

**RESPONSE TO COMMENTS**  
**GS Roofing Products Company, Inc.**  
**PERMIT # 1145-AR-7**  
**AFIN: 60-00049**

On January 2, 2008, January 14, 2008, and email January 30, 2008 the Director of the Arkansas Department of Environmental Quality gave notice of a draft permitting decision for the above referenced facility. During the comment period, written comments on the draft permitting decision were submitted by the facility and the Department. The Department's response to these issues follows.

*Note: The following page numbers and condition numbers refer to the draft permit. These references may have changed in the final permit based on changes made during the comment period.*

**The following comments were submitted by the facility:**

**Comment #1:**

HAPs bubble. The previous permit (1145-AR-6) had a HAP emission limit bubble for SN-106, 107, 130, 140, & 178 combined. Since the issuance of Permit No. 1145-AR-6, SN-107 and 130 have been removed from service. In the draft AR-7 permit, Specific Condition 7 references all three remaining units (SN-178, SN-106, and SN-140) for the monthly mass balance calculation. However, the draft permit's HAP emission limit bubble noted in Table 1 (and Table 1 footnotes) and Table 3 only includes SN-106 and SN-140, not SN-178. SN-178 HAP emissions (12.0 lb/hr and 1.6 tpy) should be included in the HAP bubble limit throughout the permit.

**Response to Comment #1**

SN-178 HAP annual emission (1.6 tpy) has been included in the HAP bubble limit throughout the permit.

**Comment #2**

Table of Contents -- Section V begins on page 28 not page 22.

**Response to Comment #2**

The page number for Section V has been corrected.

**Comment #3**

Section II: Introduction, Summary, p. 4, Fifth bulleted item. SN-107 is the Roofing Line Ink Jet Applicator, not the Filler Bin Baghouse.

### **Response to Comment #3**

In Summary page, the description for SN-107 has been corrected.

### **Comment #4**

Section II: Introduction, Modified Line Process Description, p. 6. Please remove the sentence, "Paint (SN-140) is then applied to the mat to provide a permanent product label." This does not occur.

### **Response to Comment #4**

The change has been made to the process description as specified.

### **Comment #5**

Section II: Introduction, Process Description, pp. 4-6. Please remove the specified temperatures and trade names for materials due to confidentiality concerns.

- Roofing Line Production Operations – remove "between 400 to 420 °F" in second sentence.
- Roofing Line Asphalt Heating and Mixing Operations – remove "at approximately 400 °F" from first paragraph.
- Modified Line Production Operations - remove " at 380 to 400 °F" from second sentence
- Modified Line Production Operations - replace "Flamina" with "film" in second paragraph
- Modified Line Asphalt Heating and Mixing Operations – remove "with APP (atactic polypropylene) Homopolymer"

### **Response to Comment #5**

The changes have been incorporated in the process description of the permit.

### **Comment #6**

Page 7, Table 1, Total Allowable Emissions. Ethylene total should be 0.5 tpy.

### **Response to Comment #6**

See Response to Comment # 18.

### **Comment #7**

Specific Condition (SC) 2, Table 3, Non-Criteria Pollutants. Please correct emission rates as described below.

- SN-159, Carbonyl sulfide – 0.06 lb/hr
- SN-904, PM – 0.2 lb/hr, 0.8 tpy
- SN-908, PM – 0.7 tpy
- SN-915, Ethylene – 0.04 lb/hr, 0.08 tpy

#### **Response to Comment #7**

SN-159: Carbonyl sulfide emission rate 0.06 lb/hr has been included in the permit.

SN-904: PM – 0.2 lb/hr, 0.8 tpy have been included in the permit

SN-908: PM emission rate has been corrected to 0.7 tpy in the permit.

SN-915: See Response to Comment # 18

#### **Comment #8**

Specific Condition (SC) 2, Table 3, Non-Criteria Pollutants. Please correct SN-905 description to read “Roofing Line Sand Silo Baghouse.”

#### **Response to Comment #8**

The description for SN-905 has been corrected.

#### **Comment #9**

SC 3, Table 4, Visible Emissions, under SN-915 entry:

- Remove the two references to SN-205 from the chart. SN-205 is a series of mixers and is not regulated by NSPS Subpart UU.
- The last sentence in the first column should read “When SN-102 is not operating, and SN-206 and 207 are operating.”

#### **Response to Comment #9**

- The references to SN-205 have been removed from SC 3, Table 4 and SC 26.
- The sentence in the first column of Table 4 has been corrected as specified in the second bullet of the comment.

#### **Comment #10**

SC 4. Both the asphalt usage and production numbers should be included in the opening text. For example the first sentence to read: “The permittee shall not emit in excess of 95.5 tpy of VOC based on the asphalt usage and production rate limits listed below during any consecutive 12 month period.”

#### **Response to Comment #10**

Specific Condition #4 has been rephrased to include “asphalt usage and production rate”.

**Comment #11**

SC 7. The referenced Specific Condition should be #2 (HAP) instead of #1 (VOC). This monthly calculation is for HAPs. Also see comment 1 about the inclusion of SN-178.

**Response to Comment #11:**

The Department agrees. The reference has been corrected to "Specific Condition #2".

**Comment #12:**

SC 15, SC 16, and SC 22. Compliance testing for the old CECO (SN-902), the new CECO (SN-915), and new coater (SN-103) are specified to take place within 120 days of permit issuance. CertainTeed requests this condition be changed to specify testing "within 60 days of achieving maximum production rate from the new equipment, but no later than 180 days from installation."

**Response to Comment #12:**

Compliance testing schedule for old CECO (SN-902), the new CECO (SN-915), and new coater (SN-103) has been revised to state "within 60 days of achieving maximum production rate from the new equipment, but no later than 180 days from startup." [Regulation No. 19 §19.702 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

**Comment #13**

SC 17. Per the previously submitted vendor document, 0.5 inches w. c. is an acceptable minimum pressure drop across the CECO filters.

**Response to Comment #13:**

Based on the CECO Filters' letter dated January 2, 2008, the minimum pressure drop for the Roofing Line #1 Ceco Filter (SN-902) and Roofing Line #2 Ceco Filter (SN-915) has been changed from 3.0 in.w.c. to 0.5 in.w.c. in Specific Condition #17.

**Comment #14:**

SC 25. The two CECO filters (SN-902 & SN-915) should also be included in this VE testing condition as required by 40 CFR 60.474.

**Response to Comment #14:**

The Specific Condition #25 has been revised to include the testing requirements for #1 Ceco Filter (SN-902), and #2 Ceco Filter (SN-915)

**Comment #15:**

SC 26. Please make the following changes on the entry for SN -207:

- Replace “Lime” with “Line” in the Affected Facility Description
- Replace “SN-907” with “SN-915” in the Testing Location

**Response to Comment #15:**

The corrections have been added to Specific Condition #26.

**Comment #16:**

General Conditions – This should be Section VI not Section V

**Response to Comment #16:**

The section has been corrected.

**Comment #17:**

Insignificant Activities

- SN-173 should read, Modified Line Tactifier Resin Storage Tank.
- SN-177 (Soap Mix Tank) and SN-181 (Soap Mix Tank) have both been removed and can be deleted from the list.

**Response to Comment #17:**

The description for SN-173 has been corrected. SN-177 and SN-181 have been removed from the Insignificant Activities List.

**Comment #18:**

The permittee requested to remove the Ethylene limit from the permit since it is not a HAP. Ethylene is a VOC is included in the VOC emission limit.

**Response to Comment #18:**

The Department agrees. Ethylene limits have been removed from the permit.



**The following clarifications and corrections were made to the permit by the Department:**

**Comment #19:**

1. The typographic errors in Specific Conditions # 1 and #2 have been corrected; the emissions for SN-102 should be routed to SN-915.
2. Specific Condition #22 has been revised to clarify that the outlet of SN-902 and SN-915 should be tested.
3. Specific Condition #25 has been revised to include the following compliance testing schedule:

“within 60 days of achieving maximum production rate from the new equipment, but no later than 180 days from startup”





# ADEQ

ARKANSAS  
Department of Environmental Quality

February 11, 2008

Harold Zimmerman  
Plant Manager  
Certain Teed Corporation - GS Roofing Products Company, Inc.  
2701 East Roosevelt Road  
Little Rock, AR 72206

Dear Mr. Zimmerman:

The enclosed Permit No. 1145-AR-7 is your authority to construct, operate, and maintain the equipment and/or control apparatus as set forth in your application initially received on 9/21/2007.

After considering the facts and requirements of A.C.A. §8-4-101 et seq., and implementing regulations, I have determined that Permit No. 1145-AR-7 for the construction, operation and maintenance of an air pollution control system for Certain Teed Corporation - GS Roofing Products Company, Inc. to be issued and effective on the date specified in the permit, unless a Commission review has been properly requested under §2.1.14 of Regulation No. 8, Arkansas Department of Pollution Control & Ecology Commission's Administrative Procedures, within thirty (30) days after service of this decision.

All persons submitting written comments during this thirty (30) day period, and all other persons entitled to do so, may request an adjudicatory hearing and Commission review on whether the decision of the Director should be reversed or modified. Such a request shall be in the form and manner required by §2.1.14 of Regulation No. 8.

Sincerely,



Mike Bates  
Chief, Air Division



# ADEQ MINOR SOURCE AIR PERMIT

Permit #: 1145-AR-7

IS ISSUED TO:

GS Roofing Products Company, Incorporated  
2701 E. Roosevelt Road  
Little Rock, AR 72206  
Pulaski County  
AFIN: 60-00049

THIS PERMIT IS GS Roofing Products Company, Incorporated's AUTHORITY TO CONSTRUCT, MODIFY, OPERATE, AND/OR MAINTAIN THE EQUIPMENT AND/OR FACILITY IN THE MANNER AS SET FORTH IN THE DEPARTMENT'S MINOR SOURCE AIR PERMIT AND THE APPLICATION. THIS PERMIT IS ISSUED PURSUANT TO THE PROVISIONS OF THE ARKANSAS WATER AND AIR POLLUTION CONTROL ACT (ARK. CODE ANN. SEC. 8-4-101 ET SEQ.) AND THE REGULATIONS PROMULGATED THEREUNDER, AND IS SUBJECT TO ALL LIMITS AND CONDITIONS CONTAINED HEREIN.

Signed:



Mike Bates  
Chief, Air Division

February 11, 2008

Date

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**GS Roofing Products Company**  
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**AFIN: 60-00049**

**Section I: FACILITY INFORMATION**

PERMITTEE: GS Roofing Products Company, Incorporated

AFIN: 60-00049

PERMIT NUMBER: 1145-AR-7

FACILITY ADDRESS: 2701 East Roosevelt Road  
Little Rock, AR 72206

COUNTY: Pulaski County

CONTACT PERSON: Harold Zimmerman

CONTACT POSITION: Plant Manager

TELEPHONE NUMBER: 501-375-9173

REVIEWING ENGINEER: Parviz Mokhtari

UTM Zone: 15

UTM North-South (Y): 3842454.47

UTM East-West (X): 569347.09

## Section II: INTRODUCTION

### Summary

GS Roofing Products Company (GS Roofing), currently owned by CertainTeed Corporation, operates an asphalt roofing manufacturing facility in Little Rock, Arkansas (Pulaski County). GS Roofing requested a modification to allow for the following change:

- Authorize Roofing Line to manufacture roofing materials using modified asphalt,
- Replacement of roofing line coater (SN-103) with a new coater,
- Install a new compound mixing system consisting of five asphalt mixers (SN-205) and two hold tanks (SN-206 and SN-207),
- Install a new filler bin with baghouse (SN-916) on the modified Roofing Line,
- Remove Roofing Line Ink Jet Applicator (SN-107) and Modified Line Ink jet Applicator (SN-130),
- Allow a facilitywide modified asphalt usage rate to 96,850 tons per year and facilitywide total for roofing material production of 205,000 tons per year, and
- To use different industry data and facility stack test data for VOC emissions estimation.
- Remove SN-177 (Soap Mix Tank) and SN-181 (Soap Mix Tank) from the Insignificant Activities List.
- Remove ethylene limits from the permit.
- Revise the minimum pressure drop for the Roofing Line #1 Ceco Filter (SN-902) and Roofing Line #2 Ceco Filter (SN-915) from 3.0 in.w.c. to 0.5 in.w.c. in Specific Condition #17.

The permitted emission will increase due to these modifications are: 11.7 tons per year (tpy) PM/PM10, 12.2 tpy CO, 2.11 tpy Formaldehyde, 1.14 tpy Carbonyl Sulfide, 0.16 tpy Toluene, and 0.01 tpy Fluorine.

### Process Description

The plant contains two separate lines a Roofing Line that produces traditional smooth-surfaced roll roofing products and a Modified Line which utilizes modified asphalt and can also produce mineral-surfaced roll roofing products.

#### Roofing Line Production Operations

The Roofing Line is capable of processing glass mat. Glass mat is unrolled from an unwind stand and passes through the pre-coater (SN-102) and the coater (SN-103). In the coater, the glass mat passes under smoothing rolls partially submerged in filled coating. After leaving the coater, the mat passes through the granule applicator (SN-104) where granules or sand are fed onto the hot, filled coated surface. The surface minerals are pressed into the coating as the sheet passes around a turn drum, exposing the backside. Sand is then applied to the backside and pressed into the coating. After mineral surfacing, the glass mat is cooled rapidly by water-cooled rolls (SN-105) and passes

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through press rolls used to firmly embed the granules into the filled coating. The mat then passes through a cooling section where it is air-cooled. A finish looper in the line allows continuous movement of the sheet through the preceding operations and serves to further cool and dry the roofing sheet. Paint is applied to the sheet at the Roofing Line Laying Line Applicator (SN-106) to serve as a guide to the Roofer during installation. Roll roofing production is complete at this point and moves to a winder where rolls are formed. After winding, pallets of final product roll are wrapped in plastic using a shrink-wrapping machine (SN-108).

### Roofing Line Asphalt Heating and Mixing Operations

Coating asphalt from SN-117 is heated by a natural gas-fired heater (SN-115). Asphalt stored in the Asphalt Storage Tank (SN-120) is heated by a natural gas fired heater (SN-122). To facilitate asphalt flow, all roofing line process piping in hot asphalt service is traced by hot oil. Excess asphalt flux is stored and heated in a storage tank (SN-118) by a natural gas-fired heater (SN-119). Granules, dry sand, or other filler material is transferred from tank trucks and railcars to the corresponding storage tanks (SN-109, SN-123, and SN-126) using multiple conveyor belts. Dust collectors control particulate emissions from the sand, granule, and filler tanks. Filler and hot asphalt are combined at the horizontal mixer (SN-113). This mixture is further mixed in a vertical mixer (SN-114) until it is used at the coater. Flux and filler are mixed in the compound mix station (SN-205) then routed to one of two hold tanks (SN-206 & SN-207) before entering the coater.

Air emissions from the pre-coater operations (SN-102), the compound mix station (SN-205), and two hold tanks (SN-206 & SN-207) are vented to the #2 Ceco filter (SN-915)). Air emissions from the coater operations (SN-103), Asphalt Storage Tank (SN-120), Coating Storage Tank (SN-117), Pre-coater use tank (SN-116), and the vertical mixer (SN-114) are vented to the #1 Ceco Filter (SN-902). Air emission from Roofing Line Filler Delivery and Storage Silo (SN-109), Roofing Line Filler Heater (SN-110), Roofing Line Hot Filler Elevator (SN-111), Roofing Line Hot Filler Use Bin (SN-112), and Roofing Line Horizontal Mixer (SN-113) are routed to SN-903. The new filler bin is routed the Roofing Line Hot Filler System Baghouse (SN-916). Air emission from Roofing Line Sand Transfer Storage Bin (SN-124) is routed to SN-904. Air emissions from SN-123 are routed to SN-905. Air emission from Granule Use Bin (SN-127), Roofing Line Sand Use Bin (SN-125), and Roofing Line Sand/Granule Reclaim System (SN-128) are routed to SN-906.

### Modified Line Process Description

#### Modified Line Production Operations

Polyester mat is unrolled from an unwind stand and fed to the pre-coater (SN-131) where the mat passes over a series of idlers. The mat becomes saturated as it passes through the pre-coater and coater (SN-132) submerged in hot asphalt. Air emissions from the pre-coater and coater operations are vented to a Monsanto® Coalescing Filter (SN-907).

After leaving the coater, the sheet is made into mineral-surfaced rolls by passing the sheet through granule applicators (SN-133 and SN-134) where granules are fed onto the hot, coated surface. The granules or talc are pressed into the compound as the mat passes around a press roll where it is

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reversed, exposing the bottom side. Sand or film is applied to the back surface (SN-135 and SN-136) and is pressed into the compound. Some modified products have a film applied to the front and back of the polyester mat. Some products receiving a film pass through a sheet edge flame (SN-139) to shrink the excess film.

After mineral surfacing, the mat is cooled rapidly by a water bath and water-cooled rolls (SN-137) and passes through press rolls used to firmly embed any granules into the filled coating. The sheet then passes through a cooling section where it is air-cooled.

A finished product looper in the line allows continuous movement of the sheet through the preceding operations and serves to further cool and dry the roofing sheet. The product is completed at this point and moves to a winder where rolls are formed. After winding, pallets of final product roll are wrapped in plastic using a shrink-wrapping machine (SN-141).

#### Modified Line Asphalt Heating and Mixing Operations

Coating asphalt is fed to the pre-coater use tank (SN-144) from the modified line pre-coater storage tank (SN-142), which is heated by SN-143. Pre-coater asphalt is continuously recycled back from the pre-coater to the pre-coater use tank. To facilitate asphalt flow, all modified line process piping in hot asphalt service is traced by hot oil from the modified line hot oil heater (SN-158). Asphalt flux used at the coater is heated in storage tanks (SN 159 and SN-156) by natural gas-fired and electric heaters, respectively. Dry sand, talc, and other filler material are unloaded from tank trucks and bags and transferred to storage tanks (SN-146, SN-148, SN-149, SN-151, and SN-154). The sand silo dust collectors (SN-908 and SN-909), the Talc System Baghouse (SN-910), and the Filler System Baghouse (SN-911) control particulate emissions from the sand, talc, and filler tanks. Modified coating is produced in the compound mixers (SN-164) by combining various mixtures of Flux, filler, various dry chemicals, or polymers. This mixture is transferred into a vertical mixer (SN-145) until it is used at the coater. Rotary dies apply the modified asphalt, which enters the coater, to the polyester mat.

#### Miscellaneous Operations

Insignificant activities include tanks for tactifier resin (SN-173), diesel fuel (SN-174), and kerosene (SN-176). GS Roofing also operates various self-contained parts washers (SN-178) to perform cleaning activities. These tanks and washers support various operations at the facility.

#### **Regulations**

The following table is a summary of the facility's total emissions.

Regulations
Arkansas Air Pollution Control Code, Regulation 18, effective February 15, 1999
Regulations of the Arkansas Plan of Implementation for Air Pollution Control, Regulation 19, effective October 15, 2007.



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Regulations
New Source Performance Standards (NSPS) Part 60, Subpart UU, Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture.

**Table 1 - Total Allowable Emissions**

TOTAL ALLOWABLE EMISSIONS		
Pollutant	Emission Rates	
	lb/hr	tpy
PM	38.5	84.7
PM10	38.5	84.7
SO2	0.5	1.3
VOC	198.2	95.5
CO	11.8	27.0
NOx	2.6	11.4
Ammonia	0.4	1.4
Formaldehyde	1.75	3.48
Carbonyl Sulfide	0.94	1.84
Polycyclic Organic Matter*	0.01	0.01
HAPs**	12.5	3.0
Toluene	0.31	0.56
Fluorine	0.01	0.01

\* Include emissions of 2-methyl naphthalene, phenanthrene, and acenaphthalene.

\*\* HAPs emission limits used at SN-106, SN-140, and SN-178 only.

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### **Section III: PERMIT HISTORY**

The Roofing Line was originally constructed in the 1970's at the Little Rock facility. The Roofing Line High Energy Air Filter (SN-902) is the only equipment moved from Martinez, California facility in 1985. The Modified Line was newly constructed at Little Rock in 1984 and 1985. CertainTeed purchased GS Roofing in 1999 and advised that the name should remain as "GS Roofing."

The initial Air Permit, 1145-A was issued on April 25, 1993.

On August 3, 1993, Air Permit 1145-AR-1 was issued. In this permitting action, ESP (SN-09) was replaced with an air filter (SN-26), and a boiler was replaced by a hot oil heater.

On October 24, 2000, Air Permit 1145-AR-2 was issued. In this permitting action incorporated sources removed from service, installation of a dust collector on the Modified Line compound mixing tanks process, installation of a pre-impregnator vat on the Modified Line, designated sources as insignificant activities, and included the Modified Line baghouse which was not included in the first Air Permit.

On April 15, 2003, Air Permit 1145-AR-3 was issued. In this permitting action, the facility installed two new compound mixers on the modified line, installed three dry chemical storage tanks and a baghouse, installed a pneumatic conveying system, installed a new Ceko filter, installed a new roofing line hot filler system baghouse, modified the modified line by installing a new coater, installed a new soap mix tank, installed a roofing line surfacing/granule reclaim system baghouse, installed a tackifier resin storage tank, installed five new surge hoppers, identified all emission sources individually, renumbered all emission sources, updated emission factors, added to the permit existing equipment for which emissions data did not exist in the previous permit, and revised asphalt usage limits. Total allowable emissions increased 54.0 tons/year of PM, 56.1 tons/year of PM<sub>10</sub>, 0.9 tons/year of sulfur dioxide, 3.3 tons/year of nitrogen oxides, 84.1 tons/year of volatile organic compounds, 7.9 tons/year of carbon monoxide, and 2.23 tons/year of total HAPs.

On January 24, 2005, Air Permit 1145-AR-4 was issued (amended on March 16, 2005). This permitting action included revised language and specific conditions to reflect the applicability of 40 CFR Part 60 Subpart UU, Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture. The permit also authorized the revision of VOC emissions by increasing the permitted materials usage and incorporating more representative emission factors, the installation of a 1,000 cubic feet per minute blower on the Modified Line Sand Silo Baghouse #1 (SN-908) with additional duct work to extend the exhaust point above the building roof, and an increase of the allowable VOC and glycol ether content limits to 2.0 lb per gallon for paint and ink and 8.0 lb/gal for solvent. SN-129 was dismantled and removed in this application.

Air Permit 1145-AR-5 was issued on May 12, 2006. This permit modification authorized the installation and operation of a new reflective coating process line. The process equipment included a natural gas-fired infrared dryer (SN-183), and a reflective coating applicator (SN-

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182). A plant-wide limit of 95.5 tpy of VOC was maintained.

Air Permit 1145-AR-6 was issued on January 18, 2007. This permit modification authorized the removal of the Roofing Line Saturator (SN-101) and High Energy Air Filter (SN-901). Emissions from Roofing Line Pre-coater (SN-102) and Roofing Line Pre-coater Use Tank (SN-116) were routed to the Ceko Filter (SN-902). Permitted emission decreases were 0.9 tpy of PM/PM<sub>10</sub>, and 0.2 tpy of CO. The plant-wide limit of VOC remained at 95.5 tpy.

**Section IV: EMISSION UNIT INFORMATION**

**Specific Conditions**

- The permittee will not exceed the emission rates set forth in the following table.  
 [§19.501 et seq. of the Regulations of the Arkansas Plan of Implementation for Air Pollution Control, effective October 15, 2007, (Regulation 19) and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

**Table 2 - Criteria Pollutants**

SN	Description	Pollutant	lb/hr	tpy
SN-101	Roofing Line Saturator	Source Removed		
SN-102	Roofing Line Pre-Coater	Emissions routed to SN-915		
SN-103	Roofing Line Coater	Emissions routed to SN-902		
SN-104	Roofing Line Surfacing Section	PM <sub>10</sub>	0.3	1.0
		CO	0.5 <sup>a</sup>	1.0 <sup>a</sup>
		VOC	7.1 <sup>a</sup>	16.0 <sup>a</sup>
SN-105	Roofing Line Cooling Section	PM <sub>10</sub>	5.2	11.7
		CO	0.5 <sup>a</sup>	1.0 <sup>a</sup>
		VOC	7.1 <sup>a</sup>	16.0 <sup>a</sup>
SN-106	Roofing Line Laying Line Applicator	VOC	0.3	2.4
SN-107	Roofing Line Ink Jet Label Applicator	Removed from Service		
SN-109	Roofing Line Filler Delivery and Storage Silo	Emissions routed to SN-903		
SN-110	Roofing Line Filler Heater	Emissions routed to SN-903		
SN-111	Roofing Line Hot Filler Elevator	Emissions routed to SN-903		
SN-112	Roofing Line Hot Filler Use Bin	Emissions routed to SN-903		
SN-113	Roofing Line Horizontal Mixer	Emissions routed to SN-903		
SN-114	Roofing Line Vertical Mixer	Emissions routed to SN-902		
SN-116	Roofing Line Pre-Coater Use Tank	Emissions routed to SN-902		
SN-117	Roofing Line Coating Storage Tank	Emissions routed to SN-902		
SN-118	Backup Asphalt Storage Tank	PM <sub>10</sub>	1.3	3.0
		CO	0.8	1.7
		VOC	1.9	4.2
SN-120	Roofing Line Asphalt Storage Tank	Emissions routed to SN-902		
SN-122	Roofing Line SBS Heater, 7.0 MM Btu/hr	PM <sub>10</sub>	0.1	0.3
		SO <sub>2</sub>	0.2	0.6
		VOC	0.1	0.2
		CO	0.6	2.5
		NO <sub>x</sub>	1.1	4.8

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SN	Description	Pollutant	lb/hr	tpy		
SN-123	Roofing Line Sand Delivery and Storage Silo	Emissions routed to SN-905				
SN-124	Roofing Line Sand Transfer Storage Bin	Emissions routed to SN-904				
SN-125	Roofing Line Sand Use Bin	Emissions routed to SN-906				
SN-126	Granule Delivery and Storage Silos	PM <sub>10</sub>	0.1	0.1		
SN-127	Granule Use Bin	Emissions routed to SN-906				
SN-128	Roofing Line Sand/Granule Reclaim System	Emissions routed to SN-906				
SN-129	Roofing Line Hot Oil Heater	PM <sub>10</sub>	0.1	0.3		
		SO <sub>2</sub>	0.2	0.6		
		VOC	0.1	0.2		
		CO	0.6	2.6		
		NO <sub>x</sub>	1.1	4.8		
SN-130	Modified Line Ink Jet Applicator	Removed from Service				
SN-131	Modified Line Pre-Coater	Emissions routed to SN-907				
SN-132	Modified Line Coater	Emissions routed to SN-907				
SN-133	Modified Line Granule Surfacing Applicator #1	PM <sub>10</sub>	0.1 <sup>c</sup>	0.4 <sup>c</sup>		
		CO			0.4 <sup>b</sup>	0.8 <sup>b</sup>
		VOC				
SN-134	Modified Line Granule Surfacing Applicator #2	PM <sub>10</sub>	0.1 <sup>c</sup>	0.4 <sup>c</sup>		
		CO			0.4 <sup>b</sup>	0.8 <sup>b</sup>
		VOC				
SN-135	Modified Line Back Surfacing Applicator #1	PM <sub>10</sub>	0.1 <sup>c</sup>	0.4 <sup>c</sup>		
		CO			0.4 <sup>b</sup>	0.8 <sup>b</sup>
		VOC				
SN-136	Modified Line Back Surfacing Applicator #2	PM <sub>10</sub>	0.1 <sup>c</sup>	0.4 <sup>c</sup>		
		CO			0.4 <sup>b</sup>	0.8 <sup>b</sup>
		VOC				
SN-137	Modified Line Cooling Section Water Bath	-----	0.1 <sup>c</sup>	0.4 <sup>c</sup>		
		CO VOC			4.7	8.9
		PM <sub>10</sub>				
SN-140	Modified Line Laying Line Applicator	VOC	0.3	0.6		
SN-142	Modified Line Pre-Coater Storage Tank	PM <sub>10</sub>	0.4	0.2		
		CO	0.2	0.1		
		VOC	0.5	0.3		
SN-144	Modified Line Pre-Coater Use Tank	PM <sub>10</sub>	0.4	0.2		
		CO	0.2	0.1		
		VOC	0.5	0.3		

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SN	Description	Pollutant	lb/hr	tpy
SN-145	Modified Line Vertical Mixer	Emissions routed to SN-907		
SN-146	Modified Line Granule Storage Bin	PM <sub>10</sub>	0.1	0.1
SN-147	Modified Line Granule Use Bin	PM <sub>10</sub>	0.1	0.1
SN-148	Modified Line Sand Delivery Storage Silo #1	Emissions routed to SN-908		
SN-149	Modified Line Sand Delivery Storage Silo #2	Emissions routed to SN-909		
SN-150	Modified Line Sand/Granule Reclaim System	PM <sub>10</sub>	0.1	0.1
SN-151	Modified Line Talc Bag Dumping Bin	Emissions routed to SN-910		
SN-152	Modified Line Talc Screw Conveyor and Bucket Elevator	Emissions routed to SN-910		
SN-153	Modified Line Talc Storage Silo	Emissions routed to SN-910		
SN-154	Modified Line Filler Delivery System and Storage Silo	Emissions routed to SN-911		
SN-156	Modified Line SBS Flux Storage Tank	PM <sub>10</sub>	0.9	0.8
		CO	0.5	0.5
		VOC	1.2	1.0
SN-159	Modified Line APP Flux Storage Tank	PM <sub>10</sub>	1.3	1.8
		CO	0.8	1.1
		VOC	1.9	2.4
SN-161	Modified Line IPP Polymer Storage Hopper #1	Emissions routed to SN-914		
SN-162	Modified Line IPP Polymer Storage Hopper #2	Emissions routed to SN-914		
SN-163	Modified Line SBS Polymer Storage Hopper	Emissions routed to SN-914		
SN-164	Modified Line Compound Mixer (5 mixers)	Emissions routed to SN-912		
SN-165	Modified Line Dry Chemical Storage Tank #1	Emissions routed to SN-913		
SN-166	Modified Line Dry Chemical Storage Tank #2	Emissions routed to SN-913		
SN-167	Modified Line Dry Chemical Storage Tank #3	Emissions routed to SN-913		
SN-168	Modified Line Surge Bins (5 Bins)	Emissions routed to SN-913		
SN-175	Gasoline Storage Tank	Removed from Service		
SN-178	Parts Washers	VOC	12.0	1.6
SN-179	Granule Transfer Systems	PM <sub>10</sub>	0.3	1.1
SN-182	Reflective Coating Applicator and	VOC	135.0	*

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SN	Description	Pollutant	lb/hr	tpy
	Curing			
SN-183	Natural Gas-fired Infrared Dryer 4.1 MM Btu/hr	PM <sub>10</sub>	0.1	0.2
		SO <sub>2</sub>	0.1	0.1
		VOC	0.1	*
		CO	0.4	1.5
		NO <sub>x</sub>	0.4	1.8
SN-205	Roofing Line Compound Mixers	Emissions routed to SN-915		
SN-206	Roofing Line Sticky hold Tank	Emissions routed to SN-915		
SN-207	Roofing Line SBS Hold Tank	Emissions routed to SN-915		
SN-901	Roofing Line High Energy Air Filter	Source Removed		
SN-902	Roofing Line #1 Ceco Filter	PM <sub>10</sub>	6.0	8.1
		CO	3.6	8.4
		VOC	16.4	31.7
SN-903	Roofing Line Hot Filler System Baghouse	PM <sub>10</sub>	1.2	4.4
		CO	0.3	0.4
		VOC	2.0	3.1
SN-904	Roofing Line Sand Storage Baghouse	PM <sub>10</sub>	0.2	0.8
SN-905	Roofing Line Sand Silo Baghouse	PM <sub>10</sub>	0.2	0.7
SN-906	Roofing Line Surfacing/Granule Reclaim System Baghouse	PM <sub>10</sub>	3.0	14.3
SN-907	Modified Line Monsanto Coalescing Filter	PM <sub>10</sub>	4.4	8.7
		CO	1.3	2.1
		VOC	3.6	6.4
SN-908	Modified Line Sand Silo #1 Baghouse	PM <sub>10</sub>	0.2	0.7
SN-909	Modified Line Sand Silo #2 Baghouse (Passive)	PM <sub>10</sub>	0.2	0.7
SN-910	Modified Line Talc System Baghouse	PM <sub>10</sub>	0.4	1.4
SN-911	Modified Line Filler System Baghouse	PM <sub>10</sub>	0.2	0.8
SN-912	Modified Line Compound Mixing Room	PM <sub>10</sub>	1.0	3.8
		CO	0.3	0.4
		VOC	1.9	3.5
SN-913	Modified Line Dry Chemical Storage Tanks Baghouse	PM <sub>10</sub>	0.2	0.8
SN-914	Modified Line IPP/SBS Baghouse (Passive)	PM <sub>10</sub>	0.1	0.4
SN-915	Roofing Line #2 Ceco Filter	PM <sub>10</sub>	5.3	7.1
		CO	2.0	3.8

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SN	Description	Pollutant	lb/hr	tpy
		VOC	12.3	20.2
SN-916	Roofing Line Filler Bin Baghouse	PM <sub>10</sub>	0.3	1.2

a. Combined limit for SN-104 and SN-105.

b. Combined limit for SN-133 thru 137.

c. Combined limit for SN-133 thru 136.

\* The annual VOC for SN-182 and SN-183 are included in the plantwide VOC emission limit

2. The permittee will not exceed the emission rates set forth in the following table.  
 [§18.801 of the Arkansas Air Pollution Control Code, effective February 15, 1999  
 (Regulation 18) and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

**Table 3 - Non-Criteria Pollutants**

SN	Description	Pollutant	lb/hr	tpy
SN-101	Roofing Line Saturator	Source Removed		
SN-102	Roofing Line Pre-Coater	Emissions routed to SN-915		
SN-103	Roofing Line Coater	Emissions routed to SN-902		
SN-104	Roofing Line Surfacing Section	PM	0.3	1.0
		Formaldehyde	0.05 <sup>a</sup>	0.12 <sup>a</sup>
		Carbonyl Sulfide	0.05 <sup>a</sup>	0.11 <sup>a</sup>
		Toluene	0.04 <sup>a</sup>	0.08
SN-105	Roofing Line Cooling Section	PM	5.2	11.7
		Formaldehyde	0.05 <sup>a</sup>	0.12 <sup>a</sup>
		Carbonyl Sulfide	0.05 <sup>a</sup>	0.11 <sup>a</sup>
		Toluene	0.04 <sup>a</sup>	0.08 <sup>a</sup>
SN-106	Roofing Line Laying Line Applicator	HAPs	0.25	3.0*
SN-107	Roofing Line Ink Jet Label Applicator	This source has been removed		
SN-109	Roofing Line Filler Delivery and Storage Silo	Emissions routed to SN-903		
SN-110	Roofing Line Filler Heater	Emissions routed to SN-903		
SN-111	Roofing Line Hot Filler Elevator	Emissions routed to SN-903		
SN-112	Roofing Line Hot Filler Use Bin	Emissions routed to SN-903		
SN-113	Roofing Line Horizontal Mixer	Emissions routed to SN-903		
SN-114	Roofing Line Vertical Mixer	Emissions routed to SN-902		
SN-116	Roofing Line Pre-Coater Use Tank	Emissions routed to SN-902		



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SN	Description	Pollutant	lb/hr	tpy
SN-117	Roofing Line Coating Storage Tank	Emissions routed to SN-902		
SN-118	Backup Asphalt Storage Tank	PM	1.3	3.0
		Formaldehyde	0.06	0.14
		Carbonyl Sulfide	0.05	0.12
SN-120	Roofing Line Asphalt Storage Tank	Emissions routed to SN-902		
SN-122	Roofing Line SBS Heater, 7.0 MM Btu/hr	PM	0.1	0.3
SN-123	Roofing Line Sand Delivery and Storage Silo	Emissions routed to SN-905		
SN-124	Roofing Line Sand Transfer Storage Bin	Emissions routed to SN-904		
SN-125	Roofing Line Sand Use Bin	Emissions routed to SN-906		
SN-126	Granule Delivery and Storage Silos	PM	0.1	0.1
SN-127	Granule Use Bin	Emissions routed to SN-906		
SN-128	Roofing Line Sand/Granule Reclaim System	Emissions routed to SN-906		
SN-129	Roofing Line Hot Oil Heater	PM	0.1	0.3
SN-130	Modified Line Ink Jet Applicator	Removed from Service		
SN-131	Modified Line Pre-Coater	Emissions routed to SN-907		
SN-132	Modified Line Coater	Emissions routed to SN-907		
SN-133	Modified Line Granule Surfacing Applicator #1	PM	0.1	0.4
		Formaldehyde	0.05	0.09
		Carbonyl Sulfide	0.04	0.08
		Toluene	0.03	0.06
SN-134	Modified Line Granule Surfacing Applicator #2	PM		
		Formaldehyde		
		Carbonyl Sulfide		
		Toluene		
SN-135	Modified Line Back Surfacing Applicator #1	PM		
		Formaldehyde		
		Carbonyl Sulfide		
		Toluene		
SN-136	Modified Line Back Surfacing Applicator #2	PM		
		Formaldehyde		
		Carbonyl Sulfide		
		Toluene		

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SN	Description	Pollutant	lb/hr	tpy
SN-137	Modified Line Cooling Section Water Bath	---- Formaldehyde Carbonyl Sulfide Toluene		
		PM	4.7	8.9
SN-140	Modified Line Laying Line Applicator	HAPs	0.25	*
SN-142	Modified Line Pre-Coater Storage Tank	PM	0.4	0.2
		Formaldehyde	0.02	0.01
		Carbonyl Sulfide	0.01	0.01
SN-144	Modified Line Pre-Coater Use Tank	PM	0.4	0.2
		Formaldehyde	0.02	0.01
		Carbonyl Sulfide	0.01	0.01
SN-145	Modified Line Vertical Mixer	Emissions routed to SN-907		
SN-146	Modified Line Granule Storage Bin	PM	0.1	0.1
SN-147	Modified Line Granule Use Bin	PM	0.1	0.1
SN-148	Modified Line Sand Delivery Storage Silo #1	Emissions routed to SN-908		
SN-149	Modified Line Sand Delivery Storage Silo #2	Emissions routed to SN-909		
SN-150	Modified Line Sand/Granule Reclaim System	PM	0.1	0.1
SN-151	Modified Line Talc Bag Dumping Bin	Emissions routed to SN-910		
SN-152	Modified Line Talc Screw Conveyor and Bucket Elevator	Emissions routed to SN-910		
SN-153	Modified Line Talc Storage Silo	Emissions routed to SN-910		
SN-154	Modified Line Filler Delivery System and Storage Silo	Emissions routed to SN-911		
SN-156	Modified Line SBS Flux Storage Tank	PM	0.8	0.8
		Formaldehyde	0.04	0.03
		Carbonyl Sulfide	0.04	0.03
SN-159	Modified Line APP Flux Storage Tank	PM	1.3	1.77
		Formaldehyde	0.06	0.08
		Carbonyl Sulfide	0.06	0.08
SN-161	Modified Line IPP Polymer Storage Hopper #1	Emissions routed to SN-914		

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SN	Description	Pollutant	lb/hr	tpy
SN-162	Modified Line IPP Polymer Storage Hopper #2	Emissions routed to SN-914		
SN-163	Modified Line SBS Polymer Storage Hopper	Emissions routed to SN-914		
SN-164	Modified Line Compound Mixer (5 mixers)	Emissions routed to SN-912		
SN-165	Modified Line Dry Chemical Storage Tank #1	Emissions routed to SN-913		
SN-166	Modified Line Dry Chemical Storage Tank #2	Emissions routed to SN-913		
SN-167	Modified Line Dry Chemical Storage Tank #3	Emissions routed to SN-913		
SN-168	Modified Line Surge Bins (5 Bins)	Emissions routed to SN-913		
SN-175	Gasoline Storage Tank	Removed from Service		
SN-178	Parts Washers	HAPs	12.0	*
SN-179	Granule Transfer Systems	PM	0.3	1.1
SN-182	Reflective Coating Applicator and Curing	Ammonia	0.4	1.4
SN-183	Natural Gas-fired Infrared Dryer 4.1 MM Btu/hr	PM	0.1	0.2
SN-901	Roofing Line High Energy Air Filter	Removed from Service		
SN-205	Roofing Line Compound Mixers	Emissions routed to SN-915		
SN-206	Roofing Line Sticky hold Tank	Emissions routed to SN-915		
SN-207	Roofing Line SBS Hold Tank	Emissions routed to SN-915		
SN-902	Roofing Line Ceko Filter	PM	6.0	8.10
		Formaldehyde	0.35	0.80
		Carbonyl Sulfide	0.27	0.64
		POM**	0.01	0.01
		Toluene	0.07	0.16
SN-903	Roofing Line Hot Filler System Baghouse	PM	1.2	4.4
		Formaldehyde	0.30	0.46
		Carbonyl Sulfide	0.05	0.08
SN-904	Roofing Line Sand Storage Baghouse	PM	0.2	0.8
SN-905	Roofing Line Sand Silo Baghouse	PM	0.2	0.7

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SN	Description	Pollutant	lb/hr	tpy
SN-906	Roofing Line Surfacing/Granule Reclaim System Baghouse	PM	2.9	14.3
SN-907	Modified Line Monsanto Coalescing Filter	PM Formaldehyde Carbonyl Sulfide Toluene	4.4 0.17 0.11 0.09	8.7 0.29 0.19 0.14
SN-908	Modified Line Sand Silo #1 Baghouse (Passive)	PM	0.2	0.7
SN-909	Modified Line Sand Silo #2 Baghouse (Passive)	PM	0.2	0.7
SN-910	Modified Line Talc System Baghouse	PM	0.4	1.4
SN-911	Modified Line Filler System Baghouse	PM	0.2	0.8
SN-912	Modified Line Compound Mixing Room Baghouse	PM Formaldehyde Carbonyl Sulfide	1.0 0.27 0.05	3.8 0.52 0.09
SN-913	Modified Line Dry Chemical Storage Tanks Baghouse	PM	0.2	0.8
SN-914	Modified Line IPP/SBS Baghouse (Passive)	PM	0.1	0.4
SN-915	Roofing Line #2 Ceco Filter	PM Formaldehyde Carbonyl Sulfide Toluene	5.3 0.44 0.20 0.07	7.1 0.98 0.40 0.11
SN-916	Roofing Line Filler Bin Baghouse	PM	0.3	1.2

a. Combined limit for SN-104 and SN-105.

\* SN-106, SN-140, and SN-178 annual emissions bubbled.

\*\* POM includes emissions of 2-methyl naphthalene, phenanthrene, and acenaphthalene.

3. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9. [§19.503, [§60.474, and 60A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

**Table 4 - Visible Emissions**

SN	Limit (%)	Regulatory Citation
122	20	19.503
104, 105, 106, 118, 126, 133, 134, 135, 136, 137, 140, 142, 146, 147, 150, 156, 159, 178, 179, 182, 183, 903, 904, 905, 906, and 912.	5	18.501
SN-902: When SN-103 is operating.	20	19.503
SN-902: When SN-103 is not operating and SN-120 is operating.	0	60.472(c)
SN-915: When SN-102, 207, and 206 are operating.	20	19.503
SN-915: When 102 is not operating, and 207, 206 are operating.	0	60.472(c)
SN-907: When SN-131 and SN-132 are operating.	20	60.472(a)(2)
SN-907: When SN-131 and SN-132 are not operating and SN-145 is operating.	0	60.472(c)
SN-144	0	40 CFR Part 60.472(c)
SN-908, 909, 910, 911, 913, and 916.	1	40 CFR Part 60.472(d)

4. The permittee shall not emit in excess of 95.5 tpy of VOC based on the asphalt usage and production rate limits listed below. Compliance with this condition shall be demonstrated by compliance with Specific Condition #5. [Regulation 19, §19.705 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Material	Permitted Twelve Month Rolling Total (tons)
Asphalt (Facility-wide Total)	96,850
Facilitywide Roofing Material Production	205,000

5. The permittee shall calculate and maintain records of the VOC emissions from the facility during each month. A 12-month rolling total and each individual month's data shall be updated on a monthly basis by the 15th of each month. These records shall be kept on site and provided to Department personnel upon request, and may be used by the Department for enforcement purposes. [Regulation 19, §19.705 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

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6. The permittee shall not use materials which exceed the VOC and ammonia content limits outlined in the following table: [Regulation 19, and/or Regulation 18, §18.1004 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Material	Maximum VOC Content Limit (lb/gallon)	Maximum Ammonia Content Limit (lb/gallon)
Paints used at SN-106 and SN-140	2.0	N/A
Parts Washer Solvents used at SN-178	8.0	
Coating used at SN-182	0.5	0.004

7. The permittee shall perform monthly emission calculations using mass balance to demonstrate compliance with the annual emission limits set forth in Specific Condition #2 for SN-106, SN-140, and SN-178. [A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
8. The permittee shall maintain monthly records which demonstrate compliance with Specific Condition # 4, #5, and #7. Records shall be updated by the fifteenth day of the month following the month to which the records pertain. These records shall be kept on site, and shall be made available to Department personnel upon request. [Regulation 19, §19.705 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
9. The permittee may use materials that contain a HAP with TLV greater than 6 mg/m<sup>3</sup> at SN-106 and SN-140 at 100% weight content. For materials containing a HAP with a TLV lower than 6 mg/m<sup>3</sup>, the permittee shall not exceed the Hazardous Air Pollutant (HAP) content limits set forth in the following table at SN-106, and SN-140.

TLV greater than or equal to (mg/m <sup>3</sup> )	Maximum Allowable Weight Content (Wt%)
4.99	90
4.44	80
3.89	70
3.33	60
2.77	50
2.22	40
1.67	30
1.11	20

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TLV greater than or equal to (mg/m <sup>3</sup> )	Maximum Allowable Weight Content (Wt%)
0.55	10

10. The permittee shall maintain records which demonstrate compliance with the limits set in Specific Condition #9, and which may be used by the Department for enforcement purposes. Compliance shall be determined by inspecting the American Conference of Governmental Industrial Hygienists (ACGIH) TLV values as listed on current MSDS forms, or in the most recently published ACGIH Handbook of Threshold Limit Values (TLVs) and Biological Exposure Indices (BEIs), and properly noting on the monthly HAP records (required by Specific Condition #9) whether the material in question is compliant with the table contained in Specific Condition #9. These records shall be maintained on site and shall be provided to Department personnel upon request. [Regulation 18, §18.1004 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
11. The permittee shall maintain monthly records of the HAP emissions from SN-106 and SN-140 in order to demonstrate compliance with tons per year emission limits. All HAPs that are capable of being emitted as air emissions and are contained in materials issued for use at SN-103 and SN-140 shall be considered to be emitted. A 12-month rolling total and each individual month's data shall be maintained on a facility-wide basis. These records shall be maintained on site and shall be made available to Department upon request. [Regulation 18, §18.801, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
12. The permittee shall not cause or permit the emission of air contaminants, including odors or water vapor, and including an air contaminant whose emission is not otherwise prohibited by Regulation #18 if the emission of the air contaminant constitutes air pollution within the meaning of A.C.A. §8-4-303. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
13. The permittee shall not conduct operations in such a manner as to unnecessarily cause air contaminants and other pollutants to become airborne. [Regulation 18, §18.901 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
14. The facility shall use only pipeline quality natural gas or propane for the process heaters. [Regulation 19, §19.705 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

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15. The permittee shall test SN-902 to determine compliance with the particulate matter (lb/hr) emission rate using EPA Reference Method 5A within 60 days of achieving maximum production rate from the new equipment, but no later than 180 days from installation. At least one compliance test shall be conducted every five calendar years. There shall be no more than sixty-two months between any two compliance tests. The 5-year testing cycle shall commence with the initial compliance stack testing event. [Regulation 19, §19.702, Regulation 18, §18.1002, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
16. The permittee shall test #2 Ceco Filter (SN-915) to determine compliance with the particulate matter (lb/hr) emission rate using EPA Reference Method 5A within 60 days of achieving maximum production rate from the new equipment, but no later than 180 days from installation. At least one compliance test shall be conducted every five calendar years. There shall be no more than sixty-two months between any two compliance tests. The 5-year testing cycle shall commence with the initial compliance stack testing event. [Regulation 19, §19.702, Regulation 18, §18.1002, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
17. The Roofing Line #1 Ceco Filter (SN-902) and Roofing Line #2 Ceco Filter (SN-915) shall be kept in good working condition at all times and shall meet the conditions shown in the following table. The monitoring parameters for SN-902 and SN-915 shall be measured and recorded weekly. The results shall be kept on site, updated by the last day of the following month, and be available to Department personnel upon request. [Regulation 19, §19.705 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

SN	Description	Parameter	Units	Operation Limits
SN-902 and SN-915	Roofing Line Ceco Filters	Gas Pressure Drop Across Unit	in. H <sub>2</sub> O	0.5 (minimum) 15 (maximum)

**NSPS Requirements**

18. The equipment shown in the following table shall meet all applicable requirements of NSPS Subpart UU, Standards of Performance for Asphalt Processing and Asphalt Manufacture. A copy of NSPS Subpart UU is attached as Appendix A. [Regulation 19, §19.304 and 40 CFR §60.470]

Source Number	Source Description	Affected Facility Type
SN-102	Roofing Line Pre-Coater	Saturator
SN-103	Roofing Line Coater	Saturator



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Source Number	Source Description	Affected Facility Type
SN-120	Roofing Line Main Asphalt Storage Tank	Asphalt Storage Tank
SN-131	Modified Line Pre-Coater	Saturator
SN-132	Modified Line Coater	Saturator
SN-144	Modified Line Pre-coater Use Tank	Asphalt Storage Tank
SN-145	Modified Line Vertical Mixer	Asphalt Storage Tank
SN-148	Modified Line Sand Delivery Storage Silo #1	Mineral Handling and Storage Facility
SN-149	Modified Line Sand Delivery Storage Silo #2	Mineral Handling and Storage Facility
SN-151	Modified Line Talc Bag Dumping Bin	Mineral Handling and Storage Facility
SN-152	Modified Line Talc Screw Conveyor and Bucket Elevator	Mineral Handling and Storage Facility
SN-153	Modified Line Talc Storage Silo	Mineral Handling and Storage Facility
SN-154	Modified Line Filler Delivery System and Storage Silo	Mineral Handling and Storage Facility
SN-165	Modified Line Dry Chemical Storage Tank #1	Mineral Handling and Storage Facility
SN-166	Modified Line Dry Chemical Storage Tank #2	Mineral Handling and Storage Facility
SN-167	Modified Line Dry Chemical Storage Tank #3	Mineral Handling and Storage Facility
SN-206	Roofing Line Sticky Hold Tank	Asphalt Storage Tank
SN-207	Roofing Line SBS Hold Tank	Asphalt Storage Tank

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19. The permittee shall not discharge particulate matter in excess of 0.08 lb per ton of asphalt shingle, mineral-surfaced roll roofing, saturated felt, or smooth surfaced roll roofing produced from SN-131 and SN-132 at Modified Line Process. Compliance with the emission factor limits will be demonstrated by compliance with Specific Condition #20. [Regulation 19, §19.501 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR §60.472]
20. The permittee shall test SN-131 and SN-132 to determine compliance with the particulate matter standards of §60.472(a)(1)(i) using EPA Reference Method 5A. Method 5A testing shall be conducted at the outlet of Modified Line Monsanto Coalescing Filter SN-907. Additionally, the permittee shall measure the inlet gas temperature to SN-907 during the stack test. The control device temperature during testing must be recorded, reported, and maintained on file in accordance with General Condition #5. At least one compliance test shall be conducted every five calendar years. There shall be no more than sixty-two months between any two compliance tests. The 5-year testing cycle shall commence with the initial compliance stack testing event. [Regulation 19, §19.702, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, 40 CFR §60.8, and 40 CFR §60.474]
21. The permittee shall not discharge particulate matter in excess of 0.08 lb per ton of asphalt shingle, smooth surfaced roll roofing produced from SN-102 and SN-103 at Roofing Line Process. Compliance with the emission factor limits will be demonstrated by compliance with Specific Condition #22. [Regulation 19, §19.501 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR §60.472]
22. The permittee shall test the SN-102 and SN-103 to determine compliance with the particulate matter standards of §60.472(a)(1)(ii) emission rate using EPA Reference Method 5A. Method 5A shall be conducted at the outlet of SN-902 and SN-915 within 60 days of achieving maximum production rate from the new equipment, but no later than 180 days from startup. Additionally, the permittee shall measure the inlet gas temperature to SN-902 and SN-915 during the stack tests. The control device temperature during testing must be recorded, reported, and maintained on file in accordance with General Condition #5. At least one compliance test shall be conducted every five calendar years for each source. There shall be no more than sixty-two months between any two compliance tests. The 5-year testing cycle shall commence with the initial compliance stack testing event. [Regulation 19, §19.702, Regulation 18, §18.1002, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR §60.474]

23. The permittee shall continuously monitor and record the inlet gas temperature of SN-902, SN-907, and SN-915. The temperature range shall be maintained within the measured value during the stack testing. The temperature monitoring instrument shall have an accuracy of + 15 °C (+ 25 °F) over its range. These records shall be kept on site, updated by the last day of the following month, and provided to Department personnel upon request. [Regulation 19, §19.705 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR §60.473 (a)]
  
24. The permittee shall not cause to be discharged into the atmosphere any visible emission from the Modified Line Monsanto Coalescing Filters capture system SN-907, #1 Ceco Filter SN-902, and #2 Ceco Filter SN-915 for more than 20 percent of any period of consecutive valid observation totaling 60 minutes. Compliance with these visible emission limits will be demonstrated by compliance with Specific Condition # 18. [Regulation 19, §19.501, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR §60.472]
  
25. The permittee shall test the Modified Line Monsanto Coalescing Filters capture system SN-907, Roofing Line #1 Ceco Filter (SN-902), and Roofing Line #2 Ceco Filter SN-915 to determine compliance with the particulate matter standards §60.472(a)(3) using EPA Reference Method 22 modified so that readings are recorded every 15 seconds for a period of consecutive observations during representative conditions in accordance with §60.8(c) totaling 60 minutes. The performance test must be conducted within 60 days of achieving maximum production rate from the new equipment, but no later than 180 days from startup. Performance tests shall consist of only one run. At least one compliance test shall be conducted every five calendar years. There shall be no more than sixty-two months between any two compliance tests. The 5-year testing cycle shall commence with the initial compliance stack testing event. [Regulation 19, §19.702, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, 40 CFR §60.8, and 40 CFR §60.474]
  
26. Visible emissions testing for the affected facilities in the following table shall be conducted using EPA Reference Method 9 in accordance with the schedule specified by 40 CFR §60.8. [Regulation 19, §19.304 and 40 CFR §60.474]

Affected Facility Source Number	Affected Facility Description	Testing Location	Opacity Limit	Regulatory Citation
SN-131	Modified Line Pre-Coater	Outlet of SN-907	20%	§60.472(a)(2)
SN-132	Modified Line Coater			
SN-102	Roofing Line Pre-Coater	Outlet of SN-915	20%	
SN-206	Roofing Line Sticky Hold Tank	Outlet of SN-915	20% When SN-102 is Operating	§60.472(c)

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Affected Facility Source Number	Affected Facility Description	Testing Location	Opacity Limit	Regulatory Citation
			0% (When SN-102 is not operating)	
SN-207	Roofing Line SBS Hold Tank	Outlet of SN-915	20% When SN-102 is Operating	
			0% (When SN-102 is not operating)	
SN-103	Roofing Line Coater	Outlet of SN-902	20%	§60.472(c)
SN-120	Roofing Line SBS Tank	Outlet of SN-902	20%	
			0%	
			When SN-103 is operating	
			When SN-103 is not operating	
SN-144	Modified Line Pre-coater Use Tank	Outlet of tank	0%	
SN-145	Modified Line Vertical Mixer	Outlet of SN-907	20%	
			0%	
			When SN-131 & SN-132 are operating	
			When SN-31 & SN-132 are not operating	
SN-148	Modified Line Sand Delivery Storage Silo #1	Outlet of SN-908	1%	§60.472(d)

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Affected Facility Source Number	Affected Facility Description	Testing Location	Opacity Limit	Regulatory Citation
SN-149	Modified Line Sand Delivery Storage Silo #2	Outlet of SN-909	1%	
SN-151	Modified Line Talc Bag Dumping Bin	Outlet of SN-910	1%	
SN-152	Modified Line Talc Screw Conveyor and Bucket Elevator	Outlet of SN-910	1%	
SN-153	Modified Line Talc Storage Silo	Outlet of SN-910	1%	
SN-154	Modified Line Filler Delivery System and Storage Silo	Outlet of SN-911	1%	
SN-165	Modified Line Dry Chemical Storage Tank #1	Outlet of SN-913	1%	
SN-166	Modified Line Dry Chemical Storage Tank #2	Outlet of SN-913	1%	
SN-167	Modified Line Dry Chemical Storage Tank #3	Outlet of SN-913	1%	

27. The permittee shall report the findings of all visible emissions tests to the Department in accordance with General Condition #7. [Regulation 19, §19.705, Regulation 18, §18.1004, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

**Section V: INSIGNIFICANT ACTIVITIES**

The Department deems the following types of activities or emissions as insignificant on the basis of size, emission rate, production rate, or activity in accordance with Group A of the Insignificant Activities list found in Regulation 18 and 19 Appendix A. Insignificant activity emission determinations rely upon the information submitted by the permittee in an application dated August 21, 2006.

**Table 5 - Insignificant Activities**

SN	Description	Category
SN-108	Roofing Line Shrink Wrap	A-13
SN-115	Coating Asphalt Heater, 3.5 MM Btu/hr	A-1
SN-119	Roofing Line SBS Modified Asphalt Storage Tank Heater, 0.8 MM Btu/hr	A-1
SN-121	Roofing Line SBS Storage Tank and Heater, 2.5 MM Btu/hr	A-1
SN-138	Modified Line Backing Film Applicator	A-13
SN-139	Modified Line Sheet Edge Flame Shrinking, 0.03 MM Btu/hr	A-1
SN-141	Modified Line Shrink Wrap	A-13
SN-143	Modified Line Pre-Coater Storage Tank Heater, 0.8 MM Btu/hr	A-1
SN-155	Modified Line APP Polymer Storage Tank	A-3
SN-157	Modified Line SBS Flux Storage Tank Electric Heater	A-13
SN-158	Modified Line Hot Oil Heater, 6.0 MM Btu/hr	A-1
SN-160	Modified Line APP Flux Storage Tank Heater, 0.8 MM Btu/hr	A-1
SN-173	Modified Line Tectifier Resin Storage Tank	B-21
SN-174	1,500 gallon Diesel Tank	A-3
SN-176	Kerosene Storage Tank	A-3
SN-180	Modified Line Sheet Splicing, 0.06 MM Btu/hr	A-1

**Section VI: GENERAL CONDITIONS**

1. Any terms or conditions included in this permit that specify and reference Arkansas Pollution Control & Ecology Commission Regulation 18 or the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 et seq.) as the sole origin of and authority for the terms or conditions are not required under the Clean Air Act or any of its applicable requirements, and are not federally enforceable under the Clean Air Act. Arkansas Pollution Control & Ecology Commission Regulation 18 was adopted pursuant to the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 et seq.). Any terms or conditions included in this permit that specify and reference Arkansas Pollution Control & Ecology Commission Regulation 18 or the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 et seq.) as the origin of and authority for the terms or conditions are enforceable under this Arkansas statute.
2. This permit does not relieve the owner or operator of the equipment and/or the facility from compliance with all applicable provisions of the Arkansas Water and Air Pollution Control Act and the regulations promulgated under the Act. [A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
3. The permittee will notify the Department in writing within thirty (30) days after commencement of construction, completion of construction, first operation of equipment and/or facility, and first attainment of the equipment and/or facility target production rate. [§19.704 of the Regulations of the Arkansas Plan of Implementation for Air Pollution Control (Regulation 19) and/or A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
4. Construction or modification must commence within eighteen (18) months from the date of permit issuance. [§19.410(B) of Regulation 19 and/or §18.309(B) of the Arkansas Air Pollution Control Code (Regulation 18) and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
5. The permittee must keep records for five years to enable the Department to determine compliance with the terms of this permit; such as hours of operation, throughput, upset conditions, and continuous monitoring data. The Department may use the records, at the discretion of the Department, to determine compliance with the conditions of the permit. [§19.705 of Regulation 19 and/or §18.1004 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
6. A responsible official must certify any reports required by any condition contained in this permit and submit any reports to the Department at the address below. [§19.705 of Regulation 19 and/or §18.1004 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

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Arkansas Department of Environmental Quality  
Air Division  
ATTN: Compliance Inspector Supervisor  
5301 Northshore Drive  
North Little Rock, AR 72118-5317

7. The permittee will test any equipment scheduled for testing, unless stated in the Specific Conditions of this permit or by any federally regulated requirements, within the following time frames: (1) newly constructed or modified equipment within sixty (60) days of achieving the maximum production rate, but no later than 180 days after initial start-up of the permitted source or (2) existing equipment already operating according to the time frames set forth by the Department. The permittee must notify the Department of the scheduled date of compliance testing at least fifteen (15) days in advance of such test. The permittee must submit compliance test results to the Department within thirty (30) days after the completion of testing. [§19.702 of Regulation 19 and/or §18.1002 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
8. The permittee will provide: [§19.702 of Regulation 19 and/or §18.1002 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
  - a. Sampling ports adequate for applicable test methods;
  - b. Safe sampling platforms;
  - c. Safe access to sampling platforms; and
  - d. Utilities for sampling and testing equipment.
9. The permittee will operate equipment, control apparatus and emission monitoring equipment within their design limitations. The permittee will maintain in good condition at all times equipment, control apparatus and emission monitoring equipment. [§19.303 of Regulation 19 and/or §18.1104 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
10. If the permittee exceeds an emission limit established by this permit, the permittee will be deemed in violation of said permit and will be subject to enforcement action. The Department may forego enforcement action for emissions exceeding any limits established by this permit provided the following requirements are met: [§19.601 of Regulation 19 and/or §18.1101 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
  - a. The permittee demonstrates to the satisfaction of the Department that the emissions resulted from an equipment malfunction or upset and are not the result of negligence or improper maintenance, and the permittee took all reasonable measures to immediately minimize or eliminate the excess emissions.



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- b. The permittee reports the occurrence or upset or breakdown of equipment (by telephone, facsimile, or overnight delivery) to the Department by the end of the next business day after the occurrence or the discovery of the occurrence.
  - c. The permittee must submit to the Department, within five business days after the occurrence or the discovery of the occurrence, a full, written report of such occurrence, including a statement of all known causes and of the scheduling and nature of the actions to be taken to minimize or eliminate future occurrences, including, but not limited to, action to reduce the frequency of occurrence of such conditions, to minimize the amount by which said limits are exceeded, and to reduce the length of time for which said limits are exceeded. If the information is included in the initial report, the information need not be submitted again.
11. The permittee will allow representatives of the Department upon the presentation of credentials: [A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
- a. To enter upon the permitted's premises, or other premises under the control of the permittee, where an air pollutant source is located or in which any records are required to be kept under the terms and conditions of this permit;
  - b. To have access to and copy any records required to be kept under the terms and conditions of this permit, or the Act;
  - c. To inspect any monitoring equipment or monitoring method required in this permit;
  - d. To sample any emission of pollutants; and
  - e. To perform an operation and maintenance inspection of the permitted source.
12. The Department issued this permit in reliance upon the statements and presentations made in the permit application. The Department has no responsibility for the adequacy or proper functioning of the equipment or control apparatus. [A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
13. The Department may revoke or modify this permit when, in the judgment of the Department, such revocation or modification is necessary to comply with the applicable provisions of the Arkansas Water and Air Pollution Control Act and the regulations promulgated the Arkansas Water and Air Pollution Control Act. [§19.410(A) of Regulation 19 and/or §18.309(A) of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
14. This permit may be transferred. An applicant for a transfer must submit a written request for transfer of the permit on a form provided by the Department and submit the disclosure statement required by Arkansas Code Annotated §8-1-106 at least thirty (30) days in advance of the proposed transfer date. The permit will be automatically

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transferred to the new permittee unless the Department denies the request to transfer within thirty (30) days of the receipt of the disclosure statement. The Department may deny a transfer on the basis of the information revealed in the disclosure statement or other investigation or, deliberate falsification or omission of relevant information. [§19.407(B) of Regulation 19 and/or §18.307(B) of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

15. This permit shall be available for inspection on the premises where the control apparatus is located. [A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
16. This permit authorizes only those pollutant emitting activities addressed herein. [A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
17. This permit supersedes and voids all previously issued air permits for this facility. [Regulation 18 and 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
18. The permittee must pay all permit fees in accordance with the procedures established in Regulation No. 9. [A.C.A. §8-1-105(c)]

**APPENDIX A**

**Subpart UU—Standards of Performance for Asphalt Processing and Asphalt Roofing  
Manufacture**



## e-CFR Data is current as of December 6, 2007

### **Title 40: Protection of Environment**

#### **PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES**

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### **Subpart UU—Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture**

**Source:** 47 FR 34143, Aug. 6, 1982, unless otherwise noted.

#### **§ 60.470 Applicability and designation of affected facilities.**

(a) The affected facilities to which this subpart applies are each saturator and each mineral handling and storage facility at asphalt roofing plants; and each asphalt storage tank and each blowing still at asphalt processing plants, petroleum refineries, and asphalt roofing plants.

(b) Any saturator or mineral handling and storage facility under paragraph (a) of this section that commences construction or modification after November 18, 1980, is subject to the requirements of this subpart. Any asphalt storage tank or blowing still that processes and/or stores asphalt used for roofing only or for roofing and other purposes, and that commences construction or modification after November 18, 1980, is subject to the requirements of this subpart.

Any asphalt storage tank or blowing still that processes and/or stores only nonroofing asphalts and that commences construction or modification after May 26, 1981, is subject to the requirements of this subpart.

#### **§ 60.471 Definitions.**

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act and in subpart A of this part.

*Afterburner (A/B)* means an exhaust gas incinerator used to control emissions of particulate matter.

*Asphalt processing* means the storage and blowing of asphalt.

*Asphalt processing plant* means a plant which blows asphalt for use in the manufacture of asphalt products.

*Asphalt roofing plant* means a plant which produces asphalt roofing products (shingles, roll roofing, siding, or saturated felt).

*Asphalt storage tank* means any tank used to store asphalt at asphalt roofing plants, petroleum refineries, and asphalt processing plants. Storage tanks containing cutback asphalts (asphalts diluted with solvents to reduce viscosity for low temperature applications) and emulsified asphalts (asphalts dispersed in water with an emulsifying agent) are not subject to this regulation.

*Blowing still* means the equipment in which air is blown through asphalt flux to change the softening point and penetration rate.

*Catalyst* means a substance which, when added to asphalt flux in a blowing still, alters the penetrating-softening point relationship or increases the rate of oxidation of the flux.

*Coating blow* means the process in which air is blown through hot asphalt flux to produce coating asphalt. The coating blow starts when the air is turned on and stops when the air is turned off.

*Electrostatic precipitator (ESP)* means an air pollution control device in which solid or liquid particulates in a gas stream are charged as they pass through an electric field and precipitated on a collection surface.

*High velocity air filter (HVAF)* means an air pollution control filtration device for the removal of sticky, oily, or liquid aerosol particulate matter from exhaust gas streams.

*Mineral handling and storage facility* means the areas in asphalt roofing plants in which minerals are unloaded from a carrier, the conveyor transfer points between the carrier and the storage silos, and the storage silos.

*Saturator* means the equipment in which asphalt is applied to felt to make asphalt roofing products. The term saturator includes the saturator, wet looper, and coater.

[47 FR 34143, Aug. 6, 1982, as amended at 65 FR 61762, Oct. 17, 2000]

## **§ 60.472 Standards for particulate matter.**

(a) On and after the date on which §60.8(b) requires a performance test to be completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any saturator:

(1) Particulate matter in excess of:

(i) 0.04 kg/Mg (0.08 lb/ton) of asphalt shingle or mineral-surfaced roll roofing produced, or

(ii) 0.04 kg/Mg (0.08 lb/ton) of saturated felt or smooth-surfaced roll roofing produced;

(2) Exhaust gases with opacity greater than 20 percent; and

(3) Any visible emissions from a saturator capture system for more than 20 percent of any period of consecutive valid observations totaling 60 minutes. Saturators that were constructed before November 18, 1980, and that have not been reconstructed since that date and that become subject to these standards through modification are exempt from the visible emissions standard. Saturators that have been newly constructed or reconstructed since November 18, 1980 are subject to the visible emissions standard.

(b) On and after the date on which §60.8(b) requires a performance test to be completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any blowing still:

(1) Particulate matter in excess of 0.67 kg/Mg (1.3 lb/ton) of asphalt charged to the still when a catalyst is added to the still; and

(2) Particulate matter in excess of 0.71 kg/Mg (1.4 lb/ton) of asphalt charged to the still when a catalyst is added to the still and when No. 6 fuel oil is fired in the afterburner; and

(3) Particulate matter in excess of 0.60 kg/Mg (1.2 lb/ton) of asphalt charged to the still during blowing without a catalyst; and

(4) Particulate matter in excess of 0.64 kg/Mg (1.3 lb/ton) of asphalt charged to the still during blowing without a catalyst and when No. 6 fuel oil is fired in the afterburner; and

(5) Exhaust gases with an opacity greater than 0 percent unless an opacity limit for the blowing still when fuel oil is used to fire the afterburner has been established by the Administrator in accordance with the procedures in §60.474(g).

(c) Within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any asphalt storage tank exhaust gases with opacity greater than 0 percent, except for one consecutive 15-minute period in any 24-hour period when the transfer lines are being blown for clearing. The control device shall not be bypassed during this 15-minute period. If, however, the emissions from any asphalt storage tank(s) are ducted to a control device for a saturator, the combined emissions shall meet the emission limit contained in paragraph (a) of this section during the time the saturator control device is operating. At any other time the asphalt storage tank(s) must meet the opacity limit specified above for storage tanks.

(d) Within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility, no owner or operator subject to the provisions of this subpart shall cause

to be discharged into the atmosphere from any mineral handling and storage facility emissions with opacity greater than 1 percent.

[47 FR 34143, Aug. 6, 1982, as amended at 65 FR 61762, Oct. 17, 2000]

### **§ 60.473 Monitoring of operations.**

(a) The owner or operator subject to the provisions of this subpart, and using either an electrostatic precipitator or a high velocity air filter to meet the emission limit in §60.472(a)(1) and/or (b)(1) shall continuously monitor and record the temperature of the gas at the inlet of the control device. The temperature monitoring instrument shall have an accuracy of  $\pm 15$  °C ( $\pm 25$  °F) over its range.

(b) The owner or operator subject to the provisions of this subpart and using an afterburner to meet the emission limit in §60.472(a)(1) and/or (b)(1) shall continuously monitor and record the temperature in the combustion zone of the afterburner. The monitoring instrument shall have an accuracy of  $\pm 10$  °C ( $\pm 18$  °F) over its range.

(c) An owner or operator subject to the provisions of this subpart and using a control device not mentioned in paragraphs (a) or (b) of this section shall provide to the Administrator information describing the operation of the control device and the process parameter(s) which would indicate proper operation and maintenance of the device. The Administrator may require continuous monitoring and will determine the process parameters to be monitored.

(d) The industry is exempted from the quarterly reports required under §60.7(c). The owner/operator is required to record and report the operating temperature of the control device during the performance test and, as required by §60.7(d), maintain a file of the temperature monitoring results for at least two years.

[47 FR 34143, Aug. 6, 1982, as amended at 65 FR 61762, Oct. 17, 2000]

### **§ 60.474 Test methods and procedures.**

(a) For saturators, the owner or operator shall conduct performance tests required in §60.8 as follows:

(1) If the final product is shingle or mineral-surfaced roll roofing, the tests shall be conducted while 106.6-kg (235-lb) shingle is being produced.

(2) If the final product is saturated felt or smooth-surfaced roll roofing, the tests shall be conducted while 6.8-kg (15-lb) felt is being produced.

(3) If the final product is fiberglass shingle, the test shall be conducted while a nominal 100-kg (220-lb) shingle is being produced.

(b) In conducting the performance tests required in §60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in §60.8(b).

(c) The owner or operator shall determine compliance with the particulate matter standards in §60.472 as follows:

(1) The emission rate (E) of particulate matter shall be computed for each run using the following equation:

$$E=(c_s Q_{sd})/(PK)$$

where:

E=emission rate of particulate matter, kg/Mg (lb/ton).

$c_s$ =concentration of particulate matter, g/dscm (gr/dscf).

$Q_{sd}$ =volumetric flow rate of effluent gas, dscm/hr (dscf/hr).

P=asphalt roofing production rate or asphalt charging rate, Mg/hr (ton/hr).

K=conversion factor, 1000 g/kg [7000 (gr/lb)].

(2) Method 5A shall be used to determine the particulate matter concentration ( $c_s$ ) and volumetric flow rate ( $Q_{sd}$ ) of the effluent gas. For a saturator, the sampling time and sample volume for each run shall be at least 120 minutes and 3.00 dscm (106 dscf), and for the blowing still, at least 90 minutes or the duration of the coating blow or non-coating blow, whichever is greater, and 2.25 dscm (79.4 dscf).

(3) For the saturator, the asphalt roofing production rate (P) for each run shall be determined as follows: The amount of asphalt roofing produced on the shingle or saturated felt process lines shall be obtained by direct measurement. The asphalt roofing production rate is the amount produced divided by the time taken for the run.

(4) For the blowing still, the asphalt charging rate (P) shall be computed for each run using the following equation:

$$P=(Vd)/(K' \Theta)$$

where:

P=asphalt charging rate to blowing still, Mg/hr (ton/hr).

V=volume of asphalt charged,  $m^3$  ( $ft^3$ ).

d=density of asphalt,  $kg/m^3$  ( $lb/ft^3$ ).

K'=conversion factor, 1000 kg/Mg (2000 lb/ton).

$\Theta$ =duration of test run, hr.

(i) The volume (V) of asphalt charged shall be measured by any means accurate to within 10 percent.

(ii) The density (d) of the asphalt shall be computed using the following equation:

$$d = K_1 - K_2 T_i$$

Where:

d = Density of the asphalt,  $kg/m^3$  ( $lb/ft^3$ )

$K_1$  = 1056.1  $kg/m^3$  (metric units)

= 64.70  $lb/ft^3$  (English Units)

$K_2$  = 0.6176  $kg/(m^3 \text{ } ^\circ C)$  (metric units)

= 0.0694  $lb/(ft^3 \text{ } ^\circ F)$  (English Units)

$T_i$  = temperature at the start of the blow,  $^\circ C$  ( $^\circ F$ )

(5) Method 9 and the procedures in §60.11 shall be used to determine opacity.



(d) The Administrator will determine compliance with the standards in §60.472(a)(3) by using Method 22, modified so that readings are recorded every 15 seconds for a period of consecutive observations during representative conditions (in accordance with §60.8(c)) totaling 60 minutes. A performance test shall consist of one run.

(e) The owner or operator shall use the monitoring device in §60.473 (a) or (b) to monitor and record continuously the temperature during the particulate matter run and shall report the results to the Administrator with the performance test results.

(f) If at a later date the owner or operator believes that the emission limits in §60.472(a) and (b) are being met even though one of the conditions listed in this paragraph exist, he may submit a written request to the Administrator to repeat the performance test and procedure outlined in paragraph (c) of this section.

(1) The temperature measured in accordance with §60.473(a) is exceeding that measured during the performance test.

(2) The temperature measured in accordance with §60.473(b) is lower than that measured during the performance test.

(g) If fuel oil is to be used to fire an afterburner used to control emissions from a blowing still, the owner or operator may petition the Administrator in accordance with §60.11(e) of the General Provisions to establish an opacity standard for the blowing still that will be the opacity standard when fuel oil is used to fire the afterburner. To obtain this opacity standard, the owner or operator must request the Administrator to determine opacity during an initial, or subsequent, performance test when fuel oil is used to fire the afterburner. Upon receipt of the results of the performance test, the Administrator will make a finding concerning compliance with the mass standard for the blowing still. If the Administrator finds that the facility was in compliance with the mass standard during the performance test but failed to meet the zero opacity standard, the Administrator will establish and promulgate in the Federal Register an opacity standard for the blowing still that will be the opacity standard when fuel oil is used to fire the afterburner. When the afterburner is fired with natural gas, the zero percent opacity remains the applicable opacity standard.

[54 FR 6677, Feb. 14, 1989, as amended 54 FR 27016, June 27, 1989; 65 FR 61762, Oct. 17, 2000]

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**CERTIFICATE OF SERVICE**

I, Pam Owen, hereby certify that a copy of this permit has been mailed by first class mail to Certain Teed Corporation - GS Roofing Products Company, Inc., 2701 East Roosevelt Road, Little Rock, AR, 72206, on this 11<sup>th</sup> day of February, 2008.

Pam Owen  
Pam Owen, AAIL, Air Division

