



Air Quality Permitting Statement of Basis

October 18, 2005

Permit to Construct No. P-050027

**American Paving Company
Meridian**

Facility ID No. 001-00205

Prepared by:

**Almer Casile, Permit Writer
AIR QUALITY DIVISION**

FINAL

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Acronyms, Units, and Chemical Nomenclatures

AFS	AIRS Facility Subsystem
AIRS	Aerometric Information Retrieval System
AQCR	Air Quality Control Region
ASTM	American Society for Testing and Materials
BACT	Best Available Control Technology
CAA	Clean Air Act
CFR	Code of Federal Regulations
CO	carbon monoxide
DEQ	Department of Environmental Quality
dscf	dry standard cubic feet
EPA	U.S. Environmental Protection Agency
gr	grain (1 lb = 7,000 grains)
HAPs	hazardous air pollutants
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
km	kilometer
lb/hr	pound per hour
MACT	Maximum Achievable Control Technology
MMBtu	million British thermal units
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO _x	nitrogen oxides
NSPS	New Source Performance Standards
PM	particulate matter
PM ₁₀	particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
ppm	parts per million
PSD	Prevention of Significant Deterioration
PTC	permit to construct
PTE	potential to emit
Rules	Rules for the Control of Air Pollution in Idaho
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SM	Synthetic Minor
SO ₂	sulfur dioxide
T/yr	tons per any consecutive 12-month period
µg/m ³	micrograms per cubic meter
UTM	Universal Transverse Mercator
VOC	volatile organic compound

1. PURPOSE

The purpose for this memorandum is to satisfy the requirements of IDAPA 58.01.01.200, Rules for the Control of Air Pollution in Idaho, for issuing permits to construct.

2. FACILITY DESCRIPTION

The facility is a hot-mix asphalt plant. The asphalt plant uses a front-end loader to transfer stockpiled aggregate to cold feed bins. Aggregate is dispensed from the bins onto conveyors, and is introduced to a drum mix dryer. Aggregate travels through the rotating drum. The material is then heated, dried and mixed with liquid asphalt cement. The resulting hot mix asphalt (HMA) is then conveyed to hot storage silos until it can be loaded into trucks for transport off site. The plant uses distillate fuel oil and used oil as fuel for the asphalt plant dryer. Emissions from the dryer are controlled with a wet venturi scrubber.

3. FACILITY / AREA CLASSIFICATION

This facility is classified as a synthetic minor (SM) facility because enforceable operational limits limit the facility's potential to emit of PM₁₀ and CO to less than Tier I operating permit major source thresholds. The facility is not a Prevention of Significant Deterioration (PSD) major source because emissions do not exceed the PSD threshold of 250 T/yr. The SIC code defining this facility is 2951 (Asphalt Paving Mixtures and Blocks).

The facility is located near Meridian in Ada County. Ada County is designated as attainment for particulate matter with an aerodynamic diameter of less than or equal to a nominal 10 microns (PM₁₀), and carbon monoxide (CO). Ada County is unclassifiable for all other criteria air pollutants.

The facility is classified as a fixed permanent plant. The plant is only permitted for the proposed location. A permit modification analysis will be required prior to relocation of this facility at any other location within the State of Idaho. The facility will be located within the Ada County PM₁₀ Maintenance Area.

The AIRS information provided in Appendix A defines the classification for each regulated air pollutant at the facility. This required information is entered into the EPA AIRS database.

4. APPLICATION SCOPE

The facility has proposed to burn used oil in the drum dryer's burner. The used oil must meet the specifications 40 CFR 279.11, as contained in the modified permit.

4.1 Application Chronology

May 17, 2005	DEQ received the application.
June 6, 2005	DEQ determined the application incomplete.
June 16, 2005	DEQ received application update.
June 30, 2005	DEQ determined the application complete.

5. PERMIT ANALYSIS

This section of the Statement of Basis describes the regulatory requirements for this PTC action.

5.1 Equipment Listing

The hot mix asphalt plant consists of a drum dryer and aggregate handling equipment, and a wet venturi scrubber for air pollutant emissions control.

Hot Mix Asphalt Plant

Manufacturer:	Cat/CMI
Type of HMA plant:	drum mix
Allowable asphalt production capacity:	300 T/hr on a continuous basis, 210,240 T/yr
Allowable burner fuels:	Distillate fuel oil and used oil

Venturi Scrubber

Manufacturer:	CMI
Model:	PVM 2000

5.2 Emissions Inventory

The facility has provided an emissions inventory (EI) for criteria air pollutants, toxic air pollutants, and hazardous air pollutants. No increase in emissions of PM₁₀, NO₂, CO, or TAPs has occurred with the proposed use of used oil. An increase in SO₂ emissions has been estimated for the proposed project. The facility has not requested a change in the current emission limits for PM₁₀, CO, and dioxin/furans. DEQ has reviewed the EI and has determined that the EI accurately reflects emissions from this facility. A copy of the detailed EI is presented as Appendix B. Table 5.1 summarizes the facility's potential to emit criteria air pollutants and HAPs.

Table 5.1 EMISSION RATE SUMMARY

Criteria Pollutants	Emission Rate (lb/hr)	Emission Rate (T/yr)
PM ₁₀	10.9	3.81
SO ₂	17.4	6.10
NO _x	16.5	5.78
CO	39.0	13.67
TAPs		
Barium	7.50E-02	2.63E-02
Cobalt	4.50E-03	1.58E-03
Manganese	1.95E-01	6.86E-02
Phosphorous	3.60E-01	0.13
Carcinogenic TAPs		
Arsenic	3.90E-04	1.37E-04
Benzene	1.17E-01	4.10E-02
Benzo(a)pyrene	2.94E-06	1.03E-06
Cadmium	1.26E-05	4.42E-06
Dioxin and Furans	9.00E-07	3.15E-07
Formaldehyde	9.30E-01	3.26E-01
Nickel	3.90E-03	1.37E-03
Total PAH	1.67E-04	5.85E-05

5.3 Modeling

A modeling analysis was recently performed on the facility for Permit No. P-040015, issued December 20, 2004. No increase in emissions of PM₁₀, NO₂, CO, or TAPs has occurred with the proposed use of used oil. Additionally, the facility has not requested a change in the location of any emission point, and the only substantive change in the modeling data since the submittal of the application for Permit No. P-

040015 has been the increase in SO₂ emissions resulting from the combustion of used oil. T-RACT for dioxin/furan from the previous permit has remained unchanged.

Based on the information submitted, the facility has demonstrated to the satisfaction of DEQ that criteria air pollutant emissions will not cause or contribute to a violation of any applicable ambient air quality standard.

Table 5.2 MODELING RESULTS

Pollutant	Averaging Period	Predicted Ambient Impact (µg/m³)	Background Concentration (µg/m³)	Total Ambient Concentration (µg/m³)	Regulatory Limit (µg/m³)	Percent of Standard
SO ₂	3-hour	52.7	34	86.7	1300	6.7%
	24-hour	20.5	26	46.5	365	12.7%
	Annual	0.15	8	8.15	80	10.2%

5.4 Regulatory Review

This section describes the regulatory analysis of the applicable air quality rules with respect to this PTC.

IDAPA 58.01.01.201 Permit to Construct Required

The modification to American Paving’s portable hot-mix asphalt facility does not meet the permit to construct exemption criteria contained in Sections 220 through 223 of the Rules. Therefore, a modified PTC is required.

IDAPA 58.01.01.203 Permit Requirements for New and Modified Stationary Sources

The applicant has shown to the satisfaction of DEQ that its portable hot-mix asphalt facility will comply with all applicable emissions standards, ambient air quality standards, and TAP increments.

IDAPA 58.01.01.205 Permit Requirements for New Major Facilities or Major Modifications in Attainment or Unclassifiable Areas

This facility is not an existing major facility. The proposed modification is not major in and of itself. Therefore, Section 205 requirements do not apply.

IDAPA 58.01.01.210 Demonstration of Preconstruction Compliance with Toxic Standards

The applicant has demonstrated preconstruction compliance for all TAPs identified in the permit application.

40 CFR 60 New Source Performance Standards

Hot-mix asphalt facilities constructed, modified, or reconstructed after July 25, 1977 are subject to the standards of performance contained in 40 CFR 60, Subpart I (Standards of Performance for Hot Mix Asphalt Facilities). This facility was constructed in 1988; hence, the facility is an affected facility and is subject to the standards of performance contained in 40 CFR 60, Subpart I.

40 CFR 61 National Emissions Standards for Hazardous Air Pollutants

This facility is not subject to any NESHAP requirements pursuant to 40 CFR 61. The proposed modification does not trigger any NESHAP requirements.

40 CFR 63 National Emissions Standards for Hazardous Air Pollutants for Source Categories

This facility is not subject to any NESHAP requirements pursuant to 40 CFR 63. The proposed modification does not trigger any NESHAP requirements.

5.5 Permit Conditions Review

This section describes only those permit conditions that have been revised, modified or deleted as a result of this permit action. All other permit conditions remain unchanged.

Permit Condition 2.7 has been modified to allow used oil as a burner fuel.

Permit Condition 2.8 has been revised in accordance with 40 CFR 279.11 to include the allowable levels of arsenic, cadmium, chromium, lead and total halogens in the used oil. Permit Condition 2.8 has also been revised in accordance with 40 CFR 279.11 to include a minimum allowable flash point for the used oil.

Permit Condition 2.9 has been revised in accordance with IDAPA 58.01.01.727.02 to include the sulfur content limits of residual fuel oil. Permit Condition 2.9 was formerly Permit Condition 2.8.

Old Permit Conditions 2.9 through 2.15 have been renumbered to Permit Conditions 2.10 through 2.16

Old Permit Conditions 2.16 has been modified to require the permittee to demonstrate compliance with Permit Condition 2.8 by obtaining a used oil certification from the used oil supplier on an as-received basis.

Old Permit Conditions 2.16 through 2.21 have been renumbered to Permit Condition 2.18 through 2.23.

Old Permit Condition 2.17 formerly stated the following:

“Within 60 days after achieving the maximum production rate at which the source will operate, but not later than 180 days after startup, the permittee shall conduct a performance test to measure opacity and particulate matter emissions from the hot mix asphalt plant using the methods and procedures specified in IDAPA 58.01.01.157 to demonstrate compliance with Permit Condition 2.2. Opacity shall be determined using procedures contained in IDAPA 58.01.01.625.04.

The performance test shall be conducted in accordance with IDAPA 58.01.01.157, General Provision 6, and the following conditions:

- The hourly production rate shall be within 90% of the permitted hourly production rate
- The permittee shall monitor the production rate or throughput rate of the affected facility(ies) during the test
- The permittee shall monitor the pressure drop across the wet venturi scrubber in inches of water during testing on the wet venturi scrubber stack
- The permittee shall monitor the scrubbing media flow rate in gallons per minute during testing on the wet venturi scrubber stack.

The permittee shall conduct performance tests at a frequency of no less than once every five years to demonstrate compliance with both the 0.040 grains per dry standard cubic foot (gr/dscf) and the 20% opacity NSPS emission limits for Hot Mix Asphalt Plants.”

Old Permit Condition 2.17 has been renumbered to Permit Condition 2.19. The language of the first paragraph of Permit Condition 2.19 now states the following:

“Within 60 days after achieving the maximum production rate at which the source will operate, but not later than 180 days after startup, the permittee shall conduct a performance test to measure opacity and particulate matter emissions from the hot mix asphalt plant using the methods and procedures specified in IDAPA 58.01.01.157 to demonstrate compliance with the PM, PM₁₀, and opacity requirements of Permit Conditions 2.1 and 2.3. Opacity shall be determined using procedures contained in IDAPA 58.01.01.625.04.”

The language last paragraph of Permit Condition 2.19 now states “...the permittee shall conduct performance tests at a frequency of no less than once every five years to demonstrate compliance with Permit Conditions 2.1 and 2.3.”

Appendix A has been modified to include emission limits for cadmium, formaldehyde, and nickel. Emissions limits for cadmium, formaldehyde, and nickel have been included in the Permit in accordance with IDAPA 58.01.01.210.08.c because the permittee has demonstrated compliance with IDAPA 58.01.01.585 and 586 using a controlled ambient concentration. An emission limit for dioxin/furans has been include in Appendix A in accordance with IDAPA 58.01.01.210.12.d. Compliance with the cadmium and nickel emission limits of Appendix A shall be demonstrated through compliance with Permit Conditions 2.6, 2.8, 2.10 through 2.13, and 2.15. Permit Condition 2.15 contains the monitoring and recordkeeping requirements necessary to demonstrate compliance with Permit Conditions 2.8, 2.10 through 2.13, and 2.15.

The old dioxin/furans emission limits have been retained. Emissions of dioxin/furans from the use of used oil have been limited in accordance with IDAPA 58.01.01.212

6. PERMIT FEES

The facility submitted the required application fee of \$1,000.00 on May 17, 2005, with their permit application. The processing fee of \$2,500.00 was received on September 23, 2005.

Table 5.1 PTC PROCESSING FEE TABLE

Emissions Inventory			
Pollutant	Annual Emissions Increase (T/yr)	Annual Emissions Reduction (T/yr)	Annual Emissions Change (T/yr)
NO _x	0.0	0	0.0
SO ₂	4.9	0	4.9
CO	0.0	0	0.0
PM ₁₀	0.0	0	0.0
VOC	0.0	0	0.0
TAPS/HAPS	0.0	0	0.0
Total:	4.9	0	4.9
Fee Due	\$ 2,500.00		

7. PERMIT REVIEW

7.1 Regional Review of Draft Permit

A draft copy was sent to the Boise regional office for review on July 19, 2005.

7.2 Facility Review of Draft Permit

The permittee has not requested to review a copy of the draft permit.

7.3 Public Comment

An opportunity for public comment period on the PTC application was provided from July 25 through August 23, 2005 as required by IDAPA 58.01.01.209.01.c. During this time, there were no comments on the application and no requests for a public comment period on DEQ's proposed action.

8. RECOMMENDATION

Based on review of application materials, and all applicable state and federal rules and regulations, staff recommend that American Paving be issued final PTC No. P-050027 for the use of used oil as dryer fuel. No public comment period is recommended, no entity has requested a comment period, and the project does not involve PSD requirements.

AC/sd Permit No. P-050027

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Appendix A

AIRS Information

P-050027

AIRS/AFS FACILITY-WIDE Classification DATA ENTRY FORM

Facility Name: American Paving Company
Facility Location: 7070 Ten Mile Creek Rd
AIRS Number: 001-00205

AIR PROGRAM POLLUTANT	SIP	PSD	NSPS (Part 60)	NESHAP (Part 61)	MACT (Part 63)	SM80	TITLE V	AREA CLASSIFICATION A-Attainment U-Unclassified N- Nonattainment
SO ₂	B							
NO _x	B							
CO	SM							
PM ₁₀	SM							
PT (Particulate)	SM		SM					
VOC	B							
THAP (Total HAPs)	SM							
			APPLICABLE SUBPART					
			I					

^a Aerometric Information Retrieval System (AIRS) Facility Subsystem (AFS)

^b AIRS/AFS Classification Codes:

- A = Actual or potential emissions of a pollutant are above the applicable major source threshold. For HAPs only, class "A" is applied to each pollutant which is at or above the 10 T/yr threshold, or each pollutant that is below the 10 T/yr threshold, but contributes to a plant total in excess of 25 T/yr of all HAPs.
- SM = Potential emissions fall below applicable major source thresholds if and only if the source complies with federally enforceable regulations or limitations.
- B = Actual and potential emissions below all applicable major source thresholds.
- C = Class is unknown.
- ND = Major source thresholds are not defined (e.g., radionuclides).

Appendix B

Emissions Inventory

P-050027

EMISSION FACTORS
American Paving, Inc.

PM-10	3.63E-02	OP 777-00123	3.63E-02	OP P-040016
SO ₂	1.10E-02	AP42 Tbl 11.1-7 (3/04)	5.80E-02	AP42 Tbl 11.1-7 (3/04)
NOx	5.50E-02	AP42 Tbl 11.1-7 (3/04)	5.50E-02	AP42 Tbl 11.1-7 (3/04)
CO	1.30E-01	AP42 Tbl 11.1-7 (3/04)	1.30E-01	AP42 Tbl 11.1-7 (3/04)
VOC	3.20E-02	AP42 Tbl 11.1-8 (3/04)	3.20E-02	AP42 Tbl 11.1-8 (3/04)
Lead	5.40E-04	AP42 Tbl 11.1-12 (3/04) uncontrolled	2.73E-05	AP42 Tbl 11.1-12 (3/04) uncontrolled
PM	3.63E-02	OP 777-00123	3.63E-02	OP 777-00123
Beryllium	0.00E+00	AP42 Tbl 11.1-12 (3/04) uncontrolled	0.00E+00	AP42 Tbl 11.1-12 (3/04) uncontrolled
Mercury	2.60E-08	AP42 Tbl 11.1-12 (3/04) waste oil w/fabric filter	2.60E-08	AP42 Tbl 11.1-12 (3/04) waste oil w/fabric filter
Acetone	0.00E+00		8.30E-04	AP42 Tbl 11.1-10 (3/04)
Acrolein	0.00E+00		2.60E-05	AP42 Tbl 11.1-10 (3/04)
Antimony	1.80E-07	AP42 Tbl 11.1-12 (3/04) uncontrolled	1.80E-07	AP42 Tbl 11.1-12 (3/04) uncontrolled
Barium	2.50E-04	AP42 Tbl 11.1-12 (3/04) uncontrolled	2.50E-04	AP42 Tbl 11.1-12 (3/04) uncontrolled
Chromium	2.40E-05	AP42 Tbl 11.1-12 (3/04) uncontrolled	2.40E-05	AP42 Tbl 11.1-12 (3/04) uncontrolled
Cobalt	1.50E-08	AP42 Tbl 11.1-12 (3/04) uncontrolled	1.50E-08	AP42 Tbl 11.1-12 (3/04) uncontrolled
Copper	1.70E-04	AP42 Tbl 11.1-12 (3/04) uncontrolled	1.70E-04	AP42 Tbl 11.1-12 (3/04) uncontrolled
Crotonaldehyde	0.00E+00		8.60E-05	AP42 Tbl 11.1-10 (3/04)
Ethylbenzene	2.40E-04	AP42 Tbl 11.1-10 (3/04)	2.40E-04	AP42 Tbl 11.1-10 (3/04)
Fluorene	1.10E-05	AP42 Tbl 11.1-10 (3/04)	1.10E-05	AP42 Tbl 11.1-10 (3/04)
Heptane	9.40E-03	AP42 Tbl 11.1-10 (3/04)	9.40E-03	AP42 Tbl 11.1-10 (3/04)
Hexane	9.20E-04	AP42 Tbl 11.1-10 (3/04)	9.20E-04	AP42 Tbl 11.1-10 (3/04)
Hydrogen Chloride (HCl)	0.00E+00	AP42 Tbl 11.1-8 (3/04)	2.10E-04	AP42 Tbl 11.1-8 (3/04)
Manganese	6.50E-04	AP42 Tbl 11.1-12 (3/04) uncontrolled	6.50E-04	AP42 Tbl 11.1-12 (3/04) uncontrolled
Mercury	2.60E-04	AP42 Tbl 11.1-12 (3/04) fabric filter	2.60E-04	AP42 Tbl 11.1-12 (3/04) fabric filter
Methyl Chloroform (1,1,1 Trichloroethane)	4.80E-05	AP42 Tbl 11.1-10 (3/04)	4.80E-05	AP42 Tbl 11.1-10 (3/04)
Methyl ethyl ketone	0.00E+00		2.00E-05	AP42 Tbl 11.1-10 (3/04)
Naphthalene	6.50E-04	AP42 Tbl 11.1-10 (3/04)	6.50E-04	AP42 Tbl 11.1-10 (3/04)
Pentane	2.10E-04	AP42 Tbl 11.1-10 (3/04)	2.10E-04	AP42 Tbl 11.1-10 (3/04)
Phosphorus	1.20E-03	AP42 Tbl 11.1-12 (3/04) uncontrolled	1.20E-03	AP42 Tbl 11.1-12 (3/04) uncontrolled
Propionaldehyde	0.00E+00		1.30E-04	AP42 Tbl 11.1-10 (3/04)
Quinone	0.00E+00		1.60E-04	AP42 Tbl 11.1-10 (3/04)
Selenium	2.40E-06	AP42 Tbl 11.1-12 (3/04) uncontrolled	2.40E-06	AP42 Tbl 11.1-12 (3/04) uncontrolled
Silver	4.80E-07	AP42 Tbl 11.1-12 (3/04) fabric filter	4.80E-07	AP42 Tbl 11.1-12 (3/04) fabric filter
Thallium	2.20E-06	AP42 Tbl 11.1-12 (3/04) uncontrolled	2.20E-06	AP42 Tbl 11.1-12 (3/04) uncontrolled
Toluene	2.90E-03	AP42 Tbl 11.1-10 (3/04)	2.90E-03	AP42 Tbl 11.1-10 (3/04)
2,2,4-Trimethyl-pentane (isooctane)	4.00E-05	AP42 Tbl 11.1-10 (3/04)	4.00E-05	AP42 Tbl 11.1-10 (3/04)
Valeraldehyde	0.00E+00		6.70E-05	AP42 Tbl 11.1-10 (3/04)
o-Xylene	2.00E-04	AP42 Tbl 11.1-10 (3/04)	2.00E-04	AP42 Tbl 11.1-10 (3/04)
Zinc	1.80E-04	AP42 Tbl 11.1-12 (3/04) uncontrolled	1.80E-04	AP42 Tbl 11.1-12 (3/04) uncontrolled
Acetaldehyde	0.00E+00		1.30E-03	AP42 Tbl 11.1-10 (3/04)
Arsenic ^a	1.30E-06	AP42 Tbl 11.1-12 (3/04) uncontrolled	1.30E-06	AP42 Tbl 11.1-12 (3/04) uncontrolled
Benzene ^a	3.90E-04	AP42 Tbl 11.1-10 (3/04)	3.90E-04	AP42 Tbl 11.1-10 (3/04)
Beryllium ^a	0.00E+00	AP42 Tbl 11.1-12 (3/04) uncontrolled	0.00E+00	AP42 Tbl 11.1-12 (3/04) uncontrolled
Benzo(a)pyrene ^a	9.80E-09	AP42 Tbl 11.1-10 (3/04)	9.80E-09	AP42 Tbl 11.1-10 (3/04)
Cadmium ^a	4.20E-08	AP42 Tbl 11.1-12 (3/04) and Table B.2-3 for scrubber control	4.20E-08	AP42 Tbl 11.1-12 (3/04) and Table B.2-3 for scrubber control
Dioxin and Furans	3.00E-09	AP42 Tbl 11.1-10 (3/04) uncontrolled	3.00E-09	AP42 Tbl 11.1-10 (3/04) uncontrolled
Total PCDD	2.80E-09	AP42 Tbl 11.1-10 (3/04) uncontrolled	2.80E-09	AP42 Tbl 11.1-10 (3/04) uncontrolled
Total PCDF	3.00E-09	AP42 Tbl 11.1-10 (3/04) uncontrolled	3.00E-09	AP42 Tbl 11.1-10 (3/04) uncontrolled
Formaldehyde ^a	3.10E-03	AP42 Tbl 11.1-13 (3/04)	3.10E-03	AP42 Tbl 11.1-13 (3/04)
Nickel ^a	1.30E-05	AP42 Tbl 11.1-12 (3/04) and Table B.2-3 for scrubber control	1.30E-05	AP42 Tbl 11.1-12 (3/04) and Table B.2-3 for scrubber control
Polyaromatic Hydrocarbons (PAH or POM) ^{a,d}	5.58E-07		5.58E-07	
Benzo(a)anthracene	2.10E-07	AP42 Tbl 11.1-10 (3/04)	2.10E-07	AP42 Tbl 11.1-10 (3/04)
Benzo(b)fluoranthene	1.00E-07	AP42 Tbl 11.1-10 (3/04)	1.00E-07	AP42 Tbl 11.1-10 (3/04)
Benzo(k)fluoranthene	4.10E-08	AP42 Tbl 11.1-10 (3/04)	4.10E-08	AP42 Tbl 11.1-10 (3/04)
Chrysene	1.80E-07	AP42 Tbl 11.1-10 (3/04)	1.80E-07	AP42 Tbl 11.1-10 (3/04)
Dibenzo(a,h)anthracene	0.00E+00		0.00E+00	
Indeno(1,2,3-cd)pyrene	7.00E-09	AP42 Tbl 11.1-10 (3/04)	7.00E-09	AP42 Tbl 11.1-10 (3/04)
Benzo(a)pyrene	9.80E-09	AP42 Tbl 11.1-10 (3/04)	9.80E-09	AP42 Tbl 11.1-10 (3/04)

a - Non-carcinogenic TAPs are listed in IDAPA 56.01.01.586.

b - Carcinogenic TAPs are listed in IDAPA 56.01.01.588.

c - Indicates carcinogenic toxic air pollutants which have an annual ambient acceptable concentration for carcinogenics (AACC) rather than a 24-hr ambient acceptable concentrations (AAC) like the non-carcinogenic toxics.

d - Polyaromatic Hydrocarbons (PAH) a.k.a Polycyclic Organic Matter (POM) consists of Benzo(a)anthracene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Chrysene, Dibenzo(a,h)anthracene, Indeno(1,2,3-cd)pyrene, and Benzo(a)pyrene. PAHs are considered to be one TAP equal in potency to Benzo(a)pyrene.

Emission Summary for Criteria Air Pollutants

American Paving, Inc

Max Annual Production (ton/year) =		210,240
Production Rate (tons/hr) =		300
Flow (acfm)		38,000
Temperature (°F)		160

Potential to Emit

Regulated Pollutants	Diesel		Waste Oil	
	(lb/ton)	(lb/hr)	(lb/ton)	(T/yr)
PM-10*	3.63E-02	10.8750	3.63E-02	10.8750
SO ₂	1.10E-02	3.3000	5.80E-02	17.4000
NOx	5.50E-02	16.5000	5.50E-02	16.5000
CO	1.30E-01	39.0000	1.30E-01	39.0000
VOC	3.20E-02	9.6000	3.20E-02	9.6000
Lead	5.40E-04	0.1620	2.73E-05	0.0082
PM*	3.63E-02	10.8750	3.63E-02	10.8750
Beryllium	0.00E+00	0.0000	0.00E+00	0.0000
Mercury	2.60E-04	0.00E+00	2.60E-04	0.00E+00

Note: a Emissions for PM-10 and SO₂ for diesel is from Appendix A of Air Pollution Operating Permit #777-00123. PM emissions from the Technical Memorandum of the Operating Permit. Waste oil PM/PM-10 is taken to be equal to diesel PM/PM-10 as AP-42 section 11 shows no difference in emission factors between the two fuels.

NAAQS Analysis - #2 Diesel Fuel

Modeled 1-hr maximum unit concentration ($\mu\text{g}/\text{m}^3/(\text{lb}/\text{hr})$) = 42.73
 Modeled 3-hr maximum unit concentration ($\mu\text{g}/\text{m}^3/(\text{lb}/\text{hr})$) = 15.98
 Modeled 8-hr maximum unit concentration ($\mu\text{g}/\text{m}^3/(\text{lb}/\text{hr})$) = 9.61
 Modeled 24-hr maximum unit concentration ($\mu\text{g}/\text{m}^3/(\text{lb}/\text{hr})$) = 6.22
 Modeled annual maximum unit concentration ($\mu\text{g}/\text{m}^3$), 8,760 hr/yr = 0.58
 Modeled annual maximum unit concentration ($\mu\text{g}/\text{m}^3$), 210,240 tpy = 0.0469

Pollutant	Emission Rate (lb/hr)	1-hr Actual ($\mu\text{g}/\text{m}^3$)		24-hr			Annual			Meets Limit?		
		Actual ($\mu\text{g}/\text{m}^3$)	N/A	Actual ($\mu\text{g}/\text{m}^3$)	Background ($\mu\text{g}/\text{m}^3$)	Total ($\mu\text{g}/\text{m}^3$)	Limit ($\mu\text{g}/\text{m}^3$)	Actual ($\mu\text{g}/\text{m}^3$)	Background ($\mu\text{g}/\text{m}^3$)		Total ($\mu\text{g}/\text{m}^3$)	Limit ($\mu\text{g}/\text{m}^3$)
PM-10	10.88	N/A		67.64	73	140.64	150	0.51	26	28.51	50	YES
SO ₂	3.3	N/A	3-hr			Annual			24-hr			Meets Limit?
			Actual ($\mu\text{g}/\text{m}^3$)	52.73	34	86.73	1,300	Actual ($\mu\text{g}/\text{m}^3$)	20.53	26	46.53	
NOx	18.50	N/A	Annual			8-hr			Annual			Meets Limit?
			Actual ($\mu\text{g}/\text{m}^3$)	0.77	17	17.774	100	Actual ($\mu\text{g}/\text{m}^3$)	0.15	8	8.15	
CO	39.00	N/A	1-hr			Annual			8-hr			Meets Limit?
			Actual ($\mu\text{g}/\text{m}^3$)	1,666.47	NA	1,666	2,000	Actual ($\mu\text{g}/\text{m}^3$)	374.79	NA	375	
Lead	1.62E-01	42.73	Quarternly			Annual			Annual			Meets Limit?
			Actual ($\mu\text{g}/\text{m}^3$)	9.00E-01	0.17	1.07	1.5	Actual ($\mu\text{g}/\text{m}^3$)	0.15	8	8.15	

CO ambient level is significant contribution because source located in Ada County

NAAQS Analysis - Waste Oil

Modeled 1-hr maximum unit concentration ($\mu\text{g}/\text{m}^3/(\text{lb}/\text{hr})$) = 42.73
 Modeled 3-hr maximum unit concentration ($\mu\text{g}/\text{m}^3/(\text{lb}/\text{hr})$) = 15.98
 Modeled 8-hr maximum unit concentration ($\mu\text{g}/\text{m}^3/(\text{lb}/\text{hr})$) = 9.61
 Modeled 24-hr maximum unit concentration ($\mu\text{g}/\text{m}^3/(\text{lb}/\text{hr})$) = 6.22
 Modeled annual maximum unit concentration ($\mu\text{g}/\text{m}^3$), 8,760 hr/yr = 0.58
 Modeled annual maximum unit concentration ($\mu\text{g}/\text{m}^3$), 210,240 tpy = 0.0469

Pollutant	Emission Rate (lb/hr)	1-hr Actual ($\mu\text{g}/\text{m}^3$)	24-hr			Annual			Meets Limit?	
			Actual ($\mu\text{g}/\text{m}^3$)	Background ($\mu\text{g}/\text{m}^3$)	Total ($\mu\text{g}/\text{m}^3$)	Limit ($\mu\text{g}/\text{m}^3$)	Actual ($\mu\text{g}/\text{m}^3$)	Background ($\mu\text{g}/\text{m}^3$)		Total ($\mu\text{g}/\text{m}^3$)
PM-10	10.88	N/A	67.64	73	140.64	150	26	26.51	50	YES
SO ₂	17.4	N/A	3-hr			Annual			Meets Limit?	
			Actual ($\mu\text{g}/\text{m}^3$)	Background ($\mu\text{g}/\text{m}^3$)	Total ($\mu\text{g}/\text{m}^3$)	Limit ($\mu\text{g}/\text{m}^3$)	Actual ($\mu\text{g}/\text{m}^3$)	Background ($\mu\text{g}/\text{m}^3$)		Total ($\mu\text{g}/\text{m}^3$)
			278.05	34	312.05	1,300	26	134.23	365	YES
NOx	16.50	N/A	Annual			Annual			Meets Limit?	
			Actual ($\mu\text{g}/\text{m}^3$)	Background ($\mu\text{g}/\text{m}^3$)	Total ($\mu\text{g}/\text{m}^3$)	Limit ($\mu\text{g}/\text{m}^3$)	Actual ($\mu\text{g}/\text{m}^3$)	Background ($\mu\text{g}/\text{m}^3$)		Total ($\mu\text{g}/\text{m}^3$)
			0.77	17	17.774	100	NA	375	500	YES
CO	39.00	N/A	1-hr			8-hr			Meets Limit?	
			Actual ($\mu\text{g}/\text{m}^3$)	Background ($\mu\text{g}/\text{m}^3$)	Total ($\mu\text{g}/\text{m}^3$)	Limit ($\mu\text{g}/\text{m}^3$)	Actual ($\mu\text{g}/\text{m}^3$)	Background ($\mu\text{g}/\text{m}^3$)		Total ($\mu\text{g}/\text{m}^3$)
			1,666.47	NA	1,666	2,000	NA	375	500	YES
Lead	8.19E-03	42.73	Quarterly			Quarterly			Meets Limit?	
			Actual ($\mu\text{g}/\text{m}^3$)	Background ($\mu\text{g}/\text{m}^3$)	Total ($\mu\text{g}/\text{m}^3$)	Limit ($\mu\text{g}/\text{m}^3$)	Actual ($\mu\text{g}/\text{m}^3$)	Background ($\mu\text{g}/\text{m}^3$)		Total ($\mu\text{g}/\text{m}^3$)
			4.55E-02	0.17	0.22	1.5				YES

CO ambient level is significant contribution because source located in Ada County

Note - Background values are based on e-mail from Mary Anderson, 6-18-04, as follows:
The area surrounding the facility (7070 tennile creek road, Boise), is best described by the rural agricultural background concentrations.
This is based on both monitoring data and the PM10 airshed modeling data.
Therefore, the appropriate background concentrations to use for this permit application are as follows:

PM-10
24 hour - 73 ug/m3
annual - 26 ug/m3

CO
1 hour - 3,600 ug/m3
8 hour - 2,300 ug/m3

NO₂
annual - 17 ug/m3

SO₂
3 hour - 34 ug/m3
24 hour - 26 ug/m3
annual - 8 ug/m3

TAP Ambient Impacts - #2 Diesel Fuel

Modeled 24-hr maximum unit concentration ($\mu\text{g}/\text{m}^3$) = 8.23
 Modeled annual maximum unit concentration ($\mu\text{g}/\text{m}^3$), 8,760 hr/yr = 0.58
 Modeled annual maximum unit concentration ($\mu\text{g}/\text{m}^3$), 210,240 tpy = 0.0484
 Annual production, tpy 300
 Annual production, tpy 210,240
 Note: Annual ambient modeled levels based on production at 6% of capacity @ 400 tpy

Compound	Emission Rate (t/yr)	EL (t/yr)	Modeling Required?	Concentrations				Meets Limit?	
				24-hr Actual ($\mu\text{g}/\text{m}^3$)	24-hr Actual (mg/m ³)	24-hr Limit (mg/m ³)	Annual Actual ($\mu\text{g}/\text{m}^3$)		Annual Limit ($\mu\text{g}/\text{m}^3$)
Acetone	0.00E+00	118	No	0.00E+00	0	89	N/A	N/A	YES
Acrolein	0.00E+00	0.017	No	0.00E+00	0	0.0125	N/A	N/A	YES
Antimony	5.40E-05	0.033	No	4.442E-07	0	0.025	N/A	N/A	YES
Barium	7.50E-02	0.033	Yes	6.17E-01	0.00061725	0.025	N/A	N/A	YES
Chromium	7.20E-03	0.033	No	5.93E-02	0.00059256	0.0250	N/A	N/A	YES
Cobalt	4.50E-03	0.0033	Yes	3.70E-02	0.00037035	0.010	N/A	N/A	YES
Copper	5.10E-02	0.067	No	4.20E-01	0.0041973	0.285	N/A	N/A	YES
Crotonaldehyde	0.00E+00	0.38	No	0.00E+00	0	0.25000	N/A	N/A	YES
Ethylbenzene	7.20E-02	29	No	5.93E-01	0.0059256	15.00	N/A	N/A	YES
Fluorine	3.30E-03	0.133	No	2.72E-02	0.00027199	21.75	N/A	N/A	YES
Heptane	2.82E+00	108	No	2.32E+01	0.0232066	82.00	N/A	N/A	YES
Hexane	2.70E-01	12	No	2.27E+00	0.00227148	0.1	N/A	N/A	YES
Hydrogen Chloride	0.00E+00	0.05	No	0.00E+00	0	9.00	N/A	N/A	YES
Manganese	1.95E-01	0.067	Yes	1.80E+00	0.00180485	0.05	N/A	N/A	YES
Mercury	7.80E-02	0.003	Yes	6.42E-01	0.00064194	0.0025	N/A	N/A	YES
Methyl Chloroform	1.44E-02	127	No	1.19E-01	0.000118512	95.5000	N/A	N/A	YES
Methyl ethyl ketone	0.00E+00	39.3	No	0.00E+00	0	29.5000	N/A	N/A	YES
Naphthalene	1.95E-01	3.33	No	1.80E+00	0.00180485	0.25000	N/A	N/A	YES
Paraffins	6.30E-02	118	No	5.19E-01	0.0051949	2.5	N/A	N/A	YES
Phosphorus	3.60E-01	0.007	Yes	2.96E+00	0.0029628	88.5	N/A	N/A	YES
Propionaldehyde	0.00E+00	0.0287	No	0.00E+00	0	0.95	N/A	N/A	YES
Quinone	0.00E+00	0.027	No	0.00E+00	0	0.005	N/A	N/A	YES
Selenium	7.20E-04	0.013	No	5.93E-03	5.9258E-08	0.0219	N/A	N/A	YES
Silver	1.44E-04	0.001	No	1.19E-03	1.18512E-08	0.02	N/A	N/A	YES
Thallium	6.60E-04	0.007	No	5.43E-03	5.4318E-08	0.01	N/A	N/A	YES
Toluene	8.70E-01	29	No	7.19E+00	0.0071901	0.005	N/A	N/A	N/A
2,2,4-Trimethyl-pentane	1.20E-02	23.3	No	9.88E-02	0.0009876	18.75	N/A	N/A	YES
Valeraldehyde	0.00E+00	11.7	No	0.00E+00	0	8.75	N/A	N/A	YES
o-Xylene	6.00E-02	29	No	4.94E-01	0.004938	21.75	N/A	N/A	YES
Zinc	5.40E-02	0.667	No	4.44E-01	0.0044442	0.5	N/A	N/A	YES

TAP Ambient Impacts - #2 Diesel Fuel

Modeled 24-hr maximum unit concentration ($\mu\text{g}/\text{m}^3$) = 8.23
 Modeled annual maximum unit concentration ($\mu\text{g}/\text{m}^3$), 8,760 hr/yr = 0.56
 Modeled annual maximum unit concentration ($\mu\text{g}/\text{m}^3$), 210,240 tpy = 0.0464
 Production, tpy = 300
 Annual production, tpy = 210,240
 Note: Annual ambient modeled levels based on production at 6% of capacity @ 400 tpy

Pollutant	Emission Rate (t/yr)	EL (t/hr)	Modeling Required?	Concentrations						Meets Limit?
				24-hr		Annual		Annual		
				Actual ($\mu\text{g}/\text{m}^3$)	Limit ($\mu\text{g}/\text{m}^3$)	Actual ($\mu\text{g}/\text{m}^3$)	Limit ($\mu\text{g}/\text{m}^3$)	Actual ($\mu\text{g}/\text{m}^3$)	Limit ($\mu\text{g}/\text{m}^3$)	
Acetaldehyde	0.00E+00	0.003	No	N/A	N/A	0.00E+00	4.50E-01	0.00E+00	4.50E-01	YES
Arsenic	3.90E-04	0.0000015	Yes	N/A	N/A	1.81E-06	2.30E-04	1.81E-06	2.30E-04	YES
Benzene	1.17E-01	0.0008	Yes	N/A	N/A	5.43E-03	1.20E-01	5.43E-03	1.20E-01	YES
Beryllium	0.00E+00	0.000028	No	N/A	N/A	0.00E+00	4.20E-03	0.00E+00	4.20E-03	YES
Benzo(a)pyrene	2.94E-06	0.000002	Yes	N/A	N/A	1.30E-07	3.00E-04	1.30E-07	3.00E-04	YES
Cadmium	1.28E-05	0.0000037	Yes	N/A	N/A	5.88E-07	5.80E-04	5.88E-07	5.80E-04	YES
Dioxin and Furans	9.00E-07	1.5E-10	Yes	N/A	N/A	4.18E-08	2.20E-08	4.18E-08	2.20E-08	NO
Total PCDD's	2.40E-06	N/A	No	N/A	N/A	1.11E-09	N/A	1.11E-09	N/A	N/A
Total PCDF's	2.40E-06	N/A	No	N/A	N/A	1.11E-09	N/A	1.11E-09	N/A	N/A
Formaldehyde	9.30E-01	0.00051	Yes	N/A	N/A	4.32E-02	7.70E-02	4.32E-02	7.70E-02	YES
Nickel	3.90E-03	0.000027	Yes	N/A	N/A	1.81E-04	4.20E-03	1.81E-04	4.20E-03	YES
Polyaromatic Hydrocarbons (PAH or POM) ^a	1.87E-04	0.000091	Yes	N/A	N/A	7.78E-08	1.40E-02	7.78E-08	1.40E-02	YES
Benzo(a)anthracene	6.30E-05	N/A		N/A	N/A	N/A	N/A	N/A	N/A	N/A
Benzo(b)fluoranthene	3.00E-05	N/A		N/A	N/A	N/A	N/A	N/A	N/A	N/A
Benzo(k)fluoranthene	1.23E-05	N/A		N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chrysene	5.40E-05	N/A		N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dibenz(a,h)anthracene	0.00E+00	N/A		N/A	N/A	N/A	N/A	N/A	N/A	N/A
Indeno(1,2,3-cd)pyrene	2.10E-06	N/A		N/A	N/A	N/A	N/A	N/A	N/A	N/A
Benzo(a)pyrene	2.94E-06	N/A		N/A	N/A	N/A	N/A	N/A	N/A	N/A

a - Non-carcinogenic TAPs are listed in IDAPA 58.01.01.585.

b - Carcinogenic TAPs are listed in IDAPA 58.01.01.586 - AACCs are in micrograms per cubic meter. c - Indicates carcinogenic toxic air pollutants which have an annual ambient acceptable concentration for carcinogens (AAC) rather than a 24-hr ambient acceptable concentrations (AAC) like the non-carcinogenic toxics.

d - Polycyclic aromatic hydrocarbons (PAH) a.k.a Polycyclic Organic Matter (POM) consists of Benzo(a)anthracene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Chrysene, Dibenz(a,h)anthracene, Indeno(1,2,3-cd)pyrene, and Benzo(a)pyrene. PAHs are considered to be one TAP equal in potency to Benzo(a)pyrene.

TAP Ambient Impacts - Waste Oil

Modeled 24-hr maximum unit concentration ($\mu\text{g}/\text{m}^3$) = 8.23
 maximum unit concentration ($\mu\text{g}/\text{m}^3$) = 0.58
 maximum unit concentration ($\mu\text{g}/\text{m}^3$) = 0.0464
 Production, tpy = 300
 Annual production, tpy = 210,240
 Note: Annual ambient modeled levels based on production at 6% of capacity

Emission Rate (t/yr)	Increase in Emission Rate Using Waste Oil (Compared to Diesel) (t/yr)	EL (t/yr)	Modeling Required?	Concentrations				Meets Limit?	
				24-hr		Annual			
				Actual ($\mu\text{g}/\text{m}^3$)	Limit ($\mu\text{g}/\text{m}^3$)	Actual ($\mu\text{g}/\text{m}^3$)	Limit ($\mu\text{g}/\text{m}^3$)		
Acetone	2.40E-01	2.40E-01	119	No	2.00E+00	89	N/A	N/A	YES
Acroton	7.80E-03	7.80E-03	0.017	No	6.42E-02	0.0125	N/A	N/A	YES
Aniliny	5.40E-05	0.00E+00	0.033	No	0.00E+00	0.025	N/A	N/A	YES
Barium	7.80E-02	0.00E+00	0.033	No	0.00E+00	0.025	N/A	N/A	YES
Chromium	7.20E-03	0.00E+00	0.033	No	0.00E+00	0.00250	N/A	N/A	YES
Cobalt	4.50E-03	0.00E+00	0.0033	No	0.00E+00	0.010	N/A	N/A	YES
Copper	5.10E-02	0.00E+00	0.067	No	0.00E+00	0.285	N/A	N/A	YES
Crotolaldehyde	2.58E-02	2.58E-02	0.36	No	2.12E-01	0.25000	N/A	N/A	YES
Ethylbenzene	7.20E-02	0.00E+00	29	No	0.00E+00	15.00	N/A	N/A	YES
Fluorene	3.30E-03	0.00E+00	0.133	No	0.00E+00	21.75	N/A	N/A	YES
Heptane	2.82E+00	0.00E+00	109	No	0.00E+00	82.00	N/A	N/A	YES
Hexane	2.78E-01	0.00E+00	12	No	0.00E+00	0.1	N/A	N/A	YES
Hydrogen Chloride	6.30E-02	6.30E-02	0.05	Yes	5.18E-01	9.00	N/A	N/A	YES
Manganese	1.95E-01	0.00E+00	0.067	No	0.00E+00	0.05	N/A	N/A	YES
Mercury	7.80E-02	0.00E+00	0.003	No	0.00E+00	0.0025	N/A	N/A	YES
Methyl Chloroform	1.44E-02	0.00E+00	127	No	0.00E+00	96.50000	N/A	N/A	YES
Methyl ethyl ketone	6.00E-03	6.00E-03	39.3	No	4.94E-02	29.5000	N/A	N/A	YES
Naphthalene	1.95E-01	0.00E+00	3.33	No	0.00E+00	0.25000	N/A	N/A	YES
Pentane	6.30E-02	0.00E+00	118	No	0.00E+00	2.5	N/A	N/A	YES
Phosphorous	3.60E-01	0.00E+00	0.007	No	0.00E+00	96.5	N/A	N/A	YES
Propionaldehyde	3.90E-02	3.90E-02	0.0287	Yes	3.21E-01	0.95	N/A	N/A	YES
Quinone	4.80E-02	4.80E-02	0.027	Yes	3.95E-01	0.005	N/A	N/A	YES
Selenium	7.20E-04	0.00E+00	0.013	No	0.00E+00	0.0215	N/A	N/A	YES
Silver	1.44E-04	0.00E+00	0.011	No	0.00E+00	0.02	N/A	N/A	YES
Thallium	6.60E-04	0.00E+00	0.007	No	0.00E+00	0.01	N/A	N/A	YES
Toluene	8.70E-01	0.00E+00	25	No	0.00E+00	0.005	N/A	N/A	N/A
2,2,4-Trimethyl-pentane	1.20E-02	0.00E+00	23.3	No	0.00E+00	18.75	N/A	N/A	YES
Valeraldehyde	2.01E-02	2.01E-02	11.7	No	1.65E-01	8.75	N/A	N/A	YES
o-Xylene	6.00E-02	0.00E+00	29	No	0.00E+00	21.75	N/A	N/A	YES
Zinc	5.40E-02	0.00E+00	0.667	No	0.00E+00	0.5	N/A	N/A	YES

TAP Ambient Impacts - Waste Oil

Modeled 24-hr maximum unit concentration ($\mu\text{g}/\text{m}^3$) = 8.23
 maximum unit concentration ($\mu\text{g}/\text{m}^3$),
 maximum unit concentration ($\mu\text{g}/\text{m}^3$),
 concentration, tpy
 Annual production, tpy
 Note: Annual ambient modeled levels based on production at 6% of capacity

Emission Rate (lb/hr)	Increase in Emission Rate Using Waste Oil (Compared to Diesel) (lb/hr)	EL (lb/hr)	Modeling Required?	Concentrations						
				24-hr Actual ($\mu\text{g}/\text{m}^3$)	24-hr		Annual		Meets Limit?	
					Actual (mg/m^3)	Limit (mg/m^3)	Actual ($\mu\text{g}/\text{m}^3$)	Limit ($\mu\text{g}/\text{m}^3$)		
Acetaldehyde	3.90E-01	3.90E-01	0.003	Yes	N/A	N/A	N/A	1.61E-02	4.50E-01	YES
Arsenic ^a	3.90E-04	0.00E+00	0.0000019	No	N/A	N/A	N/A	0.00E+00	2.30E-04	YES
Benzene ^a	1.17E-01	0.00E+00	0.0008	No	N/A	N/A	N/A	0.00E+00	1.20E-01	YES
Beryllium ^b	0.00E+00	0.00E+00	0.000028	No	N/A	N/A	N/A	0.00E+00	4.20E-03	YES
Benzo(a)pyrene ^c	2.94E-06	0.00E+00	0.000002	No	N/A	N/A	N/A	0.00E+00	3.00E-04	YES
Cadmium ^b	1.26E-05	0.00E+00	0.0000037	No	N/A	N/A	N/A	0.00E+00	5.60E-04	YES
Dioxin and Furans	9.00E-07	0.00E+00	1.5E-10	No	N/A	N/A	N/A	0.00E+00	2.20E-08	YES
Total PCDD's	8.40E-07	N/A	N/A	No	N/A	N/A	N/A	3.78E-08	N/A	N/A
Total PCDF's	9.00E-07	N/A	N/A	No	N/A	N/A	N/A	0.00E+00	7.70E-02	YES
Formaldehyde ^c	3.90E-01	0.00E+00	0.00051	No	N/A	N/A	N/A	0.00E+00	4.20E-03	YES
Nickel ^b	3.90E-03	0.00E+00	0.000027	No	N/A	N/A	N/A	0.00E+00	1.40E-02	YES
Polycyclic Hydrocarbons (PAH or POM) ^d	1.67E-04	0.00E+00	0.000091	No	N/A	N/A	N/A	0.00E+00	1.40E-02	YES
Benzo(a)anthracene	6.30E-05	0.00E+00	N/A		N/A	N/A	N/A	N/A	N/A	N/A
Benzo(b)fluoranthene	3.00E-05	0.00E+00	N/A		N/A	N/A	N/A	N/A	N/A	N/A
Benzo(k)fluoranthene	1.23E-05	0.00E+00	N/A		N/A	N/A	N/A	N/A	N/A	N/A
Chrysene	5.40E-05	0.00E+00	N/A		N/A	N/A	N/A	N/A	N/A	N/A
Dibenz(a,h)anthracene	0.00E+00	0.00E+00	N/A		N/A	N/A	N/A	N/A	N/A	N/A
Indeno(1,2,3-cd)pyrene	2.10E-06	0.00E+00	N/A		N/A	N/A	N/A	N/A	N/A	N/A
Benzo(a)pyrene	2.94E-06	0.00E+00	N/A		N/A	N/A	N/A	N/A	N/A	N/A

a - Non-carcinogenic TAPs are listed in IDAPA 58.01.01.585.
 b - Carcinogenic TAPs are listed in IDAPA 58.01.01.586 - AACCs are in micrograms per cubic meter.
 c - Indicates carcinogenic toxic air pollutants which have an annual ambient acceptable concentration for carcinogenics (AAC) rather than a 24-hr ambient acceptable concentrations (AAC) like the non-carcinogenic toxics.
 d - Polycyclic Hydrocarbons (PAH) a.k.a Polycyclic Organic Matter (POM) consists of Benzo(a)anthracene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Chrysene, Dibenz(a,h)anthracene, Indeno(1,2,3-cd)pyrene, and Benzo(a)pyrene. PAHs are considered to be one TAP equal in potency to Benzo(a)pyrene.

Appendix C

Modeling Review

P-050027

MEMORANDUM

DATE: July 8, 2005
TO: Almer Casile, Air Quality Division
THROUGH: Kevin Schilling, Stationary Source Modeling Coordinator, Air Quality Division 
FROM: Dustin Holloway, Modeling Analyst, Air Quality Division 
PROJECT NUMBER: P-050027
SUBJECT: Modeling Review for the American Paving Facility Near Meridian, Facility ID No. 001-00205

1. SUMMARY

American Paving Co. (APC) submitted dispersions modeling in support of a permit to construct application to burn waste oil in their hot-mix asphalt plant. The submitted analysis is identical to a previous approved analysis submitted for the plant. DEQ conducted an abbreviated review of this analysis. The following table summarizes the key assumptions used in the analysis.

Table 1.1 KEY ASSUMPTIONS USED IN MODELING ANALYSIS

Assumption	Explanation
The current permit limits will not be increased.	This analysis is dependent on the federally enforceable permit conditions established in the facility's permit to construct. Any increase in permitted production rate will require additional analysis to demonstrate that the project will not exceed any ambient air quality standards.

Based on the results of the applicant's and DEQ's analyses, DEQ has determined that the modeling analysis: 1) utilized appropriate methods and models; 2) was conducted using reasonably accurate or conservative model parameters and input data; 3) appropriately adhered to established DEQ guidelines for new source review dispersion modeling; 4) showed that predicted pollutant concentrations at all receptor locations, when appropriately combined with background concentrations, were below stated air quality standards; 5) showed that the increase in toxic air pollutant (TAP) concentrations are within the applicable allowable concentrations in IDAPA 58.01.01.585-586.

2. CONCLUSION

A complete review of the analysis can be found in the statement of basis for Permit No. P-040016 dated December 8, 2004. The emissions estimate submitted in the previous application while burning No. 2 fuel oil is identical to the emissions estimate submitted in this analysis for waste oil. There were no changes made to the modeling analysis or the maximum estimated concentrations. The analysis demonstrates, to DEQ's satisfaction, that the project will not cause or contribute to a violation of any ambient air quality standards and that the emissions of any toxic pollutant will not exceed the allowable increments in IDAPA 58.01.01.585-586.

DH/sd P-050027