FDEP

To: Asphalt Plant Foreman (Pensacola #403, Shalimar #420, Defuniak Springs #412, Freeport #408)

Copy: Mike Manning, Joel Michaels, Alex Murphree

From: DeWayne Ray

Re: FDEP Air Emissions Permit Responsibilities Date: December 20, 2001

Enclosed is a revised copy of the APAC North Florida Division "Environmental Compliance Plant for Asphalt Plants", you received with the memo dated December 6, 2001. Discard the earlier copy. Review and implement the attached revised "December 2001 issue". This information is provided to re-insure you and your plant personnel understand FDEP air emission compliance responsibilities. The following is a summary of your responsibilities as Plant Foreman:

General:

The Plant Foreman is responsible for maintaining and posting a current copy of the FDEP air permit, for understanding and complying with each condition and requirement of the permit, and for being prepared to demonstrate compliance with all conditions and requirements of the permit to interested individuals, regulatory personnel, and APAC management.

Daily:

1. Visually monitor plant stack emissions for dust and "blue smoke" (i.e. none are allowed). Report any visual emissions to the Plant Superintendent.

2. Maintain daily APAC plant report and log book including: Total tons of mixed produced, hours burner/plant ran, baghouse pressure readings (minimum 2 per day). Send this report to the Pensacola Division Office everyday, including none production days. This information is used by the Division Comptroller to produce the required 12 month rolling total report.

3. Required baghouse pressure differential ranges: Pensacola 1 – 4 iWC, Freeport 2 – 4 iWC, Shalimar 2-4 iWC, Defuniak Springs N/A.

4. Post and maintain copies of current operating permit and 12 month rolling total report in control house.

5. Maintain file with copies of all used oil fuel load receipts, including test reports provided by the supplier. Check each used oil load test report to ensure it is in compliance with permitted limits.

6. Maintain plant production rate within permitted limits.

7. Perform and maintain a file of plant maintenance check list items per attached list.

8. Perform a daily walk through survey looking for potential environmental problems, and maintain a file of the survey results.

9. Report any contact by FDEP or Plant inspections immediately to your Plant Superintendent and Division QC Manager

Annual:

Coordinate annual plant testing per plant permit schedule through DeWayne Ray (Division QC Manager). ***Do not hesitate to call me if you have any questions.***

APAC-Florida, Inc., North Florida Division • 4375 McCoy Drive
• Pensacola, Florida 32503 • (850) 433-3001 • FAX (850) 434-8971

Updated December 2001

Environmental Compliance Plan

For

Asphalt Plants

APAC-FLORIDA, Inc.

North Florida Division

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ATTACHMENT A: Daily Plant Production Report Form

ATTACHMENT B: Asphalt Plant Maintenance Weekly Checklist

INTRODUCTION

APAC company policy includes complete compliance with all environmental laws and regulations. This policy includes the operation of asphalt plants. This compliance plan addresses environmental protection items which all plant employees should be aware of while operating a plant. Air emissions are the foremost environmental compliance responsibility associated with the operation of an asphalt plant. This plan also covers other related areas such as stormwater and material management.

Compliance Responsibility/Training:

The Plant Forman is responsible for maintaining and posting a current copy of the FDEP air permit, for understanding and complying with each condition and requirement of the permit, and for being prepared to demonstrate compliance with all conditions and requirements of the permit to interested individuals, regulatory personnel, and APAC management. Any compliance responsibility questions should be addressed to the Plant Foreman who is responsible for the overall operation of the entire plant site. Questions can also be directed to Environmental Compliance personnel (Daryl Dirks and Laurence McDade), or Quality Control Supervisors (DeWayne Ray and Alex Murphree).

This compliance plan and respective FDEP plant air emissions operating permit requirements will be reviewed with all **new plant employees during their first day** at a plant. The compliance plan and air emission operating permits will also be reviewed with all **current employees at least once per year.**

OVERALL MATERIAL FLOW

From the initial movement and feeding of aggregates from stockpiles, into and through the plant, and into dump trucks, proper management and handling of asphalt plant materials is required to protect the surrounding environment. Dust from dump trucks entering and leaving the site must be monitored and controlled by water stray systems. The plant drum/burner exhaust system must be monitored by plant equipment controls and constant visual inspection from the control house to ensure particulate is maintained below permit limits. Incoming fuel and asphalt cement must be pumped into storage tanks, which are in containment areas, without spillage onto the ground. Following paragraphs explain functions of each part of the asphalt plant as materials pass through the plant and become "Asphalt".

OVERALL PLANT SITE OPERATION

To understand environmental compliance issues associated with an asphalt plant, new employees must first have a basic overall knowledge of plant operations. To have this knowledge, one must have some understanding of what the end product of an asphalt plant is made of: "Hot Mix Asphaltic Concrete" or simply ASPHALT.

WHAT IS ASPHALT: Most people consider the term "asphalt" as the completed hot mix which is hauled by trucks and laid at a highway construction site. This term is correct. But the correct technical term is "asphaltic concrete" which consists of aggregates (sand and rocks) and asphalt cement (binds aggregates together). Asphalt cement is the semi-liquid petroleum "black tar" type material, which is mixed with aggregates, to produce the completed "hot mix" asphalt which becomes "flexible" pavements we drive on. It is called "flexible" pavement because asphalt is design to flex or blend under the loads caused by traffic (i.e. like a rubber band).

Plant Control House: Each plant has a control house which contains all the plant's equipment and production controls. Each control house is elevated above the ground with large windows, which provide a clear view of the entire yard. The Plant Foreman and/or Operator monitor and control the entire plant operation from the control house. They stay in radio contact with other plant personnel at all times during operation of the plant. This includes monitoring of plant stack air emissions and fueling operations.

Cold feed bins: Cold feed bins are rectangular steel open top bins, which receive virgin aggregates (rock and sand). Rubber tire front-end loaders equipped with four to six cubic yard buckets dump/feed aggregates into the top of cold feed bins from aggregate stockpiles.

RAP Feed Bin: Reclaimed Asphalt Pavement (RAP) or milled up asphalt pavement is fed into the plant through a dedicated feed bin at each plant. The RAP is fed directly into the Drum, from the RAP bin, near the same point as the asphalt cement. This point is separated or shielded from the Drum flame. This separation prevents "blue smoke" being created by the burning of asphalt cement and/or RAP which would possibly ignite if they were exposed to the drum flame.

Drum: Virgin aggregates are fed into the drum by conveyor belt from the cold feed bins. The Drum mixes and dries aggregates as they pass through the Drum's burner/flame. As the Drum rotates, an interior system of steel flights or paddles, creates a "vale" of the aggregates. Each Drum has a fuel oil or gas fired burner which "shoots" a super heated flame through the center of the Drum, and thus, through the vale of virgin aggregates. This flame dries and heats aggregates up to design mix temperature which is approximately 300 to 325 F.

Asphalt cement is metered or pumped into either the outer shell of the Drum or at some point downstream of the flame. The Drum then mixes the cement and heated aggregates to create the final hot mix asphalt product.

Silos and Surge Bins: Completed hot mix asphalt is carried from the drum to storage silos or a surge bin by conveyor. From silos or a surge bin, the mix is dumped into trucks for transport to the job site. Silos vary in capacity, but are usually hold from 250 to 300 tons of mix. Silos are heated by hot oil coil systems to insure the mix stays near design temperature prior to loading into trucks. Surge bins are non-heated smaller versions of silos which hold 50 to 80 tons of hot mix. Presently, only the APAC Freeport portable asphalt plant has a surge bin.

Baghouses and Wet Wash Dust Control Systems: Three of APAC's North Florida Division four asphalt plants are equipped with Baghouse dust control systems. Baghouses are designed to filter dust from the drum exhaust air, and thereby, control air emissions from the plant. Baghouses consist of rows of filter pipes enclosed in specially designed cloth bags, which capture and "dump" dust to the bottom of the baghouse enclosure. The dust is then metered back into the Drum and mixed into the hot mix asphalt. The Defuniak Springs Plant air emissions are controlled by a "Wet Wash" system which removes dust by shooting a mist of water over or through the exhaust air prior to blowing out through the plant's exhaust stack. Asphalt plant exhaust stacks are located on the end of the baghouse or wet wash system. Every plant's exhaust stack is located within easy direct view of the control house where the Foreman and/or Operator stays during plant operation.

Asphalt Cement and Fuel Tanks: Asphalt cement is stored in heated circular steel tanks. These tanks range in size from 5,000 to 25,000 gallons. Plant fuel oil is also stored in circular steel tanks (non-heated). These tanks are located inside concrete containment areas.

Aggregate Stockpiles: Each plant has a network of aggregate stockpiles which are spread out in a pattern near the cold feed bins. Aggregates range in size from one inch rock particles to stockpiles of locally mined sand. Aggregate stockpiles are segregated by rock and sand particles sizes. Dust control from the movement of dump trucks and front-end loaders are the primary environmental issue.

Truck Scales and Plant Haul Routes: Each Plant has it's own driveway system which directs trucks underneath either the silos or surge bin for loading. Dump trucks receive a tare weight (empty weight) and final load weight (with ticket) by driving onto the truck scales located underneath the silos or surge bin. Trucks are loaded by the plant operator by dropping one to three "drops" of mix from a silo. A fully loaded dump truck holds approximately 20 tons of hot mix. This truck "load out system" is computer controlled and operated by the plant operator in the control house.

Air Emissions

Air Emissions compliance is traditionally the most visible and highest maintenance compliance responsibility at an asphalt plant. The Plant Foreman is responsible for controlling air emissions by monitoring plant stack emissions both by visual observation of the stack itself and maintaining the control house instrument controls. Other than water vapor, there should be no "colored" exhaust exiting the plant stack (i.e. no dust). ***Any time visual emissions are spotted coming out the plant stack or other parts of the plant, operation of the plant shall stop until the problem is identified and fixed.*** Any such problems shall be immediately reported to the Plant Superintendent and noted in the "Remarks" section of the daily plant report. The Plant Superintendent will be responsible for making any required notifications to FDEP and the APAC Division Office.

Each Plant Foreman has overall responsibility for controlling air emissions from the plant. These responsibilities included the following items:

Making sure new plant operators understand their air emission responsibilities prior to operating the plant alone.

Monitoring baghouse pressure differential readings and recording a minimum of two readings per day, either on the daily plant report (Attachment A) or log book. Baghouse pressure differentials shall be maintained within the operating range specified in the respective FDEP plant operating permit.

Maintain a file of on-specification used oil fuel load receipts and all other fuel oil receipts showing supplier compliance certifications with FDEP requirements including both acceptable used oil property specifications and all fuel oil sulfur content limits. These specifications and sulfur limits are identified in 40 CFR 279.11 and the permit. Be familiar with "on-specification" used oil contaminate limit requirements listed in respective plant operating permits. Review each load receipt test report to ensure contaminate levels are not exceeded. Reject any out of specification loads.

Coordinate annual air emissions compliance testing through the Plant Superintendent or Division QC Manager each year during the two month test window, as specified by the respective plant permit schedule. During the three each one hour required test runs, the Plant Foreman will insure the asphalt production rate and baghouse pressure differential measurements are recorded. This information is required for "The Air Emissions Consultant" to complete their calculations. Particulate emissions shall not exceed 0.04 grains per standard cubic foot averaged over a three hour period. Plant production is limited to 110% of the annual particulate test asphalt production rate or the original permitted production rate (which ever is smaller). The "Air Emissions Consultant" will also be contracted to perform the annual visual emissions test. Visible emissions shall be less than 20% opacity.

Ensure the daily plant production report is completed and sent to the Division Office (see attached form). The production report shall include daily totals for asphalt mix production, total time the burner operated, and fuel consumed. The North Florida Division Office will produce a rolling12 month total report for each plant from this information. This report will include monthly and rolling 12 month totals of : asphalt concrete produced, gallons of fuel oil consumed, and hours of operation. RAP usage shall be recorded on the Daily Plant Production Report. These reports will be maintained for five years at the Division Office. The Plant Foreman will ensure this report and current FDEP air emissions permit are posted in the plant control house for inspection by FDEP.

Review each month's updated 12 month rolling total report to ensure the plant is not exceeding permit limits for fuel consumption (1.2 million gallons of used oil per 12 month period) and mix production (limited to 500,000 tons per 12 month period).

UNCONFINED PARTICULATE OR FUGITIVE EMISSIONS

During dry weather conditions, it is possible for dust to be created around a plant site by moving equipment and trucks. When required, fugitive dust will be controlled by either operation of sprinkler systems or spraying water on affected areas by utilization of a water truck. The Plant Foreman will be responsible for ordering or maintaining an onsite water truck when these type conditions exist. When too much dust is being created by traffic is always a "judgement call", but any time dust is rising near the height of dump trucks, water should be applied to the affective area.

All incoming and out going dump trucks will have traps pulled over and covering their loaded materials.

STORMWATER

Each APAC, Inc. asphalt plant site is graded and maintain to ensure stormwater runoff is retained on-site. The Plant Foreman is responsible for ensuring on-site swales and retention areas are maintained and not blocked by debris or sediments.

STORAGE TANKS AND FUELING OPERATIONS

APAC, Inc. has constructed concrete containment facilities for all non-portable plant fuel and asphalt cement tanks. SPCC plans have been prepared for each plant site in association with these containment facilities.

Plant personnel have been instructed on keeping containment drains locked at all times. Before releasing rain water, tank containment areas are inspected for contamination. Containment areas are routinely cleaned to prevent contamination.

The Plant Foreman visually monitors each unloading/pumping of asphalt cement and fuel to plant storage tanks. Any spillage of petroleum product shall be cleaned up immediately.

PLANT MAINTENANCE

It is APAC, Inc. company wide policy is to maintain all equipment in top condition by following specified preventive maintenance schedules. The Plant Foreman is responsible to ensure all required maintenance is performed for plant equipment per either equipment manufacturer specifications and/or as directed by the Plant and Shop General Superintendent.

Attachment B is a plant equipment maintenance schedule. Each item on the schedule shall be checked for excessive wear, lose bolts, fluid levels, etc., a minimum of once a week. The Plant Foreman will complete the maintenance checklist each week and maintain a file for inspection by the Plant Superintendent. Attachment B also contains a daily maintenance checklist for the Defuniak Springs Asphalt Plant Wet Wash System (part of existing permit).

Stack Sampling Facilities shall be maintained at each plant as specified by Appendix SS-1 of each permit.

REPORTING

After ensuring the plant is operating as designed, data reporting is the next most important aspect of asphalt plant environmental compliance. All permit required reporting responsibilities are addressed above in this plan. To insure constant management oversight, the Division Comptroller Office develops and distributes the permit required monthly "rolling totals" reports. These reports are posted in plant control houses. Operation Managers, including the Division President and Branch Manager, review plant production reports daily.

Emergency events, such as plant shutdown situations, are reported immediately to Plant Superintendents. Plant Foremen are directed to report all emergency events to the Division President and/or the Branch Manager as so as possible. All plant supervisors have direct communication capability by Southern Link type radios and cell phones.

Plant Inspections:

The Plant Foreman shall conduct a daily walk through survey of the plant looking for maintenance problems, fugitive leaks of air emissions, and pollutant spills. A log shall be made and maintained of the inspections. A report reviewing the plant's mechanical and operation condition shall be prepared either by an APAC Quality Control Supervisor or by the environmental testing company and shall be included with annual air compliance test report.

SUMMARY

Controlling air emissions from asphalt plants can be a relatively simple process as long as the Plant Foreman and Operators maintain a constant visual inspection of all plant equipment during operation. A visual emission of dust or blue smoke from any plant equipment means something is not working as it was designed. As stated above in this plan, the plant must be shutdown until these type problems are fixed.

☐ Fair ☐ Cloudy ☐ Cloudy ☐ Rain

emperature ☐ Hot ☐ Warm ☐ Mild ☐ Cold

APAC-FLORIDA, INC.
NORTH FLORIDA DIVISION

DATE

DAILY PLANT PRODUCTION REPORT

FOR OFFICE USE ONLY	PRODUCT	TONS PRODUCED				FEED STOCK MATERIALS								FREIGHT CAR NUMBER
						ASPHALT		COARSE AGGREGATE			FINE AGGREGATE			
		TODAY		MONTH		%	GALLONS	%	SIZE	TONS	%	PIT	CU YDS	
	TYPE S—I													
	TYPE II													
	SAND ASPHALT													
	TOTALS													

INVENTORY IN STOCK

FOR OFFICE USE ONLY	PRODUCT SLAG OR STONE	Forward Balance	Purchases	Transfers		Production	Adjustments	Sales	New Balance
				Quantity	Plant				
	ASPHALT								

REMARKS:

ASPHALT PLANT MAINTENANCE CHECKLIST (WEEKLY)

1. Cold Feed Bin and Incline Conveyor:

   _____ Check All Conveyor Belts
   _____ Check Bearings and Rollers
   _____ Check Oil Level in Gear Reducers
   _____ Check Drive Belts

2. Dryer:

   _____ Check Feed and Discharge Chute Wear Plates.
   _____ Check Lifter Wear
   _____ Check Oil Level in Reducers
   _____ Check Drive Chain
   _____ Check Bearings
   _____ Check Trunnions

3. Hot Elevator: Drum Plant Only

   _____ Check Chain Wear
   _____ Check Wear Plates Top and Bottom
   _____ Check Oil Level Reducer

4. Screen:

   _____ Check Bearings "Eccentric Shaft"
   _____ Check Screens for Wear
   _____ Check Screens for Loose Bolts
   _____ Check Belt Tension

5. Hot Bins: Drum Plant Only

   _____ Check Wear on Walls
   _____ Check Bin Indicators
   _____ Check Bin Gates
   _____ Check Air Cylinders
   _____ Check All Lubricators

6. Mixer: Drum Plant Only

   _____ Check Shanks and Tips
   _____ Check Liners
   _____ Check Drive Chain
   _____ Check Gate for Adjustment
   _____ Check Air Cylinders
   _____ Check and Clean out Behind Bearings
   _____ Check Shaft Bearings
   _____ Check Oil Level in Gear Box

Daily
Scurbber Operations and Maintenance Schedule

month: _____

	date: 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Inspection																															
1 Inspect collection trough in scubber bottom for debris collection																															
2 inspect fan blades for caking,wear,and balance																															
3 inspect spray nozzles for waer and blockages.																															
inspect scurrber walls for waer and rust accumulation																															
5 inspect holding ponds for acidilty, settlement, and greneral cleanliness twice per day																															
6 inspect water pump and hoses																															
Operations																															
1 check water pump operation																															
2 check water discharge																															
3 check stack plume																															
4 check fan operation																															
5 check operation of draft mechanism at venturi																															
Maintenance																															
1 wash out collection trough daily with clean water																															
2 wash interior walls of scrubber to prevent rust from forming																															
3 wash fan blades																															
clean spray nozzles																															
5 add polysep 1123 to reduce acidity as necessary and accelerate settlement of suspended particles																															
6 clean out ponds as necessary																															