DNR GUIDANCE DISCLAIMER

This document is intended solely as guidance and does not contain any mandatory requirements except where requirements found in statute or administrative rule are referenced. Any regulatory decisions made by the Department of Natural Resources in any matter addressed by this guidance will be made by applying the governing statutes and administrative rules to the relevant facts.

CORRESPONDENCE/MEMORANDUM —————————— **State of Wisconsin**

DATE: April 1, 1995 FILE REF: 4560

TO: District & Central Office Air Leaders

FROM: Lynda Wiese and Al Hubbard

SUBJECT: Latest Available Control Techniques and Operating Practices (LACT) demonstrating Best Current Practice for Asphalt Plants

On March 15, 1995, we received an analysis of the feasibility of 85% control of volatile organic compounds (VOC's) and a proposal for Latest Available Control Techniques and operating practices (LACT) from the Wisconsin Asphalt Pavement Association (WAPA). They have asked that their members be allowed to use this LACT once it is approved. For their review they assumed a normal operating plant of 300 tons per hour fired with fuel oil and producing 300,000 tons of asphalt per year.

<u>85% Control Infeasibility</u>

WAPA looked at two types of control equipment and cost estimated the level of control versus the cost per ton. The costing numbers represent quotes from equipment suppliers based on the plant configurations specified.

Control Strategy	Level of control	Cost per ton
Afterburner	99%	$42,269.07
Carbon Adsorption	99%	$43,498.00

WAPA noted that carbon adsorption may not be technically feasible because the water vapor content of the gas stream is usually high, between 20% and 30%. Its physical size may make the carbon adsorption unit too large to be used with a portable asphalt plant. To effect 99% control of organic compounds, the gas stream needs to be cooled so that organics are not driven off of the carbon. Consequently, the heat exchanger and peripherals would need to be constructed of stainless steel to withstand the corrosive effects of acids in the exhaust gas.

A Canadian scrubber manufacturer noted that carbon adsorption at the level of 99% control may not be technically feasible because the strong pressure of long-chain organic molecules that typically constitute asphalt plant organic compound emissions will tend to clog the carbon's microstructure and never fully de-sorb.

The afterburner would cause incremental air emissions increases from its use, significantly of SO_2 and NOx.

When the review was made for infeasibility, a high actual production rate was used for the entire industry. Most plants in the state produce less than 300,000 tons of asphalt per year. If the potential to emit were calculated based on the plant capacity, the plant would be capable of producing 1.98 million tons of asphalt per year (based on 300 tons per hour and 6600 hours of operation per year). No plant in the state produces more than 500,000 tons of asphalt per year due to weather dependence. The following table re-calculates the cost per ton of control using both the larger potential to emit values and a maximum production rate assumed to be no more than 500,000 tons production per year.

Control Strategy	Potential to Emit	Maximum Emissions	WDNR Calculated cost per ton	
			Based on PTE	Based on Max.
Afterburner	68.31 TPY	17.25 TPY	$33,221.89	$38,004.20
Carbon Adsorption	68.31 TPY	17.25 TPY	$9,619.82	$27,242.42

As can be seen here, even with the larger (unrealistic) potential to emit values, the cost per ton of control is still prohibitive.

<u>Development of LACT</u>

If 85% control is determined to be infeasible, the source is required to use the latest available control techniques and operating practices that demonstrate best current technology. Pollution prevention is also looked at in this application.

WAPA has proposed to utilize combustion efficiency in conjunction with periodic audits (burner checks) of the burner, drum and fuel viscosity as their LACT. Records of the periodic checks will be kept by each plant according to the recordkeeping format proposed by WAPA.

Testing was performed at one plant that did not have a tuned burner. After the burner was maintained and repaired, the drum checked, and the fuel viscosity monitored, stack testing was repeated. VOC emissions were reduced by 38% by the application of LACT to this asphalt plant

	Tons OC reduction @ 38%	$/ton reduction
Potential to emit ($1.98x10^6$ TPY)	25.96	$4,702
Maximum (500,000 TPY)	6.55	$4,904
Actual (300,000 TPY)	3.93	$4,904

It is hard to say if the AP-42 emission factors reflect a plant that is tuned-up or if the tune-ups would actually garner this level of reduction. One thing that can be said is that burner maintenance should insure that the emission rates are Reasonably maintained at a level consistent with the emission factors in AP-42.

Switching from oil firing to use of natural gas may lead to organic compound emission reductions on the same level as applying WAPA's proposed LACT according to the emission factors listed in AP-42. Piping natural gas to some plants in remote locations would be cost-prohibitive and natural gas is generally not available to portable asphalt plants. As a result, switching form oil would be cost prohibitive and infeasible for many producers. Some stationary plants may wish to propose this alternate compliance strategy.[1]

Summary

Based on our analysis of the information submitted by WAPA, we recommend that this LACT for asphalt plants be approved in advance and be made available for any plant who wishes to use it to comply with a LACT requirement. Draft permit language to incorporate this approved LACT is attached.

This would not preclude any individual producer from supplying the Department with test data to show that the provisions of NR 424.03, Wis. Adm. Code do not apply or requesting approval of different conditions that are proposed to the Department as meeting LACT. These cases would be handled on a case-by-case review.

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[1]There has been discussion as to whether the asphalt plant's organic compound emissions (and formaldehyde and benzene) come from fuel firing or from a combination of fuel firing and the asphalt cement in the production process. Batch plants do not have the asphalt cement in contact with the aggregate in the drum. The emissions tested from these plants would represent the emissions mainly from fuel burning. We have noted that the emission factors used for gas and oil-fired boilers are significantly smaller than what we are now seeing at asphalt plants. The cause of this discrepancy may lie in the nature of the operation. An asphalt plant has a high moisture content of the gasses in the combustion zone as it is a drying process. It is not unusual to see 20 - 30% stack gas moisture in stack testing. This in conjunction with the "open" areas around the burners (which give higher excess air readings than experienced in closed boilers) and likely lower temperatures and residence times (due to the removal of the exhaust to remove the moisture) all cause different combustion characteristics in an asphalt plant than in a boiler. For certain drum mix plants that are not designed properly or are operated at higher temperatures with incorrect flight design, you could expect to see an increase in emissions from the driving off of organic compounds from the asphalt cement or from the recycled material. The steam evolved from the drying aggregate may also contribute to a stripping action to release these organics.

Attachments:
1. 3/15/95 LACT proposal from WAPA including proposed recordkeeping format.
2. Draft Permit Language to incorporate LACT.

A. S##, P##, C## - Process name

POLLUTANT	a. LIMITATIONS	b. COMPLIANCE DEMONSTRATION	c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS
3. Organic compound emissions from asphalt production without soil remediation (when subject to s. NR 424.03(2))	(1) Latest available control techniques and operating practices, (LACT). The Department has determined that 85% control is infeasible and that LACT for this facility shall be to ensure that maximum combustion efficiency, the optimum levels of excess air, and the optimum liquid fuel viscosity are maintained at all times during operation of this asphalt plant. [s. NR 424.03(2)(b)2., Wis. Adm. Code] (2) Limit on asphalt production if facility needs to be minor for PT 70[s. 144.394(7), Wis. Stats.]	(1)Each year, at or near the onset of hot mix production, and thereafter, once within 20,000 tons of every additional 100,000 tons of production, a burner check shall be performed to determine the optimum ranges[5] of the following parameters: (a) Carbon monoxide (CO) levels in the baghouse stack using a portable combustion analyzer corresponding to optimum combustion efficiency of the burner; (b) Pressure drop range across the drum corresponding to optimum excess air levels; (c) Liquid fuel temperature and pressure corresponding to optimum liquid fuel viscosity and fuel feed conditions.[ss. NR 424.03(2)(b)2., and NR 407.09(1)(c), Wis. Adm. Code] (2) Each asphalt plant shall undergo a minimum of two burner checks annually unless a written waiver is obtained from the Department. [144.394(3), Wis Stats] (3) The permittee shall maintain the operating parameters described in A.2.b.(1)(b), and (c) within the range determined during the most recent burner check, at all times during hot mix production.[ss. NR 424.03(2)(b)2., and NR 407.09(1)(c), Wis. Adm. Code]	(1) Whenever compliance emissions testing is required, compliance with organic compound emission limits shall be determined by U.S. EPA Method 25A. [s. NR 439.06(3)(a), Wis. Adm. Code] (2) The permittee shall keep the following daily records: (a) Drum pressure drop reading; (b) Confirm plant drum is operating within the most recently established drum pressure drop range; (c) Liquid fuel temperature; and (d) Liquid fuel pressure. [s. NR 439.04(1)(d), Wis. Adm. Code] (3) The permittee shall record the date of the first burner check of the season.[s. NR 439.04(1)(d), Wis. Adm. Code] (4) The permittee shall record at the beginning of each calendar month the asphalt production level at that point in the season.[s. NR 439.04(1)(d), Wis. Adm. Code] (5) During each burner check the permittee shall record: (a) the date and asphalt production levels at the time of the burner check; (b) Combustion analyzer calibration date; (c) The measured CO level at the beginning of the burner check and at the conclusion of the check following any adjustments made to the plant or burner during the check; (d) The optimum ranges of the of the parameters described in A.2.b.(1)(b), and (c). (e) Any maintenance performed on the burner and condition of the burner including a check of the burner mechanicals with a verification that the burner is properly adjusted and the cleanliness of the affected burner surfaces to insure efficient combustion. [s. NR 439.04(1)(a), Wis. Adm. Code]

[5] The range determined in this condition must follow the recommendations as described in s. NR 439.055(3), Wis. Adm. Code. This requirement is contained in Part II of the permit.

Wisconsin Asphalt Pavement Association
Suite 507, 122 State Street
Madison, Wisconsin 53703
Telephone (608) 255-3114
FAX (608) 255-3371

March 15, 1995

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Ms. Lynda Wiese
Southern District Air Management
2801 Coho Street
Madison, WI 53713

Dear Ms. Wiese:

The Wisconsin Asphalt Pavement Association (WAPA) represents several hot mix asphalt (HMA) pavement contractors in the state of Wisconsin. These contractors own and operate hot mix asphalt plants in the course of their business. In fulfilling their responsibilities to comply with the environmental laws and rules affecting HMA plant operations, WAPA's membership has been discussing the need to comply with Wisconsin's limits on organic compound (HC) emissions from HMA plants with the Department of Natural Resources (department).

These discussions have centered on the provisions of Wis. Adm. Code NR 424.03(1)(a)4. and NR 424.03(2)(a) and (b), 1. and 2. WAPA has come to understand that the most recent U.S EPA AP-42 emission factors for HMA plants seem to indicate that HC emissions could exceed the limits specified in the code of 15 pounds HC emissions per day and 3.1 pounds per hour.

The code also outlines a process towards achieving compliance with the specified limits. It requires control technology application that could achieve 85% HC emissions reduction. Where control technology application is demonstrated to be technologically infeasible, HC emissions control may be achieved by applying the latest available control techniques and operating practices (LACT) demonstrating best current technology, as approved by the department.

On behalf of its membership, WAPA is submitting its analysis of the feasibility of 85% control technology application, and its proposal for HC emissions control using LACT. WAPA requests that HMA plant operators have the option to apply an approved LACT to their facilities in lieu of testing for HC emissions.

Feasibility of 85% Control Technology Application

WAPA has examined the application of two types of 85% HC emissions control for the feasibility of applying them to HMA plants. These are the application of afterburner technology and the application of carbon adsorption. A summary of WAPA's findings is included in the attachments to this letter.

In both cases - using an afterburner on the plant exhaust stack, and applying carbon adsorption control to the plant's exhaust - the costs to control HC emissions would exceed $40,000 per ton of HC per year. In the case of afterburner application, additional NO_x emissions would result from combusting the extra fuel needed to operate the plant. In an attempt to operate a carbon adsorption unit, the high moisture content of an HMA plant's exhaust, and the carbon adsorption unit's bulk would render its application to HMA plant emission control doubtful, if not impossible.

WAPA considered a third alternative, switching to natural gas as a plant fuel, without completing an economic analysis. Limited stack testing indicated that HC emissions from a plant fired by natural gas could be lower than those from a HMA plant fired by liquid fuels. However, fuel switching is not feasible as a required control technology, because natural gas supply may not be available in certain parts of Wisconsin. In addition, it is not possible for portable HMA plants to hook up to natural gas supplies in most locations.

Finally, WAPA examined the feasibility of recirculating a portion of the exhaust back into the plant's burner, because the HC content of the recirculated exhaust could be destroyed by the burner's flame. However, the high moisture content of the exhaust (up to 30% water vapor), would have a quenching effect on the burner flame. Quenching leads to incomplete combustion, which is accepted as a mechanism for generating formaldehyde emissions, and which also leads to elevated HC emissions.

Proposed LACT for HC Emissions from HMA Plants

WAPA proposes a LACT application that consists primarily of regularly scheduled burner checks, and the documentation of plant operating practices to demonstrate compliance. Attached are a description of the proposed LACT, an analysis of the cost of applying it, and a proposed compliance tracking form of a type that may be used to demonstrate compliance with HC emission control requirements.

The described LACT application has a high liklihood of success because the technology is familiar, and because it can be adopted quickly, without a long transition period that may be required for a more complex technological adaptation. LACT application is likely to cost HMA operators up to $2570.00 per ton of actual HC emissions controlled.

LACT procedures are similar for those required by BACT compliance plans for formaldehyde emissions control. WAPA requests that when the department drafts a proposed air pollution permit alteration for LACT application, it combine the compliance requirements for HC and formaldehyde control so that the steps taken to achieve compliance for one program maintain compliance for the other.

Please call me at (414) 524-1849 if you have any questions.

Very truly yours,

Wisconsin Asphalt Pavement Association

Peter Tolsma

cc: Steve Kennedy
Ervin Benish
Jerry Waelti

Attachments

LACTCov1.lpt

85% CONTROL OF ORGANIC COMPOUND EMISSIONS
from Hot Mix Asphalt Operations - Using an Afterburner

Organic compound (HC) emissions from hot mix asphalt production were determined by reference to US EPA AP-42, 11.1-8 and 11.1-10 (1994). Emissions were calculated assuming a 300 ton per hour drum-type plant, fired with fuel oil. Annual production was assumed to be 300,000 tons.

- 300 tons hot mix/hour x 0.069 pounds HC/ton hot mix = 20.7 pounds HC/hour (85% control requires removing 0.85 x 20.7 pounds HC/hour = 17.6 pounds HC/hour)
- 300,000 tons hot mix/year x 0.069 pounds HC/ton x 1 ton/2000 pounds = 10.35 tons HCs

HC control at or exceeding the 85% level could be achieved using an afterburner maintained at 1400^0, F, with a residence time of at least 0.5 seconds.

Afterburner Installation and Maintenance

- Equipment purchase costs would total about $750,000. Installation costs would total about $200,000. Equipment and installation would include:

I.D. fan	Bypass Assembly	Foundations
Steelwork	Ductwork	Refractory
Burner(s)	Controls	Electrical

- Over a 10-year payout period, the annual cost increment for the aferburner would be $109,250. Even if the afterburner were to achieve 99% destruction capability, the cost per ton of HC control would be $109,250/(10.35 x 0.99) tons = $10,662.18/ton HC.

Afterburner Operation

- The afterburner would be fired using #2 fuel oil or natural gas. Costs were derived from #2 fuel oil costs at $0.65 per gallon. An additional maintenance cost of 5% of the fuel use cost is assumed. Available energy for a final air stream temperature of 1400^0, F is assumed to be about 110,000 BTU per gallon of fuel.

- 60,000 acfm at 280^0, F x (460 + 70)/(460 + 280) x 0.075 pounds air/ft^3 at STP x 0.241 BTU/pound$_{mass}$ - ^{0}F x (1400 - 280) ^{0}F / (110,000 BTU/gallon #2 fuel oil at $0.65/gallon) x 60 minutes/hour = $308.44/hour. $308.44/hour x 1.05 (maintenance cost increment) = $323.86/hour.

- Assuming that 99% of the HC emissions could be destroyed, so that the afterburner oxidizes 0.99 x 20.7 pounds HC/hour, then the cost per ton of HC control would be: $323.86/hour / (0.99 x 20.7) pounds/hour x 2000 pounds/ton = $31,606.89/ton.

Total Costs per Ton of Organic Compound Emission Control

$10,662.18 + $31,606.89 = **$42,269.07 per ton of organic compound emission control.**

Comments

- Incremental air emissions from afterburner fuel combustion would be 13.5 lbs/hour SO_2 (6.74 TPY at 0.2% sulfur content), 9.49 lbs/hour NO_x (4.75 TPY) and 0.95 lbs/hour TSP (0.47 TPY).
- Costs to operate do not include moving the afterburner as part of a portable plant relocation effort, or for securing permit alterations for emissions increments.

85% CONTROL OF ORGANIC COMPOUND EMISSIONS
from Hot Mix Asphalt Operations - Using Carbon Adsorption

Organic compound (HC) emissions from hot mix asphalt production were determined by reference to US EPA AP-42, 11.1-8 and 11.1-10 (1994). Emissions were calculated assuming a 300 ton per hour drum-type plant, fired with fuel oil. Annual production was assumed to be 300,000 tons.

- 300 tons hot mix/hour x 0.069 pounds HC/ton hot mix = 20.7 pounds HC/hour
(85% control requires removing 0.85 x 20.7 pounds HC/hour = 17.6 pounds HC/hour)
- 300,000 tons hot mix/year x 0.069 pounds HC/ton x 1 ton/2000 pounds = 10.35 tons HCs

HC control at the 85% level could be achieved using a carbon adsorbtion unit, equipped with heat exchangers for pre-cooling the baghouse stack gas prior to entry into the carbon adsorbtion unit. Captured hydrogens would be destroyed by-low-air flow flushing and incineration.

Carbon Adsorbtion Unit Installation and Maintenance

- Equipment purchase and installation costs would total about $60.00 per acfm, i.e. about $3,600,000. This would include:

I.D. fans	Bypass Assembly	Foundations
Steelwork	Ductwork	Heat Exchangers
Burner(s)	Controls	Electrical
Activated Carbon		

- Over a 10-year payout period, the annual cost increment for the carbon adsorption unit would be $414,000. $414,000/10.35 tons = $40,000.00/ton HC.

Carbon Adsorbtion Unit Operation

- The primary operating cost would be the electric power needed to overcome the unit's negative pressure, and the electric power needed to operate the heat exchanger fans, for a total increment of about 650 KWs. Burner operation costs would be negligible. Maintenance costs would total about 10% of electricity costs.

650 KW x $0.05/KW-H / (0.99 x 20.7 pounds HC/hour) x 2000 pounds/ton x 1.10 = $3,498.00/ton

Total Costs per Ton of Organic Compound Emission Control

$40,000.00 + $3,498.00 = **$43,498.00 per ton of organic compound emission control.**

Comments

- Carbon adsorbtion technology may be infeasible, because of the high water vapor content of the gas stream, usually between 20% and 30%, by volume.
- A carbon adsorption unit may be too large to be used with a portable asphalt plant.

PROPOSED LACT
Organic Compound Emissions from Hot Mix Asphalt Operations

Organic compound emissions from each affected hot mix asphalt plant may be determined by reference to accepted emission factors, or by testing, at the discretion of the Department and the permit holder. Organic compound emissions may be limited by applying the latest available control techniques and operating practices, and by documenting these applications and maintaining documention records.

Organic Compound Emission Control Techniques

- Check drum burner excess air and adjust to the optimum range needed to ensure efficient combustion of burner fuels
    - Use a portable combustion analyzer to measure CO levels
    - Measure carbon monoxide (CO) levels in the baghouse stack, as an indicator of combustion efficiency
    - Adjust the plant drum exhaust fan damper control to the drum pressure drop range corresponding to optimum excess air levels; operating conditions outside of the appropriate pressure drop range may be signalled by a visible and/or audible alarm
    - Ensure that the plant can operate within the appropriate drum pressure drop range

- Check plant drum burner liquid fuel temperature and pressure to determine proper liquid fuel viscosity and fuel feed conditions

Organic Compound Emission Control Operating Practices

- Check burner mechanical status and adjust to proper operation
    - Follow manufacturer's recommended guidlines for burner setup and maintenance
    - Clean affected burner surfaces to ensure efficient combustion
- Inspect drum interior for broken or misadjusted flights

Emission Control Techniques and Operating Practices Documentation

- The steps needed to carry out the control techniques and operating practices (i.e., "burner check") shall be performed for each asphalt plant (i.e., burner and drum combination) that adopts this LACT. Each plant will undergo a burner check at or near the onset of hot mix production in Wisconsin in the year in which the plant is to be operated. An additional burner check shall be carried out at or near the time (i.e., within 20,000 tons) that the plant's hot mix production total for that season reaches 100,000 tons, and for any subsequent multiple of 100,000 tons of hot mix production in Wisconsin. Each plant shall undergo a burner check at least twice annually, during its Wisconsin operating season. Waivers from the twice annual testing requirement must be obtained by applying in writing to the Department.
- Record keeping shall be done on appropriate forms, with copies of the forms to be maintained at the plant site, or at a location agreed on with the Department
- Records shall be kept of the following parameters (note the recommended frequency) of plant and burner operation:
    - Drum pressure drop reading (daily)
    - Confirm plant drum operation within the optimum pressure drop reading range (daily)
    - Liquid fuel temperature and pressure (daily)
    - Plant hot mix production level at that point in the season (monthly)
    - Time of year of the first burner check of the season (annually)
    - Time of year and hot mix production levels corresponding to each subsequent burner check (as appropriate)
    - Information to be recorded during each burner check operation:
        - CO levels (before and after any burner adjustment)
        - Adjusted drum pressure drop gauge setting range
        - Other items to be checked - fuel viscosity, burner cleaning etc.
        - Combustion analyzer calibration date

COSTS TO CONTROL ORGANIC COMPOUND EMISSIONS
from Hot Mix Asphalt Operations - Using LACT

A single series of two simultaneous stack tests was used to determine how organic compound (HC) emissions may affected by the application of LACT. LACT for (HC) emissions control from hot mix asphalt production is understood to be (1) trimming of the plant excess air to the burner to ensure optimum combustion efficiency, (2) ensuring proper liquid fuel viscosity, (3) cleaning and checking burner mechanicals at regular intervals, and (4) inspecting drum flighting. LACT practices were applied to the plant burner between the time the two stack tests were performed. A 38% HC emissions reduction was realized as a result of LACT application. This was the equivalent of 0.05 pounds per ton, or 15.0 pounds per hour for a 300 ton per hour plant, and 7.5 tons per year for a 300,000 ton operation.

LACT Implementation Costs

- The average cost to hire a consultant-based technician to perform a burner check would be about $1250.00. This cost would include some minimal purchase and replacement of parts.

- Plant shut-down costs must be incurred, because the burner check would have to take place over an approximate five-hour period during a production day, when the plant cannot produce hot mix. Plant overhead costs of $3.00 per ton of lost production are assumed. Also included are the costs of four plant personnel at a total salary plus burden of $135.00 per hour.

- Costs to perform one burner check would be:

  $1,250.00 + 5 hours x (300 tons/hour x $3.00/ton + $135/hour) = $6,425 per burner check.

Total Costs per Ton of Organic Compound Emission Control

- At least three burner checks would be required to implement LACT over a 300,000 ton operating season. LACT would be presumed to reduce HC emissions by 7.5 tons during that season. So the cost per ton to reduce HC emissions by applying LACT would be:

- 3 x $6,425.00 / 7.5 tons HC = **$2,570.00 per ton of organic compound emission control.**

Comments

- LACT may be applied without a lengthy phase-in period required for extensive hardware retrofitting
- LACT application involves the use of familiar technology, and can be applied to any fixed or portable plant, of any age, using any fuel.
- Switching to natural gas as a burner fuel may lead to HC emission reductions on the same order as applying LACT. However, piping natural gas to plants in some parts of Wisconsin would be impossible or prohibitively expensive. Natural gas would not be available to portable asphalt plants.

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DRAFT ENVIRONMENTAL TRACKING FORM: AIR

February, 1995

Plant Name: ____________ **FID:** ____________ **Plant Location:** ____________ **Week of:** ____________

DAILY CHECKLIST	Date:	Date:	Date:	Date:	Date:	Date:
Time						
Baghouse dP						
Drum dP / Within Range?	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N
Tons Mix / Hour						
% RAP						
Mix Temperature						
Tons Total Mix Produced						
Waste Oil Used? Day's Total						
Oil Temperature; Pressure	/	/	/	/	/	/
Fuel Delivered Within Spec?	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N
Water/Sweep Roads						
Fugitive Dust Checked						
Soil Remediation?	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N
Total Tons						
Pounds VOCs/Day						
Source of Soil						

WEEKLY BACT CHECKLIST Date: ____ Door & Dryer Seals Y/N Gage & Line Leak Check Y/N Ductwork Integrity Y/N

MONTHLY RECORDS Date: ____ Total Fuel Used (gallons or therms) ____ Total Tons Hot Mix Produced ____ Monthly Average Fuel Used ____ Monthly Average Tons Hot Mix ____

SEMIANNUAL CHECKLIST Date: ____ Visible Emissions Read Y/N Visible Emissions Form Attached Y/N

100,000 TON PRODUCTION LEVEL LACT CHECKLIST **(Perform the appropriate checks at beginning of season, and at 100,000 ton production intervals)**

Date ____ Wisconsin Total Production to Date ____ Tons Blacklight? Y/N Baghouse Repaired? Y/N *

Burner Checked? Y/N * CO (before/after) ____ / ____ ppm Excess Air Range (before/after) ____ / ____

O2 (before/after) ____ / ____ % CO2 (before/after) ____ / ____ % Drum dP Range (before/after) ____ / ____

Analyzer Calibration Date ____ Liquid Fuel Temperature & Pressure Checked Y/N *

*** Describe any needed repairs on a separate sheet. Sign and date the sheet and attach it to this form.**

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
NOTICE OF FINAL GUIDANCE & CERTIFICATION

Pursuant to ch. 227, Wis. Stats., the Wisconsin Department of Natural Resources has finalized and hereby certifies the following guidance document.

DOCUMENT ID

AM-19-0061

DOCUMENT TITLE

Guidance for LACT Best Current Practices at Asphalt Plants

PROGRAM/BUREAU

Air Management

STATUTORY AUTHORITY OR LEGAL CITATION

Section 285.27, Wisconsin Statutes; Chapter NR 424, Wisconsin Administrative Code

DATE SENT TO LEGISLATIVE REFERENCE BUREAU (FOR PUBLIC COMMENTS)

December 9, 2019

DATE FINALIZED

January 13, 2020

No comments were received during the comment period 09DEC2019 to 30DEC2019

DNR CERTIFICATION

I have reviewed this guidance document or proposed guidance document and I certify that it complies with sections 227.10 and 227.11 of the Wisconsin Statutes. I further certify that the guidance document or proposed guidance document contains no standard, requirement, or threshold that is not explicitly required or explicitly permitted by a statute or a rule that has been lawfully promulgated. I further certify that the guidance document or proposed guidance document contains no standard, requirement, or threshold that is more restrictive than a standard, requirement, or threshold contained in the Wisconsin Statutes.

Gail E. Good   January 2, 2020

Signature   Date