From: Air.Pollution Control
To: APC Permitting
Subject: FW: FRS Lexington air permit
Date: Tuesday, February 27, 2024 5:06:21 PM
Attachments: APC 102 Emission Source 12.pdf
APC 102 Emission Source 16.pdf

From: Katherine Stephens <Katherine.Stephens@tn.gov>
Sent: Tuesday, February 27, 2024 2:17 PM
To: Air.Pollution Control <Air.Pollution.Control@tn.gov>
Subject: FW: FRS Lexington air permit

Additional application forms for 39-0057, Permit #977696

From: Webb, Riley <Riley.Webb@pkoh-ac.com>
Sent: Tuesday, February 27, 2024 1:23 PM
To: Katherine Stephens <Katherine.Stephens@tn.gov>
Subject: [EXTERNAL] RE: FRS Lexington air permit

Katherine,
This is the updated APC 102 emission sources.

From: Katherine Stephens <Katherine.Stephens@tn.gov>
Sent: Monday, February 26, 2024 1:35 PM
To: David Hill <david.hill@pkoh.com>; Jill Pratt <Jill.Pratt@tn.gov>; Webb, Riley <Riley.Webb@pkoh-ac.com>
Cc: Rose, Joanne <joanne.rose@pkoh-ac.com>; Phillips, Craig <craig.phillips@pkoh-ac.com>
Subject: RE: FRS Lexington air permit

Good afternoon David and Riley,

I spoke with our senior engineer and it looks like the only option going forward is to fully rewrite the permit as Conditional Major. The next steps will need to be:

- New application forms submitted [FRS]
- Draft a conditional major permit to reflect the forms [APC]
- Internal review process [APC]
- Revised agreement letter [FRS, but APC would again provide a suggestion/template]
    - This agreement letter would now have to include a limitation that would bring emissions of CS2 below 10 TPY
    - Per our discussion, the easiest way for FRS to do this would be taking a limit on raw rubber material input, most likely 30,000,000 total, tracked by purchase
- Permit draft sent for approval from FRS and Terri Ledsinger [APC]

- Issue permit [APC]

I will begin drafting the new permit as soon as we receive the signed updated forms for Sources 12 and 16. In the meantime, please let me know if you have questions.

Thank you,
Katherine

From: David Hill <David.Hill@pkoh.com>
Sent: Thursday, February 15, 2024 6:04 PM
To: Katherine Stephens <Katherine.Stephens@tn.gov>; Jill Pratt <Jill.Pratt@tn.gov>
Cc: Joanne Rose (joanne.rose@pkoh-ac.com) <joanne.rose@pkoh-ac.com>; 'Phillips, Craig' <craig.phillips@pkoh-ac.com>; Webb, Riley <Riley.Webb@pkoh-ac.com>
Subject: [EXTERNAL] FW: FRS Lexington air permit

Katherine – Here is the requested information from the plant on installation dates. Let us know if you need anything else.

Craig – Thanks for the feedback.

David Hill
Director EH&S
Park-Ohio
6065 Parkland Blvd.
Cleveland, OH 44124
Office (440) 947-2214
Cell (330) 221-0270

From: Phillips, Craig <craig.phillips@pkoh-ac.com>
Sent: Thursday, February 15, 2024 5:47 PM
To: David Hill <David.Hill@pkoh.com>
Cc: Rose, Joanne <joanne.rose@pkoh-ac.com>; Evans, Scott <scott.evans@pkoh-ac.com>
Subject: RE: FRS Lexington air permit

Plant started up in 1977. Assuming bulk cure vulc's were there then, 3 at that time but later reduced to 2 verticals, which is what we have today. There was and is only one salt line and it was here when I started in 1983. We added the first formed vessel in 1984 and the balance of what's here were added between that time and early nineties if I remember correctly. One was removed in late nineties or early 2000's, which was referred to as vulc 1, and leaves us with what we have today in the main plant. There may be records somewhere that tell what vessel

was installed when but we haven't found them yet. Scott will advise if those are found.

From: David Hill <David.Hill@pkoh.com>
Sent: Thursday, February 15, 2024 4:14 PM
To: Phillips, Craig <craig.phillips@pkoh-ac.com>
Cc: Rose, Joanne <joanne.rose@pkoh-ac.com>
Subject: FW: FRS Lexington air permit

Let me know if the FRS Lexington team has any information on the installation dates.

David Hill
Director EH&S
Park-Ohio
6065 Parkland Blvd.
Cleveland, OH 44124
Office (440) 947-2214
Cell (330) 221-0270

From: David Hill
Sent: Thursday, February 15, 2024 4:24 PM
To: Katherine Stephens <Katherine.Stephens@tn.gov>; Jill Pratt <Jill.Pratt@tn.gov>
Cc: 'Phillips, Craig' <craig.phillips@pkoh-ac.com>; Webb, Riley <Riley.Webb@pkoh-ac.com>; Joanne Rose (joanne.rose@pkoh-ac.com) <joanne.rose@pkoh-ac.com>
Subject: RE: FRS Lexington air permit

Let me see what I can find. Not sure if anyone at the plant with greater than 22 years' service is still around to answer the question.

David Hill
Director EH&S
Park-Ohio
6065 Parkland Blvd.
Cleveland, OH 44124
Office (440) 947-2214
Cell (330) 221-0270

From: Katherine Stephens <Katherine.Stephens@tn.gov>
Sent: Thursday, February 15, 2024 4:09 PM
To: David Hill <David.Hill@pkoh.com>; Jill Pratt <Jill.Pratt@tn.gov>
Cc: 'Phillips, Craig' <craig.phillips@pkoh-ac.com>; Webb, Riley <Riley.Webb@pkoh-ac.com>; Joanne Rose (joanne.rose@pkoh-ac.com) <joanne.rose@pkoh-ac.com>
Subject: RE: FRS Lexington air permit

Hi David,

One follow-up question from my reviewing engineer, do you happen to have the record of when the vulcanizers and the salt cure units were installed? The oldest documentation I have on them is that they were already present on the site when the 2002 permit for the facility was issued.

Thanks,
Katherine

From: David Hill <David.Hill@pkoh.com>
Sent: Wednesday, February 14, 2024 7:23 AM
To: Katherine Stephens <Katherine.Stephens@tn.gov>; Jill Pratt <Jill.Pratt@tn.gov>
Cc: 'Phillips, Craig' <craig.phillips@pkoh-ac.com>; Webb, Riley <Riley.Webb@pkoh-ac.com>; Joanne Rose (joanne.rose@pkoh-ac.com) <joanne.rose@pkoh-ac.com>
Subject: [EXTERNAL] FW: FRS Lexington air permit

As outlined in the below emails, the plant reached out to the manufacturer and unfortunately the extruders were manufactured before the requested information was available. In addition, we are not able to accurately calculate the requested production rates.

Let us know the next step and if additional information is required from our end. Thanks for your continued assistance on our air permit.

David Hill
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6065 Parkland Blvd.
Cleveland, OH 44124
Office (440) 947-2214
Cell (330) 221-0270

From: Webb, Riley <Riley.Webb@pkoh-ac.com>
Sent: Tuesday, February 13, 2024 5:43 PM
To: David Hill <David.Hill@pkoh.com>; Phillips, Craig <craig.phillips@pkoh-ac.com>
Subject: FRS Lexington air permit

David,
We have reached out to Davis-Standard, and they responded that when our extruders were manufactured there was not a specification for maximum output. The Davis-Standard Representative stated that any calculations would be very subjective based on different screw

designs, screw RPM's, pressure, materials, etc..

From: David Hill <David.Hill@pkoh.com>
Sent: Tuesday, February 13, 2024 11:37 AM
To: Phillips, Craig <craig.phillips@pkoh-ac.com>; Webb, Riley <Riley.Webb@pkoh-ac.com>
Subject: FW: FRS Lexington air permit

Can the plant verify if the below statement is applicable to the extruders in Lexington?

David Hill
Director EH&S
Park-Ohio
6065 Parkland Blvd.
Cleveland, OH 44124
Office (440) 947-2214
Cell (330) 221-0270

From: Katherine Stephens <Katherine.Stephens@tn.gov>
Sent: Tuesday, February 13, 2024 12:31 PM
To: David Hill <David.Hill@pkoh.com>
Cc: Webb, Riley <Riley.Webb@pkoh-ac.com>; 'Phillips, Craig' <craig.phillips@pkoh-ac.com>; Dotty Graff <Dotty.Graff@pkoh-ac.com>; Jill Pratt <Jill.Pratt@tn.gov>
Subject: RE: FRS Lexington air permit

Good morning David,

One more possible option – even if the input/output of the individual extruders is not tracked, do the extruders have manufacturers' specs with maximum output rates? Most extruders I have seen (although those are usually new construction) will provide a maximum production rate, often in kg/hour.

I will give you an answer on the material purchase question ASAP – I want to run it by our reviewing engineer first.

Thank you,
Katherine

From: David Hill <David.Hill@pkoh.com>
Sent: Monday, February 12, 2024 1:14 PM
To: Katherine Stephens <Katherine.Stephens@tn.gov>
Cc: Webb, Riley <Riley.Webb@pkoh-ac.com>; 'Phillips, Craig' <craig.phillips@pkoh-ac.com>; Dotty Graff <Dotty.Graff@pkoh-ac.com>; Jill Pratt <Jill.Pratt@tn.gov>

Subject: [EXTERNAL] FW: FRS Lexington air permit

Katherine,

The FRS Lexington plant currently tracks raw material purchases on a monthly basis which makes up all the raw rubber materials processed by the extruders. While a small amount of the extruded material is shipped (uncured) to our Acuna operations, we would propose to use this monthly total of raw rubber material purchase data as the total amount of rubber being run through the vulcanizers (rubber curing).

This would also be the data that TDEC would identify as requiring FRS to be taking a limit on raw rubber material input (most likely 30,000,000 total). Since there is no backing out of remaining raw material inventory from the previous month, the usage of purchasing information would be a very conservative value. The information on raw material purchases is currently pulled directly from the plant's ERP system.

Let me know if this information satisfies the first step identified in your below email (highlighted) and TDEC will move forward with drafting the permit. If so, then I will have the plant sign and upload the 2 APC 102 forms to the referenced portal.

Thanks for your support and contact me if you have any questions or need additional information.

David Hill
Director EH&S
Park-Ohio
6065 Parkland Blvd.
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Cell (330) 221-0270

From: David Hill <David.Hill@pkoh.com>
Sent: Monday, February 12, 2024 11:08 AM
To: Phillips, Craig <craig.phillips@pkoh-ac.com>
Cc: Webb, Riley <Riley.Webb@pkoh-ac.com>; Graff, Dotty <Dotty.Graff@pkoh-ac.com>; Rose, Joanne <joanne.rose@pkoh-ac.com>
Subject: RE: FRS Lexington air permit

Thanks Craig and I understand the approach. A few questions below.

- Does the monthly data only track new purchases or does it also include remaining inventory purchased the prior month? New purchases only

- Can you share with me referenced “Material Usage” report for a few months so I can see the data? Dec and Jan usage attached.
- Can you also provide a summary report for 2023? Attached
- We may be required to track the rubber consumption on a rolling month average for the permit.

David Hill
Director EH&S
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6065 Parkland Blvd.
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Cell (330) 221-0270

From: Phillips, Craig <craig.phillips@pkoh-ac.com>
Sent: Monday, February 12, 2024 11:57 AM
To: David Hill <David.Hill@pkoh.com>
Cc: Webb, Riley <Riley.Webb@pkoh-ac.com>; Graff, Dotty <Dotty.Graff@pkoh-ac.com>; Rose, Joanne <joanne.rose@pkoh-ac.com>
Subject: RE: FRS Lexington air permit

David,

Lexington can track the raw material (compound) we purchase monthly minus the product we ship to Acuna on reels that does not go through vulcanization. We have not found another way to forecast or track by vulc or extruders considering the same materials/cmpds are used on different vessels and extruders. I spoke with IT about this, and they are also unaware of another way to track other than running the Material Usage report for each month.

Thanks
Craig

From: David Hill <David.Hill@pkoh.com>
Sent: Monday, February 12, 2024 8:37 AM
To: Phillips, Craig <craig.phillips@pkoh-ac.com>
Cc: Webb, Riley <Riley.Webb@pkoh-ac.com>; Graff, Dotty <Dotty.Graff@pkoh-ac.com>
Subject: FW: FRS Lexington air permit

Craig,

I need the FRS Lexington production team to accurately outline what data is currently available to track production in regards to the highlighted section below. Also let me know if

the data isn't currently available, what other options can we propose to gather the required production numbers?

Let me know what your team can generate. We will submit the signed documents once we get past this information request. Thanks for your assistance.

David Hill
Director EH&S
Park-Ohio
6065 Parkland Blvd.
Cleveland, OH 44124
Office (440) 947-2214
Cell (330) 221-0270

From: Katherine Stephens <Katherine.Stephens@tn.gov>
Sent: Monday, February 12, 2024 9:27 AM
To: David Hill <David.Hill@pkoh.com>
Cc: Webb, Riley <Riley.Webb@pkoh-ac.com>; 'Phillips, Craig' <craig.phillips@pkoh-ac.com>; Joanne Rose (joanne.rose@pkoh-ac.com) <joanne.rose@pkoh-ac.com>; Jill Pratt <Jill.Pratt@tn.gov>
Subject: RE: FRS Lexington air permit

Good morning David,

I see the attached forms, but they appear to be unsigned. Please submit any updated forms, signed, to Air.Pollution.Control@tn.gov.

However, first, I want to make sure I understand what data FRS does have access to, since the production rates are unknown. Per our last discussion, you stated that FRS would be able to track monthly data on raw rubber material input to the extruders (which we would then assume went 100% to the vulcanizers). Is that something FRS already tracks, or would that be something you would start tracking? If it's new data, do you have the ability to capture that data?

As part of that, would you be able to find the maximum hourly input to the extruders, if measuring production from the vulcanizers isn't an option?

The next step would be drafting a conditional major permit. This would require me to repeat the same permit process we have done so far, with who would be responsible for each step:

- New application forms submitted [FRS]
- Draft a conditional major permit to reflect the forms [APC]
- Internal review process [APC]
- Revised agreement letter [FRS, but APC would again provide a suggestion/template]
    - This agreement letter would now have to include a limitation that would bring

emissions of CS2 below 10 TPY
    - Per our discussion, the easiest way for FRS to do this would be taking a limit on raw rubber material input, most likely 30,000,000 total.
- Permit draft sent for approval from FRS and Terri Ledsinger [APC]
- Issue permit [APC]

However, again, I want to hold off on restarting the entire process for a new permit type until I am 100% clear on what data FRS has, if we do need to change categories, and what kind of data and limits I would write into it.

Thank you,
Katherine

From: David Hill <David.Hill@pkoh.com>
Sent: Friday, February 9, 2024 3:01 PM
To: Katherine Stephens <Katherine.Stephens@tn.gov>
Cc: Webb, Riley <Riley.Webb@pkoh-ac.com>; 'Phillips, Craig' <craig.phillips@pkoh-ac.com>; Joanne Rose (joanne.rose@pkoh-ac.com) <joanne.rose@pkoh-ac.com>
Subject: [EXTERNAL] RE: FRS Lexington air permit

Katherine,

I did want to discuss a few items with you yesterday. However as you directed below, we are submitting the updated APC 102 for Sources 12 and 16 based upon information from the plant.

The plant confirmed that there is only a single salt cure bath associated with Source 12. This is identified as Line #9 and shown in the attached. The updated APC 102 for Source 12 is also attached. As we discussed previously, Line #9 only runs limited production due to customer demands. When Line #9 is needed to run, it receives extruded rubber from Line #8 only.

In regards to the 7 vulcanizers it's almost impossible to generate production data from these devices due to the varied hose types and sizes that can be run through any of these 7 vulcanizers. As shown in the attached, a wide variety of hose sizes and diameters can be run through any of the 7 vulcanizers due to production demands along with various cycle times for the hose mix to be cured. The variety of product mix that can be processed during the curing on any of the 7 vulcanizers is limitless.

The plant has attempted to determine the best available information to use for the capacity data. Unfortunately, many of the personnel who had worked on air permits and engineering in the past are no longer with the company. We were able to locate a single document that was used to provide capacity data for the previous air permits and shows a rate of 531 lbs./hr. Therefore we utilized this capacity data on our application due to the lack of any other data at

this time.

On the original APC 102 forms for the 7 vulcanizers, we incorrectly identified using the 531 lbs./hr. value for ALL 7 vulcanizers combined. Based upon a potential capacity calculation (24/7/365 or 8,760 hours) and using 531 lbs/hr for all & vulcanizers, this equates to 4,651,560 lbs. of rubber cured annually. However the plant reported that they processed approximately 6M lbs of cured rubber in 2023. Therefore, the 531 lbs./hr. capacity rate is NOT for the 7 combined vulcanizers, but rather appears to be the capacity for EACH of the 7 vulcanizers at the plant. Based upon this information we proposed to have the capacity rate listed at 3,717 lbs./hr. for the 7 vulcanizers combined on the APC 102 form for Source 16.

We understand that the above calculations may put us over the single HAP limit of 10 tpy for carbon disulfide as we discussed previously. Let us know what our options are for this air permit using the currently available data as presented herein. Thank you for all your assistance and contact us if you have any questions or need additional data.

David Hill
Director EH&S
Park-Ohio
6065 Parkland Blvd.
Cleveland, OH 44124
Office (440) 947-2214
Cell (330) 221-0270

From: David Hill <David.Hill@pkoh.com>
Sent: Thursday, February 8, 2024 2:44 PM
To: Katherine Stephens <Katherine.Stephens@tn.gov>
Subject: Re: FRS Lexington air permit

Can you call my cell for a quick chat? 330-221-0270. Thanks

David Hill
Sent from my iPhone

From: Katherine Stephens <Katherine.Stephens@tn.gov>
Sent: Thursday, February 8, 2024 12:25:16 PM
To: David Hill <David.Hill@pkoh.com>
Cc: Joanne Rose (joanne.rose@pkoh-ac.com) <joanne.rose@pkoh-ac.com>; Jill Pratt <Jill.Pratt@tn.gov>
Subject: RE: FRS Lexington air permit

Good afternoon David,

For now, I will mark the permit on hold pending the new application forms and will send you an updated permit draft once I have re-run the final emissions numbers. I wouldn't want to have drafted an entire second permit that might not be needed.

Let me know if you have any questions about putting together the revised forms.

Thank you,
Katherine

From: David Hill <David.Hill@pkoh.com>
Sent: Thursday, February 8, 2024 8:46 AM
To: Katherine Stephens <Katherine.Stephens@tn.gov>
Cc: Joanne Rose (joanne.rose@pkoh-ac.com) <joanne.rose@pkoh-ac.com>; Jill Pratt <Jill.Pratt@tn.gov>
Subject: [EXTERNAL] RE: FRS Lexington air permit

Katherine,

I understand the situation and have the plant working on the requested information for identification of physical limits on production.

However to keep this permit moving forward and pending any additional feedback from the plant, can you draft the Conditional Major permit for our review in accordance with your below highlighted language?

Thanks for your patience and contact me if you have any questions. Cell will be best as I have some windshield time for the next several hours before I can access my computer once at the airport.

David Hill
Director EH&S
Park-Ohio
6065 Parkland Blvd.
Cleveland, OH 44124
Office (440) 947-2214
Cell (330) 221-0270

From: Katherine Stephens <Katherine.Stephens@tn.gov>
Sent: Wednesday, February 7, 2024 9:20 AM

To: David Hill <David.Hill@pkoh.com>
Cc: Joanne Rose (joanne.rose@pkoh-ac.com) <joanne.rose@pkoh-ac.com>; Jill Pratt <Jill.Pratt@tn.gov>
Subject: RE: FRS Lexington air permit

Good morning David,

Just to clarify, the question I am trying to answer is whether or not the facility has the *capability* of emitting >10 TPY carbon disulfide in a year, if operating at full capacity. I know that in terms of actual production numbers, you will be well below the 10 TPY.

So in this case, the production rates for the units that need to be listed in the application forms are not limits, but statements of capacity. If the liquid cure units are physically able to produce X pounds of cured rubber per hour, that is the value that needs to be given. However, you can include details in the application forms that demonstrate any limits on the capacity. This includes physical limits, not 'behavioral' limits: if the liquid cure unit must be out of service for an hour every day to change the liquid and reheat the salt bath, that can be included. If the liquid cure unit isn't used on Tuesdays because there is a plant-wide staff meeting, that is not included.

If you have the capability to emit >10 TPY, I need to issue a conditional major permit, even if you then take limits on the production rates.

Let me know when you have final numbers for the application forms, and I can see if that would be True Minor or Conditional Major.

Thank you,
Katherine

From: David Hill <David.Hill@pkoh.com>
Sent: Tuesday, February 6, 2024 12:07 PM
To: Katherine Stephens <Katherine.Stephens@tn.gov>
Cc: Joanne Rose (joanne.rose@pkoh-ac.com) <joanne.rose@pkoh-ac.com>
Subject: [EXTERNAL] RE: FRS Lexington air permit

Ketherine,

Thanks for the feedback and I understand the Carbon Disulfide limit of 10 tpy for single HAP. I revised your spreadsheet (attached) with some alternative production rates after discussing with the plant.

Due to the limited production under source 12 (liquid cure medium units), we can accept 531 #/hour as a combined production limit for both units. In addition, we can use an individual production rate of 380 #/hour for each vulcanizer which equates to a total production limit of 2,730 #/hr for all 7

vulcanizers.

The above changes will result in an annual production rate of 28,566,360 of cured rubber while keeping the single HAP (carbon disulfide) below 10 tpy.

Let me know if this works for TDEC.

David Hill
Director EH&S
Park-Ohio
6065 Parkland Blvd.
Cleveland, OH 44124
Office (440) 947-2214
Cell (330) 221-0270

From: Katherine Stephens <Katherine.Stephens@tn.gov>
Sent: Tuesday, February 6, 2024 12:05 PM
To: David Hill <David.Hill@pkoh.com>
Cc: Joanne Rose (joanne.rose@pkoh-ac.com) <joanne.rose@pkoh-ac.com>; Jill Pratt <Jill.Pratt@tn.gov>
Subject: RE: FRS Lexington air permit

Hi David,

Unfortunately, I have run into a major potential issue with the higher production rates – while the facility is under the 25-tpy limit for major source, these numbers put the facility over the 10-tpy limit for carbon disulfide (any single hazardous air pollutant has a limit of 10 tpy). Your options going forward are:

1. I can proceed with issuing the permit as a Conditional Major permit. This would involve the facility taking a rubber input limit (I believe 30,000,000 was the number we discussed), paying an additional $1000/year conditional major fee, having annual inspections, and submitting annual compliance statement. This is the current state of the facility. Relative to FRS's current permit, recordkeeping and annual fees would still be reduced.
2. You can submit revised application forms with more details on the emissions, production rates, and maximum operating hours (e.g. accounting for down-time between batches) that would show the facility's maximum emissions are under 10 TPY of carbon disulfide.

Let me know how you would like to proceed – I am sorry for not catching this issue during our original discussion.

Thank you,

Katherine

From: David Hill <David.Hill@pkoh.com>
Sent: Monday, February 5, 2024 2:42 PM
To: Katherine Stephens <Katherine.Stephens@tn.gov>
Cc: Joanne Rose (joanne.rose@pkoh-ac.com) <joanne.rose@pkoh-ac.com>
Subject: [EXTERNAL] RE: FRS Lexington air permit

Katherine,

New information to clarify the processes in Lexington.

The rubber hose that runs through the salt bath (liquid cure) is DIRECTLY from a single extruder (Line No. 8) that conveys the material through the salt bath (Line No. 9) which is in line with No. 8. No vulcanization occurs on the product that runs through the salt bath (Line No. 9) and this product line is currently limited.

Extruder line No. 8 can also produce rubber hose that does NOT go through a salt bath and is directed to one of the 7 vulcanizers for curing. All other extruders at the plant produce rubber hose that goes through one of the 7 vulcanizers for curing.

Let me know if this answers the questions or if you have any questions. Thanks again for all your assistance.

David Hill
Director EH&S
Park-Ohio
6065 Parkland Blvd.
Cleveland, OH 44124
Office (440) 947-2214
Cell (330) 221-0270

From: Katherine Stephens <Katherine.Stephens@tn.gov>
Sent: Monday, February 5, 2024 1:27 PM
To: David Hill <David.Hill@pkoh.com>
Cc: Joanne Rose (joanne.rose@pkoh-ac.com) <joanne.rose@pkoh-ac.com>; Chelsea Meadows <Chelsea.Meadows@tn.gov>
Subject: RE: FRS Lexington air permit

Hi David,

That is what I was looking for – thank you for running it by me! I had one other major follow up

based on something you mentioned in the previous email:

Is all the rubber that goes through the liquid-cure units, material that was already vulcanized? In other words, does any rubber go straight from being extruded to the liquid cure baths?

If it's all pre-vulcanized, I may have been overestimating emissions and be able to remove more limits from the permit.

Thank you,
Katherine

From: David Hill <David.Hill@pkoh.com>
Sent: Monday, February 5, 2024 12:07 PM
To: Katherine Stephens <Katherine.Stephens@tn.gov>
Cc: Joanne Rose (joanne.rose@pkoh-ac.com) <joanne.rose@pkoh-ac.com>
Subject: [EXTERNAL] FRS Lexington air permit

Katherine,

See the attached revised APC-102 forms for sources 12 and 16, based upon our discussion today. Can you verify the attached outlines the changes (Section 9a input rates) we discussed on the call?

David Hill
Director EH&S
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DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF AIR POLLUTION CONTROL
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 15th Floor, Nashville, TN 37243
Telephone: (615) 532-0554, Email: Air.Pollution.Control@TN.gov

NON-TITLE V PERMIT APPLICATION
PROCESS OR FUEL BURNING SOURCE DESCRIPTION

Type or print. Submit with the APC 100.

GENERAL IDENTIFICATION AND DESCRIPTION

1. **Organization's legal name and SOS control number** [as registered with the TN Secretary of State (SOS)]	2. **Emission Source Reference Number**
FLUID ROUTING SOLUTIONS, INC.	39-0057-12

3. **Is this air contaminant source subject to an NSPS or NESHAP rule?** Yes ☐ No ☑
If Yes, list rule citation, including Part, Subpart, and applicable Sections:

4. **Unique Source ID** (see instructions)	5. **Unique Emission Point ID** (see instructions)
Line #9	Line #9 stack

6. **Description of air contaminant source**
Salt Cure process (Line #9)

7. **Type of air contaminant source** (Check only one option to the right)

Process Emission Source: For each process emission source, submit a separate application. (Check at right and complete lines 8, 9, and 14)	☑
Process Emission Source with in process fuel: Products of combustion contact materials heated. For each process emission source, submit a separate application. (Check at right and complete lines 8 through 14)	☐
Non-Process fuel burning source: Products of combustion do not contact materials heated. Complete this form for each boiler or fuel burner and complete a Non-Title V Emission Point Description Form (APC 101) for each stack. (Check at right and complete lines 10 through 14)	☐

PROCESS EMISSION SOURCE DESCRIPTION AND DATA

8. **Type of operation:** Continuous ☑ Batch ☐	Normal batch time	Normal batches/day

9. **Process material inputs and In-process solid fuels**	Diagram reference	Input rates (pounds/hour) Design	Actual
A. Rubber hose		531	91.53
B.			
C.			
D.			
E.			
F.			
G.			
Totals			

* A simple process flow diagram must be attached.

DESCRIPTION OF BOILER, BURNER, ENGINE, OR OTHER FUEL BURNING SOURCE

10. Boiler or burner data: (Complete lines 10 through 14 using a separate form for each boiler, burner, etc.)

Serial Number	Type of firing***	
Rated horsepower	Rated input capacity (10^6 BTU/Hr.)	Other rating (specify capacity and units)
Date constructed	Date manufactured	Date of last modification (explain in comments below)

** Source with a common stack will have the same stack number.

*** Cyclone, spreader (with or without reinjection), pulverized (wet or dry bottom, with or without reinjection), other stoker (specify type, hand fired, automatic, or other type (describe below in comments).

FUEL USED IN BOILER, BURNER, ENGINE, OR OTHER FUEL BURNING SOURCE

11. Fuel data: (Complete for a process emission source with in process fuel or a non-process fuel burning source)

Primary fuel type (specify)				Standby fuel type(s) (specify)				
Fuels used	Annual usage	Hourly usage		% Sulfur	% Ash	BTU value of fuel		(For APC use only) SCC code
		Design	Average					
Natural gas:	10^6 Cu. Ft.	Cu. Ft.	Cu. Ft.	////////// //////////	///// /////	1,000		
#2 Fuel oil:	10^3 Gal.	Gal.	Gal.		///// /////			
#5 Fuel oil:	10^3 Gal.	Gal.	Gal.		///// /////			
#6 Fuel oil:	10^3 Gal.	Gal.	Gal.		///// /////			
Coal:	Tons	Lbs.	Lbs.					
Wood:	Tons	Lbs.	Lbs.	////////// //////////	///// /////			
Liquid propane:	10^3 Gal.	Gal.	Gal.	//////// //////////	///// /////	85,000		
Other (specify type & units):								

12. If Wood is used as a fuel, specify types and estimate percent by weight of bark

13. If Wood is used with other fuels, specify percent by weight of wood charged to the burner.

14. Comments

Rubber Compound that best match our products is EPDM. This line operates infrequently based upon customer orders.

SIGNATURE

If this form is being submitted at the same time as an APC 100 form, then a signature is not required on this form. Date this form regardless of whether a signature is provided. If this form is NOT being submitted at the same time as an APC 100 form, then a signature is required.

Based upon information and belief formed after a reasonable inquiry, I, as the responsible person of the above mentioned facility, certify that the information contained in this application is accurate and true to the best of my knowledge. As specified in TCA Section 39-16-702(a)(4), this declaration is made under penalty of perjury.

15. Signature		**Date**
Craig Phillips		2-27-24
Signer's name (type or print) Craig Phillips	**Title** Plant Manager	**Phone number with area code** (731) 967-3602

DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF AIR POLLUTION CONTROL
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 15th Floor, Nashville, TN 37243
Telephone: (615) 532-0554, Email: Air.Pollution.Control@TN.gov

NON-TITLE V PERMIT APPLICATION
PROCESS OR FUEL BURNING SOURCE DESCRIPTION

Type or print. Submit with the APC 100.

GENERAL IDENTIFICATION AND DESCRIPTION

1. **Organization's legal name and SOS control number** [as registered with the TN Secretary of State (SOS)]	2. **Emission Source Reference Number**
FLUID ROUTING SOLUTIONS, INC.	39-0057-16

3. **Is this air contaminant source subject to an NSPS or NESHAP rule?** Yes ☐ No ☑
If Yes, list rule citation, including Part, Subpart, and applicable Sections:

4. **Unique Source ID** (see instructions)	5. **Unique Emission Point ID** (see instructions)
Hose Cure units - 8 vulcanizers	Hose Cure Units - South Wall

6. **Description of air contaminant source**
Hose cure units (8 vulcanizers combined)

7. **Type of air contaminant source** (Check only one option to the right)

Process Emission Source: For each process emission source, submit a separate application. (Check at right and complete lines 8, 9, and 14)	☑
Process Emission Source with in process fuel: Products of combustion contact materials heated. For each process emission source, submit a separate application. (Check at right and complete lines 8 through 14)	☐
Non-Process fuel burning source: Products of combustion do not contact materials heated. Complete this form for each boiler or fuel burner and complete a Non-Title V Emission Point Description Form (APC 101) for each stack. (Check at right and complete lines 10 through 14)	☐

PROCESS EMISSION SOURCE DESCRIPTION AND DATA

8. **Type of operation:** Continuous ☑ Batch ☐	Normal batch time	Normal batches/day

9. **Process material inputs and In-process solid fuels**	Diagram reference	Input rates (pounds/hour) Design	Actual
A. Rubber/Straight Hose		4248 - (8 combined)	2776- (8 combined)
B.			
C.			
D.			
E.			
F.			
G.			
Totals			

* A simple process flow diagram must be attached.

DESCRIPTION OF BOILER, BURNER, ENGINE, OR OTHER FUEL BURNING SOURCE

10. Boiler or burner data: (Complete lines 10 through 14 using a separate form for each boiler, burner, etc.)

Serial Number	Type of firing***	
Rated horsepower	Rated input capacity (10^6 BTU/Hr.)	Other rating (specify capacity and units)
Date constructed	Date manufactured	Date of last modification (explain in comments below)

** Source with a common stack will have the same stack number.

*** Cyclone, spreader (with or without reinjection), pulverized (wet or dry bottom, with or without reinjection), other stoker (specify type, hand fired, automatic, or other type (describe below in comments).

FUEL USED IN BOILER, BURNER, ENGINE, OR OTHER FUEL BURNING SOURCE

11. Fuel data: (Complete for a process emission source with in process fuel or a non-process fuel burning source)

Primary fuel type (specify)				Standby fuel type(s) (specify)				
Fuels used	Annual usage	Hourly usage		% Sulfur	% Ash	BTU value of fuel		(For APC use only) SCC code
		Design	Average					
Natural gas:	10^6 Cu. Ft.	Cu. Ft.	Cu. Ft.	////////// //////////	///// /////	1,000		
#2 Fuel oil:	10^3 Gal.	Gal.	Gal.		///// /////			
#5 Fuel oil:	10^3 Gal.	Gal.	Gal.		///// /////			
#6 Fuel oil:	10^3 Gal.	Gal.	Gal.		///// /////			
Coal:	Tons	Lbs.	Lbs.					
Wood:	Tons	Lbs.	Lbs.	////////// //////////	///// /////			
Liquid propane:	10^3 Gal.	Gal.	Gal.	////////// //////////	///// /////	85,000		
Other (specify type & units):								

12. If Wood is used as a fuel, specify types and estimate percent by weight of bark

13. If Wood is used with other fuels, specify percent by weight of wood charged to the burner.

14. Comments

The design input rate is based upon older data that identified the design rate of EACH vulcanizer at 531 lb/hr. Therefore the combined design rate of capacity for the 8 vulcanizers is 4248 lb/hr.

Design and actuals values are for 8 vulcanizers which includes Vulcanizers #2 - #7 plus 2 Vertical Vulcanizers
Vulcanizer #7 Main Plant was placed back into service on February 2024.
Vulcanizers #9 & 10 in West Plant are no longer in use.

Rubber compounds that best match our products is EPDM.

SIGNATURE

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Based upon information and belief formed after a reasonable inquiry, I, as the responsible person of the above mentioned facility, certify that the information contained in this application is accurate and true to the best of my knowledge. As specified in TCA Section 39-16-702(a)(4), this declaration is made under penalty of perjury.

15. Signature		**Date**
		2-27-24
Signer's name (type or print) Craig Phillips	**Title** Plant Manager	**Phone number with area code** (731) 967-3602