

US EPA ARCHIVE DOCUMENT

SECTION 6: OTHER STREAM RATES

1. COMPANY: MEDUSA CEMENT COMPANY
 2. STATE: PA
 3. CITY: WAMPUM
 4. EP ID: 335 DEVICE NAME: KILN NO. 3 EPA ID: PAD083965897 REGION: 3
 SYSTEM TYPE: CEMENT KILN APC SYSTEM: ESP

5. Type: CLINKER

6. Description: PRODUCT

Additional ID Information

Process Group: DRY KILN Location: KILN Phase: SOLID

Feed Stream Information

Feed Mechanism: BELT Feed Location: LOWEND
 Manufacturer: NA Number of Burners: NA

Stream Rates and Properties

7. Run ID	Process Rate	Moisture (%)	Heating Value	Viscosity, cSt	Density, lb/ft3	Ash (%)
335C1R1	67200 lbs/hr					
335C1R2	68800 lbs/hr					
335C1R3	68800 lbs/hr					

5. Type: FUEL

6. Description: COAL

Additional ID Information

Process Group: DRY KILN Location: KILN Phase: SOLID

Feed Stream Information

Feed Mechanism: MULTI-FUEL BURNER Feed Location: LOWEND
 Manufacturer: ? Number of Burners: ?

Stream Rates and Properties

7. Run ID	Process Rate	Moisture (%)	Heating Value	Viscosity, cSt	Density, lb/ft3	Ash (%)
335C1R1	7680 lbs/hr	8.4	11344 Btu/lb			13.3
335C1R2	7360 lbs/hr	5.7	12398 Btu/lb			10.3
335C1R3	7320 lbs/hr	4.6	12703 Btu/lb			10.1

5. Type: RAW MATERIAL

6. Description:

Additional ID Information

Process Group: DRY KILN Location: KILN Phase: SOLID

Feed Stream Information

Feed Mechanism: BELT Feed Location: HIGHEND
 Manufacturer: NA Number of Burners: NA

Stream Rates and Properties

7. Run ID	Process Rate	Moisture (%)	Heating Value	Viscosity, cSt	Density, lb/ft3	Ash (%)
335C1R1	114000 lbs/hr					
335C1R2	116600 lbs/hr					
335C1R3	116600 lbs/hr					

5. Type: WASTE

6. Description: SPIKED METALS (AS,BE,CD,CR,PB)

Additional ID Information

Process Group: DRY KILN Location: KILN Phase: LIQUID

Feed Stream Information

Feed Mechanism: ATOMIZED LIQUIDS Feed Location: LOWEND
 Manufacturer: ? Number of Burners: ?

Stream Rates and Properties

7. Run ID	Process Rate	Moisture (%)	Heating Value	Viscosity, cSt	Density, lb/ft3	Ash (%)
335C1R1	5736 lbs/hr		10487 Btu/lb		59.9	4.2
335C1R2	5740 lbs/hr		10789 Btu/lb		58.9	3.1
335C1R3	5673 lbs/hr		14644 Btu/lb		58	1.5

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SECTION 6: OTHER STREAM RATES

1. COMPANY: NATIONAL CEMENT PLANT
 2. STATE: CA
 3. CITY: LEBEC
 4. EP ID: 306 DEVICE NAME: KILN NO. 1 EPA CAD982444887 REGION: 9
 SYSTEM TYPE: CEMENT KILN APC SYSTEM: MC/FF

5. Type: CLINKER

6. Description: PRODUCT

Additional ID Information

Process Group: DRY KILN Location: KILN Phase: SOLID

Feed Stream Information

Feed Mechanism: NA Feed Location: NA
 Manufacturer: NA Number of Burners: NA

Stream Rates and Properties

7. Run ID	Process Rate	Moisture (%)	Heating Value	Viscosity, cSt	Density, lb/ft3	Ash (%)
306C1R1	271000 lbs/hr					
306C1R2	272200 lbs/hr					
306C1R3	266800 lbs/hr					
306C1R4	271000 lbs/hr					
306C1R5	272200 lbs/hr					
306C1R6	266800 lbs/hr					

5. Type: FF ASH

6. Description: RECYCLE

Additional ID Information

Process Group: DRY KILN Location: FF Phase: SOLID

Feed Stream Information

Feed Mechanism: NA Feed Location: NA
 Manufacturer: NA Number of Burners: NA

Stream Rates and Properties

7. Run ID	Process Rate	Moisture (%)	Heating Value	Viscosity, cSt	Density, lb/ft3	Ash (%)
306C1R1						
306C1R2						
306C1R3						
306C1R4						
306C1R5						
306C1R6						

5. Type: FUEL

6. Description: COKE

Additional ID Information

Process Group: DRY KILN Location: KILN Phase: SOLID

Feed Stream Information

Feed Mechanism: MULTI-FUEL BURNER Feed Location: LOWEND
 Manufacturer: ? Number of Burners: 1

Stream Rates and Properties

7. Run ID	Process Rate	Moisture (%)	Heating Value	Viscosity, cSt	Density, lb/ft3	Ash (%)
306C1R1	13800 lbs/hr					
306C1R2	14198 lbs/hr					
306C1R3	14396 lbs/hr					
306C1R4	13800 lbs/hr					
306C1R5	14198 lbs/hr					
306C1R6	14396 lbs/hr					

5. Type: RAW MATERIAL

6. Description:

SECTION 6: OTHER STREAM RATES

1. COMPANY: NATIONAL CEMENT PLANT
 2. STATE: CA
 3. CITY: LEBEC
 4. EP ID: 306 DEVICE NAME: KILN NO. 1

EPA ID: CAD982444887
 SYSTEM TYPE: CEMENT KILN

REGION: 9

APC SYSTEM: MC/FF

Additional ID Information

Process Group: DRY KILN

Location: KILN

Phase: SOLID

Feed Stream Information

Feed Mechanism: CONVEYER

Feed Location: HIGHEND

Manufacturer: ?

Number of Burners: NA

Stream Rates and Properties

7. Run ID	Process Rate	Moisture (%)	Heating Value	Viscosity, cSt	Density, lb/ft3	Ash (%)
306C1R1	271168 lbs/hr					
306C1R2	271169 lbs/hr					
306C1R3	266759 lbs/hr					
306C1R4	271168 lbs/hr					
306C1R5	271169 lbs/hr					
306C1R6	266759 lbs/hr					

5. Type: WASTE

6. Description: SPIKED METALS (AS,BA,BE,CR,CR3,CR6,PB,SB,HG)

Additional ID Information

Process Group: DRY KILN

Location: KILN

Phase: LIQUID

Feed Stream Information

Feed Mechanism: ?

Feed Location: LOWEND

Manufacturer: ?

Number of Burners: ?

Stream Rates and Properties

7. Run ID	Process Rate	Moisture (%)	Heating Value	Viscosity, cSt	Density, lb/ft3	Ash (%)
306C1R1	9920 lbs/hr					
306C1R2	10383 lbs/hr					
306C1R3	10031 lbs/hr					
306C1R4	9920 lbs/hr		11210 Btu/lb			4.6
306C1R5	10383 lbs/hr		11000 Btu/lb			4.8
306C1R6	10031 lbs/hr		11140 Btu/lb			4.7

SECTION 6: OTHER STREAM RATES

1. COMPANY: NORTH TEXAS CEMENT COMPANY
 2. STATE: TX
 3. CITY: MIDLOTHIAN EPA TXD007926496 REGION: 6
 4. EP ID: 308 DEVICE NAME: KILN NO. 2 SYSTEM TYPE: CEMENT KILN APC SYSTEM: ESP

5. Type: FUEL

6. Description: COAL

Additional ID Information

Process Group: WET KILN Location: KILN Phase: SOLID

Feed Stream Information

Feed Mechanism: ? Feed Location: LOWEND
 Manufacturer: ? Number of Burners: ?

Stream Rates and Properties

7. Run ID	Process Rate	Moisture (%)	Heating Value	Viscosity, cSt	Density, lb/ft3	Ash (%)
308C1R1	9986 lbs/hr	12.2	44458 Btu/lb			
308C1R2	10207 lbs/hr		35366 Btu/lb			
308C1R3	6790 lbs/hr		35492 Btu/lb			

5. Type: RAW MATERIAL

6. Description: LIMESTONE

Additional ID Information

Process Group: WET KILN Location: KILN Phase: SLURRY

Feed Stream Information

Feed Mechanism: NA Feed Location: NA
 Manufacturer: NA Number of Burners: NA

Stream Rates and Properties

7. Run ID	Process Rate	Moisture (%)	Heating Value	Viscosity, cSt	Density, lb/ft3	Ash (%)
308C1R1	222664 lbs/hr	41.1			104.8	
308C1R2	222664 lbs/hr					
308C1R3	222664 lbs/hr					

5. Type: WASTE

6. Description: SPIKED METALS (AS,BE,CD,CR3,CR6,PB)

Additional ID Information

Process Group: WET KILN Location: KILN Phase: LIQUID

Feed Stream Information

Feed Mechanism: ? Feed Location: LOWEND
 Manufacturer: ? Number of Burners: ?

Stream Rates and Properties

7. Run ID	Process Rate	Moisture (%)	Heating Value	Viscosity, cSt	Density, lb/ft3	Ash (%)
308C1R1	8157 lbs/hr		44378 Btu/lb			
308C1R2	7782 lbs/hr		43817 Btu/lb			
308C1R3	7649 lbs/hr		44183 Btu/lb			

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SECTION 6: OTHER STREAM RATES

1. COMPANY: RIVER CEMENT
 2. STATE: MO
 3. CITY: FESTUS
 4. EP ID: 309 DEVICE NAME: KILN NO. 1,2 EPA MOD050232560 REGION: 7
 SYSTEM TYPE: CEMENT KILN APC SYSTEM: MC/ESP

5. Type: FUEL

6. Description: COKE

Additional ID Information

Process Group: DRY KILN Location: KILN Phase: SOLID

Feed Stream Information

Feed Mechanism: CONVENTIONAL BURNER Feed Location: LOW END
 Manufacturer: ? Number of Burners: 1

Stream Rates and Properties

7. Run ID	Process Rate	Moisture (%)	Heating Value	Viscosity, cSt	Density, lb/ft3	Ash (%)
309C1R1	17855 lbs/hr					
309C1R2	17415 lbs/hr					
309C1R3	18136 lbs/hr					
309C2R1	16594 lbs/hr					
309C2R2	16554 lbs/hr					
309C2R3	17675 lbs/hr					

5. Type: RAW MATERIAL

6. Description:

Additional ID Information

Process Group: DRY KILN Location: KILN Phase: SOLID

Feed Stream Information

Feed Mechanism: ? Feed Location: HIGH END
 Manufacturer: NA Number of Burners: NA

Stream Rates and Properties

7. Run ID	Process Rate	Moisture (%)	Heating Value	Viscosity, cSt	Density, lb/ft3	Ash (%)
309C1R1	562859 lbs/hr					
309C1R2	578733 lbs/hr					
309C1R3	593666 lbs/hr					
309C2R1	553571 lbs/hr					
309C2R2	560297 lbs/hr					
309C2R3	561798 lbs/hr					

5. Type: WASTE

6. Description: SPIKED METALS (AS,BE,CD,CR,PB,SB,HG)

Additional ID Information

Process Group: DRY KILN Location: KILN Phase: LIQUID

Feed Stream Information

Feed Mechanism: ATOMIZING BURNER Feed Location: LOW END
 Manufacturer: ? Number of Burners: 1

Stream Rates and Properties

7. Run ID	Process Rate	Moisture (%)	Heating Value	Viscosity, cSt	Density, lb/ft3	Ash (%)
309C1R1	42313 lbs/hr					
309C1R2	43291 lbs/hr					
309C1R3	39821 lbs/hr					
309C2R1	35879 lbs/hr					
309C2R2	36787 lbs/hr					
309C2R3	36543 lbs/hr					

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SECTION 6: OTHER STREAM RATES

1. COMPANY: SOUTHDOWN
 2. STATE: KY
 3. CITY: KOSMOSDALE
 4. EP ID: 317 DEVICE NAME: KILN NO. 1 EPA ID: KYD024111981 REGION: 4
 SYSTEM TYPE: CEMENT KILN APC SYSTEM: FF

5. Type: FUEL

6. Description: COAL

Additional ID Information

Process Group: DRY KILN Location: KILN Phase: SOLID

Feed Stream Information

Feed Mechanism: MULTI-FUEL BURNER Feed Location: LOWEND
 Manufacturer: ? Number of Burners: 1

Stream Rates and Properties

7. Run ID	Process Rate	Moisture (%)	Heating Value	Viscosity, cSt	Density, lb/ft3	Ash (%)
317C1R1	14400 lbs/hr	2	12197 Btu/lb			
317C1R2	13260 lbs/hr	2.3	12123 Btu/lb			
317C1R3	13560 lbs/hr	1.5	12283 Btu/lb			
317C2R1	13460 lbs/hr	2.4	12265 Btu/lb			
317C2R2	12860 lbs/hr	2.4	12339 Btu/lb			
317C2R3	12360 lbs/hr	2	12397 Btu/lb			
317C3R1	23020 lbs/hr	2.7	12372 Btu/lb			
317C3R2	22940 lbs/hr	2.4	12337 Btu/lb			
317C3R3	22720 lbs/hr	2.5	12350 Btu/lb			

5. Type: RAW MATERIAL

6. Description:

Additional ID Information

Process Group: DRY KILN Location: KILN Phase: SOLID

Feed Stream Information

Feed Mechanism: NA Feed Location: NA
 Manufacturer: NA Number of Burners: NA

Stream Rates and Properties

7. Run ID	Process Rate	Moisture (%)	Heating Value	Viscosity, cSt	Density, lb/ft3	Ash (%)
317C1R1	332000 lbs/hr					
317C1R2	332600 lbs/hr					
317C1R3	334800 lbs/hr					
317C2R1	333800 lbs/hr					
317C2R2	334200 lbs/hr					
317C2R3	334200 lbs/hr					
317C3R1	335600 lbs/hr					
317C3R2	334800 lbs/hr					
317C3R3	335600 lbs/hr					

Additional ID Information

Process Group: DRY KILN Location: KILN Phase: SOLID

Feed Stream Information

Feed Mechanism: NA Feed Location: NA
 Manufacturer: NA Number of Burners: NA

Stream Rates and Properties

7. Run ID	Process Rate	Moisture (%)	Heating Value	Viscosity, cSt	Density, lb/ft3	Ash (%)
317C2R1	308000 lbs/hr					
317C2R2	308000 lbs/hr					
317C2R3	308000 lbs/hr					

5. Type: SPIKE

6. Description: METALS (AS)

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SECTION 6: OTHER STREAM RATES

1. COMPANY: SOUTHDOWN

2. STATE: KY

3. CITY: KOSMOSDALE

4. EP ID: 317 DEVICE NAME: KILN NO. 1

EPA ID: KYD024111981

SYSTEM TYPE: CEMENT KILN

APC SYSTEM: FF

REGION: 4

Additional ID Information

Process Group: DRY KILN

Location: KILN

Phase: LIQUID

Feed Stream Information

Feed Mechanism: MULTI-FUEL BURNER

Feed Location: LOWEND

Manufacturer: ?

Number of Burners: 1

Stream Rates and Properties

7. Run ID	Process Rate	Moisture (%)	Heating Value	Viscosity, cSt	Density, lb/ft3	Ash (%)
317C1R1	5 lbs/hr					
317C1R2	5 lbs/hr					
317C1R3	5 lbs/hr					
317C2R1	4 lbs/hr					
317C2R2	5 lbs/hr					
317C2R3	5 lbs/hr					

6. Description: METALS (BE)

Additional ID Information

Process Group: DRY KILN

Location: KILN

Phase: LIQUID

Feed Stream Information

Feed Mechanism: MULTI-FUEL BURNER

Feed Location: LOWEND

Manufacturer: ?

Number of Burners: 1

Stream Rates and Properties

7. Run ID	Process Rate	Moisture (%)	Heating Value	Viscosity, cSt	Density, lb/ft3	Ash (%)
317C1R1	3 lbs/hr					
317C1R2	3 lbs/hr					
317C1R3	3 lbs/hr					
317C2R1	3 lbs/hr					
317C2R2	3 lbs/hr					
317C2R3	3 lbs/hr					

6. Description: METALS (CD)

Additional ID Information

Process Group: DRY KILN

Location: KILN

Phase: LIQUID

Feed Stream Information

Feed Mechanism: MULTI-FUEL BURNER

Feed Location: LOWEND

Manufacturer: ?

Number of Burners: 1

Stream Rates and Properties

7. Run ID	Process Rate	Moisture (%)	Heating Value	Viscosity, cSt	Density, lb/ft3	Ash (%)
317C1R1	47 lbs/hr					
317C1R2	54 lbs/hr					
317C1R3	54 lbs/hr					
317C2R1	38 lbs/hr					
317C2R2	39 lbs/hr					
317C2R3	39 lbs/hr					

6. Description: METALS (CR)

Additional ID Information

Process Group: DRY KILN

Location: KILN

Phase: LIQUID

Feed Stream Information

Feed Mechanism: MULTI-FUEL BURNER

Feed Location: LOWEND

Manufacturer: ?

Number of Burners: 1

Stream Rates and Properties

7. Run ID	Process Rate	Moisture (%)	Heating Value	Viscosity, cSt	Density, lb/ft3	Ash (%)
317C1R1	161 lbs/hr					
317C1R2	161 lbs/hr					
317C1R3	161 lbs/hr					
317C2R1	158 lbs/hr					
317C2R2	159 lbs/hr					
317C2R3	139 lbs/hr					

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SECTION 6: OTHER STREAM RATES

1. COMPANY: SOUTHDOWN
 2. STATE: KY
 3. CITY: KOSMOSDALE
 4. EP ID: 317 DEVICE NAME: KILN NO. 1 EPA ID: KYD024111981 REGION: 4
 SYSTEM TYPE: CEMENT KILN APC SYSTEM: FF

6. Description: METALS (PB)

Additional ID Information

Process Group: DRY KILN Location: KILN Phase: LIQUID

Feed Stream Information

Feed Mechanism: MULTI-FUEL BURNER Feed Location: LOWEND
 Manufacturer: ? Number of Burners: 1

Stream Rates and Properties

7. Run ID	Process Rate	Moisture (%)	Heating Value	Viscosity, cSt	Density, lb/ft3	Ash (%)
317C1R1	45 lbs/hr					
317C1R2	45 lbs/hr					
317C1R3	45 lbs/hr					
317C2R1	42 lbs/hr					
317C2R2	43 lbs/hr					
317C2R3	43 lbs/hr					

6. Description: ORGANICS (PERCHLOROETHYLENE)

Additional ID Information

Process Group: DRY KILN Location: KILN Phase: LIQUID

Feed Stream Information

Feed Mechanism: MULTI-FUEL BURNER Feed Location: LOWEND
 Manufacturer: ? Number of Burners: 1

Stream Rates and Properties

7. Run ID	Process Rate	Moisture (%)	Heating Value	Viscosity, cSt	Density, lb/ft3	Ash (%)
317C2R1	117 lbs/hr					
317C2R2	124 lbs/hr					
317C2R3	128 lbs/hr					

6. Description: ORGANICS (SULFUR HEXAFLUORIDE)

Additional ID Information

Process Group: DRY KILN Location: KILN Phase: LIQUID

Feed Stream Information

Feed Mechanism: MULTI-FUEL BURNER Feed Location: LOWEND
 Manufacturer: ? Number of Burners: 1

Stream Rates and Properties

7. Run ID	Process Rate	Moisture (%)	Heating Value	Viscosity, cSt	Density, lb/ft3	Ash (%)
317C1R1	26 lbs/hr					
317C1R2	32 lbs/hr					
317C1R3	26 lbs/hr					

6. Description: ORGANICS (TRICHLOROBENZENE)

Additional ID Information

Process Group: DRY KILN Location: KILN Phase: LIQUID

Feed Stream Information

Feed Mechanism: MULTI-FUEL BURNER Feed Location: LOWEND
 Manufacturer: ? Number of Burners: 1

Stream Rates and Properties

7. Run ID	Process Rate	Moisture (%)	Heating Value	Viscosity, cSt	Density, lb/ft3	Ash (%)
317C1R1	85 lbs/hr					
317C1R2	85 lbs/hr					
317C1R3	84 lbs/hr					

5. Type: WASTE

6. Description:

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SECTION 6: OTHER STREAM RATES

1. COMPANY: SOUTHDOWN

2. STATE: KY

3. CITY: KOSMOSDALE

4. EP ID: 317 DEVICE NAME: KILN NO. 1

EPA ID: KYD024111981

SYSTEM TYPE: CEMENT KILN

APC SYSTEM: FF

REGION: 4

Additional ID Information

Process Group: DRY KILN

Location: KILN

Phase: LIQUID

Feed Stream Information

Feed Mechanism: MULTI-FUEL BURNER

Feed Location: LOWEND

Manufacturer: ?

Number of Burners: 1

Stream Rates and Properties

7. Run ID	Process Rate	Moisture (%)	Heating Value	Viscosity, cSt	Density, lb/ft ³	Ash (%)
317C1R1	7098 lbs/hr		18089 Btu/lb			
317C1R2	7110 lbs/hr		18029 Btu/lb			
317C1R3	7104 lbs/hr		18154 Btu/lb			
317C2R1	7092 lbs/hr		18029 Btu/lb			
317C2R2	7092 lbs/hr		18058 Btu/lb			
317C2R3	7110 lbs/hr		18043 Btu/lb			

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SECTION 6: OTHER STREAM RATES

1. COMPANY: SOUTHDOWN
 2. STATE: OH
 3. CITY: FAIRBORN EPA OHD981195779 REGION: 5
 4. EP ID: 315 DEVICE NAME: KILN NO. 1 SYSTEM TYPE: CEMENT KILN APC SYSTEM: FF

5. Type: CLINKER

6. Description: PRODUCT

Additional ID Information

Process Group: DRY KILN Location: KILN Phase: SOLID

Feed Stream Information

Feed Mechanism: NA Feed Location: NA
 Manufacturer: NA Number of Burners: NA

Stream Rates and Properties

7. Run ID	Process Rate	Moisture (%)	Heating Value	Viscosity, cSt	Density, lb/ft3	Ash (%)
315C1R1	151100 lbs/hr					
315C1R2	151100 lbs/hr					
315C1R3	151100 lbs/hr					
315C2R1	166600 lbs/hr					
315C2R2	166600 lbs/hr					
315C2R3	166600 lbs/hr					
315C3R1						
315C3R2						
315C3R3						

5. Type: FF ASH

6. Description: NONRECYCLE

Additional ID Information

Process Group: DRY KILN Location: FF-BYPASS Phase: SOLID

Feed Stream Information

Feed Mechanism: NA Feed Location: NA
 Manufacturer: NA Number of Burners: NA

Stream Rates and Properties

7. Run ID	Process Rate	Moisture (%)	Heating Value	Viscosity, cSt	Density, lb/ft3	Ash (%)
315C1R1						
315C1R2						
315C1R3						
315C2R1						
315C2R2						
315C2R3						
315C3R1						
315C3R2						
315C3R3						

5. Type: FUEL

6. Description: COAL

Additional ID Information

Process Group: DRY KILN Location: KILN Phase: SOLID

Feed Stream Information

Feed Mechanism: ? Feed Location: LOWEND
 Manufacturer: ? Number of Burners: ?

Stream Rates and Properties

7. Run ID	Process Rate	Moisture (%)	Heating Value	Viscosity, cSt	Density, lb/ft3	Ash (%)
315C1R1	13700 lbs/hr					
315C1R2	13900 lbs/hr					
315C1R3	14700 lbs/hr					
315C2R1	15100 lbs/hr					
315C2R2	14200 lbs/hr					
315C2R3	14300 lbs/hr					

5. Type: RAW MATERIAL

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SECTION 6: OTHER STREAM RATES

1. COMPANY: SOUTHDOWN
 2. STATE: CH
 3. CITY: FAIRBORN
 4. EP ID: 315 DEVICE NAME: KILN NO. 1

EPA ID: OHD981195779
 SYSTEM TYPE: CEMENT KILN

REGION: 5

APC SYSTEM: FF

Additional ID Information

Process Group: DRY KILN

Location: KILN

Phase: LIQUID

Feed Stream Information

Feed Mechanism: DUAL FUEL BURNER

Feed Location: LOWEND

Manufacturer: ?

Number of Burners: ?

Stream Rates and Properties

7. Run ID	Process Rate	Moisture (%)	Heating Value	Viscosity, cSt	Density, lb/ft3	Ash (%)
315C1R1						
315C1R2						
315C1R3						
315C2R1						
315C2R2						
315C2R3						
315C3R1						
315C3R2						
315C3R3						

6. Description: METALS (CR)

Additional ID Information

Process Group: DRY KILN

Location: KILN

Phase: LIQUID

Feed Stream Information

Feed Mechanism: DUAL FUEL BURNER

Feed Location: LOWEND

Manufacturer: ?

Number of Burners: ?

Stream Rates and Properties

7. Run ID	Process Rate	Moisture (%)	Heating Value	Viscosity, cSt	Density, lb/ft3	Ash (%)
315C1R1						
315C1R2						
315C1R3						
315C2R1						
315C2R2						
315C2R3						
315C3R1						
315C3R2						
315C3R3						

6. Description: METALS (PB)

Additional ID Information

Process Group: DRY KILN

Location: KILN

Phase: LIQUID

Feed Stream Information

Feed Mechanism: DUAL FUEL BURNER

Feed Location: LOWEND

Manufacturer: ?

Number of Burners: ?

Stream Rates and Properties

7. Run ID	Process Rate	Moisture (%)	Heating Value	Viscosity, cSt	Density, lb/ft3	Ash (%)
315C1R1						
315C1R2						
315C1R3						
315C2R1						
315C2R2						
315C2R3						
315C3R1						
315C3R2						
315C3R3						

6. Description: ORGANICS (PERCHLOROETHYLENE)

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SECTION 6: OTHER STREAM RATES

1. COMPANY: SOUTHDOWN
 2. STATE: OH
 3. CITY: FAIRBORN
 4. EP ID: 315 DEVICE NAME: KILN NO. 1

EPA ID: OHD981195779
 SYSTEM TYPE: CEMENT KILN

REGION: 5

APC SYSTEM: FF

Additional ID Information

Process Group: DRY KILN

Location: KILN

Phase: LIQUID

Feed Stream Information

Feed Mechanism: DUAL FUEL BURNER

Feed Location: LOWEND

Manufacturer: ?

Number of Burners: ?

Stream Rates and Properties

7. Run ID	Process Rate	Moisture (%)	Heating Value	Viscosity, cSt	Density, lb/ft3	Ash (%)
315C1R1	150 lbs/hr					
315C1R2	150 lbs/hr					
315C1R3						
315C2R1	138 lbs/hr					
315C2R2	119 lbs/hr					
315C2R3	111 lbs/hr					

5. Type: WASTE

6. Description: LHMW

Additional ID Information

Process Group: DRY KILN

Location: KILN

Phase: LIQUID

Feed Stream Information

Feed Mechanism: DUAL FUEL BURNER

Feed Location: LOWEND

Manufacturer: ?

Number of Burners: 1

Stream Rates and Properties

7. Run ID	Process Rate	Moisture (%)	Heating Value	Viscosity, cSt	Density, lb/ft3	Ash (%)
315C1R1	5370 lbs/hr					
315C1R2	5360 lbs/hr					
315C1R3	5360 lbs/hr					
315C2R1	5290 lbs/hr					
315C2R2	5330 lbs/hr					
315C2R3	5334 lbs/hr					

6. Description: TIRES

Additional ID Information

Process Group: DRY KILN

Location: KILN

Phase: SOLID

Feed Stream Information

Feed Mechanism: GRAVITY

Feed Location: HIGHEND

Manufacturer: NA

Number of Burners: NA

Stream Rates and Properties

7. Run ID	Process Rate	Moisture (%)	Heating Value	Viscosity, cSt	Density, lb/ft3	Ash (%)
315C1R1	1330 lbs/hr					
315C1R2	1330 lbs/hr					
315C1R3	907 lbs/hr					
315C2R1	907 lbs/hr					
315C2R2	907 lbs/hr					
315C2R3	907 lbs/hr					

US EPA ARCHIVE DOCUMENT

SECTION 6: OTHER STREAM RATES

1. COMPANY: SOUTHDOWN
 2. STATE: TN
 3. CITY: KNOXVILLE
 4. EP ID: 316 DEVICE NAME: KILN NO. 1 EPA ID: TND106203375 SYSTEM TYPE: CEMENT KILN APC SYSTEM: FF REGION: 4

5. Type: FF ASH

6. Description: NONRECYCLE

Additional ID Information

Process Group: DRY KILN Location: FF-BYPASS Phase: SOLID

Feed Stream Information

Feed Mechanism: NA Feed Location: NA
 Manufacturer: NA Number of Burners: NA

Stream Rates and Properties

7. Run ID	Process Rate	Moisture (%)	Heating Value	Viscosity, cSt	Density, lb/ft3	Ash (%)
316C1R1						
316C1R2						
316C1R3						
316C2R1						
316C2R2						
316C2R3						

6. Description: RECYCLE

Additional ID Information

Process Group: DRY KILN Location: FF-MAIN Phase: SOLID

Feed Stream Information

Feed Mechanism: NA Feed Location: NA
 Manufacturer: NA Number of Burners: NA

Stream Rates and Properties

7. Run ID	Process Rate	Moisture (%)	Heating Value	Viscosity, cSt	Density, lb/ft3	Ash (%)
316C1R1						
316C1R2						
316C1R3						
316C2R1						
316C2R2						
316C2R3						

5. Type: FUEL

6. Description: COAL

Additional ID Information

Process Group: DRY KILN Location: KILN Phase: SOLID

Feed Stream Information

Feed Mechanism: MULTI-FUEL BURNER Feed Location: LOWEND
 Manufacturer: ? Number of Burners: 1

Stream Rates and Properties

7. Run ID	Process Rate	Moisture (%)	Heating Value	Viscosity, cSt	Density, lb/ft3	Ash (%)
316C1R1	13760 lbs/hr		12883 Btu/lb			
316C1R2	14020 lbs/hr		12756 Btu/lb			
316C1R3	14680 lbs/hr		12915 Btu/lb			
316C2R1	14000 lbs/hr		12927 Btu/lb			
316C2R2	14000 lbs/hr		12866 Btu/lb			
316C2R3	16000 lbs/hr		12832 Btu/lb			

5. Type: RAW MATERIAL

6. Description:

US EPA ARCHIVE DOCUMENT

SECTION 6: OTHER STREAM RATES

1. COMPANY: SOUTHDOWN
 2. STATE: TN
 3. CITY: KNOXVILLE
 4. EP ID: 316 DEVICE NAME: KILN NO. 1

EPA ID: TND106203375
 SYSTEM TYPE: CEMENT KILN

REGION: 4

APC SYSTEM: FF

Additional ID Information

Process Group: DRY KILN

Location: KILN

Phase: SOLID

Feed Stream Information

Feed Mechanism: NA
 Manufacturer: NA

Feed Location: NA
 Number of Burners: NA

Stream Rates and Properties

7. Run ID	Process Rate	Moisture (%)	Heating Value	Viscosity, cSt	Density, lb/ft3	Ash (%)
316C1R1	310400 lbs/hr					
316C1R2	307800 lbs/hr					
316C1R3	307800 lbs/hr					
316C2R1	308000 lbs/hr					
316C2R2	308000 lbs/hr					
316C2R3	308000 lbs/hr					

5. Type: WASTE

6. Description: SPIKED METALS (BE,CD,CR,AS,PB)

Additional ID Information

Process Group: DRY KILN

Location: KILN

Phase: LIQUID

Feed Stream Information

Feed Mechanism: MULTI-FUEL BURNER
 Manufacturer: ?

Feed Location: ?
 Number of Burners: 1

Stream Rates and Properties

7. Run ID	Process Rate	Moisture (%)	Heating Value	Viscosity, cSt	Density, lb/ft3	Ash (%)
316C1R1	4206 lbs/hr		13476 Btu/lb			
316C1R2	4206 lbs/hr		13324 Btu/lb			
316C1R3	4206 lbs/hr		12393 Btu/lb			
316C2R1	4200 lbs/hr		14381 Btu/lb			
316C2R2	4200 lbs/hr		9503 Btu/lb			
316C2R3	4140 lbs/hr		15593 Btu/lb			

6. Description: TIRES

Additional ID Information

Process Group: DRY KILN

Location: KILN

Phase: SOLID

Feed Stream Information

Feed Mechanism: ?
 Manufacturer: ?

Feed Location: LOWEND
 Number of Burners: ?

Stream Rates and Properties

7. Run ID	Process Rate	Moisture (%)	Heating Value	Viscosity, cSt	Density, lb/ft3	Ash (%)
316C1R1	6516 lbs/hr		9184 Btu/lb			
316C1R2	6510 lbs/hr		7872 Btu/lb			
316C1R3	6510 lbs/hr		7945 Btu/lb			
316C2R1	6540 lbs/hr		7892 Btu/lb			
316C2R2	6540 lbs/hr		8466 Btu/lb			
316C2R3	6540 lbs/hr		8306 Btu/lb			

SECTION 6: OTHER STREAM RATES

1. COMPANY: TEXAS INDUSTRIES
 2. STATE: TX
 3. CITY: MIDLOTHIAN
 4. EP ID: 318 DEVICE NAME: KILN NO. 1 EPA ID: TXD007349327 SYSTEM TYPE: CEMENT KILN APC SYSTEM: ESP REGION: 6

5. Type: FUEL

6. Description: COAL

Additional ID Information

Process Group: WET KILN Location: KILN Phase: SOLID

Feed Stream Information

Feed Mechanism: ? Feed Location: LOWEND
 Manufacturer: ? Number of Burners: ?

Stream Rates and Properties

7. Run ID	Process Rate	Moisture (%)	Heating Value	Viscosity, cSt	Density, lb/ft3	Ash (%)
318C1R1						
318C1R2						
318C1R3						
318C2R1	13734 lbs/hr					
318C2R2	13379 lbs/hr					
318C2R3	13578 lbs/hr					

5. Type: RAW MATERIAL

6. Description:

Additional ID Information

Process Group: WET KILN Location: KILN Phase: SLURRY

Feed Stream Information

Feed Mechanism: NA Feed Location: NA
 Manufacturer: NA Number of Burners: NA

Stream Rates and Properties

7. Run ID	Process Rate	Moisture (%)	Heating Value	Viscosity, cSt	Density, lb/ft3	Ash (%)
318C2R1	148400 lbs/hr					
318C2R2	149800 lbs/hr					
318C2R3	148600 lbs/hr					

5. Type: SPIKE

6. Description: METALS (AS,AG,BA,BE,CD,CR6,HG,SB,PB,TL)

Additional ID Information

Process Group: WET KILN Location: KILN Phase: LIQUID

Feed Stream Information

Feed Mechanism: ? Feed Location: LOWEND
 Manufacturer: ? Number of Burners: ?

Stream Rates and Properties

7. Run ID	Process Rate	Moisture (%)	Heating Value	Viscosity, cSt	Density, lb/ft3	Ash (%)
318C2R1	651 lbs/hr					
318C2R2	670 lbs/hr					
318C2R3	638 lbs/hr					

6. Description: ORGANICS (PERCHLOROETHYLENE)

Additional ID Information

Process Group: WET KILN Location: KILN Phase: LIQUID

Feed Stream Information

Feed Mechanism: ? Feed Location: LOWEND
 Manufacturer: ? Number of Burners: ?

Stream Rates and Properties

7. Run ID	Process Rate	Moisture (%)	Heating Value	Viscosity, cSt	Density, lb/ft3	Ash (%)
318C1R1	145 lbs/hr					
318C1R2	176 lbs/hr					
318C1R3	147 lbs/hr					

US EPA ARCHIVE DOCUMENT

SECTION 6: OTHER STREAM RATES

1. COMPANY: TEXAS INDUSTRIES
 2. STATE: TX
 3. CITY: MIDLOTHIAN
 4. EP ID: 318 DEVICE NAME: KILN NO. 1

EPA ID: TXD007349327
 SYSTEM TYPE: CEMENT KILN
 APC SYSTEM: ESP

REGION: 6

6. Description: ORGANICS (PERCHLOROETHYLENE,CB)

Additional ID Information

Process Group: WET KILN Location: KILN Phase: LIQUID

Feed Stream Information

Feed Mechanism: ? Feed Location: LOWEND
 Manufacturer: ? Number of Burners: ?

Stream Rates and Properties

7. Run ID	Process Rate	Moisture (%)	Heating Value	Viscosity, cSt	Density, lb/ft3	Ash (%)
318C1R1	107 lbs/hr					
318C1R2	117 lbs/hr					
318C1R3	103 lbs/hr					

5. Type: TIER I

6. Description: METALS FEED LIMIT

Additional ID Information

Process Group: WET KILN Location: KILN Phase: SLURRY

Feed Stream Information

Feed Mechanism: ? Feed Location:
 Manufacturer: ? Number of Burners:

Stream Rates and Properties

7. Run ID	Process Rate	Moisture (%)	Heating Value	Viscosity, cSt	Density, lb/ft3	Ash (%)
318C1R1						
318C1R2						
318C1R3						
318C2R1						
318C2R2						
318C2R3						
318C3R1						
318C3R2						
318C3R3						

SECTION 7: EMISSIONS ANALYSES

1. COMPANY: ASH GROVE CEMENT COMPANY
 2. STATE: AR
 3. CITY: FOREMAN
 4. EP ID: 228 DEVICE NAME: KILN NO. 2

EPA ARD981512270
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP

REGION: 6

5. Type: CONTROLLED

6. Description: EMISSIONS Process Group: WET KILN Location: STACK Phase: GAS

7. Category: Dioxin & Furan

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
4D 2378	228C3R1	1.03e-2 ng/dscm	2.76e-9 lbs/hr	CE
4D 2378	228C3R2	1.28e-2 ng/dscm	3.54e-9 lbs/hr	CE
4D 2378	228C3R3	1.08e-2 ng/dscm	2.88e-9 lbs/hr	CE
4D 2378	228C4R1	ND 1.86e-2 ng/dscm 7%O2	4.42e-9 lbs/hr	CE7%O2
4D 2378	228C4R2	ND 1.93e-2 ng/dscm 7%O2	4.35e-9 lbs/hr	CE7%O2
4D 2378	228C4R3	2 2.45e-2 ng/dscm 7%O2	6.08e-9 lbs/hr	CE7%O2
4D Other	228C3R1	5.15e+0 ng/dscm	1.38e-6 lbs/hr	CE
4D Other	228C3R2	1.04e+0 ng/dscm	2.86e-7 lbs/hr	CE
4D Other	228C3R3	1.36e+0 ng/dscm	3.65e-7 lbs/hr	CE
4D Other	228C4R1	2.91e-1 ng/dscm 7%O2	6.93e-8 lbs/hr	OCE
4D Other	228C4R2	3.35e-1 ng/dscm 7%O2	7.55e-8 lbs/hr	OCE
4D Other	228C4R3	2.20e-1 ng/dscm 7%O2	5.47e-8 lbs/hr	OCE
4D Total	228C3R1	5.16e+0 ng/dscm	1.38e-6 lbs/hr	OCE
4D Total	228C3R2	1.05e+0 ng/dscm	2.90e-7 lbs/hr	OCE
4D Total	228C3R3	1.37e+0 ng/dscm	3.68e-7 lbs/hr	OCE
4D Total	228C4R1	3.10e-1 ng/dscm 7%O2	7.37e-8 lbs/hr	CE7%O2
4D Total	228C4R2	3.54e-1 ng/dscm 7%O2	7.98e-8 lbs/hr	CE7%O2
4D Total	228C4R3	2.45e-1 ng/dscm 7%O2	6.08e-8 lbs/hr	CE7%O2
4F 2378	228C3R1	2.12e+0 ng/dscm	5.66e-7 lbs/hr	CE
4F 2378	228C3R2	6.66e-1 ng/dscm	1.84e-7 lbs/hr	CE
4F 2378	228C3R3	9.43e-1 ng/dscm	2.52e-7 lbs/hr	CE
4F 2378	228C4R1	1.55e-1 ng/dscm 7%O2	3.69e-8 lbs/hr	CE7%O2
4F 2378	228C4R2	2 2.28e-1 ng/dscm 7%O2	5.14e-8 lbs/hr	CE7%O2
4F 2378	228C4R3	9.17e-1 ng/dscm 7%O2	2.28e-7 lbs/hr	CE7%O2
4F Other	228C3R1	1.05e+1 ng/dscm	2.80e-6 lbs/hr	CE
4F Other	228C3R2	3.05e+0 ng/dscm	8.42e-7 lbs/hr	CE
4F Other	228C3R3	4.10e+0 ng/dscm	1.10e-6 lbs/hr	CE
4F Other	228C4R1	6.82e-1 ng/dscm 7%O2	1.62e-7 lbs/hr	OCE
4F Other	228C4R2	8.03e-1 ng/dscm 7%O2	1.81e-7 lbs/hr	OCE
4F Other	228C4R3	3.67e+0 ng/dscm 7%O2	9.12e-7 lbs/hr	OCE
4F Total	228C3R1	1.26e+1 ng/dscm	3.37e-6 lbs/hr	OCE
4F Total	228C3R2	3.71e+0 ng/dscm	1.03e-6 lbs/hr	OCE
4F Total	228C3R3	5.04e+0 ng/dscm	1.35e-6 lbs/hr	OCE
4F Total	228C4R1	8.37e-1 ng/dscm 7%O2	1.99e-7 lbs/hr	CE7%O2
4F Total	228C4R2	1.03e+0 ng/dscm 7%O2	2.32e-7 lbs/hr	CE7%O2
4F Total	228C4R3	4.59e+0 ng/dscm 7%O2	1.14e-6 lbs/hr	CE7%O2
5D 12378	228C3R1	8.78e-2 ng/dscm	2.35e-8 lbs/hr	CE
5D 12378	228C3R2	3.07e-2 ng/dscm	8.49e-9 lbs/hr	CE
5D 12378	228C3R3	4.31e-2 ng/dscm	1.15e-8 lbs/hr	CE
5D 12378	228C4R1	ND 3.10e-2 ng/dscm 7%O2	7.37e-9 lbs/hr	CE7%O2
5D 12378	228C4R2	2 1.29e-2 ng/dscm 7%O2	2.90e-9 lbs/hr	CE7%O2
5D 12378	228C4R3	ND 3.06e-2 ng/dscm 7%O2	7.60e-9 lbs/hr	CE7%O2
5D Other	228C3R1	1.37e+1 ng/dscm	3.68e-6 lbs/hr	CE
5D Other	228C3R2	2.09e+0 ng/dscm	5.78e-7 lbs/hr	CE
5D Other	228C3R3	3.03e+0 ng/dscm	8.11e-7 lbs/hr	CE
5D Other	228C4R1	2.79e-1 ng/dscm 7%O2	6.64e-8 lbs/hr	OCE
5D Other	228C4R2	3.74e-1 ng/dscm 7%O2	8.42e-8 lbs/hr	OCE
5D Other	228C4R3	1.50e-1 ng/dscm 7%O2	3.72e-8 lbs/hr	OCE
5D Total	228C3R1	1.38e+1 ng/dscm	3.70e-6 lbs/hr	OCE
5D Total	228C3R2	2.12e+0 ng/dscm	5.87e-7 lbs/hr	OCE
5D Total	228C3R3	3.07e+0 ng/dscm	8.22e-7 lbs/hr	OCE
5D Total	228C4R1	2 3.10e-1 ng/dscm 7%O2	7.37e-8 lbs/hr	CE7%O2
5D Total	228C4R2	3.87e-1 ng/dscm 7%O2	8.71e-8 lbs/hr	CE7%O2
5D Total	228C4R3	1.80e-1 ng/dscm 7%O2	4.48e-8 lbs/hr	CE7%O2
5F 12378	228C3R1	2.25e-1 ng/dscm	6.01e-8 lbs/hr	CE

US EPA ARCHIVE DOCUMENT

SECTION 7: EMISSIONS ANALYSES

1. COMPANY: ASH GROVE CEMENT COMPANY
 2. STATE: AR
 3. CITY: FOREMAN
 4. EP ID: 228 DEVICE NAME: KILN NO. 2

EPA ID: ARD981512270
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP

REGION: 6

5F 12378	228C3R2	5.12e-2	ng/dscm	1.41e-8	lbs/hr	CE
5F 12378	228C3R3	8.89e-2	ng/dscm	2.38e-8	lbs/hr	CE
5F 12378	228C4R1	ND 1.86e-2	ng/dscm 7%O2	4.42e-9	lbs/hr	CE7%O2
5F 12378	228C4R2	1.93e-2	ng/dscm 7%O2	4.35e-9	lbs/hr	CE7%O2
5F 12378	228C4R3	2 4.59e-2	ng/dscm 7%O2	1.14e-8	lbs/hr	CE7%O2
5F 23478	228C3R1	3.36e-1	ng/dscm	8.98e-8	lbs/hr	CE
5F 23478	228C3R2	1.25e-1	ng/dscm	3.47e-8	lbs/hr	CE
5F 23478	228C3R3	2.32e-1	ng/dscm	6.20e-8	lbs/hr	CE
5F 23478	228C4R1	ND 1.86e-2	ng/dscm 7%O2	4.42e-9	lbs/hr	CE7%O2
5F 23478	228C4R2	ND 1.61e-2	ng/dscm 7%O2	3.62e-9	lbs/hr	CE7%O2
5F 23478	228C4R3	9.17e-2	ng/dscm 7%O2	2.28e-8	lbs/hr	CE7%O2
5F Other	228C3R1	2.77e+0	ng/dscm	7.41e-7	lbs/hr	CE
5F Other	228C3R2	1.21e+0	ng/dscm	3.33e-7	lbs/hr	CE
5F Other	228C3R3	2.10e+0	ng/dscm	5.63e-7	lbs/hr	CE
5F Other	228C4R1	1.24e-2	ng/dscm 7%O2	2.95e-9	lbs/hr	OCE
5F Other	228C4R2	1.58e-1	ng/dscm 7%O2	3.56e-8	lbs/hr	OCE
5F Other	228C4R3	1.12e+0	ng/dscm 7%O2	2.77e-7	lbs/hr	OCE
5F Total	228C3R1	3.33e+0	ng/dscm	8.91e-7	lbs/hr	OCE
5F Total	228C3R2	1.38e+0	ng/dscm	3.82e-7	lbs/hr	OCE
5F Total	228C3R3	2.42e+0	ng/dscm	6.49e-7	lbs/hr	OCE
5F Total	228C4R1	2 4.96e-2	ng/dscm 7%O2	1.18e-8	lbs/hr	CE7%O2
5F Total	228C4R2	1.93e-1	ng/dscm 7%O2	4.35e-8	lbs/hr	CE7%O2
5F Total	228C4R3	1.25e+0	ng/dscm 7%O2	3.11e-7	lbs/hr	CE7%O2
6D 123478	228C3R1	2.01e-1	ng/dscm	5.39e-8	lbs/hr	CE
6D 123478	228C3R2	5.63e-2	ng/dscm	1.56e-8	lbs/hr	CE
6D 123478	228C3R3	7.81e-2	ng/dscm	2.09e-8	lbs/hr	CE
6D 123478	228C4R1	ND 3.10e-2	ng/dscm 7%O2	7.37e-9	lbs/hr	CE7%O2
6D 123478	228C4R2	ND 3.22e-2	ng/dscm 7%O2	7.24e-9	lbs/hr	CE7%O2
6D 123478	228C4R3	ND 3.06e-2	ng/dscm 7%O2	7.60e-9	lbs/hr	CE7%O2
6D 123678	228C3R1	3.36e-1	ng/dscm	8.98e-8	lbs/hr	CE
6D 123678	228C3R2	7.42e-2	ng/dscm	2.05e-8	lbs/hr	CE
6D 123678	228C3R3	1.29e-1	ng/dscm	3.46e-8	lbs/hr	CE
6D 123678	228C4R1	ND 2.79e-2	ng/dscm 7%O2	6.64e-9	lbs/hr	CE7%O2
6D 123678	228C4R2	ND 2.57e-2	ng/dscm 7%O2	5.79e-9	lbs/hr	CE7%O2
6D 123678	228C4R3	ND 2.45e-2	ng/dscm 7%O2	6.08e-9	lbs/hr	CE7%O2
6D 123789	228C3R1	1.91e-1	ng/dscm	5.11e-8	lbs/hr	CE
6D 123789	228C3R2	9.73e-2	ng/dscm	2.69e-8	lbs/hr	CE
6D 123789	228C3R3	1.48e-1	ng/dscm	3.97e-8	lbs/hr	CE
6D 123789	228C4R1	ND 3.10e-2	ng/dscm 7%O2	7.37e-9	lbs/hr	CE7%O2
6D 123789	228C4R2	ND 2.89e-2	ng/dscm 7%O2	6.52e-9	lbs/hr	CE7%O2
6D 123789	228C4R3	ND 2.75e-2	ng/dscm 7%O2	6.84e-9	lbs/hr	CE7%O2
6D Other	228C3R1	2.09e+1	ng/dscm	5.59e-6	lbs/hr	CE
6D Other	228C3R2	3.59e+0	ng/dscm	9.91e-7	lbs/hr	CE
6D Other	228C3R3	4.55e+0	ng/dscm	1.22e-6	lbs/hr	CE
6D Other	228C4R1	2.51e-1	ng/dscm 7%O2	5.97e-8	lbs/hr	OCE
6D Other	228C4R2	2.27e-2	ng/dscm 7%O2	5.11e-9	lbs/hr	OCE
6D Other	228C4R3	4.37e-1	ng/dscm 7%O2	1.09e-7	lbs/hr	OCE
6D Total	228C3R1	2.16e+1	ng/dscm	5.79e-6	lbs/hr	OCE
6D Total	228C3R2	3.81e+0	ng/dscm	1.05e-6	lbs/hr	OCE
6D Total	228C3R3	4.90e+0	ng/dscm	1.31e-6	lbs/hr	OCE
6D Total	228C4R1	3.41e-1	ng/dscm 7%O2	8.11e-8	lbs/hr	CE7%O2
6D Total	228C4R2	1.10e-1	ng/dscm 7%O2	2.47e-8	lbs/hr	CE7%O2
6D Total	228C4R3	5.20e-1	ng/dscm 7%O2	1.29e-7	lbs/hr	CE7%O2
6F 123478	228C3R1	1.52e-1	ng/dscm	4.07e-8	lbs/hr	CE
6F 123478	228C3R2	6.40e-2	ng/dscm	1.77e-8	lbs/hr	CE
6F 123478	228C3R3	1.35e-1	ng/dscm	3.61e-8	lbs/hr	CE
6F 123478	228C4R1	ND 2.17e-2	ng/dscm 7%O2	5.16e-9	lbs/hr	CE7%O2
6F 123478	228C4R2	2 2.25e-2	ng/dscm 7%O2	5.07e-9	lbs/hr	CE7%O2
6F 123478	228C4R3	8.87e-2	ng/dscm 7%O2	2.20e-8	lbs/hr	CE7%O2
6F 123678	228C3R1	6.19e-2	ng/dscm	1.66e-8	lbs/hr	CE
6F 123678	228C3R2	3.33e-2	ng/dscm	9.19e-9	lbs/hr	CE

US EPA ARCHIVE DOCUMENT

SECTION 7: EMISSIONS ANALYSES

1. COMPANY: ASH GROVE CEMENT COMPANY
 2. STATE: AR
 3. CITY: FOREMAN
 4. EP ID: 228 DEVICE NAME: KILN NO. 2

EPA ID: ARD981512270
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP

REGION: 6

6F 123678	228C3R3		7.01e-2	ng/dscm	1.87e-8	lbs/hr	CE
6F 123678	228C4R1	ND	1.55e-2	ng/dscm 7%O2	3.69e-9	lbs/hr	CE7%O2
6F 123678	228C4R2		6.43e-3	ng/dscm 7%O2	1.45e-9	lbs/hr	CE7%O2
6F 123678	228C4R3		2.75e-2	ng/dscm 7%O2	6.84e-9	lbs/hr	CE7%O2
6F 123789	228C3R1		1.81e-2	ng/dscm	4.83e-9	lbs/hr	CE
6F 123789	228C3R2		1.02e-2	ng/dscm	2.83e-9	lbs/hr	CE
6F 123789	228C3R3		1.89e-2	ng/dscm	5.05e-9	lbs/hr	CE
6F 123789	228C4R1	ND	2.48e-2	ng/dscm 7%O2	5.90e-9	lbs/hr	CE7%O2
6F 123789	228C4R2	ND	2.25e-2	ng/dscm 7%O2	5.07e-9	lbs/hr	CE7%O2
6F 123789	228C4R3	ND	2.45e-2	ng/dscm 7%O2	6.08e-9	lbs/hr	CE7%O2
6F 234678	228C3R1		1.57e-1	ng/dscm	4.21e-8	lbs/hr	CE
6F 234678	228C3R2		7.94e-2	ng/dscm	2.19e-8	lbs/hr	CE
6F 234678	228C3R3		1.91e-1	ng/dscm	5.12e-8	lbs/hr	CE
6F 234678	228C4R1	ND	1.86e-2	ng/dscm 7%O2	4.42e-9	lbs/hr	CE7%O2
6F 234678	228C4R2		1.29e-2	ng/dscm 7%O2	2.90e-9	lbs/hr	CE7%O2
6F 234678	228C4R3		3.97e-2	ng/dscm 7%O2	9.88e-9	lbs/hr	CE7%O2
6F Other	228C3R1		4.36e-1	ng/dscm	1.17e-7	lbs/hr	CE
6F Other	228C3R2		6.91e-2	ng/dscm	1.91e-8	lbs/hr	CE
6F Other	228C3R3		4.47e-1	ng/dscm	1.20e-7	lbs/hr	CE
6F Other	228C4R1		-6.20e-2	ng/dscm 7%O2	-1.47e-8	lbs/hr	CCE
6F Other	228C4R2		-4.18e-2	ng/dscm 7%O2	-9.41e-9	lbs/hr	CCE
6F Other	228C4R3		8.87e-2	ng/dscm 7%O2	2.20e-8	lbs/hr	CCE
6F Total	228C3R1		8.26e-1	ng/dscm	2.21e-7	lbs/hr	CCE
6F Total	228C3R2		2.56e-1	ng/dscm	7.07e-8	lbs/hr	CCE
6F Total	228C3R3		8.62e-1	ng/dscm	2.31e-7	lbs/hr	CCE
6F Total	228C4R1	ND	1.86e-2	ng/dscm 7%O2	4.42e-9	lbs/hr	CE7%O2
6F Total	228C4R2		2.26e-2	ng/dscm 7%O2	5.08e-9	lbs/hr	CE7%O2
6F Total	228C4R3		2.69e-1	ng/dscm 7%O2	6.68e-8	lbs/hr	CE7%O2
7D 1234678	228C3R1		1.42e+0	ng/dscm	3.80e-7	lbs/hr	CE
7D 1234678	228C3R2		4.61e-1	ng/dscm	1.27e-7	lbs/hr	CE
7D 1234678	228C3R3		6.74e-1	ng/dscm	1.80e-7	lbs/hr	CE
7D 1234678	228C4R1	ND	5.27e-2	ng/dscm 7%O2	1.25e-8	lbs/hr	CE7%O2
7D 1234678	228C4R2	ND	2.25e-2	ng/dscm 7%O2	5.07e-9	lbs/hr	CE7%O2
7D 1234678	228C4R3		6.11e-2	ng/dscm 7%O2	1.52e-8	lbs/hr	CE7%O2
7D Other	228C3R1		3.02e+0	ng/dscm	8.08e-7	lbs/hr	CE
7D Other	228C3R2		9.73e-1	ng/dscm	2.69e-7	lbs/hr	CE
7D Other	228C3R3		1.29e+0	ng/dscm	3.46e-7	lbs/hr	CE
7D Other	228C4R1		4.34e-2	ng/dscm 7%O2	1.03e-8	lbs/hr	CCE
7D Other	228C4R2		4.84e-2	ng/dscm 7%O2	1.09e-8	lbs/hr	CCE
7D Other	228C4R3		0.00e+0		-1.62e-27	lbs/hr	CCE
7D Total	228C3R1		4.44e+0	ng/dscm	1.19e-6	lbs/hr	CCE
7D Total	228C3R2		1.43e+0	ng/dscm	3.96e-7	lbs/hr	CCE
7D Total	228C3R3		1.97e+0	ng/dscm	5.26e-7	lbs/hr	CCE
7D Total	228C4R1		9.61e-2	ng/dscm 7%O2	2.29e-8	lbs/hr	CE7%O2
7D Total	228C4R2		7.09e-2	ng/dscm 7%O2	1.60e-8	lbs/hr	CE7%O2
7D Total	228C4R3		6.11e-2	ng/dscm 7%O2	1.52e-8	lbs/hr	CE7%O2
7F 1234678	228C3R1		2.58e-3	ng/dscm	6.90e-10	lbs/hr	CE
7F 1234678	228C3R2		3.84e-2	ng/dscm	1.06e-8	lbs/hr	CE
7F 1234678	228C3R3		8.08e-2	ng/dscm	2.16e-8	lbs/hr	CE
7F 1234678	228C4R1	ND	1.86e-2	ng/dscm 7%O2	4.42e-9	lbs/hr	CE7%O2
7F 1234678	228C4R2	2	9.65e-3	ng/dscm 7%O2	2.17e-9	lbs/hr	CE7%O2
7F 1234678	228C4R3		2.45e-2	ng/dscm 7%O2	6.08e-9	lbs/hr	CE7%O2
7F 1234789	228C3R1		2.58e-3	ng/dscm	6.90e-10	lbs/hr	CE
7F 1234789	228C3R2		1.54e-2	ng/dscm	4.24e-9	lbs/hr	CE
7F 1234789	228C3R3		3.50e-2	ng/dscm	9.37e-9	lbs/hr	CE
7F 1234789	228C4R1	ND	3.10e-2	ng/dscm 7%O2	7.37e-9	lbs/hr	CE7%O2
7F 1234789	228C4R2	ND	3.22e-2	ng/dscm 7%O2	7.24e-9	lbs/hr	CE7%O2
7F 1234789	228C4R3	ND	3.06e-2	ng/dscm 7%O2	7.60e-9	lbs/hr	CE7%O2
7F Other	228C3R1		4.65e-2	ng/dscm	1.24e-8	lbs/hr	CE
7F Other	228C3R2		4.61e-2	ng/dscm	1.27e-8	lbs/hr	CE
7F Other	228C3R3		9.16e-2	ng/dscm	2.45e-8	lbs/hr	CE

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SECTION 7: EMISSIONS ANALYSES

1. COMPANY: ASH GROVE CEMENT COMPANY
 2. STATE: AR
 3. CITY: FOREMAN
 4. EP ID: 228 DEVICE NAME: KILN NO. 2

EPA ARD981512270
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP

REGION: 6

7F Other	228C4R1	-2.48e-2	ng/dscm	7%O2	-5.90e-9	lbs/hr	CCE
7F Other	228C4R2	-2.57e-2	ng/dscm	7%O2	-5.79e-9	lbs/hr	CCE
7F Other	228C4R3	-3.97e-2	ng/dscm	7%O2	-9.88e-9	lbs/hr	CCE
7F Total	228C3R1	5.16e-2	ng/dscm		1.38e-8	lbs/hr	CCE
7F Total	228C3R2	9.98e-2	ng/dscm		2.76e-8	lbs/hr	CCE
7F Total	228C3R3	2.07e-1	ng/dscm		5.55e-8	lbs/hr	CCE
7F Total	228C4R1	ND	2.48e-2	ng/dscm	5.90e-9	lbs/hr	CE7%O2
7F Total	228C4R2	2	1.61e-2	ng/dscm	3.63e-9	lbs/hr	CE7%O2
7F Total	228C4R3	2	1.53e-2	ng/dscm	3.80e-9	lbs/hr	CE7%O2
8D	228C3R1	4.39e-1	ng/dscm		1.17e-7	lbs/hr	CE
8D	228C3R2	2.82e-1	ng/dscm		7.78e-8	lbs/hr	CE
8D	228C3R3	3.50e-1	ng/dscm		9.37e-8	lbs/hr	CE
8D	228C4R1	2	7.13e-2	ng/dscm	1.70e-8	lbs/hr	CE7%O2
8D	228C4R2	2	4.18e-2	ng/dscm	9.42e-9	lbs/hr	CE7%O2
8D	228C4R3		7.64e-2	ng/dscm	1.90e-8	lbs/hr	CE7%O2
8F	228C3R1	4.13e-2	ng/dscm		1.10e-8	lbs/hr	CE
8F	228C3R2	3.07e-2	ng/dscm		8.49e-9	lbs/hr	CE
8F	228C3R3	4.58e-2	ng/dscm		1.23e-8	lbs/hr	CE
8F	228C4R1	ND	3.10e-2	ng/dscm	7.37e-9	lbs/hr	CE7%O2
8F	228C4R2	2	5.15e-2	ng/dscm	1.16e-8	lbs/hr	CE7%O2
8F	228C4R3		7.03e-2	ng/dscm	1.75e-8	lbs/hr	CE7%O2
TEQ	228C3R1	5.71e-1	ng/dscm		1.53e-7	lbs/hr	CCET
TEQ	228C3R2	2.07e-1	ng/dscm		5.72e-8	lbs/hr	CCET
TEQ	228C3R3	3.32e-1	ng/dscm		8.89e-8	lbs/hr	CCET
TEQ	228C4R1		7.80e-2	ng/dscm	1.86e-8	lbs/hr	CCET
TEQ	228C4R2		7.34e-2	ng/dscm	1.65e-8	lbs/hr	CCET
TEQ	228C4R3		2.07e-1	ng/dscm	5.15e-8	lbs/hr	CCET
Total PCDD/PCDF	228C3R1	6.23e+1	ng/dscm		1.67e-5	lbs/hr	CCET
Total PCDD/PCDF	228C3R2	1.42e+1	ng/dscm		3.92e-6	lbs/hr	CCET
Total PCDD/PCDF	228C3R3	2.02e+1	ng/dscm		5.42e-6	lbs/hr	CCET
Total PCDD/PCDF	228C4R1	2.09e+0	ng/dscm	7%O2	4.97e-7	lbs/hr	CCET
Total PCDD/PCDF	228C4R2	2.28e+0	ng/dscm	7%O2	5.13e-7	lbs/hr	CCET
Total PCDD/PCDF	228C4R3	7.28e+0	ng/dscm	7%O2	1.81e-6	lbs/hr	CCET

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Chlorine	228C2R1	ND 0.00e+0	6.00e-4 lbs/hr	
Chlorine	228C2R2	0.00e+0	1.16e+0 lbs/hr	
Chlorine	228C2R3	ND 0.00e+0	9.40e-2 lbs/hr	
HCl	228C2R1	0.00e+0	7.02e+1 lbs/hr	
HCl	228C2R2	0.00e+0	7.02e+1 lbs/hr	
HCl	228C2R3	0.00e+0	7.27e+1 lbs/hr	

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Arsenic	228C2R1	0.00e+0	1.40e-3 lbs/hr	
Arsenic	228C2R2	ND 0.00e+0	5.50e-4 lbs/hr	
Arsenic	228C2R3	0.00e+0	8.40e-4 lbs/hr	
Beryllium	228C2R1	ND 0.00e+0	4.10e-5 lbs/hr	
Beryllium	228C2R2	ND 0.00e+0	3.20e-5 lbs/hr	
Beryllium	228C2R3	ND 0.00e+0	3.10e-5 lbs/hr	
Cadmium	228C2R1	0.00e+0	4.00e-3 lbs/hr	
Cadmium	228C2R2	ND 0.00e+0	1.10e-3 lbs/hr	
Cadmium	228C2R3	ND 0.00e+0	9.60e-4 lbs/hr	
Chromium	228C2R1	0.00e+0	5.20e-3 lbs/hr	
Chromium	228C2R2	0.00e+0	1.40e-3 lbs/hr	
Chromium	228C2R3	0.00e+0	2.50e-4 lbs/hr	

SECTION 7: EMISSIONS ANALYSES

1. COMPANY: ASH GROVE CEMENT COMPANY
 2. STATE: AR
 3. CITY: FOREMAN
 4. EP ID: 228 DEVICE NAME: KILN NO. 2

EPA ARD981512270
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP

REGION: 6

Chromium (Hex)	228C2R1	ND	0.00e+0	6.40e-5	lbs/hr	
Chromium (Hex)	228C2R2	ND	0.00e+0	4.50e-5	lbs/hr	
Chromium (Hex)	228C2R3	ND	0.00e+0	8.40e-5	lbs/hr	
Lead	228C2R1		0.00e+0	8.20e-2	lbs/hr	
Lead	228C2R2		0.00e+0	6.40e-2	lbs/hr	
Lead	228C2R3		0.00e+0	7.30e-2	lbs/hr	

7. Category: PAH

Analysis:

8. Substance	9. Run ID		Concentration	Mass Rate	Calc
Acenaphthylene	228C4R1		3.21e+4 ng/dscm 7%O2	7.64e-3 lbs/hr	CE7%O2
Acenaphthylene	228C4R2		4.72e+4 ng/dscm 7%O2	1.06e-2 lbs/hr	CE7%O2
Acenaphthylene	228C4R3		7.39e+4 ng/dscm 7%O2	1.84e-2 lbs/hr	CE7%O2
Anthracene	228C4R1	ND	0.00e+0	0.00e+0	
Anthracene	228C4R2		3.13e+3 ng/dscm 7%O2	7.06e-4 lbs/hr	CE7%O2
Anthracene	228C4R3		9.15e+3 ng/dscm 7%O2	2.27e-3 lbs/hr	CE7%O2
Benzo(a)anthracene	228C4R1	ND	0.00e+0	0.00e+0	
Benzo(a)anthracene	228C4R2	ND	0.00e+0	0.00e+0	
Benzo(a)anthracene	228C4R3		5.50e+3 ng/dscm 7%O2	1.37e-3 lbs/hr	CE7%O2
Benzo(a)pyrene	228C4R1	ND	0.00e+0	0.00e+0	
Benzo(a)pyrene	228C4R2	ND	0.00e+0	0.00e+0	
Benzo(a)pyrene	228C4R3		4.18e+3 ng/dscm 7%O2	1.04e-3 lbs/hr	CE7%O2
Benzo(b)fluoranthene	228C4R1	ND	0.00e+0	0.00e+0	
Benzo(b)fluoranthene	228C4R2	ND	0.00e+0	0.00e+0	
Benzo(b)fluoranthene	228C4R3		1.10e+4 ng/dscm 7%O2	2.74e-3 lbs/hr	CE7%O2
Benzo(k)fluoranthene	228C4R1	ND	0.00e+0	0.00e+0	
Benzo(k)fluoranthene	228C4R2	ND	0.00e+0	0.00e+0	
Benzo(k)fluoranthene	228C4R3		3.34e+3 ng/dscm 7%O2	8.30e-4 lbs/hr	CE7%O2
Chrysene	228C4R1	ND	0.00e+0	0.00e+0	
Chrysene	228C4R2	ND	0.00e+0	0.00e+0	
Chrysene	228C4R3		1.13e+4 ng/dscm 7%O2	2.81e-3 lbs/hr	CE7%O2
Fluoranthene	228C4R1		1.35e+4 ng/dscm 7%O2	3.21e-3 lbs/hr	CE7%O2
Fluoranthene	228C4R2		1.84e+4 ng/dscm 7%O2	4.14e-3 lbs/hr	CE7%O2
Fluoranthene	228C4R3		3.24e+4 ng/dscm 7%O2	8.05e-3 lbs/hr	CE7%O2
Fluorene	228C4R1		3.13e+3 ng/dscm 7%O2	7.45e-4 lbs/hr	CE7%O2
Fluorene	228C4R2		4.22e+3 ng/dscm 7%O2	9.51e-4 lbs/hr	CE7%O2
Fluorene	228C4R3		6.34e+3 ng/dscm 7%O2	1.58e-3 lbs/hr	CE7%O2
Naphthalene	228C4R1		2.07e+5 ng/dscm 7%O2	4.93e-2 lbs/hr	CE7%O2
Naphthalene	228C4R2		2.24e+5 ng/dscm 7%O2	5.05e-2 lbs/hr	CE7%O2
Naphthalene	228C4R3		3.45e+5 ng/dscm 7%O2	8.56e-2 lbs/hr	CE7%O2
Phenanthrene	228C4R1		2.56e+4 ng/dscm 7%O2	6.10e-3 lbs/hr	CE7%O2
Phenanthrene	228C4R2		3.53e+4 ng/dscm 7%O2	7.94e-3 lbs/hr	CE7%O2
Phenanthrene	228C4R3		9.20e+4 ng/dscm 7%O2	2.29e-2 lbs/hr	CE7%O2
Pyrene	228C4R1		1.27e+4 ng/dscm 7%O2	3.02e-3 lbs/hr	CE7%O2
Pyrene	228C4R2		1.86e+4 ng/dscm 7%O2	4.20e-3 lbs/hr	CE7%O2
Pyrene	228C4R3		2.60e+4 ng/dscm 7%O2	6.47e-3 lbs/hr	CE7%O2

7. Category: Particulate

Analysis:

8. Substance	9. Run ID		Concentration	Mass Rate	Calc
Particulate	228C2R2		0.00e+0	3.66e+0 lbs/hr	
Particulate	228C2R3		0.00e+0	1.80e+1 lbs/hr	

7. Category: SVOC

Analysis:

8. Substance	9. Run ID		Concentration	Mass Rate	Calc
1,2,4-Trichlorobenzene	228C1R1	ND	0.00e+0	2.51e-5 lbs/hr	
1,2,4-Trichlorobenzene	228C1R2	ND	0.00e+0	2.12e-5 lbs/hr	

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SECTION 7: EMISSIONS ANALYSES

1. COMPANY: ASH GROVE CEMENT COMPANY
 2. STATE: AR
 3. CITY: FOREMAN
 4. EP ID: 228 DEVICE NAME: KILN NO. 2

EPA ID: ARD981512270
 SYSTEM TYPE: CEMENT KILN

REGION: 6
 APC SYSTEM: ESP

1,2,4-Trichlorobenzene	228C1R3	ND	0.00e+0		2.25e-5 lbs/hr	
1,2,4-Trichlorobenzene	228C4R1	ND	4.40e+2 ng/dscm 7%O2		1.05e-4 lbs/hr	CE7%O2
1,2,4-Trichlorobenzene	228C4R2	ND	4.94e+2 ng/dscm 7%O2		1.11e-4 lbs/hr	CE7%O2
1,2,4-Trichlorobenzene	228C4R3	ND	4.99e+2 ng/dscm 7%O2		1.24e-4 lbs/hr	CE7%O2
2-Chlorophenol	228C4R1	ND	0.00e+0		0.00e+0	
2-Chlorophenol	228C4R2		3.90e+3 ng/dscm 7%O2		8.77e-4 lbs/hr	CE7%O2
2-Chlorophenol	228C4R3		3.29e+3 ng/dscm 7%O2		8.17e-4 lbs/hr	CE7%O2
2-Methylnaphthalene	228C4R1		6.15e+3 ng/dscm 7%O2		1.46e-3 lbs/hr	CE7%O2
2-Methylnaphthalene	228C4R2		1.05e+4 ng/dscm 7%O2		2.36e-3 lbs/hr	CE7%O2
2-Methylnaphthalene	228C4R3		9.48e+3 ng/dscm 7%O2		2.36e-3 lbs/hr	CE7%O2
2-Methylphenol (o-Cresol)	228C4R1		5.58e+3 ng/dscm 7%O2		1.33e-3 lbs/hr	CE7%O2
2-Methylphenol (o-Cresol)	228C4R2		9.50e+3 ng/dscm 7%O2		2.14e-3 lbs/hr	CE7%O2
2-Methylphenol (o-Cresol)	228C4R3		6.35e+3 ng/dscm 7%O2		1.58e-3 lbs/hr	CE7%O2
3,4-Methylphenol	228C4R1		9.75e+3 ng/dscm 7%O2		2.32e-3 lbs/hr	CE7%O2
3,4-Methylphenol	228C4R2		1.54e+4 ng/dscm 7%O2		3.47e-3 lbs/hr	CE7%O2
3,4-Methylphenol	228C4R3		1.15e+4 ng/dscm 7%O2		2.85e-3 lbs/hr	CE7%O2
Benzoic acid	228C4R1		2.12e+5 ng/dscm 7%O2		5.05e-2 lbs/hr	CE7%O2
Benzoic acid	228C4R2		8.29e+5 ng/dscm 7%O2		1.87e-1 lbs/hr	CE7%O2
Benzoic acid	228C4R3		7.55e+5 ng/dscm 7%O2		1.88e-1 lbs/hr	CE7%O2
Benzyl alcohol	228C4R1		7.08e+3 ng/dscm 7%O2		1.69e-3 lbs/hr	CE7%O2
Benzyl alcohol	228C4R2		1.15e+4 ng/dscm 7%O2		2.58e-3 lbs/hr	CE7%O2
Benzyl alcohol	228C4R3		6.73e+3 ng/dscm 7%O2		1.67e-3 lbs/hr	CE7%O2
bis(2-ethylexyl) Phthalate	228C4R1		5.35e+3 ng/dscm 7%O2		1.27e-3 lbs/hr	CE7%O2
bis(2-ethylexyl) Phthalate	228C4R2		9.54e+3 ng/dscm 7%O2		2.15e-3 lbs/hr	CE7%O2
bis(2-ethylexyl) Phthalate	228C4R3		4.47e+3 ng/dscm 7%O2		1.11e-3 lbs/hr	CE7%O2
di-n-Butyl Phthalate	228C4R1		1.63e+4 ng/dscm 7%O2		3.89e-3 lbs/hr	CE7%O2
di-n-Butyl Phthalate	228C4R2	ND	0.00e+0		0.00e+0	
di-n-Butyl Phthalate	228C4R3		6.96e+3 ng/dscm 7%O2		1.73e-3 lbs/hr	CE7%O2
Dibenzofuran	228C4R1		1.18e+4 ng/dscm 7%O2		2.80e-3 lbs/hr	CE7%O2
Dibenzofuran	228C4R2		1.65e+4 ng/dscm 7%O2		3.71e-3 lbs/hr	CE7%O2
Dibenzofuran	228C4R3		1.50e+4 ng/dscm 7%O2		3.72e-3 lbs/hr	CE7%O2
Diethylphthalate	228C4R1	ND	0.00e+0		0.00e+0	
Diethylphthalate	228C4R2		1.23e+4 ng/dscm 7%O2		2.76e-3 lbs/hr	CE7%O2
Diethylphthalate	228C4R3	ND	0.00e+0		0.00e+0	
Ethylbenzene	228C4R1	4	5.94e+3 ng/dscm 7%O2		1.41e-3 lbs/hr	CE7%O2
Ethylbenzene	228C4R2	4	5.91e+3 ng/dscm 7%O2		1.33e-3 lbs/hr	CE7%O2
Ethylbenzene	228C4R3	4	5.84e+3 ng/dscm 7%O2		1.45e-3 lbs/hr	CE7%O2
Phenol	228C4R1		4.64e+4 ng/dscm 7%O2		1.10e-2 lbs/hr	CE7%O2
Phenol	228C4R2		7.63e+4 ng/dscm 7%O2		1.72e-2 lbs/hr	CE7%O2
Phenol	228C4R3		6.01e+4 ng/dscm 7%O2		1.49e-2 lbs/hr	CE7%O2
Pyridine	228C4R1		6.18e+4 ng/dscm 7%O2		1.47e-2 lbs/hr	CE7%O2
Pyridine	228C4R2		7.61e+4 ng/dscm 7%O2		1.71e-2 lbs/hr	CE7%O2
Pyridine	228C4R3		6.49e+4 ng/dscm 7%O2		1.61e-2 lbs/hr	CE7%O2

7. Category: THC & CO

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
CO	228C1R1	5.22e+2 ppmv 7%O2	0.00e+0	
CO	228C1R2	4.75e+2 ppmv 7%O2	0.00e+0	
CO	228C1R3	5.49e+2 ppmv 7%O2	0.00e+0	
CO	228C4R1	2.40e+2 ppmv 7%O2	6.63e+1 lbs/hr	CE
CO	228C4R2	2.56e+2 ppmv 7%O2	6.70e+1 lbs/hr	CE
CO	228C4R3	2.47e+2 ppmv 7%O2	7.13e+1 lbs/hr	CE
CO(MHRA)	228C1R1	8.15e+2 ppmv 7%O2	0.00e+0	
CO(MHRA)	228C1R2	6.66e+2 ppmv 7%O2	0.00e+0	
CO(MHRA)	228C1R3	8.37e+2 ppmv 7%O2	0.00e+0	
CO(MHRA)	228C4R1	3.29e+2 ppmv 7%O2	9.09e+1 lbs/hr	CE
CO(MHRA)	228C4R2	4.91e+2 ppmv 7%O2	1.28e+2 lbs/hr	CE
CO(MHRA)	228C4R3	3.20e+2 ppmv 7%O2	9.24e+1 lbs/hr	CE

SECTION 7: EMISSIONS ANALYSES

1. COMPANY: ASH GROVE CEMENT COMPANY
 2. STATE: AR
 3. CITY: FOREMAN
 4. EP ID: 228 DEVICE NAME: KILN NO. 2

EPA ARD981512270
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP

REGION: 6

THC	228C1R1	2.06e+1	ppmv 7%O2	0.00e+0	
THC	228C1R2	1.39e+1	ppmv 7%O2	0.00e+0	
THC	228C1R3	1.44e+1	ppmv 7%O2	0.00e+0	
THC	228C4R1	1.15e+1	ppmv 7%O2	4.99e+0	lbs/hr CE
THC	228C4R2	1.25e+1	ppmv 7%O2	5.14e+0	lbs/hr CE
THC	228C4R3	1.20e+1	ppmv 7%O2	5.44e+0	lbs/hr CE
THC(MHRA)	228C1R1	3.31e+1	ppmv 7%O2	0.00e+0	
THC(MHRA)	228C1R2	1.67e+1	ppmv 7%O2	0.00e+0	
THC(MHRA)	228C1R3	1.76e+1	ppmv 7%O2	0.00e+0	
THC(MHRA)	228C4R1	1.44e+1	ppmv 7%O2	6.25e+0	lbs/hr CE
THC(MHRA)	228C4R2	1.65e+1	ppmv 7%O2	6.78e+0	lbs/hr CE
THC(MHRA)	228C4R3	1.62e+1	ppmv 7%O2	7.35e+0	lbs/hr CE

7. Category: VOC

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
1,1,1-Trichloroethane	228C1R1	ND 0.00e+0	4.23e-5 lbs/hr	
1,1,1-Trichloroethane	228C1R2	ND 0.00e+0	4.37e-5 lbs/hr	
1,1,1-Trichloroethane	228C1R3	ND 0.00e+0	6.88e-5 lbs/hr	
1,1,1-Trichloroethane	228C4R1	ND 2.93e+5 ng/dscm 7%O2	6.98e-2 lbs/hr	CE7%O2
1,1,1-Trichloroethane	228C4R2	ND 3.13e+5 ng/dscm 7%O2	7.06e-2 lbs/hr	CE7%O2
1,1,1-Trichloroethane	228C4R3	ND 2.93e+5 ng/dscm 7%O2	7.29e-2 lbs/hr	CE7%O2
Acetone	228C4R1	4 1.01e+8 ng/dscm 7%O2	2.40e+1 lbs/hr	CE7%O2
Acetone	228C4R2	4 1.52e+8 ng/dscm 7%O2	3.43e+1 lbs/hr	CE7%O2
Acetone	228C4R3	4 1.34e+8 ng/dscm 7%O2	3.33e+1 lbs/hr	CE7%O2
Acrylonitrile	228C4R1	ND 0.00e+0	0.00e+0	
Acrylonitrile	228C4R2	ND 0.00e+0	0.00e+0	
Acrylonitrile	228C4R3	4 2.55e+3 ng/dscm 7%O2	6.35e-4 lbs/hr	CE7%O2
Allyl chloride	228C4R1	4 7.76e+3 ng/dscm 7%O2	1.85e-3 lbs/hr	CE7%O2
Allyl chloride	228C4R2	4 8.02e+3 ng/dscm 7%O2	1.81e-3 lbs/hr	CE7%O2
Allyl chloride	228C4R3	4 8.77e+3 ng/dscm 7%O2	2.18e-3 lbs/hr	CE7%O2
Benzene	228C4R1	3 3.99e+5 ng/dscm 7%O2	9.48e-2 lbs/hr	CE7%O2
Benzene	228C4R2	3 4.12e+5 ng/dscm 7%O2	9.29e-2 lbs/hr	CE7%O2
Benzene	228C4R3	3 5.15e+5 ng/dscm 7%O2	1.28e-1 lbs/hr	CE7%O2
Bromomethane	228C4R1	4 1.77e+4 ng/dscm 7%O2	4.21e-3 lbs/hr	CE7%O2
Bromomethane	228C4R2	ND 0.00e+0	0.00e+0	
Bromomethane	228C4R3	4 4.55e+3 ng/dscm 7%O2	1.13e-3 lbs/hr	CE7%O2
Carbon disulfide	228C4R1	4 2.61e+4 ng/dscm 7%O2	6.20e-3 lbs/hr	CE7%O2
Carbon disulfide	228C4R2	4 1.80e+4 ng/dscm 7%O2	4.05e-3 lbs/hr	CE7%O2
Carbon disulfide	228C4R3	4 2.12e+4 ng/dscm 7%O2	5.26e-3 lbs/hr	CE7%O2
Chlorobenzene	228C4R1	4 9.27e+3 ng/dscm 7%O2	2.21e-3 lbs/hr	CE7%O2
Chlorobenzene	228C4R2	4 1.52e+4 ng/dscm 7%O2	3.42e-3 lbs/hr	CE7%O2
Chlorobenzene	228C4R3	4 1.01e+4 ng/dscm 7%O2	2.51e-3 lbs/hr	CE7%O2
Chloromethane	228C4R1	3 2.01e+5 ng/dscm 7%O2	4.79e-2 lbs/hr	CE7%O2
Chloromethane	228C4R2	ND 0.00e+0	0.00e+0	
Chloromethane	228C4R3	3 1.35e+5 ng/dscm 7%O2	3.35e-2 lbs/hr	CE7%O2
Iodomethane	228C4R1	4 2.72e+4 ng/dscm 7%O2	6.47e-3 lbs/hr	CE7%O2
Iodomethane	228C4R2	4 2.93e+4 ng/dscm 7%O2	6.60e-3 lbs/hr	CE7%O2
Iodomethane	228C4R3	4 1.30e+4 ng/dscm 7%O2	3.22e-3 lbs/hr	CE7%O2
m,p-Xylene	228C4R1	4 1.31e+4 ng/dscm 7%O2	3.11e-3 lbs/hr	CE7%O2
m,p-Xylene	228C4R2	4 1.23e+4 ng/dscm 7%O2	2.76e-3 lbs/hr	CE7%O2
m,p-Xylene	228C4R3	4 1.30e+4 ng/dscm 7%O2	3.22e-3 lbs/hr	CE7%O2
Methylene Chloride	228C4R1	4 4.78e+7 ng/dscm 7%O2	1.14e+1 lbs/hr	CE7%O2
Methylene Chloride	228C4R2	4 5.92e+7 ng/dscm 7%O2	1.33e+1 lbs/hr	CE7%O2
Methylene Chloride	228C4R3	4 4.47e+7 ng/dscm 7%O2	1.11e+1 lbs/hr	CE7%O2
o-Xylene	228C4R1	4 5.52e+3 ng/dscm 7%O2	1.31e-3 lbs/hr	CE7%O2
o-Xylene	228C4R2	4 5.27e+3 ng/dscm 7%O2	1.19e-3 lbs/hr	CE7%O2
o-Xylene	228C4R3	4 4.11e+3 ng/dscm 7%O2	1.02e-3 lbs/hr	CE7%O2
Styrene	228C4R1	4 3.84e+4 ng/dscm 7%O2	9.14e-3 lbs/hr	CE7%O2

SECTION 7: EMISSIONS ANALYSES

1. COMPANY: ASH GROVE CEMENT COMPANY
 2. STATE: AR
 3. CITY: FOREMAN
 4. EP ID: 228 DEVICE NAME: KILN NO. 2

EPA ID: ARD981512270
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP

REGION: 6

Styrene	228C4R2	4	4.66e+4	ng/dscm	7%O2	1.05e-2	lbs/hr	CE7%O2
Styrene	228C4R3	5	5.45e+4	ng/dscm	7%O2	1.35e-2	lbs/hr	CE7%O2
Tetrachloroethane	228C1R1	ND	0.00e+0			1.18e-4	lbs/hr	
Tetrachloroethane	228C1R2	ND	0.00e+0			3.53e-4	lbs/hr	
Tetrachloroethane	228C1R3	ND	0.00e+0			3.06e-4	lbs/hr	
Toluene	228C4R1	6	2.83e+7	ng/dscm	7%O2	6.72e+0	lbs/hr	CE7%O2
Toluene	228C4R2	6	3.48e+7	ng/dscm	7%O2	7.83e+0	lbs/hr	CE7%O2
Toluene	228C4R3	6	2.67e+7	ng/dscm	7%O2	6.63e+0	lbs/hr	CE7%O2
Vinyl Chloride	228C4R1	4	1.39e+4	ng/dscm	7%O2	3.31e-3	lbs/hr	CE7%O2
Vinyl Chloride	228C4R2	ND	0.00e+0			0.00e+0		
Vinyl Chloride	228C4R3	4	1.31e+5	ng/dscm	7%O2	3.25e-2	lbs/hr	CE7%O2

US EPA ARCHIVE DOCUMENT

SECTION 7: EMISSIONS ANALYSES

1. COMPANY: ASH GROVE CEMENT COMPANY
 2. STATE: AR
 3. CITY: FOREMAN
 4. EP ID: 403 DEVICE NAME: KILN NO. 1

EPA ARD981512270
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP

REGION: 6

5. Type: CONTROLLED

6. Description: EMISSIONS Process Group: WET KILN Location: STACK Phase: GAS

7. Category: Dioxin & Furan

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc
4D 2378	403C1R1	ND	2.05e-2 ng/dscm 7%O2	5.63e-9 lbs/hr	CE7%O2
4D 2378	403C1R2		3.19e+0 ng/dscm 7%O2	8.83e-7 lbs/hr	CE7%O2
4D 2378	403C1R3	ND	2.93e-2 ng/dscm 7%O2	8.31e-9 lbs/hr	CE7%O2
4D 2378	403C1R4	ND	1.19e-1 ng/dscm 7%O2	3.16e-8 lbs/hr	CE7%O2
4D Other	403C1R1		1.14e+1 ng/dscm 7%O2	3.13e-6 lbs/hr	OCE
4D Other	403C1R2		1.68e+2 ng/dscm 7%O2	4.65e-5 lbs/hr	OCE
4D Other	403C1R3		4.42e+1 ng/dscm 7%O2	1.25e-5 lbs/hr	OCE
4D Other	403C1R4		1.76e+1 ng/dscm 7%O2	4.69e-6 lbs/hr	OCE
4D Total	403C1R1		1.14e+1 ng/dscm 7%O2	3.13e-6 lbs/hr	CE7%O2
4D Total	403C1R2		1.71e+2 ng/dscm 7%O2	4.74e-5 lbs/hr	CE7%O2
4D Total	403C1R3		4.42e+1 ng/dscm 7%O2	1.25e-5 lbs/hr	CE7%O2
4D Total	403C1R4		1.77e+1 ng/dscm 7%O2	4.72e-6 lbs/hr	CE7%O2
4F 2378	403C1R1		9.09e-1 ng/dscm 7%O2	2.49e-7 lbs/hr	CE7%O2
4F 2378	403C1R2		1.53e+1 ng/dscm 7%O2	4.24e-6 lbs/hr	CE7%O2
4F 2378	403C1R3		2.43e+0 ng/dscm 7%O2	6.90e-7 lbs/hr	CE7%O2
4F 2378	403C1R4		6.82e-1 ng/dscm 7%O2	1.82e-7 lbs/hr	CE7%O2
4F Other	403C1R1		3.58e+0 ng/dscm 7%O2	9.81e-7 lbs/hr	OCE
4F Other	403C1R2		5.87e+1 ng/dscm 7%O2	1.63e-5 lbs/hr	OCE
4F Other	403C1R3		8.05e+0 ng/dscm 7%O2	2.29e-6 lbs/hr	OCE
4F Other	403C1R4		2.20e+0 ng/dscm 7%O2	5.85e-7 lbs/hr	OCE
4F Total	403C1R1		4.49e+0 ng/dscm 7%O2	1.23e-6 lbs/hr	CE7%O2
4F Total	403C1R2		7.41e+1 ng/dscm 7%O2	2.05e-5 lbs/hr	CE7%O2
4F Total	403C1R3		1.05e+1 ng/dscm 7%O2	2.97e-6 lbs/hr	CE7%O2
4F Total	403C1R4		2.88e+0 ng/dscm 7%O2	7.66e-7 lbs/hr	CE7%O2
5D 12378	403C1R1		1.14e-1 ng/dscm 7%O2	3.13e-8 lbs/hr	CE7%O2
5D 12378	403C1R2		2.50e+0 ng/dscm 7%O2	6.93e-7 lbs/hr	CE7%O2
5D 12378	403C1R3		2.90e-1 ng/dscm 7%O2	8.23e-8 lbs/hr	CE7%O2
5D 12378	403C1R4		1.75e-1 ng/dscm 7%O2	4.66e-8 lbs/hr	CE7%O2
5D Other	403C1R1		1.48e+1 ng/dscm 7%O2	4.06e-6 lbs/hr	OCE
5D Other	403C1R2		2.52e+2 ng/dscm 7%O2	6.97e-5 lbs/hr	OCE
5D Other	403C1R3		5.03e+1 ng/dscm 7%O2	1.43e-5 lbs/hr	OCE
5D Other	403C1R4		2.30e+1 ng/dscm 7%O2	6.13e-6 lbs/hr	OCE
5D Total	403C1R1		1.49e+1 ng/dscm 7%O2	4.09e-6 lbs/hr	CE7%O2
5D Total	403C1R2		2.54e+2 ng/dscm 7%O2	7.04e-5 lbs/hr	CE7%O2
5D Total	403C1R3		5.06e+1 ng/dscm 7%O2	1.44e-5 lbs/hr	CE7%O2
5D Total	403C1R4		2.32e+1 ng/dscm 7%O2	6.18e-6 lbs/hr	CE7%O2
5F 12378	403C1R1		1.41e-1 ng/dscm 7%O2	3.86e-8 lbs/hr	CE7%O2
5F 12378	403C1R2		1.68e+0 ng/dscm 7%O2	4.65e-7 lbs/hr	CE7%O2
5F 12378	403C1R3		3.80e-1 ng/dscm 7%O2	1.08e-7 lbs/hr	CE7%O2
5F 12378	403C1R4		1.19e-1 ng/dscm 7%O2	3.16e-8 lbs/hr	CE7%O2
5F 23478	403C1R1		3.22e-1 ng/dscm 7%O2	8.84e-8 lbs/hr	CE7%O2
5F 23478	403C1R2		4.83e+0 ng/dscm 7%O2	1.34e-6 lbs/hr	CE7%O2
5F 23478	403C1R3		1.23e+0 ng/dscm 7%O2	3.49e-7 lbs/hr	CE7%O2
5F 23478	403C1R4		3.56e-1 ng/dscm 7%O2	9.48e-8 lbs/hr	CE7%O2
5F Other	403C1R1		1.59e+0 ng/dscm 7%O2	4.36e-7 lbs/hr	OCE
5F Other	403C1R2		2.91e+1 ng/dscm 7%O2	8.07e-6 lbs/hr	OCE
5F Other	403C1R3		7.75e+0 ng/dscm 7%O2	2.20e-6 lbs/hr	OCE
5F Other	403C1R4		1.51e+0 ng/dscm 7%O2	4.03e-7 lbs/hr	OCE
5F Total	403C1R1		2.05e+0 ng/dscm 7%O2	5.63e-7 lbs/hr	CE7%O2
5F Total	403C1R2		3.57e+1 ng/dscm 7%O2	9.88e-6 lbs/hr	CE7%O2
5F Total	403C1R3		9.36e+0 ng/dscm 7%O2	2.66e-6 lbs/hr	CE7%O2
5F Total	403C1R4		1.99e+0 ng/dscm 7%O2	5.29e-7 lbs/hr	CE7%O2
6D 123478	403C1R1		1.91e-1 ng/dscm 7%O2	5.22e-8 lbs/hr	CE7%O2
6D 123478	403C1R2		1.10e+0 ng/dscm 7%O2	3.04e-7 lbs/hr	CE7%O2

SECTION 7: EMISSIONS ANALYSES

1. COMPANY: ASH GROVE CEMENT COMPANY
 2. STATE: AR
 3. CITY: FOREMAN
 4. EP ID: 403 DEVICE NAME: KILN NO. 1

EPA ARD981512270
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP

REGION: 6

6D 123478	403C1R3	4.68e-1	ng/dscm 7%O2	1.33e-7	lbs/hr	CE7%O2
6D 123478	403C1R4	1.57e-1	ng/dscm 7%O2	4.19e-8	lbs/hr	CE7%O2
6D 123678	403C1R1	3.52e-1	ng/dscm 7%O2	9.65e-8	lbs/hr	CE7%O2
6D 123678	403C1R2	1.92e+0	ng/dscm 7%O2	5.32e-7	lbs/hr	CE7%O2
6D 123678	403C1R3	8.78e-1	ng/dscm 7%O2	2.49e-7	lbs/hr	CE7%O2
6D 123678	403C1R4	3.86e-1	ng/dscm 7%O2	1.03e-7	lbs/hr	CE7%O2
6D 123789	403C1R1	3.22e-1	ng/dscm 7%O2	8.84e-8	lbs/hr	CE7%O2
6D 123789	403C1R2	1.99e+0	ng/dscm 7%O2	5.51e-7	lbs/hr	CE7%O2
6D 123789	403C1R3	8.49e-1	ng/dscm 7%O2	2.41e-7	lbs/hr	CE7%O2
6D 123789	403C1R4	3.56e-1	ng/dscm 7%O2	9.48e-8	lbs/hr	CE7%O2
6D Other	403C1R1	3.02e+1	ng/dscm 7%O2	8.28e-6	lbs/hr	OCE
6D Other	403C1R2	1.20e+2	ng/dscm 7%O2	3.33e-5	lbs/hr	OCE
6D Other	403C1R3	1.28e+2	ng/dscm 7%O2	3.64e-5	lbs/hr	OCE
6D Other	403C1R4	4.21e+1	ng/dscm 7%O2	1.12e-5	lbs/hr	OCE
6D Total	403C1R1	3.11e+1	ng/dscm 7%O2	8.52e-6	lbs/hr	CE7%O2
6D Total	403C1R2	1.25e+2	ng/dscm 7%O2	3.47e-5	lbs/hr	CE7%O2
6D Total	403C1R3	1.30e+2	ng/dscm 7%O2	3.70e-5	lbs/hr	CE7%O2
6D Total	403C1R4	4.30e+1	ng/dscm 7%O2	1.15e-5	lbs/hr	CE7%O2
6F 123478	403C1R1	2.37e-1	ng/dscm 7%O2	6.51e-8	lbs/hr	CE7%O2
6F 123478	403C1R2	1.27e+1	ng/dscm 7%O2	3.50e-6	lbs/hr	CE7%O2
6F 123478	403C1R3	7.32e-1	ng/dscm 7%O2	2.08e-7	lbs/hr	CE7%O2
6F 123478	403C1R4	1.90e-1	ng/dscm 7%O2	5.06e-8	lbs/hr	CE7%O2
6F 123678	403C1R1	1.06e-1	ng/dscm 7%O2	2.89e-8	lbs/hr	CE7%O2
6F 123678	403C1R2	5.76e+0	ng/dscm 7%O2	1.60e-6	lbs/hr	CE7%O2
6F 123678	403C1R3	2.60e-1	ng/dscm 7%O2	7.40e-8	lbs/hr	CE7%O2
6F 123678	403C1R4	7.71e-2	ng/dscm 7%O2	2.05e-8	lbs/hr	CE7%O2
6F 123789	403C1R1	2.64e-2	ng/dscm 7%O2	7.23e-9	lbs/hr	CE7%O2
6F 123789	403C1R2	ND 8.23e-1	ng/dscm 7%O2	2.28e-7	lbs/hr	CE7%O2
6F 123789	403C1R3	7.90e-2	ng/dscm 7%O2	2.24e-8	lbs/hr	CE7%O2
6F 123789	403C1R4	ND 1.48e-1	ng/dscm 7%O2	3.95e-8	lbs/hr	CE7%O2
6F 234678	403C1R1	2.02e-1	ng/dscm 7%O2	5.55e-8	lbs/hr	CE7%O2
6F 234678	403C1R2	1.43e+1	ng/dscm 7%O2	3.97e-6	lbs/hr	CE7%O2
6F 234678	403C1R3	6.14e-1	ng/dscm 7%O2	1.75e-7	lbs/hr	CE7%O2
6F 234678	403C1R4	1.75e-1	ng/dscm 7%O2	4.66e-8	lbs/hr	CE7%O2
6F Other	403C1R1	6.30e-1	ng/dscm 7%O2	1.73e-7	lbs/hr	OCE
6F Other	403C1R2	2.40e+1	ng/dscm 7%O2	6.66e-6	lbs/hr	OCE
6F Other	403C1R3	1.88e+0	ng/dscm 7%O2	5.35e-7	lbs/hr	OCE
6F Other	403C1R4	2.11e-1	ng/dscm 7%O2	5.61e-8	lbs/hr	OCE
6F Total	403C1R1	1.20e+0	ng/dscm 7%O2	3.30e-7	lbs/hr	CE7%O2
6F Total	403C1R2	5.76e+1	ng/dscm 7%O2	1.60e-5	lbs/hr	CE7%O2
6F Total	403C1R3	3.57e+0	ng/dscm 7%O2	1.01e-6	lbs/hr	CE7%O2
6F Total	403C1R4	8.01e-1	ng/dscm 7%O2	2.13e-7	lbs/hr	CE7%O2
7D 1234678	403C1R1	1.88e+0	ng/dscm 7%O2	5.14e-7	lbs/hr	CE7%O2
7D 1234678	403C1R2	1.17e+1	ng/dscm 7%O2	3.23e-6	lbs/hr	CE7%O2
7D 1234678	403C1R3	5.33e+0	ng/dscm 7%O2	1.51e-6	lbs/hr	CE7%O2
7D 1234678	403C1R4	2.37e+0	ng/dscm 7%O2	6.32e-7	lbs/hr	CE7%O2
7D Other	403C1R1	2.79e+0	ng/dscm 7%O2	7.64e-7	lbs/hr	OCE
7D Other	403C1R2	1.75e+1	ng/dscm 7%O2	4.83e-6	lbs/hr	OCE
7D Other	403C1R3	7.58e+0	ng/dscm 7%O2	2.15e-6	lbs/hr	OCE
7D Other	403C1R4	3.23e+0	ng/dscm 7%O2	8.61e-7	lbs/hr	OCE
7D Total	403C1R1	4.66e+0	ng/dscm 7%O2	1.28e-6	lbs/hr	CE7%O2
7D Total	403C1R2	2.91e+1	ng/dscm 7%O2	8.06e-6	lbs/hr	CE7%O2
7D Total	403C1R3	1.29e+1	ng/dscm 7%O2	3.66e-6	lbs/hr	CE7%O2
7D Total	403C1R4	5.61e+0	ng/dscm 7%O2	1.49e-6	lbs/hr	CE7%O2
7F 1234678	403C1R1	1.52e-1	ng/dscm 7%O2	4.18e-8	lbs/hr	CE7%O2
7F 1234678	403C1R2	5.90e+0	ng/dscm 7%O2	1.63e-6	lbs/hr	CE7%O2
7F 1234678	403C1R3	3.51e-1	ng/dscm 7%O2	9.97e-8	lbs/hr	CE7%O2
7F 1234678	403C1R4	1.22e-1	ng/dscm 7%O2	3.24e-8	lbs/hr	CE7%O2
7F 1234789	403C1R1	ND 2.93e-2	ng/dscm 7%O2	8.04e-9	lbs/hr	CE7%O2
7F 1234789	403C1R2	1.75e+0	ng/dscm 7%O2	4.84e-7	lbs/hr	CE7%O2

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SECTION 7: EMISSIONS ANALYSES

1. COMPANY: ASH GROVE CEMENT COMPANY
 2. STATE: AR
 3. CITY: FOREMAN
 4. EP ID: 403 DEVICE NAME: KILN NO. 1

EPA ARD981512270
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP

REGION: 6

7F 1234789	403C1R3	9.36e-2	ng/dscm	7%O2	2.66e-8	lbs/hr	CE7%O2
7F 1234789	403C1R4	ND	1.78e-1	ng/dscm	4.74e-8	lbs/hr	CE7%O2
7F Other	403C1R1	1.41e-1	ng/dscm	7%O2	3.86e-8	lbs/hr	OCE
7F Other	403C1R2	6.55e+0	ng/dscm	7%O2	1.81e-6	lbs/hr	OCE
7F Other	403C1R3	5.27e-2	ng/dscm	7%O2	1.50e-8	lbs/hr	OCE
7F Other	403C1R4	-1.45e-1	ng/dscm	7%O2	-3.87e-8	lbs/hr	OCE
7F Total	403C1R1	3.22e-1	ng/dscm	7%O2	8.84e-8	lbs/hr	CE7%O2
7F Total	403C1R2	1.42e+1	ng/dscm	7%O2	3.93e-6	lbs/hr	CE7%O2
7F Total	403C1R3	4.97e-1	ng/dscm	7%O2	1.41e-7	lbs/hr	CE7%O2
7F Total	403C1R4	1.54e-1	ng/dscm	7%O2	4.11e-8	lbs/hr	CE7%O2
8D	403C1R1	2.05e+0	ng/dscm	7%O2	5.63e-7	lbs/hr	CE7%O2
8D	403C1R2	1.09e+2	ng/dscm	7%O2	3.03e-5	lbs/hr	CE7%O2
8D	403C1R3	2.78e+0	ng/dscm	7%O2	7.89e-7	lbs/hr	CE7%O2
8D	403C1R4	1.51e+0	ng/dscm	7%O2	4.03e-7	lbs/hr	CE7%O2
8F	403C1R1	6.16e-2	ng/dscm	7%O2	1.69e-8	lbs/hr	CE7%O2
8F	403C1R2	3.53e+0	ng/dscm	7%O2	9.78e-7	lbs/hr	CE7%O2
8F	403C1R3	1.26e-1	ng/dscm	7%O2	3.57e-8	lbs/hr	CE7%O2
8F	403C1R4	ND	4.15e-1	ng/dscm	1.11e-7	lbs/hr	CE7%O2
TEQ	403C1R1	5.03e-1	ng/dscm	7%O2	1.38e-7	lbs/hr	CCET
TEQ	403C1R2	1.26e+1	ng/dscm	7%O2	3.50e-6	lbs/hr	CCET
TEQ	403C1R3	1.50e+0	ng/dscm	7%O2	4.26e-7	lbs/hr	CCET
TEQ	403C1R4	6.36e-1	ng/dscm	7%O2	1.69e-7	lbs/hr	CCET
Total PCDD/PCDF	403C1R1	7.23e+1	ng/dscm	7%O2	1.98e-5	lbs/hr	CCET
Total PCDD/PCDF	403C1R2	8.74e+2	ng/dscm	7%O2	2.42e-4	lbs/hr	CCET
Total PCDD/PCDF	403C1R3	2.65e+2	ng/dscm	7%O2	7.52e-5	lbs/hr	CCET
Total PCDD/PCDF	403C1R4	9.73e+1	ng/dscm	7%O2	2.59e-5	lbs/hr	CCET

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration			Mass Rate	Calc	
Chlorine	403C1R1	ND	2.85e-3	ppmv	2.30e-3	lbs/hr	CC7%O2
Chlorine	403C1R2	ND	1.86e-3	ppmv	1.51e-3	lbs/hr	CC7%O2
Chlorine	403C1R3	ND	1.39e-3	ppmv	1.16e-3	lbs/hr	CC7%O2
Chlorine	403C1R4	ND	2.01e-3	ppmv	1.57e-3	lbs/hr	CC7%O2
Chlorine	403C2R1		4.14e-2	ppmv	2.84e-2	lbs/hr	CC7%O2
Chlorine	403C2R2		3.41e-2	ppmv	2.26e-2	lbs/hr	CC7%O2
Chlorine	403C2R3		6.31e-2	ppmv	4.53e-2	lbs/hr	CC7%O2
Chlorine	403C2R4		4.12e-2	ppmv	2.84e-2	lbs/hr	CC7%O2
HCl	403C1R1		3.71e-1	ppmv	1.54e-1	lbs/hr	CC7%O2
HCl	403C1R2		1.63e+0	ppmv	6.82e-1	lbs/hr	CC7%O2
HCl	403C1R3		4.66e-1	ppmv	2.00e-1	lbs/hr	CC7%O2
HCl	403C1R4		2.38e-1	ppmv	9.60e-2	lbs/hr	CC7%O2
HCl	403C2R1		7.34e-1	ppmv	2.59e-1	lbs/hr	CC7%O2
HCl	403C2R2		7.74e-1	ppmv	2.64e-1	lbs/hr	CC7%O2
HCl	403C2R3		9.73e-1	ppmv	3.59e-1	lbs/hr	CC7%O2
HCl	403C2R4		7.22e-1	ppmv	2.56e-1	lbs/hr	CC7%O2

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration			Mass Rate	Calc	
Antimony	403C1R1	ND	4.34e+0	ug/dscm	1.19e-3	lbs/hr	CC7%O2
Antimony	403C1R2	ND	4.27e+0	ug/dscm	1.18e-3	lbs/hr	CC7%O2
Antimony	403C1R3	ND	3.95e+0	ug/dscm	1.12e-3	lbs/hr	CC7%O2
Antimony	403C1R4	ND	4.25e+0	ug/dscm	1.13e-3	lbs/hr	CC7%O2
Arsenic	403C1R1	ND	2.17e+1	ug/dscm	5.95e-3	lbs/hr	CC7%O2
Arsenic	403C1R2	ND	2.13e+1	ug/dscm	5.88e-3	lbs/hr	CC7%O2
Arsenic	403C1R3	ND	1.97e+1	ug/dscm	5.60e-3	lbs/hr	CC7%O2
Arsenic	403C1R4	ND	2.17e+1	ug/dscm	5.77e-3	lbs/hr	CC7%O2
Barium	403C1R1		2.01e+2	ug/dscm	5.51e-2	lbs/hr	CC7%O2
Barium	403C1R2	ND	2.24e+2	ug/dscm	6.21e-2	lbs/hr	CC7%O2

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SECTION 7: EMISSIONS ANALYSES

1. COMPANY: ASH GROVE CEMENT COMPANY
 2. STATE: AR
 3. CITY: FOREMAN
 4. EP ID: 403 DEVICE NAME: KILN NO. 1

EPA ID: ARD981512270
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP

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Barium	403C1R3	ND	1.98e+2	ug/dscm	7%O2	5.63e-2	lbs/hr	CC7%O2
Barium	403C1R4	ND	2.56e+2	ug/dscm	7%O2	6.82e-2	lbs/hr	CC7%O2
Beryllium	403C1R1	ND	1.30e+0	ug/dscm	7%O2	3.57e-4	lbs/hr	CC7%O2
Beryllium	403C1R2	ND	1.28e+0	ug/dscm	7%O2	3.53e-4	lbs/hr	CC7%O2
Beryllium	403C1R3	ND	1.97e+0	ug/dscm	7%O2	5.60e-4	lbs/hr	CC7%O2
Beryllium	403C1R4	ND	2.12e+0	ug/dscm	7%O2	5.65e-4	lbs/hr	CC7%O2
Cadmium	403C1R1	ND	1.65e+1	ug/dscm	7%O2	4.52e-3	lbs/hr	CC7%O2
Cadmium	403C1R2	ND	1.91e+1	ug/dscm	7%O2	5.29e-3	lbs/hr	CC7%O2
Cadmium	403C1R3	ND	2.29e+1	ug/dscm	7%O2	6.49e-3	lbs/hr	CC7%O2
Cadmium	403C1R4	ND	2.55e+1	ug/dscm	7%O2	6.78e-3	lbs/hr	CC7%O2
Chromium	403C1R1	ND	5.66e+0	ug/dscm	7%O2	1.55e-3	lbs/hr	CC7%O2
Chromium	403C1R2	ND	5.96e+0	ug/dscm	7%O2	1.65e-3	lbs/hr	CC7%O2
Chromium	403C1R3	ND	6.31e+0	ug/dscm	7%O2	1.79e-3	lbs/hr	CC7%O2
Chromium	403C1R4	ND	8.50e+0	ug/dscm	7%O2	2.26e-3	lbs/hr	CC7%O2
Chromium (Hex)	403C1R1		9.24e-2	ug/dscm	7%O2	2.53e-5	lbs/hr	CC7%O2
Chromium (Hex)	403C1R2		2.78e-2	ug/dscm	7%O2	7.68e-6	lbs/hr	CC7%O2
Chromium (Hex)	403C1R3		4.72e-2	ug/dscm	7%O2	1.34e-5	lbs/hr	CC7%O2
Chromium (Hex)	403C1R4		5.75e-2	ug/dscm	7%O2	1.53e-5	lbs/hr	CC7%O2
Lead	403C1R1		8.51e+0	ug/dscm	7%O2	2.33e-3	lbs/hr	CC7%O2
Lead	403C1R2	ND	1.49e+1	ug/dscm	7%O2	4.12e-3	lbs/hr	CC7%O2
Lead	403C1R3	ND	5.92e+0	ug/dscm	7%O2	1.68e-3	lbs/hr	CC7%O2
Lead	403C1R4	ND	5.53e+0	ug/dscm	7%O2	1.47e-3	lbs/hr	CC7%O2
Mercury	403C1R1	ND	7.19e+2	ug/dscm	7%O2	1.97e-1	lbs/hr	CC7%O2
Mercury	403C1R2	ND	9.18e+2	ug/dscm	7%O2	2.54e-1	lbs/hr	CC7%O2
Mercury	403C1R3	ND	8.21e+2	ug/dscm	7%O2	2.33e-1	lbs/hr	CC7%O2
Mercury	403C1R4	ND	1.60e+3	ug/dscm	7%O2	4.25e-1	lbs/hr	CC7%O2
Silver	403C1R1	ND	1.31e+2	ug/dscm	7%O2	3.59e-2	lbs/hr	CC7%O2
Silver	403C1R2	ND	1.31e+2	ug/dscm	7%O2	3.63e-2	lbs/hr	CC7%O2
Silver	403C1R3	ND	1.19e+2	ug/dscm	7%O2	3.38e-2	lbs/hr	CC7%O2
Silver	403C1R4	ND	1.28e+2	ug/dscm	7%O2	3.41e-2	lbs/hr	CC7%O2
Thallium	403C1R1	ND	2.69e+1	ug/dscm	7%O2	7.38e-3	lbs/hr	CC7%O2
Thallium	403C1R2	ND	2.64e+1	ug/dscm	7%O2	7.29e-3	lbs/hr	CC7%O2
Thallium	403C1R3	ND	2.45e+1	ug/dscm	7%O2	6.94e-3	lbs/hr	CC7%O2
Thallium	403C1R4	ND	2.64e+1	ug/dscm	7%O2	7.01e-3	lbs/hr	CC7%O2

7. Category: PAH

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Acenaphthylene	403C2R1	6.76e+4 ng/dscm 7%O2	1.58e-2 lbs/hr	CE7%O2
Acenaphthylene	403C2R2	6.99e+4 ng/dscm 7%O2	1.58e-2 lbs/hr	CE7%O2
Acenaphthylene	403C2R3	2.43e+4 ng/dscm 7%O2	5.93e-3 lbs/hr	CE7%O2
Acenaphthylene	403C2R4	4.81e+4 ng/dscm 7%O2	1.13e-2 lbs/hr	CE7%O2
Benzo(a)anthracene	403C2R2	5.11e+3 ng/dscm 7%O2	1.15e-3 lbs/hr	CE7%O2
Benzo(b)fluoranthene	403C2R1	5.54e+3 ng/dscm 7%O2	1.29e-3 lbs/hr	CE7%O2
Benzo(b)fluoranthene	403C2R2	8.95e+3 ng/dscm 7%O2	2.02e-3 lbs/hr	CE7%O2
Chrysene	403C2R1	1.18e+4 ng/dscm 7%O2	2.75e-3 lbs/hr	CE7%O2
Chrysene	403C2R2	9.22e+3 ng/dscm 7%O2	2.08e-3 lbs/hr	CE7%O2
Fluoranthene	403C2R1	5.90e+4 ng/dscm 7%O2	1.38e-2 lbs/hr	CE7%O2
Fluoranthene	403C2R2	5.40e+4 ng/dscm 7%O2	1.22e-2 lbs/hr	CE7%O2
Fluoranthene	403C2R3	8.89e+3 ng/dscm 7%O2	2.17e-3 lbs/hr	CE7%O2
Fluoranthene	403C2R4	1.41e+4 ng/dscm 7%O2	3.32e-3 lbs/hr	CE7%O2
Fluorene	403C2R1	7.58e+3 ng/dscm 7%O2	1.77e-3 lbs/hr	CE7%O2
Fluorene	403C2R2	7.00e+3 ng/dscm 7%O2	1.58e-3 lbs/hr	CE7%O2
Fluorene	403C2R4	3.31e+3 ng/dscm 7%O2	7.78e-4 lbs/hr	CE7%O2
Naphthalene	403C2R1	1.72e+5 ng/dscm 7%O2	4.01e-2 lbs/hr	CE7%O2
Naphthalene	403C2R2	1.68e+5 ng/dscm 7%O2	3.79e-2 lbs/hr	CE7%O2
Naphthalene	403C2R3	9.02e+4 ng/dscm 7%O2	2.20e-2 lbs/hr	CE7%O2
Naphthalene	403C2R4	1.20e+5 ng/dscm 7%O2	2.81e-2 lbs/hr	CE7%O2
Phenanthrene	403C2R1	6.93e+4 ng/dscm 7%O2	1.62e-2 lbs/hr	CE7%O2

SECTION 7: EMISSIONS ANALYSES

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EPA ARD981512270
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP

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Phenanthrene	403C2R2	7.21e+4	ng/dscm	7%O2	1.63e-2	lbs/hr	CE7%O2
Phenanthrene	403C2R3	1.79e+4	ng/dscm	7%O2	4.37e-3	lbs/hr	CE7%O2
Phenanthrene	403C2R4	3.77e+4	ng/dscm	7%O2	8.85e-3	lbs/hr	CE7%O2
Pyrene	403C2R1	7.10e+4	ng/dscm	7%O2	1.66e-2	lbs/hr	CE7%O2
Pyrene	403C2R2	3.40e+4	ng/dscm	7%O2	7.67e-3	lbs/hr	CE7%O2
Pyrene	403C2R3	5.60e+3	ng/dscm	7%O2	1.37e-3	lbs/hr	CE7%O2
Pyrene	403C2R4	1.74e+4	ng/dscm	7%O2	4.09e-3	lbs/hr	CE7%O2

7. Category: Particulate

Analysis:

8. Substance	9. Run ID	Concentration			Mass Rate	Calc	
Particulate	403C1R1	3.17e-2	gr/dscf	7%O2	1.99e+1	lbs/hr	CC7%O2
Particulate	403C1R2	2.46e-2	gr/dscf	7%O2	1.56e+1	lbs/hr	CC7%O2
Particulate	403C1R3	4.93e-2	gr/dscf	7%O2	3.20e+1	lbs/hr	CC7%O2
Particulate	403C1R4	3.61e-2	gr/dscf	7%O2	2.20e+1	lbs/hr	CC7%O2
Particulate	403C2R1	1.63e-2	gr/dscf	7%O2	8.69e+0	lbs/hr	
Particulate	403C2R2	3.51e-2	gr/dscf	7%O2	1.81e+1	lbs/hr	
Particulate	403C2R3	3.56e-2	gr/dscf	7%O2	1.97e+1	lbs/hr	
Particulate	403C2R4	3.86e-2	gr/dscf	7%O2	2.04e+1	lbs/hr	

7. Category: SVOC

Analysis:

8. Substance	9. Run ID	Concentration			Mass Rate	Calc		
1,2,4-Trichlorobenzene	403C2R1	ND	4.31e+2	ng/dscm	7%O2	1.01e-4	lbs/hr	CE7%O2
1,2,4-Trichlorobenzene	403C2R2	ND	4.84e+2	ng/dscm	7%O2	1.09e-4	lbs/hr	CE7%O2
1,2,4-Trichlorobenzene	403C2R3	ND	6.43e+2	ng/dscm	7%O2	1.57e-4	lbs/hr	CE7%O2
1,2,4-Trichlorobenzene	403C2R4	ND	3.24e+2	ng/dscm	7%O2	7.62e-5	lbs/hr	CE7%O2
2-Chlorophenol	403C2R1		4.91e+3	ng/dscm	7%O2	1.15e-3	lbs/hr	CE7%O2
2-Chlorophenol	403C2R2		3.82e+3	ng/dscm	7%O2	8.62e-4	lbs/hr	CE7%O2
2-Methylnaphthalene	403C2R1		1.45e+4	ng/dscm	7%O2	3.38e-3	lbs/hr	CE7%O2
2-Methylnaphthalene	403C2R2		1.34e+4	ng/dscm	7%O2	3.03e-3	lbs/hr	CE7%O2
2-Methylnaphthalene	403C2R3		5.92e+3	ng/dscm	7%O2	1.45e-3	lbs/hr	CE7%O2
2-Methylnaphthalene	403C2R4		9.41e+3	ng/dscm	7%O2	2.21e-3	lbs/hr	CE7%O2
2-Methylphenol (o-Cresol)	403C2R1		1.20e+4	ng/dscm	7%O2	2.80e-3	lbs/hr	CE7%O2
2-Methylphenol (o-Cresol)	403C2R2		1.21e+4	ng/dscm	7%O2	2.73e-3	lbs/hr	CE7%O2
2-Methylphenol (o-Cresol)	403C2R3		6.34e+3	ng/dscm	7%O2	1.55e-3	lbs/hr	CE7%O2
2-Methylphenol (o-Cresol)	403C2R4		9.81e+3	ng/dscm	7%O2	2.30e-3	lbs/hr	CE7%O2
4-Methylphenol (p-Cresol)	403C2R1		2.03e+4	ng/dscm	7%O2	4.74e-3	lbs/hr	CE7%O2
4-Methylphenol (p-Cresol)	403C2R2		2.26e+4	ng/dscm	7%O2	5.09e-3	lbs/hr	CE7%O2
4-Methylphenol (p-Cresol)	403C2R3		1.11e+4	ng/dscm	7%O2	2.72e-3	lbs/hr	CE7%O2
4-Methylphenol (p-Cresol)	403C2R4		1.72e+4	ng/dscm	7%O2	4.04e-3	lbs/hr	CE7%O2
Benzoic acid	403C2R1		4.39e+5	ng/dscm	7%O2	1.03e-1	lbs/hr	CE7%O2
Benzoic acid	403C2R2		7.66e+5	ng/dscm	7%O2	1.73e-1	lbs/hr	CE7%O2
Benzoic acid	403C2R3		3.47e+5	ng/dscm	7%O2	8.48e-2	lbs/hr	CE7%O2
Benzoic acid	403C2R4		3.19e+5	ng/dscm	7%O2	7.49e-2	lbs/hr	CE7%O2
Benzyl alcohol	403C2R1		6.44e+3	ng/dscm	7%O2	1.50e-3	lbs/hr	CE7%O2
Benzyl alcohol	403C2R2		7.13e+3	ng/dscm	7%O2	1.61e-3	lbs/hr	CE7%O2
Benzyl alcohol	403C2R3		4.62e+3	ng/dscm	7%O2	1.13e-3	lbs/hr	CE7%O2
Benzyl alcohol	403C2R4		6.04e+3	ng/dscm	7%O2	1.42e-3	lbs/hr	CE7%O2
bis(2-ethylhexyl) Phthalate	403C2R1		3.91e+5	ng/dscm	7%O2	9.13e-2	lbs/hr	CE7%O2
bis(2-ethylhexyl) Phthalate	403C2R2		4.19e+3	ng/dscm	7%O2	9.47e-4	lbs/hr	CE7%O2
bis(2-ethylhexyl) Phthalate	403C2R3		3.53e+5	ng/dscm	7%O2	8.62e-2	lbs/hr	CE7%O2
bis(2-ethylhexyl) Phthalate	403C2R4		4.11e+3	ng/dscm	7%O2	9.66e-4	lbs/hr	CE7%O2
di-n-Butyl Phthalate	403C2R1		3.40e+3	ng/dscm	7%O2	7.94e-4	lbs/hr	CE7%O2
di-n-Butyl Phthalate	403C2R2		1.35e+4	ng/dscm	7%O2	3.05e-3	lbs/hr	CE7%O2
di-n-Butyl Phthalate	403C2R3		2.59e+4	ng/dscm	7%O2	6.32e-3	lbs/hr	CE7%O2
di-n-Butyl Phthalate	403C2R4		5.80e+3	ng/dscm	7%O2	1.36e-3	lbs/hr	CE7%O2
Dibenzofuran	403C2R1		3.04e+4	ng/dscm	7%O2	7.11e-3	lbs/hr	CE7%O2
Dibenzofuran	403C2R2		2.75e+4	ng/dscm	7%O2	6.20e-3	lbs/hr	CE7%O2

US EPA ARCHIVE DOCUMENT

SECTION 7: EMISSIONS ANALYSES

1. COMPANY: ASH GROVE CEMENT COMPANY
 2. STATE: AR
 3. CITY: FOREMAN
 4. EP ID: 403 DEVICE NAME: KILN NO. 1

EPA ARD981512270
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP

REGION: 6

Dibenzofuran	403C2R3	1.50e+4	ng/dscm 7%O2	3.65e-3	lbs/hr	CE7%O2
Dibenzofuran	403C2R4	2.13e+4	ng/dscm 7%O2	5.00e-3	lbs/hr	CE7%O2
Ethylbenzene	403C2R1	7.60e+3	ng/dscm 7%O2	1.78e-3	lbs/hr	CE7%O2
Ethylbenzene	403C2R2	9.75e+3	ng/dscm 7%O2	2.20e-3	lbs/hr	CE7%O2
Ethylbenzene	403C2R3	4.83e+3	ng/dscm 7%O2	1.18e-3	lbs/hr	CE7%O2
Ethylbenzene	403C2R4	8.09e+3	ng/dscm 7%O2	1.90e-3	lbs/hr	CE7%O2
Phenol	403C2R1	1.47e+5	ng/dscm 7%O2	3.44e-2	lbs/hr	CE7%O2
Phenol	403C2R2	1.33e+5	ng/dscm 7%O2	2.99e-2	lbs/hr	CE7%O2
Phenol	403C2R3	6.80e+4	ng/dscm 7%O2	1.66e-2	lbs/hr	CE7%O2
Phenol	403C2R4	9.50e+4	ng/dscm 7%O2	2.23e-2	lbs/hr	CE7%O2

7. Category: THC & CO

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc	
CO	403C1R1	3.12e+2	ppmv 7%O2	9.94e+1	lbs/hr	CE
CO	403C1R2	2.59e+2	ppmv 7%O2	8.33e+1	lbs/hr	CE
CO	403C1R3	2.26e+2	ppmv 7%O2	7.46e+1	lbs/hr	CE
CO	403C1R4	1.95e+2	ppmv 7%O2	6.03e+1	lbs/hr	CE
CO	403C2R1	3.56e+2	ppmv 7%O2	9.66e+1	lbs/hr	CE
CO	403C2R2	3.57e+2	ppmv 7%O2	9.36e+1	lbs/hr	CE
CO	403C2R3	5.15e+2	ppmv 7%O2	1.46e+2	lbs/hr	CE
CO	403C2R4	4.71e+2	ppmv 7%O2	1.29e+2	lbs/hr	CE
CO(MHRA)	403C1R1	6.29e+2	ppmv 7%O2	2.00e+2	lbs/hr	CE
CO(MHRA)	403C1R2	4.43e+2	ppmv 7%O2	1.43e+2	lbs/hr	CE
CO(MHRA)	403C1R3	5.27e+2	ppmv 7%O2	1.74e+2	lbs/hr	CE
CO(MHRA)	403C1R4	3.50e+2	ppmv 7%O2	1.08e+2	lbs/hr	CE
CO(MHRA)	403C2R1	5.96e+2	ppmv 7%O2	1.62e+2	lbs/hr	CE
CO(MHRA)	403C2R2	6.55e+2	ppmv 7%O2	1.72e+2	lbs/hr	CE
CO(MHRA)	403C2R3	8.13e+2	ppmv 7%O2	2.31e+2	lbs/hr	CE
CO(MHRA)	403C2R4	9.00e+2	ppmv 7%O2	2.46e+2	lbs/hr	CE
THC	403C1R1	1.12e+1	ppmv 7%O2	5.61e+0	lbs/hr	CE
THC	403C1R2	1.09e+1	ppmv 7%O2	5.51e+0	lbs/hr	CE
THC	403C1R3	1.04e+1	ppmv 7%O2	5.39e+0	lbs/hr	CE
THC	403C1R4	7.20e+0	ppmv 7%O2	3.50e+0	lbs/hr	CE
THC	403C2R1	1.33e+1	ppmv 7%O2	5.66e+0	lbs/hr	CE
THC	403C2R2	1.52e+1	ppmv 7%O2	6.26e+0	lbs/hr	CE
THC	403C2R3	1.52e+1	ppmv 7%O2	6.78e+0	lbs/hr	CE
THC	403C2R4	1.34e+1	ppmv 7%O2	5.76e+0	lbs/hr	CE
THC(MHRA)	403C1R1	1.76e+1	ppmv 7%O2	8.81e+0	lbs/hr	CE
THC(MHRA)	403C1R2	1.55e+1	ppmv 7%O2	7.84e+0	lbs/hr	CE
THC(MHRA)	403C1R3	1.62e+1	ppmv 7%O2	8.40e+0	lbs/hr	CE
THC(MHRA)	403C1R4	1.17e+1	ppmv 7%O2	5.69e+0	lbs/hr	CE
THC(MHRA)	403C2R1	1.91e+1	ppmv 7%O2	8.14e+0	lbs/hr	CE
THC(MHRA)	403C2R2	1.99e+1	ppmv 7%O2	8.20e+0	lbs/hr	CE
THC(MHRA)	403C2R3	2.00e+1	ppmv 7%O2	8.92e+0	lbs/hr	CE
THC(MHRA)	403C2R4	1.90e+1	ppmv 7%O2	8.13e+0	lbs/hr	CE

7. Category: VOC

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc	
1,1,1-Trichloroethane	403C2R1	1.65e+3	ng/dscm 7%O2	3.85e-4	lbs/hr	CE7%O2
1,1,1-Trichloroethane	403C2R2	1.16e+3	ng/dscm 7%O2	2.63e-4	lbs/hr	CE7%O2
1,1,1-Trichloroethane	403C2R3	4.46e+2	ng/dscm 7%O2	1.09e-4	lbs/hr	CE7%O2
1,1,1-Trichloroethane	403C2R4	1.32e+3	ng/dscm 7%O2	3.09e-4	lbs/hr	CE7%O2
2-Hexanone	403C2R4	6.03e+3	ng/dscm 7%O2	1.42e-3	lbs/hr	CE7%O2
Acetone	403C2R1	7.90e+4	ng/dscm 7%O2	1.85e-2	lbs/hr	CE7%O2
Acetone	403C2R2	7.48e+4	ng/dscm 7%O2	1.69e-2	lbs/hr	CE7%O2
Acetone	403C2R3	7.93e+4	ng/dscm 7%O2	1.94e-2	lbs/hr	CE7%O2
Acetone	403C2R4	9.38e+4	ng/dscm 7%O2	2.20e-2	lbs/hr	CE7%O2
Benzene	403C2R1	2.66e+5	ng/dscm 7%O2	6.21e-2	lbs/hr	CE7%O2

SECTION 7: EMISSIONS ANALYSES

1. COMPANY: ASH GROVE CEMENT COMPANY
 2. STATE: AR
 3. CITY: FOREMAN
 4. EP ID: 403 DEVICE NAME: KILN NO. 1

EPA ID: ARD981512270
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP

REGION: 6

Benzene	403C2R2	1.56e+5	ng/dscm	7%O2	3.52e-2	lbs/hr	CE7%O2
Benzene	403C2R3	1.31e+5	ng/dscm	7%O2	3.21e-2	lbs/hr	CE7%O2
Benzene	403C2R4	1.75e+5	ng/dscm	7%O2	4.10e-2	lbs/hr	CE7%O2
Bromoethane	403C2R1	5.61e+4	ng/dscm	7%O2	1.31e-2	lbs/hr	CE7%O2
Bromoethane	403C2R2	1.15e+4	ng/dscm	7%O2	2.60e-3	lbs/hr	CE7%O2
Bromoethane	403C2R3	1.31e+4	ng/dscm	7%O2	3.21e-3	lbs/hr	CE7%O2
Bromoethane	403C2R4	1.21e+4	ng/dscm	7%O2	2.84e-3	lbs/hr	CE7%O2
Carbon disulfide	403C2R1	6.29e+4	ng/dscm	7%O2	1.47e-2	lbs/hr	CE7%O2
Carbon disulfide	403C2R2	6.95e+4	ng/dscm	7%O2	1.57e-2	lbs/hr	CE7%O2
Carbon disulfide	403C2R3	7.06e+4	ng/dscm	7%O2	1.73e-2	lbs/hr	CE7%O2
Carbon disulfide	403C2R4	3.09e+4	ng/dscm	7%O2	7.27e-3	lbs/hr	CE7%O2
Chlorobenzene	403C2R1	1.41e+4	ng/dscm	7%O2	3.30e-3	lbs/hr	CE7%O2
Chlorobenzene	403C2R2	2.14e+4	ng/dscm	7%O2	4.84e-3	lbs/hr	CE7%O2
Chlorobenzene	403C2R3	2.21e+4	ng/dscm	7%O2	5.40e-3	lbs/hr	CE7%O2
Chlorobenzene	403C2R4	1.66e+4	ng/dscm	7%O2	3.91e-3	lbs/hr	CE7%O2
Chloroethane	403C2R2	1.44e+5	ng/dscm	7%O2	3.26e-2	lbs/hr	CE7%O2
Chloroethane	403C2R3	1.86e+5	ng/dscm	7%O2	4.55e-2	lbs/hr	CE7%O2
Chloroethane	403C2R4	1.55e+3	ng/dscm	7%O2	3.63e-4	lbs/hr	CE7%O2
Chloromethane	403C2R1	2.64e+5	ng/dscm	7%O2	6.16e-2	lbs/hr	CE7%O2
Chloromethane	403C2R2	6.04e+5	ng/dscm	7%O2	1.36e-1	lbs/hr	CE7%O2
Chloromethane	403C2R3	6.23e+5	ng/dscm	7%O2	1.52e-1	lbs/hr	CE7%O2
Chloromethane	403C2R4	5.41e+5	ng/dscm	7%O2	1.27e-1	lbs/hr	CE7%O2
m,p-Xylene	403C2R1	1.98e+4	ng/dscm	7%O2	4.63e-3	lbs/hr	CE7%O2
m,p-Xylene	403C2R2	2.19e+4	ng/dscm	7%O2	4.93e-3	lbs/hr	CE7%O2
m,p-Xylene	403C2R3	1.25e+4	ng/dscm	7%O2	3.06e-3	lbs/hr	CE7%O2
m,p-Xylene	403C2R4	1.84e+4	ng/dscm	7%O2	4.33e-3	lbs/hr	CE7%O2
Methyl Ethyl Ketone	403C2R1	2.00e+4	ng/dscm	7%O2	4.68e-3	lbs/hr	CE7%O2
Methyl Ethyl Ketone	403C2R2	1.53e+4	ng/dscm	7%O2	3.45e-3	lbs/hr	CE7%O2
Methyl Ethyl Ketone	403C2R3	1.54e+4	ng/dscm	7%O2	3.76e-3	lbs/hr	CE7%O2
Methyl Ethyl Ketone	403C2R4	2.39e+4	ng/dscm	7%O2	5.61e-3	lbs/hr	CE7%O2
Methylene Chloride	403C2R1	1.88e+4	ng/dscm	7%O2	4.40e-3	lbs/hr	CE7%O2
Methylene Chloride	403C2R2	1.60e+5	ng/dscm	7%O2	3.62e-2	lbs/hr	CE7%O2
Methylene Chloride	403C2R3	1.33e+6	ng/dscm	7%O2	3.25e-1	lbs/hr	CE7%O2
Methylene Chloride	403C2R4	2.40e+4	ng/dscm	7%O2	5.64e-3	lbs/hr	CE7%O2
o-Xylene	403C2R1	7.79e+3	ng/dscm	7%O2	1.82e-3	lbs/hr	CE7%O2
o-Xylene	403C2R2	8.23e+3	ng/dscm	7%O2	1.86e-3	lbs/hr	CE7%O2
o-Xylene	403C2R3	4.71e+3	ng/dscm	7%O2	1.15e-3	lbs/hr	CE7%O2
o-Xylene	403C2R4	6.68e+3	ng/dscm	7%O2	1.57e-3	lbs/hr	CE7%O2
Styrene	403C2R1	7.09e+4	ng/dscm	7%O2	1.66e-2	lbs/hr	CE7%O2
Styrene	403C2R2	8.14e+4	ng/dscm	7%O2	1.84e-2	lbs/hr	CE7%O2
Styrene	403C2R3	3.15e+4	ng/dscm	7%O2	7.69e-3	lbs/hr	CE7%O2
Styrene	403C2R4	5.82e+4	ng/dscm	7%O2	1.37e-2	lbs/hr	CE7%O2
Tetrachloroethene	403C2R1	5.05e+2	ng/dscm	7%O2	1.18e-4	lbs/hr	CE7%O2
Tetrachloroethene	403C2R2	1.22e+2	ng/dscm	7%O2	2.75e-5	lbs/hr	CE7%O2
Tetrachloroethene	403C2R3	8.47e+1	ng/dscm	7%O2	2.07e-5	lbs/hr	CE7%O2
Tetrachloroethene	403C2R4	5.43e+1	ng/dscm	7%O2	1.28e-5	lbs/hr	CE7%O2
Toluene	403C2R1	1.37e+5	ng/dscm	7%O2	3.19e-2	lbs/hr	CE7%O2
Toluene	403C2R2	1.43e+5	ng/dscm	7%O2	3.23e-2	lbs/hr	CE7%O2
Toluene	403C2R3	8.64e+4	ng/dscm	7%O2	2.11e-2	lbs/hr	CE7%O2
Toluene	403C2R4	1.07e+5	ng/dscm	7%O2	2.52e-2	lbs/hr	CE7%O2
Trichlorofluoromethane	403C2R1	1.50e+4	ng/dscm	7%O2	3.50e-3	lbs/hr	CE7%O2
Trichlorofluoromethane	403C2R2	3.88e+3	ng/dscm	7%O2	8.75e-4	lbs/hr	CE7%O2
Trichlorofluoromethane	403C2R3	9.64e+1	ng/dscm	7%O2	2.36e-5	lbs/hr	CE7%O2
Vinyl Chloride	403C2R2	7.13e+3	ng/dscm	7%O2	1.61e-3	lbs/hr	CE7%O2

US EPA ARCHIVE DOCUMENT

SECTION 7: EMISSIONS ANALYSES

1. COMPANY: ASH GROVE CEMENT COMPANY
 2. STATE: AR
 3. CITY: FOREMAN
 4. EP ID: 404 DEVICE NAME: KILN NO. 3

EPA ID: ARD981512270
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP

REGION: 6

5. Type: CONTROLLED

6. Description: EMISSIONS Process Group: WET KILN Location: STACK Phase: GAS

7. Category: Dioxin & Furan

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
4D 2378	404C1R1	4.61e-2 ng/dscm 7%O2	1.76e-8 lbs/hr	CE7%O2
4D 2378	404C1R2	3.70e-2 ng/dscm 7%O2	1.30e-8 lbs/hr	CE7%O2
4D 2378	404C1R3	2.71e-2 ng/dscm 7%O2	9.89e-9 lbs/hr	CE7%O2
4D Other	404C1R1	2.56e+1 ng/dscm 7%O2	9.79e-6 lbs/hr	OCE
4D Other	404C1R2	1.20e+1 ng/dscm 7%O2	4.23e-6 lbs/hr	OCE
4D Other	404C1R3	9.05e+0 ng/dscm 7%O2	3.30e-6 lbs/hr	OCE
4D Total	404C1R1	2.56e+1 ng/dscm 7%O2	9.81e-6 lbs/hr	CE7%O2
4D Total	404C1R2	1.20e+1 ng/dscm 7%O2	4.24e-6 lbs/hr	CE7%O2
4D Total	404C1R3	9.08e+0 ng/dscm 7%O2	3.31e-6 lbs/hr	CE7%O2
4F 2378	404C1R1	3.42e+0 ng/dscm 7%O2	1.31e-6 lbs/hr	CE7%O2
4F 2378	404C1R2	1.76e+0 ng/dscm 7%O2	6.20e-7 lbs/hr	CE7%O2
4F 2378	404C1R3	1.24e+0 ng/dscm 7%O2	4.51e-7 lbs/hr	CE7%O2
4F Other	404C1R1	1.44e+1 ng/dscm 7%O2	5.51e-6 lbs/hr	OCE
4F Other	404C1R2	6.87e+0 ng/dscm 7%O2	2.42e-6 lbs/hr	OCE
4F Other	404C1R3	5.67e+0 ng/dscm 7%O2	2.07e-6 lbs/hr	OCE
4F Total	404C1R1	1.78e+1 ng/dscm 7%O2	6.82e-6 lbs/hr	CE7%O2
4F Total	404C1R2	8.63e+0 ng/dscm 7%O2	3.04e-6 lbs/hr	CE7%O2
4F Total	404C1R3	6.91e+0 ng/dscm 7%O2	2.52e-6 lbs/hr	CE7%O2
5D 12378	404C1R1	3.25e-1 ng/dscm 7%O2	1.25e-7 lbs/hr	CE7%O2
5D 12378	404C1R2	2.06e-1 ng/dscm 7%O2	7.29e-8 lbs/hr	CE7%O2
5D 12378	404C1R3	1.36e-1 ng/dscm 7%O2	4.95e-8 lbs/hr	CE7%O2
5D Other	404C1R1	3.49e+1 ng/dscm 7%O2	1.34e-5 lbs/hr	OCE
5D Other	404C1R2	1.71e+1 ng/dscm 7%O2	6.05e-6 lbs/hr	OCE
5D Other	404C1R3	1.36e+1 ng/dscm 7%O2	4.97e-6 lbs/hr	OCE
5D Total	404C1R1	3.52e+1 ng/dscm 7%O2	1.35e-5 lbs/hr	CE7%O2
5D Total	404C1R2	1.74e+1 ng/dscm 7%O2	6.12e-6 lbs/hr	CE7%O2
5D Total	404C1R3	1.38e+1 ng/dscm 7%O2	5.02e-6 lbs/hr	CE7%O2
5F 12378	404C1R1	ND 5.15e-1 ng/dscm 7%O2	1.97e-7 lbs/hr	CE7%O2
5F 12378	404C1R2	ND 3.08e-1 ng/dscm 7%O2	1.09e-7 lbs/hr	CE7%O2
5F 12378	404C1R3	ND 2.08e-1 ng/dscm 7%O2	7.58e-8 lbs/hr	CE7%O2
5F 23478	404C1R1	1.25e+0 ng/dscm 7%O2	4.78e-7 lbs/hr	CE7%O2
5F 23478	404C1R2	7.40e-1 ng/dscm 7%O2	2.61e-7 lbs/hr	CE7%O2
5F 23478	404C1R3	4.83e-1 ng/dscm 7%O2	1.76e-7 lbs/hr	CE7%O2
5F Other	404C1R1	5.66e+0 ng/dscm 7%O2	2.17e-6 lbs/hr	OCE
5F Other	404C1R2	2.62e+0 ng/dscm 7%O2	9.24e-7 lbs/hr	OCE
5F Other	404C1R3	2.17e+0 ng/dscm 7%O2	7.93e-7 lbs/hr	OCE
5F Total	404C1R1	7.43e+0 ng/dscm 7%O2	2.84e-6 lbs/hr	CE7%O2
5F Total	404C1R2	3.67e+0 ng/dscm 7%O2	1.29e-6 lbs/hr	CE7%O2
5F Total	404C1R3	2.87e+0 ng/dscm 7%O2	1.04e-6 lbs/hr	CE7%O2
6D 123478	404C1R1	4.61e-1 ng/dscm 7%O2	1.76e-7 lbs/hr	CE7%O2
6D 123478	404C1R2	2.71e-1 ng/dscm 7%O2	9.57e-8 lbs/hr	CE7%O2
6D 123478	404C1R3	1.66e-1 ng/dscm 7%O2	6.05e-8 lbs/hr	CE7%O2
6D 123678	404C1R1	6.51e-1 ng/dscm 7%O2	2.49e-7 lbs/hr	CE7%O2
6D 123678	404C1R2	3.70e-1 ng/dscm 7%O2	1.30e-7 lbs/hr	CE7%O2
6D 123678	404C1R3	2.44e-1 ng/dscm 7%O2	8.90e-8 lbs/hr	CE7%O2
6D 123789	404C1R1	7.32e-1 ng/dscm 7%O2	2.80e-7 lbs/hr	CE7%O2
6D 123789	404C1R2	4.31e-1 ng/dscm 7%O2	1.52e-7 lbs/hr	CE7%O2
6D 123789	404C1R3	2.83e-1 ng/dscm 7%O2	1.03e-7 lbs/hr	CE7%O2
6D Other	404C1R1	6.08e+1 ng/dscm 7%O2	2.33e-5 lbs/hr	OCE
6D Other	404C1R2	2.94e+1 ng/dscm 7%O2	1.04e-5 lbs/hr	OCE
6D Other	404C1R3	2.06e+1 ng/dscm 7%O2	7.52e-6 lbs/hr	OCE
6D Total	404C1R1	6.26e+1 ng/dscm 7%O2	2.40e-5 lbs/hr	CE7%O2
6D Total	404C1R2	3.05e+1 ng/dscm 7%O2	1.08e-5 lbs/hr	CE7%O2

SECTION 7: EMISSIONS ANALYSES

1. COMPANY: ASH GROVE CEMENT COMPANY
 2. STATE: AR
 3. CITY: FOREMAN
 4. EP ID: 404 DEVICE NAME: KILN NO. 3

EPA ID: ARD981512270
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP

REGION: 6

6D Total	404C1R3	2.13e+1	ng/dscm 7%O2	7.77e-6	lbs/hr	CE7%O2
6F 123478	404C1R1	ND	5.15e-1 ng/dscm 7%O2	1.97e-7	lbs/hr	CE7%O2
6F 123478	404C1R2	ND	2.80e-1 ng/dscm 7%O2	9.90e-8	lbs/hr	CE7%O2
6F 123478	404C1R3	ND	1.87e-1 ng/dscm 7%O2	6.82e-8	lbs/hr	CE7%O2
6F 123678	404C1R1		2.47e-1 ng/dscm 7%O2	9.45e-8	lbs/hr	CE7%O2
6F 123678	404C1R2		1.51e-1 ng/dscm 7%O2	5.33e-8	lbs/hr	CE7%O2
6F 123678	404C1R3		9.35e-2 ng/dscm 7%O2	3.41e-8	lbs/hr	CE7%O2
6F 123789	404C1R1	ND	5.15e-2 ng/dscm 7%O2	1.97e-8	lbs/hr	CE7%O2
6F 123789	404C1R2	ND	3.70e-2 ng/dscm 7%O2	1.30e-8	lbs/hr	CE7%O2
6F 123789	404C1R3	ND	2.11e-2 ng/dscm 7%O2	7.69e-9	lbs/hr	CE7%O2
6F 234678	404C1R1	ND	4.88e-1 ng/dscm 7%O2	1.87e-7	lbs/hr	CE7%O2
6F 234678	404C1R2	ND	2.80e-1 ng/dscm 7%O2	9.90e-8	lbs/hr	CE7%O2
6F 234678	404C1R3	ND	1.63e-1 ng/dscm 7%O2	5.94e-8	lbs/hr	CE7%O2
6F Other	404C1R1		9.49e-1 ng/dscm 7%O2	3.63e-7	lbs/hr	OCE
6F Other	404C1R2		4.53e-1 ng/dscm 7%O2	1.60e-7	lbs/hr	OCE
6F Other	404C1R3		3.50e-1 ng/dscm 7%O2	1.28e-7	lbs/hr	OCE
6F Total	404C1R1		2.25e+0 ng/dscm 7%O2	8.62e-7	lbs/hr	CE7%O2
6F Total	404C1R2		1.20e+0 ng/dscm 7%O2	4.24e-7	lbs/hr	CE7%O2
6F Total	404C1R3		8.14e-1 ng/dscm 7%O2	2.97e-7	lbs/hr	CE7%O2
7D 1234678	404C1R1		3.17e+0 ng/dscm 7%O2	1.21e-6	lbs/hr	CE7%O2
7D 1234678	404C1R2		1.79e+0 ng/dscm 7%O2	6.31e-7	lbs/hr	CE7%O2
7D 1234678	404C1R3		1.06e+0 ng/dscm 7%O2	3.85e-7	lbs/hr	CE7%O2
7D Other	404C1R1		4.34e+0 ng/dscm 7%O2	1.66e-6	lbs/hr	OCE
7D Other	404C1R2		2.56e+0 ng/dscm 7%O2	9.03e-7	lbs/hr	OCE
7D Other	404C1R3		1.60e+0 ng/dscm 7%O2	5.83e-7	lbs/hr	OCE
7D Total	404C1R1		7.51e+0 ng/dscm 7%O2	2.88e-6	lbs/hr	CE7%O2
7D Total	404C1R2		4.35e+0 ng/dscm 7%O2	1.53e-6	lbs/hr	CE7%O2
7D Total	404C1R3		2.65e+0 ng/dscm 7%O2	9.67e-7	lbs/hr	CE7%O2
7F 1234678	404C1R1		1.79e-1 ng/dscm 7%O2	6.85e-8	lbs/hr	CE7%O2
7F 1234678	404C1R2		1.05e-1 ng/dscm 7%O2	3.70e-8	lbs/hr	CE7%O2
7F 1234678	404C1R3		6.64e-2 ng/dscm 7%O2	2.42e-8	lbs/hr	CE7%O2
7F 1234789	404C1R1		7.05e-2 ng/dscm 7%O2	2.70e-8	lbs/hr	CE7%O2
7F 1234789	404C1R2		4.62e-2 ng/dscm 7%O2	1.63e-8	lbs/hr	CE7%O2
7F 1234789	404C1R3		2.41e-2 ng/dscm 7%O2	8.79e-9	lbs/hr	CE7%O2
7F Other	404C1R1		2.39e-1 ng/dscm 7%O2	9.13e-8	lbs/hr	OCE
7F Other	404C1R2		1.33e-1 ng/dscm 7%O2	4.68e-8	lbs/hr	OCE
7F Other	404C1R3		7.84e-2 ng/dscm 7%O2	2.86e-8	lbs/hr	OCE
7F Total	404C1R1		4.88e-1 ng/dscm 7%O2	1.87e-7	lbs/hr	CE7%O2
7F Total	404C1R2		2.84e-1 ng/dscm 7%O2	1.00e-7	lbs/hr	CE7%O2
7F Total	404C1R3		1.69e-1 ng/dscm 7%O2	6.16e-8	lbs/hr	CE7%O2
8D	404C1R1		1.71e+0 ng/dscm 7%O2	6.54e-7	lbs/hr	CE7%O2
8D	404C1R2		1.39e+0 ng/dscm 7%O2	4.89e-7	lbs/hr	CE7%O2
8D	404C1R3		1.15e+0 ng/dscm 7%O2	4.18e-7	lbs/hr	CE7%O2
8F	404C1R1	ND	5.15e-2 ng/dscm 7%O2	1.97e-8	lbs/hr	CE7%O2
8F	404C1R2	ND	3.08e-2 ng/dscm 7%O2	1.09e-8	lbs/hr	CE7%O2
8F	404C1R3	ND	1.81e-2 ng/dscm 7%O2	6.60e-9	lbs/hr	CE7%O2
TEQ	404C1R1		1.55e+0 ng/dscm 7%O2	5.94e-7	lbs/hr	CCET
TEQ	404C1R2		9.04e-1 ng/dscm 7%O2	3.19e-7	lbs/hr	CCET
TEQ	404C1R3		5.99e-1 ng/dscm 7%O2	2.18e-7	lbs/hr	CCET
Total PCDD/PCDF	404C1R1		1.61e+2 ng/dscm 7%O2	6.15e-5	lbs/hr	CCET
Total PCDD/PCDF	404C1R2		7.94e+1 ng/dscm 7%O2	2.80e-5	lbs/hr	CCET
Total PCDD/PCDF	404C1R3		5.88e+1 ng/dscm 7%O2	2.14e-5	lbs/hr	CCET

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Chlorine	404C1R1	2.64e+0 ppmv 7%O2	2.97e+0 lbs/hr	CC7%O2
Chlorine	404C1R2	1.92e+0 ppmv 7%O2	1.99e+0 lbs/hr	CC7%O2

US EPA ARCHIVE DOCUMENT

SECTION 7: EMISSIONS ANALYSES

1. COMPANY: ASH GROVE CEMENT COMPANY
 2. STATE: AR
 3. CITY: FOREMAN
 4. EP ID: 404 DEVICE NAME: KILN NO. 3

EPA ID: ARD981512270
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP

REGION: 6

Chlorine	404C1R3	1.74e+0	ppmv 7%O2	1.86e+0	lbs/hr	CC7%O2	
Chlorine	404C1R4	3.11e+0	ppmv 7%O2	3.40e+0	lbs/hr	CC7%O2	
Chlorine	404C1R5	2.10e+0	ppmv 7%O2	2.62e+0	lbs/hr	CC7%O2	
Chlorine	404C1R6	1.42e+0	ppmv 7%O2	1.74e+0	lbs/hr	CC7%O2	
Chlorine	404C2R1	2.06e+0	ppmv 7%O2	1.93e+0	lbs/hr	CC7%O2	
Chlorine	404C2R2	ND	5.78e-2	ppmv 7%O2	6.39e-2	lbs/hr	CC7%O2
Chlorine	404C2R3	1.20e+0	ppmv 7%O2	1.19e+0	lbs/hr	CC7%O2	
Chlorine	404C2R4	8.23e-1	ppmv 7%O2	8.37e-1	lbs/hr	CC7%O2	
HCl	404C1R1	9.85e+1	ppmv 7%O2	5.71e+1	lbs/hr	CC7%O2	
HCl	404C1R2	1.02e+2	ppmv 7%O2	5.43e+1	lbs/hr	CC7%O2	
HCl	404C1R3	8.15e+1	ppmv 7%O2	4.49e+1	lbs/hr	CC7%O2	
HCl	404C1R4	4.28e+1	ppmv 7%O2	2.40e+1	lbs/hr	CC7%O2	
HCl	404C1R5	9.16e+1	ppmv 7%O2	5.89e+1	lbs/hr	CC7%O2	
HCl	404C1R6	1.77e+1	ppmv 7%O2	1.12e+1	lbs/hr	CC7%O2	
HCl	404C2R1	4.79e+1	ppmv 7%O2	2.31e+1	lbs/hr	CC7%O2	
HCl	404C2R2	5.90e+1	ppmv 7%O2	3.35e+1	lbs/hr	CC7%O2	
HCl	404C2R3	4.72e+1	ppmv 7%O2	2.41e+1	lbs/hr	CC7%O2	
HCl	404C2R4	6.48e+1	ppmv 7%O2	3.39e+1	lbs/hr	CC7%O2	

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc
Antimony	404C1R1	ND	1.19e+2 ug/dscm 7%O2	4.56e-2 lbs/hr	CC7%O2
Antimony	404C1R2	ND	1.41e+2 ug/dscm 7%O2	4.96e-2 lbs/hr	CC7%O2
Antimony	404C1R3	ND	1.36e+2 ug/dscm 7%O2	4.94e-2 lbs/hr	CC7%O2
Antimony	404C1R4	ND	1.04e+2 ug/dscm 7%O2	3.84e-2 lbs/hr	CC7%O2
Antimony	404C1R5	ND	8.82e+1 ug/dscm 7%O2	3.75e-2 lbs/hr	CC7%O2
Antimony	404C1R6	ND	8.83e+1 ug/dscm 7%O2	3.68e-2 lbs/hr	CC7%O2
Arsenic	404C1R1	ND	1.97e+1 ug/dscm 7%O2	7.54e-3 lbs/hr	CC7%O2
Arsenic	404C1R2	ND	2.33e+1 ug/dscm 7%O2	8.20e-3 lbs/hr	CC7%O2
Arsenic	404C1R3	ND	2.24e+1 ug/dscm 7%O2	8.16e-3 lbs/hr	CC7%O2
Arsenic	404C1R4	ND	5.28e+0 ug/dscm 7%O2	1.96e-3 lbs/hr	CC7%O2
Arsenic	404C1R5	ND	4.50e+0 ug/dscm 7%O2	1.91e-3 lbs/hr	CC7%O2
Arsenic	404C1R6	ND	4.51e+0 ug/dscm 7%O2	1.88e-3 lbs/hr	CC7%O2
Barium	404C1R1	ND	1.35e+2 ug/dscm 7%O2	5.18e-2 lbs/hr	CC7%O2
Barium	404C1R2	ND	1.23e+2 ug/dscm 7%O2	4.32e-2 lbs/hr	CC7%O2
Barium	404C1R3	ND	1.54e+2 ug/dscm 7%O2	5.60e-2 lbs/hr	CC7%O2
Barium	404C1R4	ND	5.73e+1 ug/dscm 7%O2	2.13e-2 lbs/hr	CC7%O2
Barium	404C1R5	ND	5.24e+1 ug/dscm 7%O2	2.23e-2 lbs/hr	CC7%O2
Barium	404C1R6	ND	4.90e+1 ug/dscm 7%O2	2.04e-2 lbs/hr	CC7%O2
Beryllium	404C1R1	ND	1.18e+0 ug/dscm 7%O2	4.52e-4 lbs/hr	CC7%O2
Beryllium	404C1R2	ND	1.39e+0 ug/dscm 7%O2	4.92e-4 lbs/hr	CC7%O2
Beryllium	404C1R3	ND	1.34e+0 ug/dscm 7%O2	4.89e-4 lbs/hr	CC7%O2
Beryllium	404C1R4	ND	1.60e-1 ug/dscm 7%O2	5.95e-5 lbs/hr	CC7%O2
Beryllium	404C1R5	ND	1.40e-1 ug/dscm 7%O2	5.95e-5 lbs/hr	CC7%O2
Beryllium	404C1R6	ND	1.37e-1 ug/dscm 7%O2	5.73e-5 lbs/hr	CC7%O2
Cadmium	404C1R1	ND	3.55e+0 ug/dscm 7%O2	1.36e-3 lbs/hr	CC7%O2
Cadmium	404C1R2	ND	2.79e+0 ug/dscm 7%O2	9.83e-4 lbs/hr	CC7%O2
Cadmium	404C1R3	ND	3.59e+0 ug/dscm 7%O2	1.31e-3 lbs/hr	CC7%O2
Cadmium	404C1R4	ND	3.25e+0 ug/dscm 7%O2	1.21e-3 lbs/hr	CC7%O2
Cadmium	404C1R5	ND	3.81e+0 ug/dscm 7%O2	1.62e-3 lbs/hr	CC7%O2
Cadmium	404C1R6	ND	4.17e+0 ug/dscm 7%O2	1.74e-3 lbs/hr	CC7%O2
Chromium	404C1R1	ND	3.15e+0 ug/dscm 7%O2	1.21e-3 lbs/hr	CC7%O2
Chromium	404C1R2	ND	4.18e+0 ug/dscm 7%O2	1.47e-3 lbs/hr	CC7%O2
Chromium	404C1R3	ND	3.59e+0 ug/dscm 7%O2	1.31e-3 lbs/hr	CC7%O2
Chromium	404C1R4	ND	3.65e+0 ug/dscm 7%O2	1.36e-3 lbs/hr	CC7%O2
Chromium	404C1R5	ND	3.81e+0 ug/dscm 7%O2	1.62e-3 lbs/hr	CC7%O2
Chromium	404C1R6	ND	4.51e+0 ug/dscm 7%O2	1.88e-3 lbs/hr	CC7%O2
Chromium (Hex)	404C1R2	ND	5.93e-1 ug/dscm 7%O2	2.09e-4 lbs/hr	CC7%O2
Chromium (Hex)	404C1R3	ND	4.90e-1 ug/dscm 7%O2	1.78e-4 lbs/hr	CC7%O2
Lead	404C1R1	ND	6.40e+1 ug/dscm 7%O2	2.45e-2 lbs/hr	CC7%O2

US EPA ARCHIVE DOCUMENT

SECTION 7: EMISSIONS ANALYSES

1. COMPANY: ASH GROVE CEMENT COMPANY
 2. STATE: AR
 3. CITY: FOREMAN
 4. EP ID: 404 DEVICE NAME: KILN NO. 3

EPA ID: ARD981512270
 SYSTEM TYPE: CEMENT KILN

REGION: 6
 APC SYSTEM: ESP

Lead	404C1R2	ND	6.44e+1	ug/dscm	7%O2	2.27e-2	lbs/hr	CC7%O2
Lead	404C1R3	ND	5.70e+1	ug/dscm	7%O2	2.07e-2	lbs/hr	CC7%O2
Lead	404C1R4	ND	4.63e+1	ug/dscm	7%O2	1.72e-2	lbs/hr	CC7%O2
Lead	404C1R5	ND	4.68e+1	ug/dscm	7%O2	1.99e-2	lbs/hr	CC7%O2
Lead	404C1R6	ND	4.51e+1	ug/dscm	7%O2	1.88e-2	lbs/hr	CC7%O2
Mercury	404C1R1	ND	3.90e+0	ug/dscm	7%O2	1.49e-3	lbs/hr	CC7%O2
Mercury	404C1R2	ND	4.60e+0	ug/dscm	7%O2	1.62e-3	lbs/hr	CC7%O2
Mercury	404C1R3	ND	3.59e+0	ug/dscm	7%O2	1.31e-3	lbs/hr	CC7%O2
Mercury	404C1R4	ND	6.89e+0	ug/dscm	7%O2	2.56e-3	lbs/hr	CC7%O2
Mercury	404C1R5	ND	4.85e+0	ug/dscm	7%O2	2.06e-3	lbs/hr	CC7%O2
Mercury	404C1R6	ND	2.43e+0	ug/dscm	7%O2	1.01e-3	lbs/hr	CC7%O2
Silver	404C1R1	ND	3.94e+0	ug/dscm	7%O2	1.51e-3	lbs/hr	CC7%O2
Silver	404C1R2	ND	4.65e+0	ug/dscm	7%O2	1.64e-3	lbs/hr	CC7%O2
Silver	404C1R3	ND	4.49e+0	ug/dscm	7%O2	1.63e-3	lbs/hr	CC7%O2
Silver	404C1R4	ND	2.43e+0	ug/dscm	7%O2	9.04e-4	lbs/hr	CC7%O2
Silver	404C1R5	ND	2.08e+0	ug/dscm	7%O2	8.82e-4	lbs/hr	CC7%O2
Silver	404C1R6	ND	2.08e+0	ug/dscm	7%O2	8.69e-4	lbs/hr	CC7%O2
Thallium	404C1R1	ND	2.44e+1	ug/dscm	7%O2	9.35e-3	lbs/hr	CC7%O2
Thallium	404C1R2	ND	2.88e+1	ug/dscm	7%O2	1.02e-2	lbs/hr	CC7%O2
Thallium	404C1R3	ND	2.78e+1	ug/dscm	7%O2	1.01e-2	lbs/hr	CC7%O2
Thallium	404C1R4	ND	6.47e+0	ug/dscm	7%O2	2.40e-3	lbs/hr	CC7%O2
Thallium	404C1R5	ND	5.55e+0	ug/dscm	7%O2	2.36e-3	lbs/hr	CC7%O2
Thallium	404C1R6	ND	5.55e+0	ug/dscm	7%O2	2.31e-3	lbs/hr	CC7%O2

7. Category: PAH

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Acenaphthylene	404C2R1	3.79e+4 ng/dscm 7%O2	1.21e-2 lbs/hr	CE7%O2
Acenaphthylene	404C2R2	3.08e+4 ng/dscm 7%O2	1.16e-2 lbs/hr	CE7%O2
Acenaphthylene	404C2R3	5.77e+4 ng/dscm 7%O2	1.95e-2 lbs/hr	CE7%O2
Acenaphthylene	404C2R4	3.27e+4 ng/dscm 7%O2	1.13e-2 lbs/hr	CE7%O2
Anthracene	404C2R1	2.56e+3 ng/dscm 7%O2	8.18e-4 lbs/hr	CE7%O2
Anthracene	404C2R2	2.29e+3 ng/dscm 7%O2	8.61e-4 lbs/hr	CE7%O2
Anthracene	404C2R3	4.28e+3 ng/dscm 7%O2	1.45e-3 lbs/hr	CE7%O2
Anthracene	404C2R4	1.66e+3 ng/dscm 7%O2	5.74e-4 lbs/hr	CE7%O2
Benzo(b)fluoranthene	404C2R3	3.09e+3 ng/dscm 7%O2	1.05e-3 lbs/hr	CE7%O2
Benzo(b)fluoranthene	404C2R4	1.05e+3 ng/dscm 7%O2	3.65e-4 lbs/hr	CE7%O2
Chrysene	404C2R4	8.94e+2 ng/dscm 7%O2	3.10e-4 lbs/hr	CE7%O2
Fluoranthene	404C2R1	2.15e+4 ng/dscm 7%O2	6.85e-3 lbs/hr	CE7%O2
Fluoranthene	404C2R2	1.12e+4 ng/dscm 7%O2	4.20e-3 lbs/hr	CE7%O2
Fluoranthene	404C2R3	3.17e+4 ng/dscm 7%O2	1.07e-2 lbs/hr	CE7%O2
Fluoranthene	404C2R4	1.80e+4 ng/dscm 7%O2	6.23e-3 lbs/hr	CE7%O2
Fluorene	404C2R1	3.37e+3 ng/dscm 7%O2	1.08e-3 lbs/hr	CE7%O2
Fluorene	404C2R2	2.15e+3 ng/dscm 7%O2	8.09e-4 lbs/hr	CE7%O2
Fluorene	404C2R3	4.00e+3 ng/dscm 7%O2	1.35e-3 lbs/hr	CE7%O2
Fluorene	404C2R4	4.13e+3 ng/dscm 7%O2	1.43e-3 lbs/hr	CE7%O2
Naphthalene	404C2R1	1.22e+5 ng/dscm 7%O2	3.90e-2 lbs/hr	CE7%O2
Naphthalene	404C2R2	8.25e+4 ng/dscm 7%O2	3.10e-2 lbs/hr	CE7%O2
Naphthalene	404C2R3	1.94e+5 ng/dscm 7%O2	6.55e-2 lbs/hr	CE7%O2
Naphthalene	404C2R4	1.08e+5 ng/dscm 7%O2	3.73e-2 lbs/hr	CE7%O2
Phenanthrene	404C2R1	3.07e+4 ng/dscm 7%O2	9.81e-3 lbs/hr	CE7%O2
Phenanthrene	404C2R2	2.94e+4 ng/dscm 7%O2	1.11e-2 lbs/hr	CE7%O2
Phenanthrene	404C2R3	5.65e+4 ng/dscm 7%O2	1.91e-2 lbs/hr	CE7%O2
Phenanthrene	404C2R4	2.16e+4 ng/dscm 7%O2	7.48e-3 lbs/hr	CE7%O2
Pyrene	404C2R1	1.30e+4 ng/dscm 7%O2	4.16e-3 lbs/hr	CE7%O2
Pyrene	404C2R2	7.69e+3 ng/dscm 7%O2	2.89e-3 lbs/hr	CE7%O2
Pyrene	404C2R3	1.74e+4 ng/dscm 7%O2	5.88e-3 lbs/hr	CE7%O2
Pyrene	404C2R4	8.43e+3 ng/dscm 7%O2	2.92e-3 lbs/hr	CE7%O2

SECTION 7: EMISSIONS ANALYSES

1. COMPANY: ASH GROVE CEMENT COMPANY
 2. STATE: AR
 3. CITY: FOREMAN
 4. EP ID: 404 DEVICE NAME: KILN NO. 3

EPA ID: ARD981512270
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP

REGION: 6

7. Category: Particulate

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Particulate	404C1R1	4.66e-3 gr/dscf 7%O2	4.08e+0 lbs/hr	CC7%O2
Particulate	404C1R2	5.40e-3 gr/dscf 7%O2	4.36e+0 lbs/hr	CC7%O2
Particulate	404C1R3	4.38e-3 gr/dscf 7%O2	3.65e+0 lbs/hr	CC7%O2
Particulate	404C1R4	1.82e-2 gr/dscf 7%O2	1.55e+1 lbs/hr	CC7%O2
Particulate	404C1R5	7.55e-3 gr/dscf 7%O2	7.34e+0 lbs/hr	CC7%O2
Particulate	404C1R6	4.73e-3 gr/dscf 7%O2	4.52e+0 lbs/hr	CC7%O2
Particulate	404C2R1	4.98e-3 gr/dscf 7%O2	3.63e+0 lbs/hr	CC7%O2
Particulate	404C2R2	3.57e-3 gr/dscf 7%O2	3.07e+0 lbs/hr	CC7%O2
Particulate	404C2R3	4.22e-3 gr/dscf 7%O2	3.26e+0 lbs/hr	CC7%O2
Particulate	404C2R4	4.75e-3 gr/dscf 7%O2	3.76e+0 lbs/hr	CC7%O2

7. Category: SVOC

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
1,2,4-Trichlorobenzene	404C2R1	ND 6.56e+2 ng/dscm 7%O2	2.09e-4 lbs/hr	CC7%O2
1,2,4-Trichlorobenzene	404C2R2	ND 3.00e+2 ng/dscm 7%O2	1.13e-4 lbs/hr	CC7%O2
1,2,4-Trichlorobenzene	404C2R3	ND 8.97e+2 ng/dscm 7%O2	3.03e-4 lbs/hr	CC7%O2
1,2,4-Trichlorobenzene	404C2R4	ND 5.16e+2 ng/dscm 7%O2	1.79e-4 lbs/hr	CC7%O2
1,3-Dichlorobenzene	404C2R2	1.85e+2 ng/dscm 7%O2	6.95e-5 lbs/hr	CE7%O2
2-Chlorophenol	404C2R1	2.06e+3 ng/dscm 7%O2	6.56e-4 lbs/hr	CE7%O2
2-Chlorophenol	404C2R2	2.94e+3 ng/dscm 7%O2	1.11e-3 lbs/hr	CE7%O2
2-Chlorophenol	404C2R3	1.84e+3 ng/dscm 7%O2	6.22e-4 lbs/hr	CE7%O2
2-Chlorophenol	404C2R4	3.93e+3 ng/dscm 7%O2	1.36e-3 lbs/hr	CE7%O2
2-Methylnaphthalene	404C2R1	1.12e+4 ng/dscm 7%O2	3.57e-3 lbs/hr	CE7%O2
2-Methylnaphthalene	404C2R2	7.06e+3 ng/dscm 7%O2	2.66e-3 lbs/hr	CE7%O2
2-Methylnaphthalene	404C2R3	1.08e+4 ng/dscm 7%O2	3.63e-3 lbs/hr	CE7%O2
2-Methylnaphthalene	404C2R4	1.44e+4 ng/dscm 7%O2	4.99e-3 lbs/hr	CE7%O2
2-Methylphenol (o-Cresol)	404C2R1	1.61e+4 ng/dscm 7%O2	5.13e-3 lbs/hr	CE7%O2
2-Methylphenol (o-Cresol)	404C2R2	6.66e+3 ng/dscm 7%O2	2.50e-3 lbs/hr	CE7%O2
2-Methylphenol (o-Cresol)	404C2R3	9.63e+3 ng/dscm 7%O2	3.25e-3 lbs/hr	CE7%O2
2-Methylphenol (o-Cresol)	404C2R4	1.69e+4 ng/dscm 7%O2	5.85e-3 lbs/hr	CE7%O2
4-Methyl-2-pentanone	404C2R1	5.97e+4 ng/dscm 7%O2	1.90e-2 lbs/hr	CE7%O2
4-Methylphenol (p-Cresol)	404C2R1	3.06e+4 ng/dscm 7%O2	9.75e-3 lbs/hr	CE7%O2
4-Methylphenol (p-Cresol)	404C2R2	1.14e+4 ng/dscm 7%O2	4.29e-3 lbs/hr	CE7%O2
4-Methylphenol (p-Cresol)	404C2R3	1.82e+4 ng/dscm 7%O2	6.14e-3 lbs/hr	CE7%O2
4-Methylphenol (p-Cresol)	404C2R4	3.12e+4 ng/dscm 7%O2	1.08e-2 lbs/hr	CE7%O2
Benzoic acid	404C2R1	4.44e+6 ng/dscm 7%O2	1.42e+0 lbs/hr	CE7%O2
Benzoic acid	404C2R2	2.59e+5 ng/dscm 7%O2	9.76e-2 lbs/hr	CE7%O2
Benzoic acid	404C2R3	3.68e+5 ng/dscm 7%O2	1.24e-1 lbs/hr	CE7%O2
Benzoic acid	404C2R4	4.34e+5 ng/dscm 7%O2	1.50e-1 lbs/hr	CE7%O2
Benzyl alcohol	404C2R1	1.07e+4 ng/dscm 7%O2	3.41e-3 lbs/hr	CE7%O2
Benzyl alcohol	404C2R2	4.29e+3 ng/dscm 7%O2	1.61e-3 lbs/hr	CE7%O2
Benzyl alcohol	404C2R3	6.04e+3 ng/dscm 7%O2	2.04e-3 lbs/hr	CE7%O2
Benzyl alcohol	404C2R4	9.05e+3 ng/dscm 7%O2	3.13e-3 lbs/hr	CE7%O2
bis(2-ethylexyl) Phthalate	404C2R1	1.98e+5 ng/dscm 7%O2	6.31e-2 lbs/hr	CE7%O2
bis(2-ethylexyl) Phthalate	404C2R2	9.52e+3 ng/dscm 7%O2	3.58e-3 lbs/hr	CE7%O2
bis(2-ethylexyl) Phthalate	404C2R3	7.72e+3 ng/dscm 7%O2	2.61e-3 lbs/hr	CE7%O2
bis(2-ethylexyl) Phthalate	404C2R4	6.34e+4 ng/dscm 7%O2	2.20e-2 lbs/hr	CE7%O2
Butylbenzylphthalate	404C2R1	6.46e+2 ng/dscm 7%O2	2.06e-4 lbs/hr	CE7%O2
Butylbenzylphthalate	404C2R4	4.77e+2 ng/dscm 7%O2	1.65e-4 lbs/hr	CE7%O2
di-n-Butyl Phthalate	404C2R1	1.02e+4 ng/dscm 7%O2	3.25e-3 lbs/hr	CE7%O2
di-n-Butyl Phthalate	404C2R2	3.65e+3 ng/dscm 7%O2	1.37e-3 lbs/hr	CE7%O2
di-n-Butyl Phthalate	404C2R3	6.92e+3 ng/dscm 7%O2	2.34e-3 lbs/hr	CE7%O2
di-n-Butyl Phthalate	404C2R4	2.76e+3 ng/dscm 7%O2	9.56e-4 lbs/hr	CE7%O2
Dibenzofuran	404C2R1	1.62e+4 ng/dscm 7%O2	5.16e-3 lbs/hr	CE7%O2
Dibenzofuran	404C2R2	1.63e+4 ng/dscm 7%O2	6.11e-3 lbs/hr	CE7%O2

SECTION 7: EMISSIONS ANALYSES

1. COMPANY: ASH GROVE CEMENT COMPANY
 2. STATE: AR
 3. CITY: FOREMAN
 4. EP ID: 404 DEVICE NAME: KILN NO. 3

EPA ARD981512270
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP

REGION: 6

Dibenzofuran	404C2R3	2.08e+4	ng/dscm	7%O2	7.03e-3	lbs/hr	CE7%O2
Dibenzofuran	404C2R4	1.85e+4	ng/dscm	7%O2	6.41e-3	lbs/hr	CE7%O2
Diethylphthalate	404C2R1	1.53e+3	ng/dscm	7%O2	4.88e-4	lbs/hr	CE7%O2
Diethylphthalate	404C2R2	9.82e+2	ng/dscm	7%O2	3.69e-4	lbs/hr	CE7%O2
Diethylphthalate	404C2R3	1.37e+3	ng/dscm	7%O2	4.64e-4	lbs/hr	CE7%O2
Diethylphthalate	404C2R4	1.26e+3	ng/dscm	7%O2	4.37e-4	lbs/hr	CE7%O2
Ethylbenzene	404C2R1	6.52e+5	ng/dscm	7%O2	2.08e-1	lbs/hr	CE7%O2
Ethylbenzene	404C2R2	7.40e+3	ng/dscm	7%O2	2.78e-3	lbs/hr	CE7%O2
Ethylbenzene	404C2R3	7.92e+3	ng/dscm	7%O2	2.68e-3	lbs/hr	CE7%O2
Ethylbenzene	404C2R4	1.24e+4	ng/dscm	7%O2	4.28e-3	lbs/hr	CE7%O2
N-Nitrosodiphenylamine	404C2R1	1.28e+4	ng/dscm	7%O2	4.09e-3	lbs/hr	CE7%O2
N-Nitrosodiphenylamine	404C2R4	7.37e+3	ng/dscm	7%O2	2.55e-3	lbs/hr	CE7%O2
Phenol	404C2R1	1.45e+5	ng/dscm	7%O2	4.64e-2	lbs/hr	CE7%O2
Phenol	404C2R2	6.42e+4	ng/dscm	7%O2	2.41e-2	lbs/hr	CE7%O2
Phenol	404C2R3	9.60e+4	ng/dscm	7%O2	3.24e-2	lbs/hr	CE7%O2
Phenol	404C2R4	1.55e+5	ng/dscm	7%O2	5.38e-2	lbs/hr	CE7%O2

7. Category: THC & CO

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc	
CO	404C1R1	2.96e+2	ppmv 7%O2	1.32e+2	lbs/hr	CE
CO	404C1R2	5.40e+2	ppmv 7%O2	2.21e+2	lbs/hr	CE
CO	404C1R3	5.51e+2	ppmv 7%O2	2.33e+2	lbs/hr	CE
CO	404C1R4	2.26e+2	ppmv 7%O2	9.76e+1	lbs/hr	CE
CO	404C1R5	5.58e+2	ppmv 7%O2	2.76e+2	lbs/hr	CE
CO	404C1R6	5.80e+2	ppmv 7%O2	2.81e+2	lbs/hr	CE
CO	404C2R1	3.89e+2	ppmv 7%O2	1.44e+2	lbs/hr	CE
CO	404C2R2	2.55e+2	ppmv 7%O2	1.11e+2	lbs/hr	CE
CO	404C2R3	4.09e+2	ppmv 7%O2	1.61e+2	lbs/hr	CE
CO	404C2R4	5.51e+2	ppmv 7%O2	2.22e+2	lbs/hr	CE
CO(MHRA)	404C1R1	5.27e+2	ppmv 7%O2	2.34e+2	lbs/hr	CE
CO(MHRA)	404C1R2	7.38e+2	ppmv 7%O2	3.02e+2	lbs/hr	CE
CO(MHRA)	404C1R3	8.24e+2	ppmv 7%O2	3.49e+2	lbs/hr	CE
CO(MHRA)	404C1R4	3.25e+2	ppmv 7%O2	1.40e+2	lbs/hr	CE
CO(MHRA)	404C1R5	7.54e+2	ppmv 7%O2	3.73e+2	lbs/hr	CE
CO(MHRA)	404C1R6	7.93e+2	ppmv 7%O2	3.85e+2	lbs/hr	CE
CO(MHRA)	404C2R1	6.89e+2	ppmv 7%O2	2.55e+2	lbs/hr	CE
CO(MHRA)	404C2R2	6.45e+2	ppmv 7%O2	2.82e+2	lbs/hr	CE
CO(MHRA)	404C2R3	6.84e+2	ppmv 7%O2	2.69e+2	lbs/hr	CE
CO(MHRA)	404C2R4	7.96e+2	ppmv 7%O2	3.20e+2	lbs/hr	CE
THC	404C1R1	9.50e+0	ppmv 7%O2	6.64e+0	lbs/hr	CE
THC	404C1R2	1.36e+1	ppmv 7%O2	8.76e+0	lbs/hr	CE
THC	404C1R3	1.45e+1	ppmv 7%O2	9.65e+0	lbs/hr	CE
THC	404C1R4	7.30e+0	ppmv 7%O2	4.95e+0	lbs/hr	CE
THC	404C1R5	8.70e+0	ppmv 7%O2	6.75e+0	lbs/hr	CE
THC	404C1R6	8.40e+0	ppmv 7%O2	6.40e+0	lbs/hr	CE
THC	404C2R1	1.50e+1	ppmv 7%O2	8.71e+0	lbs/hr	CE
THC	404C2R2	1.11e+1	ppmv 7%O2	7.64e+0	lbs/hr	CE
THC	404C2R3	1.46e+1	ppmv 7%O2	9.01e+0	lbs/hr	CE
THC	404C2R4	1.46e+1	ppmv 7%O2	9.22e+0	lbs/hr	CE
THC(MHRA)	404C1R1	1.24e+1	ppmv 7%O2	8.67e+0	lbs/hr	CE
THC(MHRA)	404C1R2	1.68e+1	ppmv 7%O2	1.08e+1	lbs/hr	CE
THC(MHRA)	404C1R3	1.77e+1	ppmv 7%O2	1.18e+1	lbs/hr	CE
THC(MHRA)	404C1R4	8.00e+0	ppmv 7%O2	5.43e+0	lbs/hr	CE
THC(MHRA)	404C1R5	9.80e+0	ppmv 7%O2	7.61e+0	lbs/hr	CE
THC(MHRA)	404C1R6	1.13e+1	ppmv 7%O2	8.61e+0	lbs/hr	CE
THC(MHRA)	404C2R1	1.99e+1	ppmv 7%O2	1.16e+1	lbs/hr	CE
THC(MHRA)	404C2R2	2.00e+1	ppmv 7%O2	1.37e+1	lbs/hr	CE
THC(MHRA)	404C2R3	1.92e+1	ppmv 7%O2	1.19e+1	lbs/hr	CE
THC(MHRA)	404C2R4	1.99e+1	ppmv 7%O2	1.26e+1	lbs/hr	CE

SECTION 7: EMISSIONS ANALYSES

1. COMPANY: ASH GROVE CEMENT COMPANY
 2. STATE: AR
 3. CITY: FOREMAN
 4. EP ID: 404 DEVICE NAME: KILN NO. 3

EPA ID: ARD981512270
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP

REGION: 6

7. Category: VOC

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
1,1,1-Trichloroethane	404C2R1	3.30e+2 ng/dscm 7%O2	1.05e-4 lbs/hr	CE7%O2
1,1,1-Trichloroethane	404C2R2	5.99e+2 ng/dscm 7%O2	2.25e-4 lbs/hr	CC7%O2
1,1,1-Trichloroethane	404C2R3	1.76e+3 ng/dscm 7%O2	5.95e-4 lbs/hr	CC7%O2
1,1,1-Trichloroethane	404C2R4	1.30e+3 ng/dscm 7%O2	4.50e-4 lbs/hr	CC7%O2
1,1,2,2-Tetrachloroethane	404C2R1	3.79e+4 ng/dscm 7%O2	1.21e-2 lbs/hr	CE7%O2
2-Hexanone	404C2R1	1.32e+5 ng/dscm 7%O2	4.21e-2 lbs/hr	CE7%O2
Acetone	404C2R1	2.08e+5 ng/dscm 7%O2	6.65e-2 lbs/hr	CE7%O2
Acetone	404C2R2	1.02e+5 ng/dscm 7%O2	3.85e-2 lbs/hr	CE7%O2
Acetone	404C2R3	1.05e+5 ng/dscm 7%O2	3.53e-2 lbs/hr	CE7%O2
Acetone	404C2R4	9.97e+4 ng/dscm 7%O2	3.45e-2 lbs/hr	CE7%O2
Benzene	404C2R1	9.90e+4 ng/dscm 7%O2	3.16e-2 lbs/hr	CE7%O2
Benzene	404C2R2	1.74e+5 ng/dscm 7%O2	6.54e-2 lbs/hr	CE7%O2
Benzene	404C2R3	2.90e+5 ng/dscm 7%O2	9.80e-2 lbs/hr	CE7%O2
Benzene	404C2R4	2.91e+5 ng/dscm 7%O2	1.01e-1 lbs/hr	CE7%O2
Bromoethane	404C2R1	9.35e+4 ng/dscm 7%O2	2.98e-2 lbs/hr	CE7%O2
Bromoethane	404C2R2	8.10e+4 ng/dscm 7%O2	3.05e-2 lbs/hr	CE7%O2
Bromoethane	404C2R3	3.77e+4 ng/dscm 7%O2	1.27e-2 lbs/hr	CE7%O2
Bromoethane	404C2R4	2.42e+4 ng/dscm 7%O2	8.37e-3 lbs/hr	CE7%O2
Carbon disulfide	404C2R1	8.48e+4 ng/dscm 7%O2	2.71e-2 lbs/hr	CE7%O2
Carbon disulfide	404C2R2	4.79e+4 ng/dscm 7%O2	1.80e-2 lbs/hr	CE7%O2
Carbon disulfide	404C2R3	5.19e+4 ng/dscm 7%O2	1.75e-2 lbs/hr	CE7%O2
Carbon disulfide	404C2R4	8.45e+4 ng/dscm 7%O2	2.93e-2 lbs/hr	CE7%O2
Chlorobenzene	404C2R1	6.40e+5 ng/dscm 7%O2	2.04e-1 lbs/hr	CE7%O2
Chlorobenzene	404C2R2	9.15e+3 ng/dscm 7%O2	3.44e-3 lbs/hr	CE7%O2
Chlorobenzene	404C2R3	5.15e+4 ng/dscm 7%O2	1.74e-2 lbs/hr	CE7%O2
Chlorobenzene	404C2R4	1.32e+4 ng/dscm 7%O2	4.58e-3 lbs/hr	CE7%O2
Chloromethane	404C2R1	6.54e+5 ng/dscm 7%O2	2.09e-1 lbs/hr	CE7%O2
Chloromethane	404C2R2	4.77e+5 ng/dscm 7%O2	1.79e-1 lbs/hr	CE7%O2
Chloromethane	404C2R3	3.05e+5 ng/dscm 7%O2	1.03e-1 lbs/hr	CE7%O2
Chloromethane	404C2R4	2.34e+5 ng/dscm 7%O2	8.10e-2 lbs/hr	CE7%O2
m,p-Xylene	404C2R1	1.66e+6 ng/dscm 7%O2	5.28e-1 lbs/hr	CE7%O2
m,p-Xylene	404C2R2	1.64e+4 ng/dscm 7%O2	6.17e-3 lbs/hr	CE7%O2
m,p-Xylene	404C2R3	1.98e+4 ng/dscm 7%O2	6.70e-3 lbs/hr	CE7%O2
m,p-Xylene	404C2R4	3.90e+4 ng/dscm 7%O2	1.35e-2 lbs/hr	CE7%O2
Methyl Ethyl Ketone	404C2R1	1.47e+4 ng/dscm 7%O2	4.69e-3 lbs/hr	CE7%O2
Methyl Ethyl Ketone	404C2R2	1.12e+4 ng/dscm 7%O2	4.21e-3 lbs/hr	CE7%O2
Methyl Ethyl Ketone	404C2R3	1.11e+4 ng/dscm 7%O2	3.77e-3 lbs/hr	CE7%O2
Methyl Ethyl Ketone	404C2R4	1.05e+4 ng/dscm 7%O2	3.65e-3 lbs/hr	CE7%O2
Methylene Chloride	404C2R1	2.04e+4 ng/dscm 7%O2	6.52e-3 lbs/hr	CE7%O2
Methylene Chloride	404C2R2	1.21e+4 ng/dscm 7%O2	4.54e-3 lbs/hr	CE7%O2
Methylene Chloride	404C2R3	2.92e+4 ng/dscm 7%O2	9.87e-3 lbs/hr	CE7%O2
Methylene Chloride	404C2R4	4.32e+4 ng/dscm 7%O2	1.49e-2 lbs/hr	CE7%O2
o-Xylene	404C2R1	2.33e+5 ng/dscm 7%O2	7.43e-2 lbs/hr	CE7%O2
o-Xylene	404C2R2	5.71e+3 ng/dscm 7%O2	2.15e-3 lbs/hr	CE7%O2
o-Xylene	404C2R3	7.16e+3 ng/dscm 7%O2	2.42e-3 lbs/hr	CE7%O2
o-Xylene	404C2R4	1.33e+4 ng/dscm 7%O2	4.62e-3 lbs/hr	CE7%O2
Styrene	404C2R1	6.63e+5 ng/dscm 7%O2	2.12e-1 lbs/hr	CE7%O2
Styrene	404C2R2	5.07e+4 ng/dscm 7%O2	1.91e-2 lbs/hr	CE7%O2
Styrene	404C2R3	4.57e+4 ng/dscm 7%O2	1.55e-2 lbs/hr	CE7%O2
Styrene	404C2R4	8.32e+4 ng/dscm 7%O2	2.88e-2 lbs/hr	CE7%O2
Tetrachloroethene	404C2R1	2.55e+4 ng/dscm 7%O2	8.14e-3 lbs/hr	CC7%O2
Tetrachloroethene	404C2R2	7.75e+2 ng/dscm 7%O2	2.91e-4 lbs/hr	CC7%O2
Tetrachloroethene	404C2R3	4.70e+2 ng/dscm 7%O2	1.59e-4 lbs/hr	CC7%O2
Tetrachloroethene	404C2R4	1.26e+3 ng/dscm 7%O2	4.37e-4 lbs/hr	CC7%O2
Toluene	404C2R1	8.06e+7 ng/dscm 7%O2	2.57e+1 lbs/hr	CE7%O2
Toluene	404C2R2	7.90e+4 ng/dscm 7%O2	2.97e-2 lbs/hr	CE7%O2

SECTION 7: EMISSIONS ANALYSES

1. COMPANY: ASH GROVE CEMENT COMPANY

2. STATE: AR

3. CITY: FOREMAN

EPA ID: ARD981512270

REGION: 6

4. EP ID: 404 DEVICE NAME: KILN NO. 3

SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP

Toluene	404C2R3	1.06e+5	ng/dscm	7%O2	3.60e-2	lbs/hr	CE7%O2
Toluene	404C2R4	1.62e+5	ng/dscm	7%O2	5.61e-2	lbs/hr	CE7%O2
Trichlorofluoromethane	404C2R1	1.09e+3	ng/dscm	7%O2	3.49e-4	lbs/hr	CE7%O2
Trichlorofluoromethane	404C2R2	1.19e+3	ng/dscm	7%O2	4.47e-4	lbs/hr	CE7%O2
Trichlorofluoromethane	404C2R3	4.81e+3	ng/dscm	7%O2	1.63e-3	lbs/hr	CE7%O2
Vinyl Chloride	404C2R1	1.03e+4	ng/dscm	7%O2	3.29e-3	lbs/hr	CE7%O2
Vinyl Chloride	404C2R2	1.31e+4	ng/dscm	7%O2	4.94e-3	lbs/hr	CE7%O2
Vinyl Chloride	404C2R3	9.69e+3	ng/dscm	7%O2	3.28e-3	lbs/hr	CE7%O2
Vinyl Chloride	404C2R4	1.47e+4	ng/dscm	7%O2	5.08e-3	lbs/hr	CE7%O2