

June 1, 2016

Greg Grunow
Oregon Department of Environmental Quality
700 NE Multnomah Street
Portland, OR 97232

**Re: Deer Creek ACDP No. 03-0020
Notice of Intent to Construct: 8th Curing oven for Naphthalene Core-making Process**

Dear Greg,

Our Deer Creek facility intends to add an eighth curing oven in Core Manufacturing for the naphthalene-based core-making process. Since the additional oven will cause an increase in VOC and VOC HAP emissions above current levels, we are notifying the department of this change by submitting a Notice of Intent to Construct.

Overall Facility Description

The Deer Creek facility is comprised of two distinct operations: Core Manufacturing and the Investment Casting Facility. Core Manufacturing represents only a small percentage of the activity within the Deer Creek facility. Core Manufacturing produces ceramic cores using a combination of solvent-based and naphthalene-based processes.

Naphthalene-based Core Making Process Description

Naphthalene crystals and sands are mixed, heated and cooled to form pellets utilized for injection into product dies. The injected die is then cured in an electric oven and subsequently fired in an electric kiln. Some of the final products are then soaked in a phenolic resin solution and rinsed with alcohol prior to delivery to the customer. Potential emissions of VOC and VOC HAP are produced when the crystal/sand pellet is heated and also when the injected die is cured and fired. In addition, potential emissions of VOC and VOC HAP may result from the phenolic resin soak, alcohol rinse, and subsequent oven curing. All emissions from the process are hood-vented to the atmosphere.

Design Capacity Discussion

The addition of an eighth curing oven will allow a 14% design capacity increase for the amount of cores produced using the naphthalene-based process. We anticipate an overall 14% increase in the use of raw materials used to support this process. The increased naphthalene use relates to a 0.43 ton increase in VOC/yr. and an increase of 0.17 tons VOC HAP/yr. above the current maximum capacity which is limited by the use of seven curing ovens.

Permitting Action

Since our current permit already provides emission factors and calculation methods for this process, a permit modification will not be necessary for the new oven. We believe the installation and operation of the 8th Core Manufacturing curing oven will require a Type I NOC change. Increased emissions from

any stationary source or combination of stationary sources will not increase by more than or equal to the de minimus levels defined in OAR 340-200-0020. Emissions from the additional oven will not require a PSEL change nor will it otherwise trigger any of the duties identified under OAR 340-210-0225(1) (b), (d) or (e).

PCC is submitting the following forms to facilitate this construction request.

Form AQ104, Notice of Intent To Construct
Form AQ230, Miscellaneous Processes
Process Flow Diagram

Please feel free to contact me if you have any questions or need additional information to process this request.


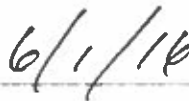
Sincerely,
For PCC Structurals Inc, by:

A handwritten signature in black ink, appearing to be 'Chris Myers', written over a horizontal line.

Chris Myers
Division EHS Director

FOR DEQ USE ONLY	
Permit Number:	Regional Office:
Application No:	Date Received :

1. Permit Number: 03-0020	
2. Company	3. Facility Location
Legal Name: <u>PCC Structural, Inc.</u>	Name: <u>Deer Creek</u>
Mailing Address: <u>4600 SE Harney Drive</u>	Street Address: <u>13350 SE Johnson Rd</u>
City, State, Zip Code: <u>Portland, OR 97206</u>	City, County, Zip Code: <u>Milwaukie, Clackamas, 97222</u>
Number of Employees: <u>1000</u>	
4. Site Contact Person	5. Standard Industrial Classification Code(s)
Name: <u>Sherry Uehyttil</u>	Primary: <u>3369</u>
Title: <u>Environmental Specialist II</u>	Secondary:
Phone number: <u>503-777-7683</u>	6. Type of construction/modification change: (see instructions) <u>Type I</u>
Fax number: <u>503-777-7682</u>	
e-mail address: <u>suchyttil@pcstructural.com</u>	

7. Signature	
<i>I certify that the information contained in this notice, including any schedules and exhibits attached to the notice, are true and correct to the best of my knowledge and belief.</i>	
<u>Chris Myers</u> Name of official (Printed or Typed)	<u>Division EHS Director, 503-777-3881</u> Title of official and phone number
	
Signature of official	Date

SUBMIT TWO COPIES OF THE COMPLETED NOTICE OF INTENT TO CONSTRUCT TO THE DEPARTMENT REGIONAL OFFICE SHOWN BELOW:

Oregon Department of Environmental Quality
Northwest Region, Air Quality
700 NE Multnomah Street, Suite 600
Portland, OR 97232

Construction Information

8. Description of proposed construction:

Install an 8th electric curing oven to support increased naphthalene-based core making process production capacity.

9. Will the construction increase the capacity of the facility? **Yes – Only Core Facility Napthalene Process**
If yes, how much? **14% increase of current production level**
10. Will the construction increase pollutant emissions? **Yes** If yes, how much (see question 18)?
VOC: 0.43 tons/yr. VOCHAP: 0.17 tons/yr
11. Will the construction cause new pollutant emissions? **No** If yes, which pollutants and how much? **NA**
12. Estimated timing of construction.
- a. Commence date: **04/01/2016**
b. Begin date: **expected mid June, 2016**
c. Completion date: **expected mid June, 2016**
13. Will tax credits be requested once construction is completed? **No**
14. Attach relevant forms from Form Series AQ200, Device/Process Forms. **Form 230 attached**
15. Attach relevant forms from Form Series AQ300, Control Device Description Forms, if applicable. **NA**
16. Attach process flow diagram. **See attached flow chart for Napthalene Core Making**
17. Attach a city map or drawing showing the facility location. **NA**
18. If applicable, attach a Land Use Compatibility Statement. **NA**

Emissions Data

19. Pre-and Post-Construction emissions summary data

a. Emissions Point	b. Pollutant	c. Pre-Construction Emissions		d. Post-Construction Emissions	
		short-term (specify unit)	Annual (tons/year)	short-term (specify unit)	Annual (tons/year)
Deer Creek	PM		24		24
Deer Creek	PM-10		14		14
Deer Creek	NOx		39		39
Deer Creek	CO		99		99
Deer Creek	VOC		39		39
Deer Creek	Single HAP		9		9
Deer Creek	Total HAP		24		24

Facility Name: Deer Creek Permit Number: 03-0020

Process Information

- 1. ID Number Core Manufacturing - 8th Curing Oven
- 2. Descriptive name Curing oven for naphthalene-based core process
- 3. Existing or future? Existing process; addition of an 8th electric curing oven
- 4. Date commenced 4/1/2016
- 5. Date installed/completed Anticipated to be installed and completed mid-June, 2016
- 6. Description of process:

Naphthalene crystals and sands are mixed, heated and cooled to form pellets utilized for injection into product dies. The injected die is then cured in an electric oven and subsequently fired in an electric kiln. Some of the final products are then soaked in a phenolic resin solution and rinsed with alcohol prior to delivery to the customer. Potential emissions of VOC and VOC HAP are produced when the crystal/sand pellet is heated and also when the injected die is cured and fired. In addition, potential emissions of VOC, VOC HAP, and HAP may result from the phenolic resin soak, alcohol rinse, and subsequent oven curing. All emissions from the process are hood-vented to the atmosphere.

Operating Schedule

- 7. Seasonal or year-round? Year-round
- 8. Batch or continuous operation? Batch operation
- 9. Projected maximum hours/day 24 hours/day
- 10. Projected maximum hours/year 8760 hours/year

11. Process/device capacity:	Short term design capacity		Annual usage ¹	
	Amount	units	Amount	Units
Raw materials				
<u>Naphthalene crystals</u>	<u>NA</u>		<u>1.4</u>	<u>tons/year</u>
<u>Sand</u>	<u>NA</u>		<u>10</u>	<u>tons/year</u>
<u>Phenolic Resin</u>	<u>NA</u>		<u>0.43</u>	<u>tons/year</u>
<u>Alcohol</u>	<u>NA</u>		<u>1.87</u>	<u>tons/year</u>
Products				
<u>High Pressure Injected Product</u>	<u>NA</u>		<u>10</u>	<u>tons/yr</u>

- 12. Control device(s) (yes/no?) If yes, provide the ID number and complete and attached the applicable series AQ300 form(s).
None

¹ Annual usage values recalculated based on measured maximum capacity throughput with 7 curing ovens in place and adjusting annual throughput for 8 curing ovens.

CORE FACILITY FLOW PROCESS DIAGRAM

Process 1: Naphthalene-based Core Making Process

