visible emissions readings are required to be taken to verify whether the limit has truly been exceeded. If no certified visible emissions reader can be present onsite within 60 minutes of observing the emissions, operations are required to cease immediately and the cause of the visible emissions are required to be determined prior to plant operation.

While onsite, I verified with T. Harris and other Rieth-Riley staff that Rieth-Riley has at least 2 Method 9-certified readers present at the facility at all times.

J. Berscheit said that operators have never seen opacity emissions from the stack that exceed the 20% opacity limit specified in General Condition 11 and therefore no Method 9 observations were required or recorded.

#### BLACK LIGHT INSPECTIONS

A black light test is required to be conducted at least once per year before operations for the paving season begin, and records of the black light inspections, including date, time and findings are required to be recorded. A black light test is a test where black light-reactive dust is injected into the system, and using a black light, operators are able to determine if the black light-reactive dust is escaping the baghouse, thus detecting any baghouse leaks. Although requested, J. Berscheit did not provide black light test records. I will provide a follow-up report on the status of these records.

#### INVENTORY OF FILTER BAGS

A minimum of 15 fabric filter bags are required to be maintained in inventory onsite at all times. A foreman confirmed that they currently have 75 bags in inventory onsite.

#### BAGHOUSE INSPECTION RECORD

A written record of the following is required to be kept:

- Visual inspections of the interior components of the baghouse, including date, time and findings
- Number of filter bags installed as a result of each inspection to replace filter bags already in use in the baghouse, including date, time location, and whether the replacement filter bag was brand new or cleaned, previously used filter bag
- An explanation (i.e., a description of the damage found) for each filter bag removed from the baghouse and confirmation that another filter bag was installed to replace it
- Each observation of visible emissions at the stack discharge point and description of response to the observed visible emissions, including date and time of visible emission occurrence and results of EPA Method 9 observation if any. A visible emission record sheet will be made available
- All significant maintenance activities performed on the baghouse

Rieth-Riley keeps record of their baghouse maintenance on their "Failed Bag Location Charts" and "Inspection Sign Off Sheet." These records include the location and type of repair conducted on the bags (bags with holes not changed; bags capped off; bags needing tension; bags changed this inspection), the date that visual inspections were conducted, in addition to any significant maintenance activities. J. Berscheit provided me with all baghouse inspection records spanning from December 2016 (seal replacements, discussed under "PIPING AND SEALS MAINTENANCE") through July 2017. T. Harris said in July 2017 an auger in the baghouse snapped in half, which required them to weld it back together. The plant was not operating during the time that the auger was being repaired. T. Harris said they plan on installing a new auger. This maintenance activity was also logged in Rieth-Riley's Inspection Sign Off Sheet.

#### Monitoring & Recordkeeping

Rieth-Riley is required to continuously monitor the virgin aggregate feed rate and RAP feed rate to EU001 and keep intermittent records for these rates. Instantaneous readings can be directly taken from their computer program which continuously monitors the virgin aggregate and RAP feed rates. The equipment was not operating so no instantaneous data for the virgin aggregate and RAP feed rates were written down during the inspection. RAP feed rates on a ton per hour basis are recorded daily. J. Berscheit provided me records showing that the virgin aggregate feed rate is recorded on a monthly ton/hour average.

CO monitoring is required to be conducted via hand-held CO monitor upon start-up of each paving season, upon a malfunction of the drum dryer/mixer or its associated burner, and after every 500 hours of operation. For each CO monitoring occurrence, the production data associated with the time the emissions data were collected should be recorded, and each data set shall contain at least 8 separate CO readings over a period of 30+ minutes. J. Berscheit provided me with records for CO readings taken on 5/11/17 and 8/2/17. CO readings were taken on 8/2/17, as Rieth-Riley production hours met or exceeded 500 hours of operation for the operating season by this time. Although there are no CO limits in the PTI for the CO tests, we require they conduct this test. Attached are these readings. Each of the CO readings were conducted over 30+ minutes and asphalt production tons per hour were correlated with each CO reading data point. Newer asphalt plant permits will allow an average maximum of 500 ppm CO; the CO reading records indicate that the average CO concentration for both 5/11/17 and 8/2/17 was under 500 ppm.

Rieth-Riley is required to install, maintain and operate a device to monitor the pressure drop across the baghouse, and must be calibrated on an annual basis in accordance with manufacturer's instructions. Jordan Sines said that the monitors come calibrated from the factory, and provided me with the Dwyer Differential Pressure Gauge specifications sheet, which states that the gauge is calibrated and zeroed in the vertical position at the factory. J. Sines said that the monitor currently in place was purchased on March 13, 2017 and was installed in April 2017, prior to the start of the 2017 paving season. J. Berscheit said that the gauge is always replaced on an annual basis because the cost to do conduct a calibration exceeds the cost to operate a factory-calibrated gauge.

Fuel usage rate is required to be monitored and recorded on a daily basis in gallons or cubic feet per day. Rieth-Riley staff said during the inspection that they read the natural gas meter on a daily basis, which gets entered into Rieth-Riley's MDEQ recordkeeping report kept by J. Berscheit. There are no material limits on the amount of natural gas Rieth-Riley can burn. Rieth-Riley keeps this record reported on a monthly basis in the "MDEQ Record Keeping – Monthly Records."

Rieth-Riley must keep information sufficient to identify all components of the asphalt mix, which includes recording the initial mix design and time upon initial start-up, and the time and new mix design whenever the mix design changes. I requested these mix design records for the week of August 21 – 25, 2017. J. Sines provided these records, demonstrating that mix designs and the associated times they are put into production are recorded (attached).

#### Stack Restrictions

Rieth-Riley is required to have a stack that is at least 44.3' above ground level. J. Berscheit explained that the stack is assembled from 2 sections that are each 14.5' long. These two sections, in addition to the fan and damper assembly he said measures about 16.5', total 45.5' from ground level.

#### EUYARD

EUYARD consists of 3 piles of RAP (recycled RAP millings, sized RAP, and large irregularly shaped RAP leftovers from jobs) and piles of virgin aggregate.

Fugitive dust emissions from the plant roadways, plant yard, material storage piles, and material handling operations are required to be calculated annually for MAERS. Based on the 2016 MAERS emission reporting year, Rieth-Riley is in compliance with this condition. (Emissions reported under "cold aggregate handling," "storage piles," and "haul roads.")

Rieth-Riley is also required to follow the Fugitive Dust Management Plan in Appendix C. The following is an evaluation of compliance with Appendix C:

#### SITE MAINTENANCE

Dust suppressant application, sweeping and/or vacuuming or other approved activity is required to be conducted at least twice per month or more frequently as dictated by weather conditions and vehicular activity. T. Harris said they use a  $\text{CaCl}_2$  brine solution to control dust on unpaved areas, but also will sweep on the main paved portions of the yard using a vacuum truck with water. Ryan Thomas, facility staffperson, said that they will apply dust control every 4-5 weeks on a routine basis, but will also apply dust control as needed. He also said that when it rains they will sweep the paved portions of the yard. Records of the dust control activities are required, including the date, time, and reason for the activity, and which activity was conducted. J. Berscheit provided me with Rieth-Riley's dust control records for April – July 2017, which contains the date (daily records are kept), whether the plant was operating that day, the dust control used that day, and why dust control was applied. I verified that there were at least two days of either dust control or rain events per month.

Rieth-Riley is required to have speed limit signs of 10 MPH or less posted. Truck traffic enters and leaves the Rieth-Riley plant through the road just north of the office driveway. There is a 10 MPH speed limit sign posted where the truck traffic enters and exits.

#### MANAGEMENT OF ON-SITE ROADWAYS

The unpaved portions of the site are required to have dust control to ensure visible emissions are less than 5% opacity. During the inspection, I did not conduct a Method 9 to verify that opacity remained below 5%, but it did not appear that any truck traffic cause opacity to be greater than 5% for any 6-minute average.

All spillage on roads must also be removed immediately. I saw no material spillage on any of the roads. Ryan Thomas said that at the end of each day, any material spillage on the plant roads from conveyors is cleaned up. There is no truck traffic in these areas.

#### ON-SITE MANAGEMENT OF HAUL VEHICLES

All trucks entering the site to deliver loads and all trucks leaving the site with HMA paving materials are required to cover the loads. A sign for the trucks leaving the site is also required to remind them to tarp the loads prior to leaving the site. At the 2016 inspection, T. Harris verified that Rieth-Riley did not have these signs posted. T. Harris and I walked to the gate for entry and entrance of trucks and verified that signs had been installed reminding truck drivers to cover their loads. Additionally, they installed a sign to alert truck drivers that they are under surveillance. The weeds have grown to slightly obscure the signs and T. Harris said he plans to have the weeds trimmed because of this. All trucks leaving with loads during the inspection covered their loads.

#### MANAGEMENT OF FRONT-END LOADER OPERATIONS

The front end loader operators are required to avoid the overfilling of the bucket of the loader and the feed hoppers to prevent spillage and to also minimize the drop height of the material when loading the feedhoppers or transferring material to stockpiles. I did not observe any of these operations during the inspection, thus compliance with this requirement could not be determined.

#### EUACTANKS

The vapor condensation and recovery system for each liquid asphalt cement storage tank is required to be installed and operating properly.

There are 2 horizontal tanks and 1 vertical tank. The vapor condensation and recovery systems are installed on the 2 horizontal tanks. The vertical tank has a similar recovery system, but I will provide follow-up on the details of how the vertical tank system works versus how the horizontal tank recovery system works and if the vertical tank device is sufficient for meeting the requirements under EUACTANKS. H. Grifka explained that each vertical cylinder on the horizontal tanks has a charcoal adsorber used to control odors. He said that these were installed in 2003 when the plant was first installed, and have not been replaced since. I will follow up with Rieth Riley on determine what proper operation consists of, which should include a maintenance discussion.

Each of the tanks also has vents. During the inspection, one of the horizontal tanks, tank 3, was being loaded with liquid AC. Odors were detected, but were sporadic, and with intensities that ranged from a level 1 to a level 2 odor. I did not see any visible emissions from the vents or the vapor condensation and recovery system of tank 3; however, I noted that there was a small amount of blue smoke being emitted from a "bell" on the top of the tank, which will work to automatically shut off the pump when the tank becomes full.

#### EUSILOS

During the inspection, I watched the loading of a few trucks through the loadout area and did not see any signs of opacity or detect any odors. Both sides of the loadout area are completely enclosed, as required for this emission unit. The asphalt odors/fumes from loadout, as well as from the loadout silo are captured via a "blue smoke package" which sends the fumes to a steel wool scrubber which condenses the fumes. The liquid is then collected at the bottom of the scrubber unit. T. Harris said there is not much liquid that collects in the bottom of the scrubber. He said they check and remove any liquid at the bottom of the scrubber less than annually.

Every spring the steel wool is inspected. A rain cap has been installed at the top of the scrubber to prevent water from entering the system.

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#### FGFACILITY

FGFACILITY takes into account all emissions sources and restricts HAP emissions to 8.9 tpy for each individual HAP and 22.49 tpy for aggregate HAPs. This includes emissions from the natural gas burned to heat the heat transfer oil and that which is combusted in the drum mixer. The HAPS regulated under this permit are all pollutants listed in the emission unit summary table, except for the criteria air pollutants. The 12-month rolling time period is from August 2016 – July 2017.

Table 4. HAP emissions, 12-month rolling August 2016 – July 2017

HAP	Individual (tpy, 12-month rolling)	Compliance with HAP 8.9 tpy limit?
Benzene	0.157	Yes
Ethyl benzene	0.157	Yes
Xylene	0.157	Yes
Toluene	0.942	Yes
Naphthalene	0.157	Yes
Formaldehyde	0.157	Yes
Acrolein	0.157	Yes
Arsenic	0.000157	Yes
Nickel	0.0157	Yes
Hydrochloric acid	0.00	Yes
Manganese	0.00785	Yes
Lead	0.000314	
<b>Total Aggregate HAPs (tpy, 12-month rolling)</b>	<b>2.0</b>	<b>Compliance with 22.49 tpy limit</b>

There is no requirement for choosing the emission factors that are to be used to calculate these HAPs from the process. If Rieth-Riley were using the stack test emission factors, the 12-month rolling tons per year for each HAP would be a few magnitudes lower than what was reported in their records.

**Compliance Statement:** Rieth-Riley is currently in compliance with PTI 97-03A, pending the review of black light inspection records, which Rieth-Riley has not yet provided, as well as HMA ton/hr daily record review for the remaining 11 months of the 12-month rolling period. A follow-up report will be written.

NAME

*M. M. Lynn*

DATE

9/29/17

SUPERVISOR

*J. M.*

