ADEQ OPERATING AIR PERMIT

Pursuant to the Regulations of the Arkansas Operating Air Permit Program, Regulation #26:

Permit #: 45-AOP-R2

IS ISSUED TO:

Arkansas Lime Company
600 Limedale Road
Batesville, AR 72503
Independence County
CSN: 32-0014

THIS PERMIT AUTHORIZES THE ABOVE REFERENCED PERMITTEE TO INSTALL, OPERATE, AND MAINTAIN THE EQUIPMENT AND EMISSION UNITS DESCRIBED IN THE PERMIT APPLICATION AND ON THE FOLLOWING PAGES. THIS PERMIT IS VALID BETWEEN:

February 17, 1998 and February 16, 2003

AND IS SUBJECT TO ALL LIMITS AND CONDITIONS CONTAINED HEREIN.

Signed:

Keith A. Michaels

Date Modified

SECTION I: FACILITY INFORMATION

PERMITTEE:	Arkansas Lime Company
CSN:	32-0014
PERMIT NUMBER:	45-AOP-R2
FACILITY ADDRESS:	600 Limedale Road Batesville, AR 72503
COUNTY:	Independence
CONTACT POSITION:	Jim Longenbach or Johnney Bowers
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SECTION II: INTRODUCTION

PROCESS DESCRIPTION

Quarry

Arkansas Lime extracts high-grade limestone from its quarry located approximately 6.5 miles west-northwest of Batesville. Commercial bulk explosives are used to blast limestone away from the quarry face. Front-end loaders transfer the rock into quarry trucks which carry the limestone to the quarry dump hopper. The larger limestone rocks that cannot pass through the grizzly screen and are fed to the primary crusher. The smaller rocks pass through the grizzly screen and drop onto a conveyor belt. This conveyor catches the crushed rocks and drops the limestone onto either the fine-grained or coarse-grained surge pile.

The grizzly screen has a flop gate for handling limestone contaminated with mud. At the top of the seam, mud pockets are sometimes mixed with limestone. When this occurs, the limestone will be sent to the top bench screen. The mud will be screened out and the limestone will be dropped onto the conveyor feeding the fine-grain and the coarse-grain surge piles.

Reclaim tunnels under the surge piles feed limestone to the new triple-deck screen. Rocks larger than 2 1/4" in diameter are routed to a secondary crusher. The crusher discharge is recycled back into the screen feed. Rocks from 5/8" to 2 1/4" in diameter are diverted to the rotary kiln feed surge pile. Rocks with a diameter smaller than 5/8" are sent to the PLS/Ag-Lime screen.

The limestone pebbles smaller than 5/8" in diameter from the triple-deck screen are combined with the fines rejected from the kiln feed screen. These two streams are routed to a common belt conveyor. This belt feeds the PLS/Ag-Lime screen. The pebbles are dropped onto the roller mill feed loadout surge pile. The PLS is gathered by a reclaim tunnel and is loaded into railcars for transport to the lime plant located approximately 2.5 miles to the east. The fines from the PLS/Ag-Lime screen are dropped onto an Ag-Lime storage pile. A front-end loader is used to load Ag-Lime trucks. The front-end loader is also used to fill the Ag-Lime truck top-off/railcar loadout hopper.

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Lime Kilns

Limestone pebbles 5/8" to 2 1/4" in diameter are dropped onto the rotary lime kiln feed surge pile from the triple-deck screen. Belt conveyors transport limestone from this pile to the kiln feed screen where any fines are removed and routed to the PLS/Ag-Lime screen. The limestone pebbles are conveyed to the preheater surge bin of one of the two new rotary lime kilns. No fugitive emissions escape from the bins since they operate under a slight vacuum. The two kilns are virtually identical.

The limestone falls through vertical stone chutes in the annular section of each bin to a limestone preheater where the limestone begins the calcination process. Hot combustion exhaust gases from the kilns are brought into contact with the limestone in a preheater. Heat is used to release carbon dioxide from the limestone via the following reaction:

$$CaCO_3\,(s) + \text{Heat} \rightarrow CaO\,(s) + CO_2\,(g)$$

The residence time needed depends upon the size of the aggregate particles because the centers of the limestone rocks must reach temperatures sufficient for the reaction to take place.

The hot exhaust gases from the kilns are drawn through each preheater to a kiln dust collector. Dust from the kilns is separated from the kiln exhaust gases before the gases are released through a stack. The collected dust is conveyed to the kiln dust bin where it is loaded into trucks for sales or disposal. Each rotary lime kiln is equipped with its own stack and dust collector.

Limestone is transported into a rotary kiln via a transfer chute by the action of hydraulic rams in the bottom of the associated preheater. In the rotary kilns, the limestone flows countercurrent to the hot combustion gases. The combustion gases are generated by the firing of a combination of coal, coke, and/or natural gas. The lime exits the kilns through its associated lime cooler.

Lime is transferred from a lime cooler via enclosed conveyors to the associated lime storage and loadout area. During startup or upset conditions, the lime is stored in the fringe bin. Under normal conditions, the lime is temporarily stored in a lime storage silo. From there, it is conveyed, screened, and crushed (if necessary) to meet product size specifications. There are storage silos for each lime product type. The silos can load lime, also called quicklime, through “dustless” spouts to either trucks or railcars for shipment. Potential emissions from the screen and the crusher are controlled by the lime screen dust collector. Potential emissions from the loadout operations are controlled by “dustless” loadout spouts and bin vents.

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Coal and Coke Handling System

The primary heat source for the rotary lime kilns will be coal and petroleum coke combustion. To facilitate this, a new railcar unloading system will be constructed to receive coal and coke. The railcar will unload onto a conveyor which will drop the coal or coke onto its respective storage pile via a radial stacker. The piles will be partially covered with a tin roof. Front-end loaders will withdraw coal or coke from the respective pile and dump the fuel into the appropriate coal or coke feed hopper.

Weigh feeders and belt conveyors will mix the coal and coke prior to transferring the mixture to the fuel day bin. The fuel day bins will hold one day's fuel mix and will feed the bowl mills directly. The coal/coke mixture is ground to a fine powder in the bowl mill and is then blown directly into a rotary kiln. The temperature inside the kilns and the airflow from the burners (creating complete flame mixing) cause the coal/coke powder to completely combust.

Lime Processing at the Lime Plant

Quicklime is loaded into railcars for sales at the quarry. Some of these railcars are diverted for use at the lime plant. Quicklime will be offloaded at the lime plant into an existing quicklime storage silo. The quicklime screen will be renamed the rice lime screen. Rice lime will be stored in an existing bin and will be loaded out by truck.

Lime from the quicklime storage silo will also be sent via screw conveyors to two existing storage bins which feed the hydrate system. Quicklime will be reacted with water to form hydrated lime, a soft powder. Separators and cyclones are used to remove coarse fractions. The hydrated lime is either sent to the bagging operations where it is packaged for sales or the hydrate storage bin. From the hydrate storage bin, the hydrate will be loaded into trucks for shipment to customers.

Pulverized Limestone Plant (PLS)

Small limestone pebbles will be transferred from the quarry to the lime plant via railcars. The limestone will be dumped into the existing dump hopper at the lime plant and will be conveyed to the roller mill surge bin. The surge bin feeds the two stone and roller mills via screw conveyors. The two mills operate in parallel in the same manner.

Each mill is fed via an automatically controlled screw conveyor. In unusual circumstances, the feed rate can be controlled manually. The motor setting can be adjusted to one of four different settings depending on the size and the moisture content of the limestone feed and the product to be produced.

Fresh air is heated in a natural gas fired heater before being added to the conveying air prior to entering the mill to dry the incoming limestone and facilitate the fine grinding operation. The makeup inlet operates under a slight vacuum. A portion of the air along with the moisture is removed through a vent fan. The amount of moisture removed from the system is controlled by the temperature balance between the makeup air temperature and the recycle air temperature. The gases removed from the system go to a dust collector.

Products from each mill are pneumatically transported through an exhaust cyclone. The products collected from the exhaust cyclone flow through a motorized dump valve, a flop gate, and a screw conveyor to the mechanical air separator. The coarse PLS (14 and 6 mesh) drops into a screw conveyor which sends the material to the PLS screen. The 200 mesh product from the separators is conveyed by the fines screw conveyor which also receives 200 mesh material from the dust collector via a rotary airlock feeder. The discharge from the fines screw conveyor can be routed in one of three directions: to truck loadout, to the 270 product storage tank, or to the PLS bagging operations.

The mechanical air separator can be bypassed by switching the flop gate. This mode of operation is used when demand is for the 270 PLS product only. In this mode, only fine material leaves the mill, goes directly to the 270 product screw conveyor, and is directed up to the 270 product storage bin.

The PLS screen separates the limestone into two categories: medium coarse PLS and large coarse PLS. The medium coarse PLS is sent to the 140 product bins. From there, it can be sent to PLS bagging or to the PLS loadout area. The large coarse PLS is either recycled to the roller mill's feed stream or is sent to the 106 storage bin.

Each roller mill unit is enclosed. A dust collector serves each mill and controls the potential emissions from all the individual components including the conveyors, the crushers, and the screens.

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Arkansas Lime plans to consolidate the PLS loadouts. One large partitioned bin will be constructed with a "dustless" loading spout for the limestone trucks. A truck scale will be built under the bin to streamline the loading process. The products will be stored in the four sections of the new consolidated bin.

Railcars will be loaded through dustless loading spouts installed in dropouts from the conveyors to the truck loadout bin. Loadout spouts will be installed for each of the three products shipped via rail.

PREVENTION OF SIGNIFICANT DETERIORATION

General Information

Arkansas Lime Company is proposing to install a second 625 tpd rotary lime kiln at its quarry near Batesville. Due to the installation of the new kiln, Arkansas Lime is also proposing to install a new lime product cooler, a new lime product silo dust collector, a new limestone conveyor belt, and a new conveyor belt at the coal/coke preparation plant. This facility will be increasing its annual permitted process rates at certain sources as follows:

SN	Description	Old Process Rate, tpy	New Process Rate, tpy
01Q	Primary Crusher	949,000	1,300,000
02Q	Secondary Crusher	1,200,000	1,640,000
03Q	Triple Deck Screen	2,149,000	3,362,000
09Q	PLS/Ag-Lime Screen	600,000	822,000
10Q	Kiln Feed Screen	700,000	900,000

Changes in annual emission rates are used to determine PSD applicability. The changes in annual emission rates are calculated based on the difference between the average emission levels for the two years prior to the modification (1998 and 1999) and the maximum annual potential emissions after the proposed modification.

A net emissions increase is determined by taking the emissions increase associated with the proposed modification, subtracting source-wide creditable contemporaneous decreases and then adding source-wide creditable contemporaneous emission increases. An emissions increase or decrease is creditable only if the reviewing authority has not relied on it in issuing a PSD permit for the source and the permit is still in effect when the increase in actual emissions from the proposed modification occurs. To be contemporaneous, changes in actual emissions must occur within a period beginning five years prior to the date construction is expected to commence and ending when the emissions increase from the modification occurs. Each increase or decrease is calculated as the difference between the new allowable emission rate and either the old level of actual emissions or allowable emissions, whichever is lower.

The net emission increases of total suspended particulate, particulate matter with a diameter less then 10 microns, sulfur dioxide, and oxides of nitrogen will exceed the PSD Significant Increases. The PSD Significant Increase Level for carbon monoxide will not be exceeded although there is a net emission increase of this pollutant. Permitted emissions of VOCs will be

increasing. Although VOCs are included in the table below, the total emission increase for VOCs was lower than the PSD Significant Emission Increase Level so no netting was performed for this pollutant. A summary of the net emission increases may be found in the following table.

Pollutant	Net Emission Increase (tpy)	PSD Significant Emission Increase (tpy)
TSP	75.2	25.0
PM_{10}	29.7	15.0
SO_2	227.0	40.0
VOC	14.2*	40.0
CO	47.6	100.0
NO_X	399.0	40.0

*Netting was not performed as the total emission increase of VOC is less than the PSD Significant Emission Increase Level.

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BACT ANALYSIS

For a PSD permit, the applicant must perform a BACT analysis for each new unit. The applicant must perform a BACT analysis for each affected unit that is undergoing a physical change or change in the method of operation. The BACT evaluation must address each pollutant subject to PSD review emitted by the unit. BACT is determined on a case-by-case basis for each source taking into account technical feasibility, energy and environmental impacts, and cost in a top-down approach. That is, after discarding the technically infeasible options, the applicant must consider the remaining technologies in order of control efficiency and document any findings which results in not using the most effective control technology.

BACT analyses were conducted for the TSP, the PM_{10}, the SO_2, and the NO_X emissions from the new rotary lime kiln (source SN-24Q). BACT analyses were also performed for the TSP and the PM_{10} emissions from the lime product cooler (source SN-25Q), the lime product silo dust collector (source SN-26Q), the kiln feed belt into Kiln #2 surge bin (source SN-27Q), and the incline belt to #1 and #2 fuel surge bins (source SN-28Q). A description of these BACT analyses may be found on the following pages.

BACT analysis for TSP and PM_{10} from the #2 Rotary Lime Kiln (SN-24Q)

For control of particulate matter from the lime kiln, Arkansas Lime considered a dust collector (i.e., baghouses), an electrostatic precipitator (ESP), a wet scrubber, and a cyclone. Of these options, the dust collector was determined to have the highest control efficiency (99.9%) with the ESP having a PM control efficiency of 99.5% and the other two options each having a control efficiency of 90%.

The dust collector removes pollutants from the exhaust gas by drawing the dust-laden air through a bank of filter tubes or bags suspended in a housing. A filter "cake" composed of the removed particulate builds up on the "dirty" side of the collector. Periodically, the cake is removed through physical mechanisms which cause the cake to fall. The dust is then collected in a hopper and removed.

A dust collector is chosen as BACT for TSP and PM_{10} control from the lime kiln. In accordance with U.S. EPA guidance, the remaining control options are not considered further in the BACT analysis for the lime kiln since the highest efficiency control device is being selected.

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BACT analysis for SO_2 from the #2 Rotary Lime Kiln (SN-24Q)

Arkansas Lime considered several different fuel mixtures prior to considering further control technology. These fuel mixes included burning only natural gas or coal/coke blends with varying sulfur contents. Although the use of natural gas would significantly reduce the emissions from the rotary lime kiln, it was deemed as unusable on a continual basis. The cost of natural gas per MMBTU is higher than that of coal and coke. Also, the permittee would not be able to produce as much lime if natural gas were to be the primary fuel used to fire the kiln. The low sulfur fuel blends were also determined to be economically infeasible. Therefore, when control technologies were considered, the pre-control emissions were calculated using a fuel blend with a sulfur content of 4.0% by weight for the short term (hourly) emissions and 3% by weight on a 30-day rolling average. Other lime kilns at similar facilities use a coal/coke blend in conjunction with a limited amount of natural gas as the primary fuel. No kilns at similar facilities were found to use only natural gas as the primary fuel.

The lime dust in the kiln acts as a dry scrubbing medium for sulfur dioxide. Arkansas Lime Company examined two technically feasible control technologies for the sulfur dioxide emissions from the lime kiln in addition to the dry scrubbing which occurs naturally in the kiln. The first was the use of a wet scrubber while the second was the use of a dust collector with the filter cake on the bags acting as additional SO_2 control.

Using a wet scrubber in addition with the naturally occurring dry scrubbing, an overall SO_2 removal efficiency of 99% could be achieved. However, the costs of installing and operating a wet scrubbing system with a guaranteed removal efficiency of 99% make this option economically infeasible; approximately $4700 per ton of SO_2 removed by the scrubber based upon vendor quotes. This does not include the additional costs of treating the scrubber effluent. Additionally, there will be adverse impacts to the environment from treating and disposing of the scrubbing agents. Due to the environmental and economic concerns, the combination of the wet and the dry scrubbing are eliminated from consideration as BACT. Also, if a wet scrubber is used, Arkansas Lime would be unable to sell the lime dust which is captured by the control device. Arkansas Lime recognizes that a few other facilities listed in the RBLC are using wet scrubbers to control emissions from their lime kilns. One of the facilities listed as using a wet scrubber is limited to only using a low sulfur coal as fuel (which was deemed economically infeasible for Arkansas Lime), while the permittee is allowed to use a fuel mix of coal, coke, and natural gas with a sulfur content not to exceed 3% on a 30-day rolling average. Several kilns of similar size are using baghouses to aid in the removal of the sulfur dioxide emissions.

Natural dry scrubbing will occur in the kiln with the lime dust acting as the scrubbing agent. Further dry scrubbing will occur as the exhaust stream passes through a baghouse. Approximately 92% - 95% of the sulfur dioxide created by the fuel combustion will be removed in this scenario. The clearinghouse indicated that this type of control system has been accepted as BACT for several other facilities. Therefore, the dry scrubbing with a baghouse is chosen as BACT for the sulfur dioxide emissions from the lime kiln.

BACT analysis for NO_X from the Rotary Lime Kiln

Several different control technologies were considered for the oxides of nitrogen emissions from the rotary lime kiln. These technologies included the following:

1. Non-Selective Non-Catalytic Reduction (NSNCR)
2. Oxidation/Reduction Scrubbing (O/R)
3. Selective Catalytic Reduction (SCR)
4. Selective Non-Catalytic Reduction (SNCR)
5. Low NO_X Burners
6. Proper Kiln Design and Operation (Base Case)

Item #1 (NSNCR) was the only option not considered to be technically feasible. Currently, only a few cement kilns and no lime kilns are using this technology. NSNCR, also referred to sometimes as either staged air combustion or staged fuel combustion, requires a multi-stage preheater and cyclones. Generally, lime kilns do not have either a multi-stage preheater or any cyclones while some cement kilns do. Due to process differences between cement kilns and lime kilns, this technology has not been applied to lime kilns.

After discarding the technically infeasible option, Arkansas Lime then ranked the remaining control technologies according by effectiveness. In the list above, the remaining technologies are listed in order from highest control efficiency to lowest beginning with item #2. These options were then evaluated on the basis of economic, energy, and environmental concerns.

The O/R scrubbing has a theoretical NO_X removal efficiency of 90%. However, the capital costs for such a system are extensive. The costs for O/R scrubbing are economically prohibitive for the proposed kiln ($8868 per ton of NO_X removed). This technology is not listed in the RBLC and has not been proven effective in controlling NO_X emissions from a rotary lime kiln. Therefore, O/R scrubbing is not considered BACT for the NO_X emissions from the rotary lime kiln.

The SCR has a theoretical NO_X removal efficiency of 70% to 90%. The capital costs for this type of control technology are also extensive. Environmental concerns are also a factor in this technology as it would require the storage and use of large quantities of ammonia. Any accidents concerning this system could be hazardous to nearby communities. Also, the use and possible emissions of ammonia could be subject to numerous other state and federal requirements. To date, there have been no experimental attempts to apply this technology to lime kilns. Accordingly, this technology is not listed in the clearinghouse for lime kilns. Due to economic (5596 per ton of NO_X removed) and environmental concerns, SCR is not considered BACT for the NO_X emissions from the rotary lime kiln.

The SNCR has a theoretical NO_X removal efficiency of 40% to 70%. The required temperature for the reaction does occur in the lime kiln preheater. However, normal operations of the preheater will result in large temperature variations which will make it an unsuitable location for a reaction with a narrow temperature range. Extensive costs are also associated with this control technology ($5254 per ton of NO_X removed). This technology is not listed in the clearinghouse and there is no reported case of a full-scale application for lime kilns. Therefore, SNCR is not considered BACT for the NO_X emissions from the rotary lime kiln.

Low NO_X burners for lime kilns have a theoretical NO_X removal efficiency of up to 30%. Three different types of low NO_X burners for cement kilns have been tested by Lafarge Corporation's Meknes, Morocco facility. Two burners showed significant NO_X reductions. However, one of the burners was removed after a month due to refractory damage in the burn zone and problems with clogging in the feed end due to high sulfur volatilization in the burn zone. Low NO_X burners have also been used in cement kilns in Germany. About half of the kilns showed reductions of 10 to 30 percent while the other half showed no significant decreases. Low NO_X burners can only be used on indirect-fired kilns. The proposed kiln is a direct fired kiln. Indirect-fired kilns transfer the pulverized coal to an intermediate area and then transfer that coal to the kiln. Direct-fired kilns use the grinding mill ventilation to transfer the pulverized coal to the burner. Currently, only a few lime kilns are indirect-fired and vendors generally will not guarantee any NO_X reductions above a traditional design. As such, this technology cannot be considered proven in the lime kiln industry. Due to the lack of evidence of practical feasibility of this technology for lime kilns, low NO_X burners are not considered BACT for the NO_X emissions from the rotary lime kiln. Also, the NO_X limit for the rotary lime kiln is in line with the NO_X limits for similar facilities without the use of low NO_X burners.

Proper kiln design and operation will lead to reduced fuel consumption which in turn will lead to lower NO_X emissions. Proper operation of the kiln will include minimizing excess air and therefore minimizing emissions. The kiln will be equipped with a dynamic classifier for finer grinding of the fuel and a multi-channel burner which allows for improved fuel and air mixing. Both of these design features prevent the formation of excessively high temperature zones and thereby help to minimize thermal NO_X formation. Proper kiln design and operation are considered BACT by all recent determinations in the clearinghouse. Considering these factors and the high cost of alternatives, proper kiln design and operation is deemed BACT for the NO_X emissions from the rotary lime kiln.

A search of the RACT/BACT/LAER Clearinghouse revealed that all recent BACT determinations were proper kiln design and operation. The Clearinghouse did list many BACT limits which are lower than Arkansas Lime's limit. The Department and the permittee contacted the environmental regulatory agencies in the states where these facilities were located. It was determined that the lower BACT limit of 2.0 lb/ton was not being met and that higher limits were being requested. The search also revealed that similar size kilns were able to meet a BACT limit of 3.5 lb/ton. Based on the research, a BACT limit of 3.5 lb/ton has been given to Arkansas Lime Company.

BACT analysis for TSP and PM_{10} from the #2 Lime Product Cooler (SN-25Q)

Arkansas Lime Company considered fabric filter or baghouse-type dust collectors and ESPs for BACT from the #2 Lime Product Cooler. Water sprays were also considered for this source. However, it was determined to be technically infeasible when considering the desired end product of the operation. Lime and water react exothermically when they come into contact and form hydrated lime. Hydrated lime has different physical applications and properties than lime.

ESPs are capable of achieving the same control efficiency as baghouses. However, ESPs were ruled out as BACT because ESPs are highly sensitive to changes in the gas stream conditions. Certain particulates are difficult to collect due to extremely high or low resistivity characteristics; therefore, the collection efficiency may be widely variable if the composition of the dust in the gas stream varies. ESPs also require more space to install, specialized maintenance personnel, and special safety precautions which are not needed with fabric filter or baghouse-type dust collectors.

Arkansas Lime Company proposes to use a dust collector with an efficiency of at least 99%. This is currently accepted as best industry practice for particulate control. A BACT limit of 0.015 grains per dry standard cubic foot of air has been assigned to this source.

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BACT analysis for TSP and PM_{10} from the #2 Lime Product Silo (SN-26Q)

Arkansas Lime Company considered fabric filter or baghouse-type dust collectors and ESPs for BACT from the #2 Lime Product Silo. Water sprays were also considered for this source. However, it was determined to be technically infeasible when considering the desired end product of the operation. Lime and water react exothermically when they come into contact and form hydrated lime. Hydrated lime has different physical applications and properties than lime.

EPPs are capable of achieving the same control efficiency as baghouses. However, ESPs were ruled out as BACT because ESPs are highly sensitive to changes in the gas stream conditions. Certain particulates are difficult to collect due to extremely high or low resistivity characteristics; therefore, the collection efficiency may be widely variable if the composition of the dust in the gas stream varies. ESPs also require more space to install, specialized maintenance personnel, and special safety precautions which are not needed with fabric filter or baghouse-type dust collectors.

Arkansas Lime Company proposes to use a dust collector with an efficiency of at least 99%. This is currently accepted as best industry practice for particulate control. A BACT limit of 0.015 grains per dry standard cubic foot of air has been assigned to this source. It is recognized that three sources in the RBLC have grain loading factors lower than what has been given to Arkansas Lime. Of these three silos, two have not been constructed. The third silo has been constructed but had not been proven to meet the limit by February 2000.

BACT analysis for TSP and PM_{10} from the Kiln Feed Belt into the #2 Kiln Surge Bin (SN-27Q)

Arkansas Lime Company is not proposing any additional controls for this source. Water sprays are located upstream and the slight vacuum at the kiln preheater opening will prevent excess emissions from this source. Due to the low emission rates with the water sprays upstream and the slight vacuum, the BACT proposal was accepted.

BACT analysis for TSP and PM_{10} from the Incline Belt to #1 and #2 Fuel Surge Bins (SN-28Q)

Possible control options for the incline belt to #1 and #2 fuel surge bins include water sprays, enclosures, and dust collectors. Water sprays were deemed to be technically infeasible for this source. Water sprays on the solid fuel handling points downstream of the fuel storage piles are considered technically infeasible because water will decrease the effectiveness of coal and coke as fuel.

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Arkansas Lime Company is proposing to use a fabric-filter type dust collector with enclosures where applicable in order to minimize emissions from this source. A BACT limit of 0.015 grains per dry standard cubic foot of air has been assigned to this source. It is recognized that four baghouses on similar sources listed in the RBLC have lower grain loading factors than this baghouse. However, two of the baghouses have the grain loading factor based on actual cubic feet of air. If the grain loading factors were to be calculated on the basis of dry standard cubic feet of air they would be higher. The other two sources have not yet been constructed.

BACT SUMMARY

SN	Pollutant	BACT Limit	BACT Determination
24Q	TSP, PM_{10}	0.015 gr/dscf	baghouse-type dust collector
24Q	SO_2	3% by weight sulfur in fuel on a 30-day rolling average	natural dry scrubbing in kiln and in baghouse
24Q	NO_X	3.5 lb NO_X per ton of lime produced on a 30-day rolling average	proper kiln design and operation
25Q	TSP, PM_{10}	0.015 gr/dscf	baghouse-type dust collector
26Q	TSP, PM_{10}	0.015 gr/dscf	baghouse-type dust collector
27Q	TSP, PM_{10}	0.1 lb/hr - TSP 0.1 lb/hr - PM_{10}	water spray upstream and surge bin vacuum
28Q	TSP, PM_{10}	0.015 gr/dscf	fabric filter type dust collector

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AMBIENT AIR IMPACT ANALYSIS

An air dispersion modeling analysis is a required part of a PSD permit application. The air dispersion modeling analysis is used to demonstrate that the emissions resulting from a proposed modification will not cause or contribute to a violation of any applicable National Ambient Air Quality Standard (NAAQS) or surpass a PSD increment. The USEPA requires that PSD modeling be performed in two stages: the significance analysis and the full impact analysis. The full impact analysis is further divided into the NAAQS and PSD Increment analyses.

SIGNIFICANCE ANALYSIS

The significance analysis considers the emission increases associated with the proposed modifications at Arkansas Lime in order to determine whether or not the modifications will have a significant impact upon the area surrounding the facility. If the results of the significance analysis are above the Modeling Significance Levels (MSLs), the full impact analysis will be required for that pollutant. In addition, if the results of the significance analysis are above the Monitoring De Minimis Concentration, PSD ambient monitoring requirements must also be addressed for that pollutant.

The PSD ambient monitoring is used to establish background air quality concentrations in the vicinity of the proposed sources. The Monitoring De Minimis Concentrations establish levels at which a facility would need to conduct pre-construction ambient air quality monitoring.

The results of the significance analysis are contained in the following table. As can be seen in the following table , the Modeling Significance Levels were exceeded as well as the PSD Monitoring De Minimis Concentrations for PM_{10}, SO_2, and NO_X.

Maximum Predicted Concentrations in Comparison with
Modeling Significance Levels and Monitoring De Minimis Concentrations

Pollutant	Averaging Period	Modeled Concentration ($\mu g/m^3$)	PSD Modeling Significance Level ($\mu g/m^3$)	PSD Monitoring De Minimis Concentrations ($\mu g/m^3$)
PM_{10}	24-hour	40.4	5	10
	Annual	5.75	1	--

Pollutant	Averaging Period	Modeled Concentration ($\mu g/m^3$)	PSD Modeling Significance Level ($\mu g/m^3$)	PSD Monitoring De Minimis Concentrations ($\mu g/m^3$)
SO_2	3-hour	48.1	25	--
	24-hour	14.2	5	13
	Annual	2.06	1	--
NO_X	Annual	2.88	1	14

AMBIENT MONITORING

Because the significance analysis predicted concentrations in excess of the Monitoring De Minimis Levels for PM_{10} and SO_2, Arkansas Lime was required to address ambient monitoring requirements. Arkansas Lime requested that they be allowed to use existing monitoring data from a nearby facility in lieu of pre-construction monitoring for sulfur dioxide. For PM_{10}, Arkansas Lime Company requested that they be allowed to use existing monitoring data from the Department's monitor located in Searcy, Arkansas, from the years 1994 through 1998. The five annual averages were averaged while the second highest values were used for the 24-hour averages. The Department has accepted this request and will allow the use of the existing data because of the existing monitor's close proximity to Arkansas Lime. Any monitoring performed at Arkansas Lime should not be significantly different from the existing monitoring. Ambient monitoring data used was collected from June 1, 1997, through May 31, 1998. A summary of the background concentrations obtained from this study are contained in the table below. For completeness, the NO_X background concentration used in the NAAQS analysis has been included in the table below. This data was obtained from the same place and time period as the sulfur dioxide information.

Pollutant	Averaging Period	Maximum Monitored Concentration ($\mu g/m^3$)	NAAQS ($\mu g/m^3$)
PM_{10}	24-hour	45.2	150
	Annual	23.5	50
SO_2	3-hour	567	1,300*
	24-hour	112	365
	Annual	18.6	80

Pollutant	Averaging Period	Maximum Monitored Concentration ($\mu g/m^3$)	NAAQS ($\mu g/m^3$)
NO_X	Annual	13.4	100

*Secondary NAAQS standard. No primary NAAQS exists for SO_2 on a 3-hour average.

FULL IMPACT ANALYSIS

Since the emission increases associated with the proposed modification are shown to have a potentially significant impact (i.e., ambient concentrations exceed MSLs), a full impact analysis is conducted. The full impact analysis consists of a NAAQS and PSD Increment compliance demonstration.

NAAQS ANALYSIS

The NAAQS are maximum concentration "ceilings" measured in terms of the total concentration of a pollutant in the atmosphere. In the NAAQS analysis, Arkansas Lime's emissions are combined with those from other nearby sources that have the potential to contribute significantly to receptors within Arkansas Lime's Radius of Impact (ROI).

Arkansas Lime obtained emissions data and release parameters for these other sources from the Department. A screening technique, referred to as the "20-D Rule," was used to determine which sources have the potential to significantly impact receptors within Arkansas Lime's ROI. The 20-D Rule screening approach is used only to exclude sources located outside the area of significant impact (i.e., the ROI), but within 50 km of that area and does so only if the entire source's emissions in tons per year are less than the product of 20 and the distance in km from the facility to the area of significant impact.

Once the 20-D screening analysis is completed, all remaining sources and the proposed increases are modeled. The resulting impacts are summed with a representative background concentration and then are compared to the corresponding NAAQS to demonstrate compliance with these criteria.

The results of the NAAQS analysis are contained in the following table. As can be seen, no NAAQS are exceeded. The 3-hour average SO_2 concentration has remained unchanged from the previous permit because the receptor at which this concentration was predicted was not impacted by Arkansas Lime Company during the 3-hour period when the maximum 3-hour concentration occurred, i.e., emissions from another nearby facility caused the maximum 3-hour impact. This modeling analysis includes the changes which were authorized under #45-AOP-R1 as well as the changes being authorized under this permit.

Modeled Concentration with Background
in Comparison with the NAAQS

Pollutant	Averaging Period	Modeled Concentration with Background ($\mu g/m^3$)	NAAQS ($\mu g/m^3$)
PM_{10}	24-hour[3]	139.0	150
	Annual[2]	47.9	50
SO_2	3-hour[1]	768.0	1,300
	24-hour[1]	160.0	365
	Annual[2]	24.0	80
NO_X	Annual[2]	18.7	100

1. Highest, 2nd Highest Concentration
2. Highest
3. Fourth Highest

PSD INCREMENT ANALYSIS

A PSD Increment is the maximum allowable increase in concentration that is allowed to occur in a given area above a baseline concentration for a pollutant. The baseline concentration is defined for each pollutant and relevant averaging time and is the ambient concentration existing at the time that the first complete PSD permit application affecting the area is submitted. It is important to note, however, that air quality cannot deteriorate beyond the concentration allowed by the applicable NAAQS, even if not all of the PSD Increment is consumed. PSD Increments have been established for both SO_2 and NO_X. In the PSD Increment analysis, creditable emissions increases and decreases from all increment-affected sources located within the baseline area established for each pollutant are modeled with Arkansas Lime's net emission increases to demonstrate compliance with the corresponding PSD Increments.

For the PSD Increment analysis, a historical review of the emission changes occurring since the major source baseline dates was performed. The major source baseline dates are August 7, 1977, for PM_{10} and SO_2 and February 8, 1988 for NO_X. In Independence County, the minor source baseline dates were triggered on October 13, 1977, for SO_2 and on January 14, 1991, for NO_X. Any emission changes associated with construction at Arkansas Lime or a major source between the major source and the minor source baseline dates would consume Increment. All emission increases and decreases at Arkansas Lime and any other source in Independence County since the applicable minor source baseline date will consume increment in Independence County.

Additionally, nearby sources in other counties (if they are within Arkansas Lime's ROI) may affect PSD Increment in Independence County.

Arkansas Lime obtained an inventory of sources which could potentially affect the PSD Increment in Independence County from the Department. Sources in the inventory having a negligible effect on Arkansas Lime's significant receptors were screened using the "20-D Rule."

Arkansas Lime excluded all but seven sources using the 20-D Rule. These sources were included in the PSD Increment modeling (ISCST3 model). Two sources were not included in the CTSCREEN analysis (see discussion on CTSCREEN use below) due to source stack height or distance from Arkansas Lime. The results of the PSD Increment analysis are contained in the following table. The 3-hour average and the 24-hour average for the sulfur dioxide increment consumed have remained unchanged from the previous permit because Arkansas Lime did not have an impact at the receptors at which those concentrations were predicted.

Maximum Predicted Increment Consumed
in Comparison with the PSD Increment

Pollutant	Averaging Period	Maximum Modeled Increment Consumed, $\mu g/m^3$	Total PSD Increment, $\mu g/m^3$	% of Total Increment Consumed
PM_{10}	24-hour[1]	29.1	30	97
	Annual	5.81	17	34.2
SO_2	3-hour[1]	110	512	21.5
	24-hour[1]	25.1	91	27.6
	Annual[2]	3.81	20	19.1
NO_X	Annual[2]	5.29	25	21.2

1. Highest, 2nd Highest Concentration
2. Highest

Because the PSD Increment Modeling predicted that more than 80% of the 24-hour average PSD Increment could be consumed, Arkansas Lime was required to assess the effects that the proposed consumption could have upon the industrial and the economic development within the area of the proposed source and to examine alternatives to such consumption, including alternative siting of the proposed source or portions thereof.

There are only three non-boundary and three boundary receptors that show PSD Increment consumption to be in excess of 80%. No receptors on the coarse grid showed PSD Increment consumption to be in excess of 80%. Since the fine receptor grid receptors only extend approximately one kilometer in each direction from the plant boundary, evaluation of the impacts on the coarse grid is a more accurate assessment of how PSD Increment consumption will affect existing or future industrial sites. The coarse grid impacts are more important in rural areas because industrial sources are generally located further apart than in an urban setting.

The highest-second-high impact on the coarse grid was 17.9 $\mu g/m^3$, which is approximately 60% of the 24-hour PSD Increment. The two highest second-highs are located less than one kilometer from the plant boundary. No other industrial sources are expected to locate in the rural area near Arkansas Lime. The nearest developed area (Batesville) is approximately 5 kilometers from the #2 Kiln stack. The PSD Increment consumption in this area is on the order of 0.5 - 1.0 $\mu g/m^3$. Therefore, industrial growth in the Batesville area will not be hindered because of the PSD Increment consumption associated with this project.

Alternative siting options for the lime plant are limited due to the nature of the lime production process. The nature of the lime production process dictates that the sources be located near the mineral source (i.e., near the limestone quarry). The location of the sources associated with this project were optimized considering terrain, location of public roads, environmental impact, and proximity to the quarry and associated limestone processing areas.

CLASS I AREA IMPACT ANALYSIS

The PSD Regulations require that written notification be provided to the Federal Land Manager in the event that a major source or modification is located within 100 kilometers of a Class I Area. Arkansas Lime Company is located over 150 kilometers from the nearest Class I Area. Therefore, neither notification to the Federal Land Manager nor a Class I Area Impact Analysis is required.

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ADDITIONAL IMPACTS REVIEW

Three areas constitute the Additional Impacts Review: a growth analysis, a soils and vegetation analysis, and a visibility analysis.

The growth analysis includes a projection of the associated industrial, commercial, and residential growth that will occur in the area as a result of the source. The potential impact on the ambient air due to the growth is also a part of the analysis. The proposed project outlined in this application is largely a modernization project which is not expected to require that additional people be hired. Therefore, any industrial, commercial, and residential growth associated with this project will be negligible. No appreciable increase in emissions is expected as a result of any growth which might be associated with the proposed project.

A study was conducted by the permittee which did not identify any sensitive aspects of the soil and the vegetation in the area surrounding the plant. Therefore, the secondary NAAQS, which establish the ambient concentration below which no harmful effects to either soil or vegetation can be expected, are used as an indicator of potentially adverse impacts. The maximum sulfur dioxide impact on a 3-hour average, including the background concentration, was determined to be 768 $\mu g/m^3$, well below the secondary NAAQS standard of 1,300 $\mu g/m^3$ on a 3-hour average. The maximum oxides of nitrogen impact on an annual average, including the background concentration was determined to be 18.7 $\mu g/m^3$, well below the secondary NAAQS standard of 100 $\mu g/m^3$ on an annual average. Particulate matter emissions and subsequent impacts are not noted to have any specific harmful effects on soil or vegetation. Furthermore, as demonstrated in the air quality analysis, the maximum ground-level concentrations associated with this permit application are all less than the primary and secondary NAAQS. Thus, it can be concluded that the proposed project will not have an adverse impact upon local soils and vegetation, and no additional analysis is required.

Three levels of visibility screening procedures are outlined by the U.S. E.P.A. If the criteria for the first, most conservative, screening level is met, no further analysis is required. The VISCREEN model is recommended for the Level 1 screening. If calculated values from the VISCREEN model are greater than the standardized screening values, the emissions are judged to have the potential for visibility impairment. If the potential for visibility impairment is indicated, a Level 2 analysis is required. The results of the Level 1 screening indicate that no visibility impairment will result from the modifications described in this application. Therefore, no additional analysis is required.

APPLICABLE REGULATIONS

Arkansas Lime Company is subject to the *Prevention of Significant Deterioration* regulations and the CAM Rule (40 CFR 52.21 and 40 CFR Part 64, respectively). This facility is subject to the provisions of 40 CFR Part 60, Subpart A - *General Provisions*, 40 CFR Part 60, Subpart HH - *Standards of Performance for Lime Manufacturing Plants*, 40 CFR Part 60, Subpart OOO - *Standards of Performance for Nonmetallic Mineral Processing Plants*, and 40 CFR Part 60, Subpart Y - *Standards of Performance for Coal Preparation Plants*. This facility is also subject to the applicable provisions of the *Arkansas Air Pollution Control Code* (Regulation 18), *Regulations of the Arkansas Plan of Implementation for Air Pollution Control* (Regulation 19), and *Regulations of the Arkansas Operating Air Permit Program* (Regulation 26).

The following is summary of the emissions from this facility. Specific unit information may be located using the indicated cross reference pages.

EMISSION SUMMARY					
Source No.	Description	Pollutant	Emission Rates		Cross Reference Page
			lb/hr	tpy	
Total Allowable Emissions		PM PM_{10} SO_2 VOC CO NO_X	79.0 45.4 130.7 6.9 157.3 183.4	255.9 163.0 453.9 28.7 687.9 802.8	N/A
01Q	Primary Crusher (Replaced in 2000)	PM PM_{10}	0.4 0.2	0.9 0.4	37
02Q	Secondary Crusher (Replaced in 2000)	PM PM_{10}	0.4 0.2	1.1 0.5	37
03Q	Triple Deck Screen (Replaced in 2000)	PM PM_{10}	1.1 0.6	3.0 1.5	41
04Q	Limestone Piles (New Piles in 2000)	PM PM_{10}	0.4 0.2	1.2 0.6	45
05Q	Railcar Loadout (Replaced in 2000)	PM PM_{10}	0.1 0.1	0.1 0.1	50

EMISSION SUMMARY					
Source No.	Description	Pollutant	Emission Rates		Cross Reference Page
			lb/hr	tpy	
06Q	Unpaved Quarry Haul Roads	PM PM_{10}	28.0 5.5	83.2 16.4	52
07Q	Conveyor Transfer Points (Existing Points Removed and New Equipment Installed in 2000)	PM PM_{10}	9.9 4.7	22.4 10.6	45
08Q	Top Bench Screen	Source Never Installed.			
09Q	PLS/Ag-Lime Screen	PM PM_{10}	0.9 0.5	1.9 0.9	41
10Q	Kiln Feed Screen	PM PM_{10}	0.6 0.3	0.8 0.4	41
11Q	Rotary Kiln Stack	PM PM_{10} SO_2 VOC CO NO_X	7.3 7.3 65.2 3.3 78.2 91.2	31.6 31.6 226.6 14.2 342.2 399.3	54
12Q	Kiln-Dust Bin Vent and Loadout Dust Collector	PM PM_{10}	0.5 0.5	1.3 1.3	63
13Q	Lime Product Cooler	PM PM_{10}	0.4 0.4	1.7 1.7	63
14Q	Lime Product Silo Dust Collector	PM PM_{10}	0.7 0.7	2.9 2.9	65
15Q	Lime Screen Dust Collector	PM PM_{10}	1.6 1.6	6.8 6.8	65
16Q	Lime Loadout Dust Collector	PM PM_{10}	0.2 0.2	0.7 0.7	67

EMISSION SUMMARY					
Source No.	Description	Pollutant	Emission Rates		Cross Reference Page
			lb/hr	tpy	
17Q	Off-Spec Lime Loadout/Bin Vent	PM PM_{10}	0.7 0.7	0.5 0.5	67
18Q	Lime Loadout to Railcars	PM PM_{10}	0.2 0.2	0.7 0.7	67
19Q	Coal/Coke Rail Dump	PM PM_{10}	0.6 0.3	0.3 0.1	69
20Q	Coal/Coke Storage Piles	PM PM_{10}	0.1 0.1	0.2 0.1	69
21Q	Coal/Coke Transfer Points	PM PM_{10}	0.2 0.1	0.4 0.2	69
22Q	New Ag-Lime Plant Fugitives (Was SN-27P; Moved to Quarry in 2000)	PM PM_{10}	0.3 0.3	0.3 0.3	72
23Q	New Ag-Lime Plant Truck Top-Off System Fugitives (Was SN-28P; Moved to Quarry in 2000)	Source Removed.			
24Q	#2 Rotary Lime Kiln	PM PM_{10} SO_2 VOC CO NO_X	7.3 7.3 65.2 3.3 78.1 91.2	31.6 31.6 227.0 14.2 342.0 399.3	74
25Q	#2 Lime Product Cooler	PM PM_{10}	0.4 0.4	1.7 1.7	82
26Q	#2 Lime Product Silo Dust Collector	PM PM_{10}	0.7 0.7	2.9 2.9	84

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EMISSION SUMMARY					
Source No.	Description	Pollutant	Emission Rates		Cross Reference Page
			lb/hr	tpy	
27Q	Kiln Feed Belt into #2 Kiln Surge Bin	PM PM_{10}	0.1 0.1	0.2 0.1	45
28Q	Incline Belt to #1 and #2 Fuel Surge Bins	PM PM_{10}	0.1 0.1	0.1 0.1	69
29Q	Paved Quarry Haul Roads	PM PM_{10}	1.9 0.4	5.8 1.2	52
01P	Limestone Drop Points	PM PM_{10}	0.4 0.2	0.3 0.1	85
02P	Stockpile Fugitives	This source will be removed in 2000. Emissions data may be found on the indicated cross reference page.			88
03P	Vertical Kiln #1	This source will be removed in 2000. Emissions data may be found on the indicated cross reference page.			90
04P	Vertical Kiln #2	This source will be removed in 2000. Emissions data may be found on the indicated cross reference page.			90
05P	Vertical Kiln #3	This source will be removed in 2000. Emissions data may be found on the indicated cross reference page.			90
06P	Vertical Kiln #4	This source will be removed in 2000. Emissions data may be found on the indicated cross reference page.			90
07P	Vertical Kiln #5	This source will be removed in 2000. Emissions data may be found on the indicated cross reference page.			90

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EMISSION SUMMARY					
Source No.	Description	Pollutant	Emission Rates		Cross Reference Page
			lb/hr	tpy	
08P	Vertical Kiln #6	This source will be removed in 2000. Emissions data may be found on the indicated cross reference page.			90
09P	Lime Crusher and Conveyor Points	Source Removed From Service.			
10P	Hydrator #1	Removed from service, routed to source SN-12 dust collector in 1998			94
11P	Hydrator #2	Removed from service, routed to source SN-12 dust collector in 1998			94
12P	Hydrate Separator System Dust Collector (Gas Fired Heater Added in 1998)	PM PM_{10} SO_2 VOC CO NO_X	1.9 1.9 0.1 0.1 0.4 0.4	8.2 8.2 0.1 0.1 1.5 1.8	94
13P	Hydrate Storage Tank Loadout	PM PM_{10}	0.3 0.3	1.0 1.0	94
14P	Hydrated Lime Bagging Operations	PM PM_{10}	0.8 0.8	3.3 3.3	94
15P	Rice Lime Screen (Formerly Quicklime Screen & Crusher; Crusher Removed in 2000)	PM PM_{10}	0.1 0.1	0.1 0.1	96
16P	Lime Storage Tank Loadouts (Becomes Rice Lime and Quicklime Fine Storage Tank Loadouts in 2000)	PM PM_{10}	0.4 0.4	1.8 1.8	96
17P	PLS Screening Operations	Removed from service in December 1997.			

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EMISSION SUMMARY					
Source No.	Description	Pollutant	Emission Rates		Cross Reference Page
			lb/hr	tpy	
18P	Stone and Roller Mill Plant #1	PM PM_{10} SO_2 VOC CO NO_X	2.6 2.6 0.1 0.1 0.3 0.3	11.4 11.4 0.1 0.1 1.1 1.2	98
19P	Stone and Roller Mill Plant #2	PM PM_{10} SO_2 VOC CO NO_X	1.8 1.8 0.1 0.1 0.3 0.3	7.8 7.8 0.1 0.1 1.1 1.2	98
20P	PLS Screening Operations	PM PM_{10}	1.3 0.6	5.5 2.6	100
21P	Loadout of 270/280 Product	PM PM_{10}	0.1 0.1	0.4 0.4	100
22P	Loadout of 140 Product Silo	This source will be removed in 2000. Emissions data may be found on the indicated cross reference page.			100
23P	Loadout of 106 Product Silo	This source will be removed in 2000. Emissions data may be found on the indicated cross reference page.			100
24P	PLS Bagging Operations	PM PM_{10}	0.4 0.4	1.7 1.7	100
25aP	Portable Ag-Lime Plant Dust Collector	Removed from service in January 1998.			
25bP	Portable Ag-Lime Plant Fugitives	Removed from service in January 1998.			

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EMISSION SUMMARY					
Source No.	Description	Pollutant	Emission Rates		Cross Reference Page
			lb/hr	tpy	
26P	Lime Plant Haul Roads	PM PM_{10}	1.6 0.4	4.3 1.0	103
27P	New Ag-Lime Plant Fugitives	Moved to quarry and becomes SN-22Q in 2000.			72
28P	Ag-Lime Plant Truck Top-Off System Fugitives	Moved to quarry and becomes SN-23Q in 2000.			72
29P	New Hydrate Storage Dust Collector	PM PM_{10}	0.2 0.2	0.7 0.7	94
30P	New Consolidated PLS Loadout Bin Vent	PM PM_{10}	0.4 0.4	1.8 1.8	105
31P	New Consolidated PLS Truck Loadout	This source vents back into the loadout bin.			105
33P	Consolidated PLS 140 Railcar Drop-Out	PM PM_{10}	0.2 0.2	0.6 0.6	105
34P	Consolidated PLS 270 Railcar Drop-Out	PM PM_{10}	0.2 0.2	0.6 0.6	105
35P	New Quicklime Fines Rail Unloading Pit	PM PM_{10}	0.4 0.2	1.8 0.9	108
41P	Portable Undersize Stone Crusher	This source was never installed.			
42P	Undersize Stone Conveyors and Drop Points	This source will be removed in 2000. Emissions data may be found on the indicated cross reference page.			109
43P	Kiln Feed/Undersize Stone Screen	This source will be removed in 2000. Emissions data may be found on the indicated cross reference page.			111

SECTION III: PERMIT HISTORY

Operations at what is now known as Arkansas Lime Company began in 1925.

45-A was issued to Rangeaire Corporation, Batesville, White Lime Division, on August 18, 1970. This permit allowed for the installation of one Sly 12-A Dynaclone and associated equipment.

45-AR-1 was issued on February 1, 1971, to allow for the installation of two Western Precipitation Turbalaire Scrubbers and associated equipment.

45-AR-2 was issued on July 24, 1979, to allow for the installation of several baghouses. Three baghouses were installed to control emissions from crushing, bagging, screening, and storage operations. A fourth baghouse was installed as a place for trucks to discard dust at before receiving shipments.

45-AR-3 was issued to Arkansas Lime Company, formerly known as Rangeaire Corporation, Batesville, White Lime Division, on April 22, 1987. This permit allowed for the installation of a new stone and rolling mill. A new baghouse on the old stone and rolling mill was also permitted.

45-AR-4 was issued on July 25, 1990, to allow for modifications to the hydrated lime process. It was stated in this permit that the emissions were not increasing from the rates set forth in 45-AR-3.

45-AR-5 was issued to Arkansas Lime Company -- Lime Plant on July 30, 1996. With this permit, the quarry and the lime plant began to operate under separate permits. The quarry is now operating under permit #1698-A. 45-AR-5, which quantified annual emissions for the first time for this facility, set maximum emission rates at 405.6 tons per year of particulate matter, 0.8 tons per year of sulfur dioxide, 1.4 tons per year of volatile organic compounds (VOC), 1315.0 tons per year of carbon monoxide, and 43.0 tons per year of oxides of nitrogen.

Permit #1698-A was issued to Arkansas Lime Company for its quarry operations on July 11, 1996.

Permit #45-AOP-R0 was issued to Arkansas Lime Company -- Lime Plant on February 17, 1998. This was the first operating permit issued to Arkansas Lime Company under Regulation 26. Permitted emissions of volatile organic compounds increased to 2.6 tpy while the permitted emissions of particulate matter decreased to 374.3 tpy with this permit. No physical changes or changes in the method of operation were allowed under this permit.

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Permit #45-AOP-R1 was issued to Arkansas Lime Company on September 14, 1999, and was administratively amended on October 21, 1999. (The administrative amendment was done to correct the effective dates of the permit on the title page of the permit.) This permit allowed for the installation of a new 625 ton per day rotary kiln at the quarry which replaced the six vertical kilns located at the lime plant. Several new sources were installed as a result of the new kiln and others were removed and/or replaced at both the quarry and the lime plant. The modifications caused significant net emissions increases in sulfur dioxide (226.0 tons per year) and oxides of nitrogen (395.0 tons per year). As a result, Arkansas Lime submitted a PSD permit application addressing the modifications taking place, including a BACT analysis and an ambient air impact analysis.

BACT analysis for SO_2 from the Rotary Lime Kiln

Arkansas Lime considered several different fuel mixtures prior to considering further control technology. These fuel mixes included burning only natural gas or coal/coke blends with varying sulfur contents. Although the use of natural gas would significantly reduce the emissions from the rotary lime kiln, it was deemed as unusable on a continual basis. The cost of natural gas per MMBTU is higher than that of coal and coke. Also, the permittee would not be able to produce as much lime if natural gas were to be the primary fuel used to fire the kiln. The low sulfur fuel blends were also determined to be economically infeasible. Therefore, when control technologies were considered, the pre-control emissions were calculated using a fuel blend with a sulfur content of 4.0% by weight for the short term (hourly) emissions and 3% by weight on a 30-day rolling average. Other lime kilns at similar facilities use a coal/coke blend in conjunction with a limited amount of natural gas as the primary fuel. No kilns at similar facilities were found to use only natural gas as the primary fuel.

The lime dust in the kiln acts as a dry scrubbing medium for sulfur dioxide. Arkansas Lime Company examined two technically feasible control technologies for the sulfur dioxide emissions from the lime kiln in addition to the dry scrubbing which occurs naturally in the kiln. The first was the use of a wet scrubber while the second was the use of a dust collector with the filter cake on the bags acting as additional SO_2 control.

Using a wet scrubber in addition with the naturally occurring dry scrubbing, an overall SO_2 removal efficiency of 99% could be achieved. However, the costs of installing and operating a wet scrubbing system with a guaranteed removal efficiency of 99% make this option economically infeasible; $3689 per ton of SO_2 removed by the scrubber based upon vendor quotes. This does not include the additional costs of treating the scrubber effluent. Additionally, there will be adverse impacts to the environment from treating and disposing of the scrubbing agents. Due to the environmental and economic concerns, the combination of the wet and the dry scrubbing are eliminated from consideration as BACT. Also, if a wet scrubber is used, Arkansas Lime would be unable to sell the lime dust which is captured by the control device. Arkansas

Lime recognizes that a few other facilities listed in the RBLC are using wet scrubbers to control emissions from their lime kilns. One of the facilities listed as using a wet scrubber is limited to only using a low sulfur coal as fuel (which was deemed economically infeasible for Arkansas Lime), while the permittee is allowed to use a fuel mix of coal, coke, and natural gas with a sulfur content not to exceed 3% on a 30-day rolling average. Several kilns of similar size are using baghouses to aid in the removal of the sulfur dioxide emissions.

Natural dry scrubbing will occur in the kiln with the lime dust acting as the scrubbing agent. Further dry scrubbing will occur as the exhaust stream passes through a baghouse. Approximately 92% - 95% of the sulfur dioxide created by the fuel combustion will be removed in this scenario. The clearinghouse indicated that this type of control system has been accepted as BACT for several other facilities. Therefore, the dry scrubbing with a baghouse is chosen as BACT for the sulfur dioxide emissions from the lime kiln.

BACT analysis for NO_X from the Rotary Lime Kiln

Several different control technologies were considered for the oxides of nitrogen emissions from the rotary lime kiln. These technologies included the following:

1. Non-Selective Non-Catalytic Reduction (NSNCR)
2. Oxidation/Reduction Scrubbing (O/R)
3. Selective Catalytic Reduction (SCR)
4. Selective Non-Catalytic Reduction (SNCR)
5. Low NO_X Burners
6. Proper Kiln Design and Operation (Base Case)

Item #1 (NSNCR) was the only option not considered to be technically feasible. Currently, only a few cement kilns and no lime kilns are using this technology. NSNCR, also referred to sometimes as either staged air combustion or staged fuel combustion, requires a multi-stage preheater and cyclones. Generally, lime kilns do not have either a multi-stage preheater or any cyclones while some cement kilns do. Due to process differences between cement kilns and lime kilns, this technology has not been applied to lime kilns.

After discarding the technically infeasible option, Arkansas Lime then ranked the remaining control technologies according by effectiveness. In the list above, the remaining technologies are listed in order from highest control efficiency to lowest beginning with item #2. These options were then evaluated on the basis of economic, energy, and environmental concerns. Due to the various environmental, energy, and economic concerns, options #2 through #5 were discarded. (Detailed information concerning the reasons may be found in permit #45-AOP-R1 and are similar to the information contained in the PSD section of this permit.) Option #6 was chosen for the reasons listed below.

Proper kiln design and operation will lead to reduced fuel consumption which in turn will lead to lower NO_X emissions. Proper operation of the kiln will include minimizing excess air and therefore minimizing emissions. The kiln will be equipped with a dynamic classifier for finer grinding of the fuel and a multi-channel burner which allows for improved fuel and air mixing. Both of these design features prevent the formation of excessively high temperature zones and thereby help to minimize thermal NO_X formation. Proper kiln design and operation are considered BACT by all recent determinations in the clearinghouse. Considering these factors and the high cost of alternatives, proper kiln design and operation is deemed BACT for the NO_X emissions from the rotary lime kiln.

A search of the RACT/BACT/LAER Clearinghouse revealed that all recent BACT determinations were proper kiln design and operation. The Clearinghouse did list many BACT limits which are lower than Arkansas Lime's limit. The Department and the permittee contacted the environmental regulatory agencies in the states where these facilities were located. It was determined that the lower BACT limit of 2.0 lb/ton was not being met and that higher limits were being requested. The search also revealed that similar size kilns were able to meet a BACT limit of 3.5 lb/ton. Based on the research, a BACT limit of 3.5 lb/ton has been given to Arkansas Lime Company.

BACT SUMMARY

Pollutant	BACT Limit	BACT Determination
SO_2	3% by weight sulfur in fuel on a 30-day rolling average	natural dry scrubbing in kiln and in baghouse
NO_X	3.5 lb NO_X per ton of lime produced on a 30-day rolling average	proper kiln design and operation

AMBIENT AIR IMPACT ANALYSIS

An air dispersion modeling analysis is a required part of a PSD permit application. The air dispersion modeling analysis is used to demonstrate that the emissions resulting from a proposed modification will not cause or contribute to a violation of any applicable National Ambient Air Quality Standard (NAAQS) or surpass a PSD increment. The USEPA requires that PSD modeling be performed in two stages: the significance analysis and the full impact analysis. The full impact analysis is further divided into the NAAQS and PSD Increment analyses.

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SIGNIFICANCE ANALYSIS

The results of the significance analysis are contained in the following table. As can be seen, the Modeling Significance Levels were exceeded although the PSD Monitoring De Minimis Concentrations were not.

Maximum Predicted Concentrations in Comparison with
Modeling Significance Levels and Monitoring De Minimis Concentrations

Pollutant	Averaging Period	Modeled Concentration ($\mu g/m^3$)	PSD Modeling Significance Level ($\mu g/m^3$)	PSD Monitoring De Minimis Concentrations ($\mu g/m^3$)
SO_2	3-hour	47.5	25	--
	24-hour	10.2	5	13
	Annual	2.0	1	--
NO_X	Annual	2.84	1	14

AMBIENT MONITORING

Since the significance analysis predicted concentrations are below the Monitoring De Minimis Levels, Arkansas Lime was not required to address ambient monitoring requirements.

FULL IMPACT ANALYSIS

Since the emission increases associated with the proposed modification are shown to have a potentially significant impact (i.e., ambient concentrations exceed MSLs), a full impact analysis is conducted. The full impact analysis consists of a NAAQS and PSD Increment compliance demonstration.

NAAQS ANALYSIS

The NAAQS are maximum concentration "ceilings" measured in terms of the total concentration of a pollutant in the atmosphere. In the NAAQS analysis, Arkansas Lime's emissions are combined with those from other nearby sources that have the potential to contribute significantly to receptors within Arkansas Lime's Radius of Impact (ROI).

Modeled Concentration with Background
in Comparison with the NAAQS

Pollutant	Averaging Period	Modeled Concentration with Background ($\mu g/m^3$)	NAAQS ($\mu g/m^3$)
SO_2	3-hour[1]	768	1,300
	24-hour[1]	159.6	365
	Annual[2]	23.96	80
NO_X	Annual[2]	16.01	100

1. Highest, 2nd Highest Concentration
2. Highest

PSD INCREMENT ANALYSIS

Arkansas Lime excluded all but seven sources using the 20-D Rule. These sources were included in the PSD Increment modeling (ISCST3 model). Two sources were not included in the CTSCREEN analysis (see discussion on CTSCREEN use below) due to source stack height or distance from Arkansas Lime. The results of the PSD Increment analysis are contained in the following table.

Maximum Predicted Increment Consumed
in Comparison with the PSD Increment

Pollutant	Averaging Period	Maximum Modeled Increment Consumed, $\mu g/m^3$	Total PSD Increment, $\mu g/m^3$	% of Total Increment Consumed
SO_2	3-hour[1]	110	512	21.5
	24-hour[1]	25.1	91	27.6
	Annual[2]	2.42	20	12.1
NO_X	Annual[2]	2.6	25	10.4

1. Highest, 2nd Highest Concentration
2. Highest

SECTION IV: EMISSION UNIT INFORMATION

SN-01Q and SN-02Q
Quarry Crushers

Source Description

The primary crusher has been designated as source SN-01Q while the secondary crusher has been designated as source SN-02Q. Both of these crushers will be replaced in 2000. Upon replacement, the crushers will both be subject to 40 CFR Part 60, Subpart OOO - *Standards of Performance for Nonmetallic Mineral Processing Plants*. Water sprays are the only type of control equipment associated with these sources.

Specific Conditions

1. Pursuant to §19.501 et seq of the Regulations of the Arkansas State Implementation Plan for Air Pollution Control, effective February 15, 1999 (Regulation 19) and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table at the designated sources. Compliance with these emission rates will be demonstrated through use of the water sprays and the limits on the amount of limestone that may be processed at these sources.

SN	Pollutant	lb/hr	tpy
01Q	PM_{10}	0.2	0.4
02Q	PM_{10}	0.2	0.5

2. Pursuant to §18.801 of Regulation 18, effective February 15, 1999, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table at the designated sources. Compliance with these emission rates will be demonstrated through use of the water sprays and the limits on the amount of limestone that may be processed at these sources.

SN	Pollutant	lb/hr	tpy
01Q	PM	0.4	0.9
02Q	PM	0.4	1.1

3. Pursuant to §19.705 of Regulation 19, 40 CFR 70.6, and/or A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311 and §18.1004 of Regulation 18, the permittee shall maintain and operate water sprays at sources SN-01Q and SN-02Q in order to reduce fugitive emissions.

4. Sources SN-01Q and SN-02Q will be subject to 40 CFR Part 60, Subpart A - *General Provisions* and 40 CFR Part 60, Subpart OOO - *Standards of Performance for Nonmetallic Mineral Processing Plants* upon replacement. A copy of Subpart OOO may be found in Appendix A of this permit. The requirements of this subpart include, but are not limited to, the items found in Specific Conditions 5 thru 11.

5. Pursuant to 40 CFR §60.672(c), §19.304 and §19.503 of Regulation 19, and 40 CFR Part 52, Subpart E, on and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under §60.11 of this part, no owner or operator shall cause to be discharged to the atmosphere from any crusher, at which a capture system is not used, fugitive emissions which exhibit greater than 15 percent opacity.

6. Pursuant to 40 CFR §60.675(a) and §19.304 of Regulation 19, in conducting the performance tests required in §60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in §60.8(b). Acceptable alternative methods and procedures are given in paragraph (e) of this section.

7. Pursuant to 40 CFR §60.675(c)(1) and §19.304 of Regulation 19, in determining the compliance with the particulate matter standards in §60.672(c), the owner or operator shall use Method 9 and the procedures in §60.11, with the following additions:

   A. The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet).

   B. The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources (e.g., road dust). The required observer position relative to the sun (Method 9, Section 2.1) must be followed.

   C. For affected facilities using wet dust suppression for particulate matter, a visible mist is sometimes generated by the spray. The water mist must not be confused with particulate matter emissions and is not considered to be a visible emission. When a water mist of this nature is present, the observation of the emissions is to be made at a point in the plume where the mist is no longer visible.

8. Pursuant to 40 CFR §60.675(c)(4) and §19.304 of Regulation 19, when determining compliance with the fugitive emission standard for any crusher at which a capture system is not used as described under §60.672(c) of this subpart, the duration of the Method 9 observations may be reduced from 3 hours (thirty 6-minute averages) to 1 hour (ten 6-minute averages) only if the following conditions apply:

   A. There are no individual opacity readings greater than 15 percent opacity; and

   B. There are no more than 3 readings of 15 percent for the 1-hour period.

9. Pursuant to 40 CFR §60.676(f) and §19.304 of Regulation 19, the owner or operator of any affected facility shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in §60.672 of this subpart, including reports of opacity observations made using Method 9 to demonstrate compliance with §60.672(b).

10. Pursuant to 40 CFR §60.676(h) and §19.304 of Regulation 19, the subpart A requirement under §60.7(a)(2) for notification of the anticipated date of initial startup of an affected facility shall be waived for owners or operators of affected facilities regulated under this subpart.

11. Pursuant to 40 CFR §60.676(i)(1) and §19.304 of Regulation 19, a notification of the actual date of initial startup of each affected facility shall be submitted to the Administrator. For a combination of affected facilities in a production line that begin actual initial startup on the same day, a single notification of startup may be submitted by the owner or operator to the Administrator. The notification shall be postmarked within 15 days after such date and shall include a description of each affected facility, equipment manufacturer, and serial number of the equipment, if available.

12. Pursuant to §19.705 of Regulation 19 and 40 CFR Part 52, Subpart E, the operators of sources SN-01 and SN-02 shall immediately report any visible emissions to their supervisor. At least one formal observation per week shall be made by a person familiar with the source's emissions. Upon detection of any visible emissions and notification of the supervisor, the permittee shall immediately take action to identify and correct the cause of the visible emissions. Upon completion of corrective action, a person familiar with the source's emissions shall make an observation of the source in question in order to verify that visible emissions are no longer present. The permittee shall maintain records of all visible emissions observations, any corrective action taken, and whether visible emissions were present after corrective action was taken. These records shall be updated daily, kept on site, and made available to Department personnel upon request.

13. Pursuant to §19.705 of Regulation 19, 40 CFR 70.6, and/or A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and §18.1004 of Regulation 18, the permittee shall not exceed the following process rates set forth in the following table at the designated sources.

SN	Tons of Limestone per consecutive 12 month period
01Q	1,300,000
02Q	1,640,000

14. Pursuant to §19.705 of Regulation 19 and 40 CFR Part 52, or §18.1004 of Regulation 18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall maintain records of the amounts of limestone processed at sources SN-01Q and SN-02Q in order to demonstrate compliance with Specific Condition 13 and which may be used by the Department for enforcement purposes. These records shall be updated by the tenth day of the month following the month which the records represent, shall be kept on site, and shall be made available to Department personnel upon request.

SN-03Q, SN-09Q, & SN-10Q
Quarry Limestone Screens

Source Description

The triple deck screen will be replacing the old quarry screen in 2000. Upon replacement of the old quarry screen and installation of the three other limestone screens, these sources will be subject to 40 CFR Part 60, Subpart OOO.

Water sprays are the only control equipment associated with these screens.

Specific Conditions

15. Pursuant to §19.501 et seq of the Regulations of the Arkansas State Implementation Plan for Air Pollution Control, effective February 15, 1999 (Regulation 19) and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table at the designated sources. Compliance with these emission rates will be demonstrated through the use of the water sprays and the limits on the amounts of limestone that may be processed at these sources.

SN	Pollutant	lb/hr	tpy
03Q	PM_{10}	0.6	1.5
09Q	PM_{10}	0.5	0.9
10Q	PM_{10}	0.3	0.4

16. Pursuant to §18.801 of Regulation 18, effective February 15, 1999, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table at the designated sources. Compliance with these emission rates will be demonstrated through the use of the water sprays and the limits on the amount of limestone that may be processed at these sources.

SN	Pollutant	lb/hr	tpy
03Q	PM	1.1	3.0
09Q	PM	0.9	1.9
10Q	PM	0.6	0.8

17. Sources SN-03Q, SN-09Q, and SN-10Q will be subject to 40 CFR Part 60, Subpart A - *General Provisions* and 40 CFR Part 60, Subpart OOO - *Standards of Performance for Nonmetallic Mineral Processing Plants* upon replacement. A copy of Subpart OOO may be found in Appendix A of this permit. The requirements of this subpart include, but are not limited to, the items found in Specific Conditions 18 thru 23.

18. Pursuant to 40 CFR §60.672(b), §19.304 and §19.503 of Regulation 19, and 40 CFR Part 52, Subpart E, on and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under §60.11 of this part, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from sources SN-03Q, SN-09Q, and SN-10Q any fugitive emissions which exhibit greater than 10 percent opacity.

19. Pursuant to 40 CFR §60.675(a) and §19.304 of Regulation 19, in conducting the performance tests required in §60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in §60.8(b). Acceptable alternative methods and procedures are given in paragraph (e) of this section.

20. Pursuant to 40 CFR §60.675(c)(1) and §19.304 of Regulation 19, in determining the compliance with the particulate matter standards in §60.672(c), the owner or operator shall use Method 9 and the procedures in §60.11, with the following additions:

    A. The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet).

    B. The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources (e.g., road dust). The required observer position relative to the sun (Method 9, Section 2.1) must be followed.

    C. For affected facilities using wet dust suppression for particulate matter, a visible mist is sometimes generated by the spray. The water mist must not be confused with particulate matter emissions and is not considered to be a visible emission. When a water mist of this nature is present, the observation of the emissions is to be made at a point in the plume where the mist is no longer visible.

21. Pursuant to 40 CFR §60.676(f) and §19.304 of Regulation 19, the owner or operator of any affected facility shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in §60.672 of this subpart, including reports of opacity observations made using Method 9 to demonstrate compliance with §60.672(b).

22. Pursuant to 40 CFR §60.676(h) and §19.304 of Regulation 19, the subpart A requirement under §60.7(a)(2) for notification of the anticipated date of initial startup of an affected facility shall be waived for owners or operators of affected facilities regulated under this subpart.

23. Pursuant to 40 CFR §60.676(i)(1) and §19.304 of Regulation 19, a notification of the actual date of initial startup of each affected facility shall be submitted to the Administrator. For a combination of affected facilities in a production line that begin actual initial startup on the same day, a single notification of startup may be submitted by the owner or operator to the Administrator. The notification shall be postmarked within 15 days after such date and shall include a description of each affected facility, equipment manufacturer, and serial number of the equipment, if available.

24. Pursuant to §19.705 of Regulation 19 and 40 CFR Part 52, Subpart E, the operators of sources SN-03Q, SN-09Q, and SN-10Q shall immediately report any visible emissions to their supervisor. At least one formal observation per week shall be made by a person familiar with the source's emissions. Upon detection of any visible emissions and notification of the supervisor, the permittee shall immediately take action to identify and correct the cause of the visible emissions. Upon completion of corrective action, a person familiar with the source's emissions shall make an observation of the source in question in order to verify that visible emissions are no longer present. The permittee shall maintain records of all visible emissions observations, any corrective action taken, and whether visible emissions were present after corrective action was taken. These records shall be updated daily, kept on site, and made available to Department personnel upon request.

25. Pursuant to §19.705 of Regulation 19, 40 CFR 70.6, and/or A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311 and §18.1004 of Regulation 18, the permittee shall maintain and operate water sprays at sources SN-03Q, SN-09Q, and SN-10Q in order to reduce fugitive emissions.

26. Pursuant to §19.705 of Regulation 19, 40 CFR 70.6, and/or A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and §18.1004 of Regulation 18, the permittee shall not exceed the following process rates set forth in the following table at the designated sources.

SN	Tons of Limestone per consecutive 12 month period
03Q	3,362,000
09Q	822,000
10Q	900,000

27. Pursuant to §19.705 of Regulation 19 and 40 CFR Part 52, or §18.1004 of Regulation 18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall maintain records of the amounts of limestone processed at sources SN-03Q, SN-09Q, and SN-10Q in order to demonstrate compliance with Specific Condition 26 and which may be used by the Department for enforcement purposes. These records shall be updated by the tenth day of the month following the month which the records represent, shall be kept on site, and shall be made available to Department personnel upon request.

SN-04Q, SN-07Q, and SN-27Q
Limestone Piles and Conveyor Transfer Points

Source Description

The limestone piles have been designated as source SN-04Q. Source SN-04Q was originally installed prior to 1960. New piles will be made in 2000 and the existing piles will be removed. No opacity limits have been assigned to the stockpiles.

The conveyor transfer points have been designated as source SN-07Q. Source SN-07Q was originally installed prior to 1970. The existing conveyor transfer points will be replaced in 2000. Upon replacement of the transfer points, source SN-07Q will be subject to 40 CFR Part 60, Subpart OOO. Source SN-27Q is also a limestone conveyor transfer point which will be subject to 40 CFR Part 60, Subpart OOO upon construction. This conveyor transfer point, which is subject to PSD, is the kiln feed belt into the #2 kiln surge bin.

Specific Conditions

28. Pursuant to §19.501 et seq of the Regulations of the Arkansas State Implementation Plan for Air Pollution Control, effective February 15, 1999 (Regulation 19) and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table at the designated sources. Compliance with these emission rates will be demonstrated through use of the water sprays and the limit on the amount of limestone that may be processed at source SN-07Q.

SN	Pollutant	lb/hr	tpy
04Q	PM_{10}	0.2	0.6
07Q	PM_{10}	4.7	10.7

29. Pursuant to §18.801 of Regulation 18, effective February 15, 1999, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table at the designated sources. Compliance with these emission rates will be demonstrated through the use of the water sprays and the limit on the amount of limestone that may be processed at source SN-07Q.

SN	Pollutant	lb/hr	tpy
04Q	PM	0.4	1.2

SN	Pollutant	lb/hr	tpy
07Q	PM	9.9	22.4

30. Pursuant to §19.501 et seq and §19.901 et seq of Regulation 19 and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table at source SN-27Q. Compliance with these emission rates will be demonstrated through use of the water sprays, the surge bin vacuum, and the amount of lime that may be produced at this facility.

Pollutant	lb/hr	tpy
PM	0.1	0.2
PM_{10}	0.1	0.1

31. Sources SN-07Q and SN-27Q will be subject to 40 CFR Part 60, Subpart A - *General Provisions* and 40 CFR Part 60, Subpart OOO - *Standards of Performance for Nonmetallic Mineral Processing Plants* upon replacement. A copy of Subpart OOO may be found in Appendix A of this permit. The requirements of this subpart include, but are not limited to, the items found in Specific Conditions 32 thru 38.

32. Pursuant to 40 CFR §60.672(b), §19.304 and §19.503 of Regulation 19, and 40 CFR Part 52, Subpart E, on and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under §60.11 of this part, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any transfer point on belt conveyors any fugitive emissions which exhibit greater than 10% opacity.

33. Pursuant to 40 CFR §60.675(a) and §19.304 of Regulation 19, in conducting the performance tests required in §60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in §60.8(b). Acceptable alternative methods and procedures are given in paragraph (e) of this section.

34. Pursuant to 40 CFR §60.675(c)(1) and §19.304 of Regulation 19, in determining the compliance with the particulate matter standards in §60.672(b), the owner or operator shall use Method 9 and the procedures in §60.11, with the following additions:

    A. The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet).

    B. The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources (e.g., road dust). The required observer position relative to the sun (Method 9, Section 2.1) must be followed.

    C. For affected facilities using wet dust suppression for particulate matter, a visible mist is sometimes generated by the spray. The water mist must not be confused with particulate matter emissions and is not considered to be a visible emission. When a water mist of this nature is present, the observation of the emissions is to be made at a point in the plume where the mist is no longer visible.

35. Pursuant to 40 CFR §60.675(c)(3) and §19.304 of Regulation 19, when determining compliance with the fugitive emissions standard for any affected facility described under §60.672(b) of this subpart, the duration of the Method 9 observations may be reduced from 3 hours (thirty 6-minute averages) to 1 hour (ten 6-minute averages) only if the following conditions apply:

    A. There are no individual readings greater than 10 percent opacity; and

    B. There are no more than 3 readings of 10 percent for the 1-hour period.

36. Pursuant to 40 CFR §60.676(f) and §19.304 of Regulation 19, the owner or operator of any affected facility shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in §60.672 of this subpart, including reports of opacity observations made using Method 9 to demonstrate compliance with §60.672(b).

37. Pursuant to 40 CFR §60.676(h) and §19.304 of Regulation 19, the subpart A requirement under §60.7(a)(2) for notification of the anticipated date of initial startup of an affected facility shall be waived for owners or operators of affected facilities regulated under this subpart.

38. Pursuant to 40 CFR §60.676(i)(1) and §19.304 of Regulation 19, a notification of the actual date of initial startup of each affected facility shall be submitted to the Administrator. For a combination of affected facilities in a production line that begin actual initial startup on the same day, a single notification of startup may be submitted by the owner or operator to the Administrator. The notification shall be postmarked within 15 days after such date and shall include a description of each affected facility, equipment manufacturer, and serial number of the equipment, if available.

39. Pursuant to §19.705 of Regulation 19 and 40 CFR Part 52, Subpart E, the operators of sources SN-07Q and SN-27Q shall immediately report any visible emissions to their supervisor. At least one formal observation per week shall be made by a person familiar with the source's emissions. Upon detection of any visible emissions and notification of the supervisor, the permittee shall immediately take action to identify and correct the cause of the visible emissions. Upon completion of corrective action, a person familiar with the source's emissions shall make an observation of the source in question in order to verify that visible emissions are no longer present. The permittee shall maintain records of all visible emissions observations, any corrective action taken, and whether visible emissions were present after corrective action was taken. These records shall be updated daily, kept on site, and made available to Department personnel upon request.

40. Pursuant to §19.705 of Regulation 19, 40 CFR 70.6, and/or A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311 and §18.1004 of Regulation 18, the permittee shall maintain and operate water sprays at sources SN-04Q and SN-07Q in order to reduce fugitive emissions.

41. Pursuant to §19.705 of Regulation 19, 40 CFR 70.6, and/or A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311 and §18.1004 of Regulation 18, the permittee shall not process in excess of 23,448,000 tons of limestone at source SN-07Q in any consecutive twelve month period.

42. Pursuant to §19.705 of Regulation 19 and 40 CFR Part 52, Subpart E, or §18.1004 of Regulation 18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall maintain records of the amount of limestone processed at source SN-07Q in order to demonstrate compliance with Specific Condition 41 and which may be used by the Department for enforcement purposes. These records shall be updated no later than the tenth day of the month following the month which the records represent, shall be kept on site, and shall be made available to Department personnel upon request.

43. Pursuant to §19.705 and §19.901 et seq of Regulation 19, 40 CFR 70.6, and/or A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311 and §18.1004 of Regulation 18, the permittee shall maintain and operate a water spray downstream of source SN-10Q on the conveyor which will be feeding the rotary lime kilns in order to reduce emissions at source SN-27Q.

44. Pursuant to §19.705 and §19.901 et seq of Regulation 19, 40 CFR 70.6, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall operate the surge bin vacuum at all times while source SN-27Q is in operation in order to reduce emissions.

45. Pursuant to §19.705 and §19.901 et seq of Regulation 19, 40 CFR Part 52, Subpart E, 40 CFR 70.6, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, throughput at source SN-27Q shall not exceed 450,000 tons of limestone in any consecutive twelve month period.

46. Pursuant to §19.705 and §19.901 of Regulation 19 and 40 CFR Part 52, Subpart E, the permittee shall maintain records of the limestone throughput at source SN-27Q in order to demonstrate compliance with Specific Condition 45 and which may be used by the Department for enforcement purposes. These records shall be updated no later than the tenth day of the month following the month which the records represent, shall be kept on site, and shall be made available to Department personnel upon request.

SN-05Q
Railcar Loadout (Limestone)

Source Description

Limestone from the roller mill feed surge stockpile will be loaded out via railcar and transported to the lime plant. Water sprays are the only controls associated with this source. This source will be replaced in 2000.

Specific Conditions

47. Pursuant to §19.501 et seq of the Regulations of the Arkansas State Implementation Plan for Air Pollution Control, effective February 15, 1999 (Regulation 19) and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table at source SN-05Q. Compliance with these emission rates will be demonstrated by use of the water sprays and the limit on the amount of limestone that may be processed at this source.

Pollutant	lb/hr	tpy
PM_{10}	0.1	0.1

48. Pursuant to §18.801 of Regulation 18, effective February 15, 1999, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table at source SN-05Q. Compliance with these emission rates will be demonstrated by the use of water sprays and the limit on the amount of limestone that may be processed at this source.

Pollutant	lb/hr	tpy
PM	0.1	0.1

49. Pursuant to §19.705 of Regulation 19, 40 CFR 70.6, and/or A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311 and §18.1004 of Regulation 18, the permittee shall not loadout in excess of 640,000 tons of limestone at source SN-05Q in any consecutive twelve month period.

50. Pursuant to §19.705 of Regulation 19 and 40 CFR Part 52, Subpart E, or §18.1004 of Regulation 18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall maintain records of the amount of limestone loaded out at source SN-05Q in order to demonstrate compliance with Specific Condition 49 and which may be used by the Department for enforcement purposes. These records shall be updated no later than the tenth day of the month following the month which the records represent, shall be kept on site, and shall be made available to Department personnel upon request.

51. Pursuant to §19.705 of Regulation 19, 40 CFR 70.6, and/or A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311 and §18.1004 of Regulation 18, the permittee shall use water sprays as necessary in order to reduce fugitive emissions at source SN-05Q.

SN-06Q and SN-29Q
Quarry Haul Roads

Source Description

A new loadout road will be added to the existing roads in 2000 (first permitted in 45-AOP-R1). All of the haul roads located at the quarry are unpaved. The only controls associated with the quarry haul roads are water sprays. The paved haul roads have been designated as source SN-29Q and will consist of the roads around the lime kilns and storage areas. The unpaved haul roads have been designated as source SN-06Q and consist of the roads leading down to the quarry bottom.

Specific Conditions

52. Pursuant to §19.501 et seq of the Regulations of the Arkansas State Implementation Plan for Air Pollution Control, effective February 15, 1999 (Regulation 19) and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table at the designated sources. Compliance with these emission rates will be demonstrated by watering the unpaved haul roads as necessary.

SN	Pollutant	lb/hr	tpy
06Q	PM_{10}	5.5	16.4
29Q	PM_{10}	0.4	1.2

53. Pursuant to §18.801 of Regulation 18, effective February 15, 1999, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table at the designated sources. Compliance with these emission rates will be demonstrated by watering the unpaved haul roads as necessary.

SN	Pollutant	lb/hr	tpy
06Q	PM	28.0	83.2
29Q	PM	1.9	5.8

54. Pursuant to §19.705 of Regulation 19, 40 CFR 70.6, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and/or §18.1004 of Regulation 18, the permittee shall water the haul roads as necessary in order to reduce fugitive emissions.

55. Pursuant to §19.705 of Regulation 19, 40 CFR 70.6, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and/or §18.1004 of Regulation 18, the permittee shall pave all haul roads comprising source SN-29Q within 180 days of permit issuance.

SN-11Q
#1 Rotary Lime Kiln

Source Description

Construction on the 625 ton per day rotary lime kiln began in late 1999. The fuels for this kiln will be a blend of coal and coke with natural gas. The permittee may use only natural gas at times when it is necessary to produce a low sulfur lime product but is not required by this permit to do so. The permittee will be allowed to burn only natural gas at any time. Particulate matter emissions will be controlled through the use of a baghouse. Sulfur dioxide emissions will be controlled through dry scrubbing which occurs naturally in the lime kiln and at the filter cake on the baghouse. No other control equipment is associated with this lime kiln.

Specific Conditions

56. Pursuant to §19.501 et seq and §19.901 et seq of the Regulations of the Arkansas State Implementation Plan for Air Pollution Control, effective February 15, 1999 (Regulation 19) and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table at source SN-11Q. Compliance with the sulfur dioxide emissions will be demonstrated through the pressure drop readings across the baghouse, the limit on the sulfur content of the fuel, and the limit on the amount of coal/coke that may be fired in the kiln. Compliance with the oxides of nitrogen emission rates will be demonstrated through the oxygen monitor and the limit on the amount of lime produced in the kiln.

Pollutant	lb/hr	tpy
SO_2	65.2	226.6
NO_X	91.2	399.3

57. Pursuant to §19.501 et seq of the Regulations of the Arkansas State Implementation Plan for Air Pollution Control, effective February 15, 1999 (Regulation 19) and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table at source SN-11Q. Compliance with the particulate matter emissions will be demonstrated through the amount of lime that may be produced and the pressure drop readings across the baghouse. Compliance with the VOC emission rates will be demonstrated through the required testing and the amount of fuel that may be used to fire the kiln. Compliance with the carbon monoxide emission rates will be demonstrated through the oxygen monitor and the required testing.

Pollutant	lb/hr	tpy
PM_{10}	7.3	31.6
VOC	3.3	14.2
CO	78.2	342.2

58. Pursuant to §18.801 of Regulation 18, effective February 15, 1999, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table at source SN-11Q. Compliance with these emission rates will be demonstrated through the required testing and pressure drop readings across the baghouse.

Pollutant	lb/hr	tpy
PM	7.3	31.6

General Requirements

59. Pursuant to §19.702 and §19.901 et seq of Regulation 19, and 40 CFR Part 52, Subpart E, all required tests shall be conducted while firing coal and/or coke. All required tests shall also be conducted in accordance with Plantwide Condition 3.

60. Pursuant to §19.901 et seq and §19.705 of Regulation 19, 40 CFR Part 52, Subpart E, 40 CFR 70.6, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall use only coal, coke, or natural gas to fire the rotary lime kiln.

61. Pursuant to §19.901 et seq and §19.705 of Regulation 19, 40 CFR Part 52, Subpart E, 40 CFR 70.6, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not fire in excess of 47,251 tons of coal and/or coke in any consecutive twelve month period. (NOTE: No limit on the amount of natural gas that may be fired in the kiln is given because the permittee could not exceed any of the emission rates if only natural gas were to be used to fire the kiln at capacity for 8,760 hours per year.)

62. Pursuant to §19.901 et seq and §19.705 of Regulation 19 and 40 CFR Part 52, Subpart E, the permittee shall maintain records of the amount of coal, coke, and natural gas fired in the lime kiln in order to demonstrate compliance with Specific Condition 61 and which may be used by the Department for enforcement purposes. These records shall be updated daily, shall be kept on site, and shall be made available to Department personnel upon request. (NOTE: The permittee is required to maintain records of natural gas usage and to update the records daily in order to demonstrate compliance with the limits on the sulfur content of the fuel as fired in the kiln.)

63. Pursuant to §18.1004 of Regulation 18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall obtain a manufacturer's certification of the ash mineral analysis of the fuel in order to demonstrate that any possible emissions of Hazardous Air Pollutants (HAPs) are below the de minimis levels. A new certification shall be obtained each time that fuel is obtained from a different mine. This certification shall be kept on site and shall be made available to Department personnel upon request.

PM/PM_{10} & Opacity

64. Source SN-11Q is subject to the provisions of 40 CFR Part 60, Subpart A - *General Provisions* and 40 CFR Part 60, Subpart HH - *Standards of Performance for Lime Manufacturing Plants*. A copy of Subpart HH has been included in Appendix D of this permit. The applicable provisions of this subpart include, but are not limited to, the items found in Specific Conditions 65 thru 71, 132.

65. Pursuant to 40 CFR §60.342(a)(1), §19.304 and 19.501 et seq of Regulation 19, and 40 CFR Part 52, Subpart E, on and after the date on which the performance test required to be conducted by §60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any rotary lime kiln any gases which contain particulate matter in excess of 0.30 kilogram per megagram (0.60 lb/ton) of stone feed.

66. Pursuant to 40 CFR §60.342(a)(2), §19.304 and 19.501 et seq of Regulation 19, and 40 CFR Part 52, Subpart E, on and after the date on which the performance test required to be conducted by §60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any rotary lime kiln any gases which exhibit greater than 15 percent opacity when exiting from a dry control device.

67. Pursuant to 40 CFR §60.343(a), §19.304 and §19.703 of Regulation 19, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the owner or operator of a facility that is subject to the provisions of this subpart shall install, calibrate, maintain, and operate a continuous monitoring system to monitor and record the opacity of a representative portion of the gases discharged into the atmosphere from the rotary lime kiln. The span of this system shall be set at 40 percent opacity.

68. Pursuant to 40 CFR §60.343(d), §19.304 and §19.703 of Regulation 19, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, for the purpose of conducting a performance test under §60.8, the owner or operator of any lime manufacturing plant subject to the provisions of this subpart shall install, calibrate, maintain, and operate a device for measuring the mass rate of stone feed to the affected rotary lime kiln. The measuring device used must be accurate to within $\pm$ 5 percent of the mass rate over its operating range. The permittee shall continue to maintain and operate this device after the initial performance test has been completed.

69. Pursuant to 40 CFR §60.343(e) and §19.304 of Regulation 19, for the purpose of reports required under §60.7(c), periods of excess emissions that shall be reported are defined as all 6-minute periods during which the average opacity of the visible emissions from any lime kiln subject to paragraph (a) of this subpart is greater than 15 percent.

70. Pursuant to 40 CFR §60.344(a), §19.304 and §19.702 of Regulation 19, and 40 CFR Part 52, Subpart E, in conducting the performance tests required in §60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in §60.8(b).

71. Pursuant to 40 CFR §63.44(b), §19.304 and §19.703 of Regulation 19, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the owner or operator shall determine compliance with the particulate matter standards in §63.342(a) as follows:

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

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

    where:

    E = emission rate of particulate matter, kg/Mg (lb/ton) of stone feed
    C_s = concentration of particulate matter, g/dscm (g/dscf)

Q_{sd} = volumetric flow rate of effluent gas, dscm/hr (dscf/hr)
P = stone feed rate, Mg/hr (ton/hr)
K = conversion factor, 1000 g/kg (453.6g/lb)

B. Method 5 shall be used at negative pressure fabric filters and other types of control devices and Method 5D shall be used at positive-pressure fabric filters to determine the particulate matter concentration (C_s) and the volumetric flow rate of the effluent gas (Q_{sd}). The sampling time and the sample volume for each run shall be at least 60 minutes and 0.9 dscm (31.8 dscf).

C. The monitoring device of §60.343(d) shall be used to determine the stone feed rate (P) for each run.

D. Method 9 and the procedures in §60.11 shall be used to determine opacity.

72. Pursuant to §19.705 of Regulation 19, 40 CFR 70.6, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not produce in excess of 625 tons of lime per day from the #1 Lime Kiln when source SN-11Q is installed and operating.

73. Pursuant to §19.705 of Regulation 19 and 40 CFR Part 52, Subpart E, the permittee shall maintain daily records of the lime produced in order to demonstrate compliance with Specific Condition 72 and which may be used by the Department for enforcement purposes. These records shall be updated daily, kept on site, and made available to Department personnel upon request. An annual total and each month's individual data shall be submitted to the Department in accordance with General Provision 7.

SO_2 (CAM Plan)

74. Pursuant to §19.705 and §19.901 et seq of Regulation 19, 40 CFR Part 52, Subpart E, 40 CFR 70.6, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the sulfur content of the fuel mix used to fire the kiln shall not exceed 4% by weight on a daily basis as fired in the kiln and shall not exceed 3% on a rolling 30-day average.

75. Pursuant to §19.705 and §19.901 et seq of Regulation 19 and 40 CFR Part 52, Subpart E, the permittee shall obtain manufacturer's certification of the sulfur content of each shipment of the coal/coke mix or conduct tests of each shipment of fuel to determine the sulfur content, shall obtain a supplier's certification of the sulfur content of the natural gas, and shall perform any necessary calculations in order to demonstrate compliance with Specific Condition 74 and which may be used by the Department for enforcement purposes. These records shall be updated daily, shall be kept on site, and shall be made available to Department personnel upon request.

76. Pursuant to 40 CFR Part 64, §19.703 and §19.901 et seq of Regulation 19, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall install, calibrate, maintain, and operate a device to continuously monitor and record the pressure across the baghouse at source SN-29. This device shall be installed prior to operation of the rotary lime kiln. Compliance with the pressure drop range will be based on a 3-hour average.

77. Pursuant to 40 CFR Part 64, §19.702 and §19.901 et seq of Regulation 19, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, within 60 days of achieving maximum production but no later than 180 days after initial start-up of the lime kiln, the permittee shall test the rotary lime kiln for sulfur dioxide emissions using EPA Reference Method 6C. The test shall take place while burning coal and/or coke with a sulfur content of at least 3.75%. The minimum pressure drop at which any of the tests are conducted will be the lowest allowable pressure drop provided that the sulfur dioxide emission rate was not exceeded during the test. The permittee shall conduct these tests once every five years.

78. Pursuant to 40 CFR Part 64, §19.703 and §19.901 et seq of Regulation 19, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, a pressure drop reading outside of the range established in the testing required by Specific Condition 77 shall be considered an exceedence or excursion of the sulfur dioxide emission rate.

79. Pursuant to 40 CFR §64.7(d)(1), upon detection of an excursion or exceedence, the permittee shall restore operation of the baghouse at the rotary lime kiln to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown, or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of an excursion or exceedence (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

80. Pursuant to 40 CFR §64.7(e), if the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedence while providing valid data, or the results of the compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the owner or operator shall promptly notify the permitting authority and, if necessary, submit a proposed modification to this part 70 permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.

NO_X

81. Pursuant to §19.501 et seq and §19.901 et seq, 40 CFR Part 52, Subpart E, 40 CFR 70.6, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, emissions of oxides of nitrogen shall not exceed 3.5 lbs per ton of lime produced on a 30-day rolling average.

82. Pursuant to §19.702 and §19.901 et seq of Regulation 19 and 40 CFR Part 52, Subpart E, the permittee shall test source SN-11Q for oxides of nitrogen using EPA Reference Method 7E. While the tests for oxides of nitrogen are taking place the permittee shall also monitor the items listed below. The permittee shall conduct a sufficient number of tests to accurately establish a % O_2 range which will demonstrate compliance with the NO_X emission rate on a continual basis. During the testing, the permittee shall also vary the other items listed below to determine if any variability will cause a change in the % O_2 in the stack gases. The permittee shall notify the Department at least 30 days in advance of the tests taking place and shall repeat these tests annually.

A. BTUs of heat produced
B. Fuel to air ratio
C. Feed rate of the fuel
D. Moisture content of the fuel and of the aggregate
E. Stack temperature
F. % O_2 in the stack gases

83. Pursuant to §19.703 of Regulation 19 and §19.901 et seq of Regulation 19, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall install, calibrate, maintain, and operate a continuous oxygen monitor on source SN-11Q. A copy of the Department's CEMS standards are contained in Appendix C of this permit. The permittee shall use this oxygen monitor to demonstrate compliance with the % O_2 range established by the testing required by Specific Condition 82. The Department reserves the right to require the permittee to monitor any of the variables listed in Specific Condition 82 if the testing demonstrates that they will have an effect on the oxides of nitrogen emission rates. If no valid correlation was established during the testing, the permittee will be required to install, calibrate, maintain, and operate a NO_X CEMS. The permittee shall use the information from the continuous monitor and the lime production records in order to demonstrate compliance with Specific Condition 81.

VOC

84. Pursuant to §19.702 of Regulation 19 and 40 CFR Part 52, Subpart E, the permittee shall test the rotary lime kiln for volatile organic compounds using EPA Reference Method 25A within 60 days of achieving maximum production but no later than 180 days after initial start-up. Using the results of this test, the permittee shall correlate the VOC emissions to the solid fuel usage rate. Compliance with the VOC emission rates will be demonstrated through the coal and coke usage limits.

CO

85. Pursuant to §19.702 of Regulation 19 and 40 CFR Part 52, Subpart E, the permittee shall test source SN-11Q for carbon monoxide using EPA Reference Method 10. While the tests for carbon monoxide are taking place the permittee shall also monitor the items listed below. The permittee shall conduct a sufficient number of tests to accurately establish a % O_2 range which will demonstrate compliance with the CO emission rate on a continual basis. During the testing, the permittee shall also vary the other items listed below to determine if any variability will cause a change in the % O_2 in the stack gases. The permittee shall notify the Department at least 30 days in advance of the tests taking place and shall repeat these tests annually.

A. BTUs of heat produced
B. Fuel to air ratio
C. Feed rate of the fuel
D. Moisture content of the fuel and of the aggregate
E. Stack temperature
F. % O_2 in the stack gases

86. Pursuant to §19.703 of Regulation 19, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall install, calibrate, maintain, and operate a continuous oxygen monitor on source SN-11Q. A copy of the Department's CEMS standards are contained in Appendix C of this permit. The permittee shall use this oxygen monitor to demonstrate compliance with the % O_2 range established by the testing required by Specific Condition 85. The Department reserves the right to require the permittee to monitor any of the variables listed in Specific Condition 85 if the testing demonstrates that they will have an effect on the carbon monoxide emission rates. If no valid correlation was established during the testing, the permittee will be required to install, calibrate, maintain, and operate a CO CEMS.

SN-12Q & SN-13Q
Kiln-Dust Bin Vent and Loadout Dust Collectors and #1 Product Cooler

Source Description

The lime dust collected by the baghouse on the lime kiln will be sold off site. The emissions generated by the kiln-dust bin vent will be controlled through fabric-filter type dust collectors which have been designated as source SN-12Q. Also included in the emission rates for source SN-12Q are the emissions generated by the bin loadout.

After the limestone has been calcined in the kiln, it is sent to the lime product cooler. Emissions from the lime product cooler are controlled through the use of a fabric filter which has been designated as source SN-13Q.

Specific Conditions

87. Pursuant to §19.501 et seq of the Regulations of the Arkansas State Implementation Plan for Air Pollution Control, effective February 15, 1999 (Regulation 19) and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table at the designated sources. The emission rates for source SN-13Q listed below are based on the capacity of the equipment. The hourly emission rate for source SN-12Q listed below is based on the short-term capacity of the equipment. Compliance with the annual emission rate for source SN-12Q will be demonstrated through the limit on the hours of operation of the Kiln Dust Bin Loadout.

SN	Pollutant	lb/hr	tpy
12Q	PM_{10}	0.5	1.3
13Q	PM_{10}	0.4	1.7

88. Pursuant to §18.801 of Regulation 18, effective February 15, 1999, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table at the designated sources. The emission rates for source SN-13Q listed below are based on the capacity of the equipment. The hourly emission rate for source SN-12Q listed below is based on the short-term capacity of the equipment. Compliance with the annual emission rate for source SN-12Q will be demonstrated through the limit on the hours of operation of the Kiln Dust Bin Loadout.

SN	Pollutant	lb/hr	tpy
12Q	PM	0.5	1.3
13Q	PM	0.4	1.7

89. Pursuant to §18.501 of Regulation 18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed 5% opacity from sources SN-12Q and SN-13Q as measured by EPA Reference Method 9.

90. Pursuant to §19.705 of Regulation 19 and 40 CFR Part 52, Subpart E, the operators of sources SN-12Q and SN-13Q shall immediately report any visible emissions to their supervisor. At least one formal observation per week shall be made by a person familiar with the source's emissions. Upon detection of any visible emissions and notification of the supervisor, the permittee shall immediately take action to identify and correct the cause of the visible emissions. Upon completion of corrective action, a person familiar with the source's emissions shall make an observation of the source in question in order to verify that visible emissions are no longer present. The permittee shall maintain records of all visible emissions observations, any corrective action taken, and whether visible emissions were present after corrective action was taken. These records shall be updated daily, kept on site, and made available to Department personnel upon request.

91. Pursuant to §19.705 of Regulation 19, 40 CFR 70.6, and/ or A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311 and §18.1004 of Regulation 18, the permittee shall not loadout from the bin associated with source SN-12Q in excess of 1,460 hours in any consecutive twelve month period.

92. Pursuant to §19.705 of Regulation 19 and 40 CFR Part 52, Subpart E, or §18.1004 of Regulation 18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall maintain records of the hours of operation of loading out from the bin associated with SN-12Q in order to demonstrate compliance with Specific Condition 91 and which may be used by the Department for enforcement purposes. These records shall be updated no later than the tenth day of the month following the month which the records represent, shall be kept on site, and shall be made available to Department personnel upon request.

SN-14Q & SN-15Q
#1 Lime Product Silo and Screen Dust Collectors

Source Description

After the lime has been cooled in the product cooler, it is transferred to the lime product silo. Emissions from this silo are controlled through the use of a fabric filter type dust collector which has been designated as source SN-14Q.

Emissions generated by the lime screen and crusher are also controlled through the use of a dust collector. This source has been designated as SN-15Q.

Specific Conditions

93. Pursuant to §19.501 et seq of the Regulations of the Arkansas State Implementation Plan for Air Pollution Control, effective February 15, 1999 (Regulation 19) and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table at the designated sources. The emission rates listed below are based on the capacity of the equipment.

SN	Pollutant	lb/hr	tpy
14Q	PM_{10}	0.7	2.9
15Q	PM_{10}	1.6	6.8

94. Pursuant to §18.801 of Regulation 18, effective February 15, 1999, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table at the designated sources. The emission rates listed below are based on the capacity of the equipment.

SN	Pollutant	lb/hr	tpy
14Q	PM	0.7	2.9
15Q	PM	1.6	6.8

95. Pursuant to §18.501 of Regulation 18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed 5% opacity from sources SN-14Q and SN-15Q as measured by EPA Reference Method 9.

96. Pursuant to §19.705 of Regulation 19 and 40 CFR Part 52, Subpart E, the operators of sources SN-14Q and SN-15Q shall immediately report any visible emissions to their supervisor. At least one formal observation per week shall be made by a person familiar with the source's emissions. Upon detection of any visible emissions and notification of the supervisor, the permittee shall immediately take action to identify and correct the cause of the visible emissions. Upon completion of corrective action, a person familiar with the source's emissions shall make an observation of the source in question in order to verify that visible emissions are no longer present. The permittee shall maintain records of all visible emissions observations, any corrective action taken, and whether visible emissions were present after corrective action was taken. These records shall be updated daily, kept on site, and made available to Department personnel upon request.

SN-16Q, SN-17Q, & SN-18Q
Lime Loadouts

Source Description

Source SN-16Q controls emissions generated by the truck loadout of quicklime. Source SN-17Q controls emissions generated by the truck loadout of off-spec lime. Source SN-18Q controls emissions generated by the rail loadout of quicklime sales and transfer. All of these sources use fabric filter type dust collectors.

Specific Conditions

97. Pursuant to §19.501 et seq of the Regulations of the Arkansas State Implementation Plan for Air Pollution Control, effective February 15, 1999 (Regulation 19) and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table at the designated sources. The emission rates listed below are based on the capacity of the equipment.

SN	Pollutant	lb/hr	tpy
16Q	PM_{10}	0.2	0.7
17Q	PM_{10}	0.7	0.5
18Q	PM_{10}	0.2	0.7

98. Pursuant to §18.801 of Regulation 18, effective February 15, 1999, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table at the designated sources. The emission rates listed below are based on the capacity of the equipment.

SN	Pollutant	lb/hr	tpy
16Q	PM	0.2	0.7
17Q	PM	0.7	0.5
18Q	PM	0.2	0.7

99. Pursuant to §18.501 of Regulation 18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed 5% opacity from sources SN-16Q, SN-17Q, and SN-18Q as measured by EPA Reference Method 9.

100. Pursuant to §19.705 of Regulation 19 and 40 CFR Part 52, Subpart E, the operators of sources SN-16Q, SN-17Q, and SN-18Q shall immediately report any visible emissions to their supervisor. At least one formal observation per week shall be made by a person familiar with the source's emissions. Upon detection of any visible emissions and notification of the supervisor, the permittee shall immediately take action to identify and correct the cause of the visible emissions. Upon completion of corrective action, a person familiar with the source's emissions shall make an observation of the source in question in order to verify that visible emissions are no longer present. The permittee shall maintain records of all visible emissions observations, any corrective action taken, and whether visible emissions were present after corrective action was taken. These records shall be updated daily, kept on site, and made available to Department personnel upon request.

101. Pursuant to §19.705 of Regulation 19, 40 CFR 70.6, and/or A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311 and §18.1004 of Regulation 18, throughput at source SN-17Q shall not exceed 456,250 tons of lime in any consecutive twelve month period.

102. Pursuant to §19.705 of Regulation 19 and 40 CFR Part 52, Subpart E, or §18.1004 of Regulation 18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall maintain records of the lime throughput at source SN-17Q in order to demonstrate compliance with Specific Condition 101 and which may be used by the Department for enforcement purposes. These records shall be updated no later than the tenth day of the month following the month which the records represent, shall be kept on site, and shall be made available to Department personnel upon request.

SN-19Q, SN-20Q, SN-21Q, & SN-28Q
Coal/Coke Preparation Plant

Source Description

Source SN-19Q is the coal/coke rail dump. Source SN-20Q consists of the coal and coke storage piles. Source SN-21Q consists of the coal/coke conveyor transfer points. Source SN-28Q, which is subject to PSD, is the tansfer of the solid fuel mix from the incline belt to the #1 and #2 fuel surge bin (also called the coal bin). The only control equipment associated with source SN-28Q is a fabric filter type dust collector. No control equipment is associated with the other sources at the coal/coke preparation plant.

Compliance with these emission rates will be demonstrated through the limit on the amount of coal and coke that the permittee is allowed to fire in the rotary lime kilns. The Department recognizes that sources SN-21Q and SN-28Q will be handling some of the coal and coke more than one time. However, since the permittee will not be buying significantly more coal and coke than will be burned in the lime kilns, no additional record keeping will be required for sources SN-21Q and SN-28Q. The coal preparation plant also consists of coal processing and storage operations (as defined in 40 CFR §60.251). No emissions are expected from these sources due to their design. However, the permittee will be required to test these sources as required under 40 CFR, Part 60.

Due to the additional coal being handled, the coal/coke preparation plant will now be subject to the requirements of 40 CFR Part 60, Subpart Y - Standards of Performance for Coal Preparation Plants.

Specific Conditions

103. Pursuant to §19.501 et seq of the Regulations of the Arkansas State Implementation Plan for Air Pollution Control, effective February 15, 1999 (Regulation 19) and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table at the designated sources. The hourly emission rates are based on the capacity of the equipment. Compliance with the annual rates will be demonstrated through the limit on the amount of coal and/or coke that may be fired in the rotary lime kiln.

SN	Pollutant	lb/hr	tpy
19Q	PM_{10}	0.2	0.1
20Q	PM_{10}	0.1	0.1

SN	Pollutant	lb/hr	tpy
21Q	PM_{10}	0.2	0.3

104. Pursuant to §18.801 of Regulation 18, effective February 15, 1999, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table at the designated sources. The hourly emission rates are based on the capacity of the equipment. Compliance with the annual rates will be demonstrated through the limit on the amount of coal and/or coke that may be fired in the rotary lime kiln.

SN	Pollutant	lb/hr	tpy
19Q	PM	0.3	0.2
20Q	PM	0.1	0.2
21Q	PM	0.4	0.7

105. Pursuant to §19.501 et seq and §19.901 et seq of Regulation 19 and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table at source SN-28Q. The hourly emission rates are based on the capacity of the equipment. Compliance with these emission rates will be demonstrated through the amount of coal that can be fired in the kilns.

Pollutant	lb/hr	tpy
PM	0.1	0.1
PM_{10}	0.1	0.1

106. Sources SN-21Q and SN-28Q as well as the coal processing and storage operations (other than the open storage piles) are subject to the applicable provisions of 40 CFR Part 60, Subpart A - General Provisions and 40 CFR Part 60, Subpart Y - Standards of Performance for Coal Preparation Plants due to the size of the coal preparation plant and its date of installation. A copy of Subpart Y has been included in Appendix D of this permit. The applicable provisions of this subpart include, but are not necessarily limited to, the items contained in Specific Conditions 106 through 109.

107. Pursuant to §19.304 of Regulation 19 and 40 CFR Part 52, Subpart E, on and after the date on which the performance test required to be conducted by §60.8 is completed, an owner or operator subject to the provisions of this subpart shall not cause to be discharged to the atmosphere from any coal processing and conveying equipment or coal storage system (any facility used to store coal other than an open storage pile) gases which exhibit 20 percent opacity or greater.

108. Pursuant to §19.304 of Regulation 19 and 40 CFR §60.254(a), in conducting the performance tests required in §60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in §60.8(b).

109. Pursuant to §19.304 of Regulation 19 and 40 CFR §60.254(b)(2), the owner or operator shall determine compliance with the opacity standards using EPA Reference Method 9 and the procedures in §60.11.

110. Pursuant to §19.501 et seq and §19.901 et seq of Regulation 19 and 40 CFR Part 52, Subpart E, particulate matter emissions from the fabric filter type dust collector associated with source SN-28Q shall not exceed 0.015 grains per dry standard cubic foot of air.

111. Pursuant to §19.702 and §19.901 et seq of Regulation 19 and 40 CFR Part 52, Subpart E, the permittee shall annually test source SN-28Q for opacity using EPA Reference Method 9. All tests shall take place in accordance with the plantwide conditions of this permit.

112. Pursuant to §19.705 of Regulation 19 and 40 CFR Part 52, Subpart E, the operators of source SN-28Q shall immediately report any visible emissions to their supervisor. At least one formal observation per week shall be made by a person familiar with the source's emissions. Upon detection of any visible emissions and notification of the supervisor, the permittee shall immediately take action to identify and correct the cause of the visible emissions. Upon completion of corrective action, a person familiar with the source's emissions shall make an observation of the source in question in order to verify that visible emissions are no longer present. The permittee shall maintain records of all visible emissions observations, any corrective action taken, and whether visible emissions were present after corrective action was taken. These records shall be updated daily, kept on site, and made available to Department personnel upon request.

SN-22Q
Ag-Lime Plant Fugitives

Source Description

The Ag-Lime truck loadout operations have been designated as source SN-22Q. No control equipment is associated with this source.

Specific Conditions

113. Pursuant to §19.501 et seq of the Regulations of the Arkansas State Implementation Plan for Air Pollution Control, effective February 15, 1999 (Regulation 19) and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table at the designated sources. Compliance with these emission rates will be demonstrated through use of the water sprays and the limits on the amount of limestone that may be processed at these sources.

SN	Pollutant	lb/hr	tpy
22Q	PM_{10}	0.3	0.3

114. Pursuant to §18.801 of Regulation 18, effective February 15, 1999, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table at the designated sources. Compliance with these emission rates will be demonstrated through use of the water sprays and the limits on the amount of limestone that may be processed at these sources.

SN	Pollutant	lb/hr	tpy
22Q	PM	0.3	0.3

115. Pursuant to §19.705 of Regulation 19, 40 CFR 70.6, and/or A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311 and §18.1004 of Regulation 18, the permittee shall operate sufficient water sprays upstream of source SN-22Q in order to reduce fugitive emissions from these sources.

116. Pursuant to §19.705 of Regulation 19, 40 CFR 70.6, and/or A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and §18.1004 of Regulation 18, the permittee shall not exceed the following process rates set forth in the following table at the designated sources.

SN	Tons of Limestone per consecutive 12 month period
22Q	100,000

117. Pursuant to §19.705 of Regulation 19 and 40 CFR Part 52, or §18.1004 of Regulation 18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall maintain records of the amounts of limestone processed at SN-22Q in order to demonstrate compliance with Specific Condition 116 and which may be used by the Department for enforcement purposes. These records shall be updated by the tenth day of the month following the month which the records represent, shall be kept on site, and shall be made available to Department personnel upon request.

SN-24Q
#2 Rotary Lime Kiln

Source Description

Construction on the 625 ton per day rotary lime kiln is scheduled to begin in the fall of 2000. The fuels for this kiln will be a blend of coal and coke with natural gas. The permittee may use only natural gas when it is necessary to produce a low sulfur lime product but is not required by this permit to do so. The permittee will be allowed to burn only natural gas at any time. Particulate matter emissions will be controlled through the use of a baghouse. Sulfur dioxide emissions will be controlled through dry scrubbing which occurs naturally in the lime kiln and at the filter cake on the baghouse. No other control equipment is associated with this lime kiln.

Specific Conditions

118. Pursuant to §19.501 et seq and §19.901 et seq of the Regulations of the Arkansas State Implementation Plan for Air Pollution Control, effective February 15, 1999 (Regulation 19) and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table at source SN-24Q. Compliance with the sulfur dioxide emissions will be demonstrated through the pressure drop readings across the baghouse, the limit on the sulfur content of the fuel, and the limit on the amount of coal/coke that may be fired in the kiln. Compliance with the oxides of nitrogen emission rates will be demonstrated through the oxygen monitor and the limit on the amount of lime produced in the kiln. Compliance with the particulate matter emissions will be demonstrated through the amount of lime that may be produced and the pressure drop readings across the baghouse.

Pollutant	lb/hr	tpy
PM	7.3	31.6
PM_{10}	7.3	31.6
SO_2	65.2	227.0
NO_X	91.2	399.3

119. Pursuant to §19.501 et seq of the Regulations of the Arkansas State Implementation Plan for Air Pollution Control, effective February 15, 1999 (Regulation 19) and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table at source SN-24Q. Compliance with the VOC emission rates will be demonstrated through the required testing and the amount of fuel that may be used to fire the kiln.

Compliance with the carbon monoxide emission rates will be demonstrated through the oxygen monitor and the required testing.

Pollutant	lb/hr	tpy
VOC	3.3	14.2
CO	78.2	342.2

General Requirements

120. Pursuant to §19.702 and §19.901 et seq of Regulation 19, and 40 CFR Part 52, Subpart E, all required tests shall be conducted while firing coal and/or coke. All required tests shall also be conducted in accordance with Plantwide Condition 3.

121. Pursuant to §19.901 et seq and §19.705 of Regulation 19, 40 CFR Part 52, Subpart E, 40 CFR 70.6, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall use only coal, coke, or natural gas to fire the rotary lime kiln.

122. Pursuant to §19.901 et seq and §19.705 of Regulation 19, 40 CFR Part 52, Subpart E, 40 CFR 70.6, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not fire in excess of 47,251 tons of coal and/or coke in any consecutive twelve month period. (NOTE: No limit on the amount of natural gas that may be fired in the kiln is given because the permittee could not exceed any of the emission rates if only natural gas were to be used to fire the kiln at capacity for 8,760 hours per year.)

123. Pursuant to §19.901 et seq and §19.705 of Regulation 19 and 40 CFR Part 52, Subpart E, the permittee shall maintain records of the amount of coal, coke, and natural gas fired in the lime kiln in order to demonstrate compliance with Specific Condition 122 and which may be used by the Department for enforcement purposes. These records shall be updated daily, shall be kept on site, and shall be made available to Department personnel upon request. (NOTE: The permittee is required to maintain records of natural gas usage and to update the records daily in order to demonstrate compliance with the limits on the sulfur content of the fuel as fired in the kiln.)

124. Pursuant to §18.1004 of Regulation 18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall obtain a manufacturer's certification of the ash mineral analysis of the fuel in order to demonstrate that any possible emissions of Hazardous Air Pollutants (HAPs) are below the de minimis levels. A new certification shall be obtained each time that fuel is obtained from a different mine. This certification shall be kept on site and shall be made available to Department personnel upon request.

PM/PM$_{10}$ & Opacity

125. Source SN-24Q is subject to the provisions of 40 CFR Part 60, Subpart A - *General Provisions* and 40 CFR Part 60, Subpart HH - *Standards of Performance for Lime Manufacturing Plants*. A copy of Subpart HH has been included in Appendix D of this permit. The applicable provisions of this subpart include, but are not limited to, the items found in Specific Conditions 126 thru 132.

126. Pursuant to 40 CFR §60.342(a)(1), §19.304 and 19.501 et seq of Regulation 19, and 40 CFR Part 52, Subpart E, on and after the date on which the performance test required to be conducted by §60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any rotary lime kiln any gases which contain particulate matter in excess of 0.30 kilogram per megagram (0.60 lb/ton) of stone feed.

127. Pursuant to 40 CFR §60.342(a)(2), §19.304 and 19.501 et seq of Regulation 19, and 40 CFR Part 52, Subpart E, on and after the date on which the performance test required to be conducted by §60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any rotary lime kiln any gases which exhibit greater than 15 percent opacity when exiting from a dry control device.

128. Pursuant to 40 CFR §60.343(a), §19.304, §19.703, and §19.901 et seq of Regulation 19, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the owner or operator of a facility that is subject to the provisions of this subpart shall install, calibrate, maintain, and operate a continuous monitoring system to monitor and record the opacity of a representative portion of the gases discharged into the atmosphere from the rotary lime kiln. The span of this system shall be set at 40 percent opacity.

129. Pursuant to 40 CFR §60.343(d), §19.304 and §19.703 of Regulation 19, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, for the purpose of conducting a performance test under §60.8, the owner or operator of any lime manufacturing plant subject to the provisions of this subpart shall install, calibrate, maintain, and operate a device for measuring the mass rate of stone feed to the affected rotary lime kiln. The measuring device used must be accurate to within $\pm$ 5 percent of the mass rate over its operating range. The permittee shall continue to maintain and operate this device after the initial performance test has been completed.

130. Pursuant to 40 CFR §60.343(e) and §19.304 of Regulation 19, for the purpose of reports required under §60.7(c), periods of excess emissions that shall be reported are defined as all 6-minute periods during which the average opacity of the visible emissions from any lime kiln subject to paragraph (a) of this subpart is greater than 15 percent.

131. Pursuant to 40 CFR §60.344(a), §19.304 and §19.702 of Regulation 19, and 40 CFR Part 52, Subpart E, in conducting the performance tests required in §60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in §60.8(b).

132. Pursuant to 40 CFR §63.44(b), §19.304 and §19.703 of Regulation 19, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the owner or operator shall determine compliance with the particulate matter standards in §63.342(a) as follows:

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

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

where:

E = emission rate of particulate matter, kg/Mg (lb/ton) of stone feed
C_s = concentration of particulate matter, g/dscm (g/dscf)
Q_{sd} = volumetric flow rate of effluent gas, dscm/hr (dscf/hr)
P = stone feed rate, Mg/hr (ton/hr)
K = conversion factor, 1000 g/kg (453.6g/lb)

B. Method 5 shall be used at negative pressure fabric filters and other types of control devices and Method 5D shall be used at positive-pressure fabric filters to determine the particulate matter concentration (C_s) and the volumetric flow rate of the effluent gas (Q_{sd}). The sampling time and the sample volume for each run shall be at least 60 minutes and 0.9 dscm (31.8 dscf).

C. The monitoring device of §60.343(d) shall be used to determine the stone feed rate (P) for each run.

D. Method 9 and the procedures in §60.11 shall be used to determine opacity.

133. Pursuant to §19.705 and §19.901 et seq of Regulation 19, 40 CFR Part 52, Subpart E, 40 CFR 70.6, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not produce in excess of 625 tons of lime per day from the #2 Lime Kiln when source SN-24Q is installed and operating.

134. Pursuant to §19.705 and §19.901 et seq of Regulation 19 and 40 CFR Part 52, Subpart E, the permittee shall maintain daily records of the lime produced in order to demonstrate compliance with Specific Condition 133 and which may be used by the Department for enforcement purposes. These records shall be updated daily, kept on site, and made available to Department personnel upon request. An annual total and each month's individual data shall be submitted to the Department in accordance with General Provision 7.

135. Pursuant to §19.501 et seq and §19.901 et seq of Regulation 19 and 40 CFR Part 52, Subpart E, particulate matter emissions from source SN-24Q shall not exceed 0.015 grains per dry standard cubic foot of air.

136. Pursuant to §19.702 and §19.901 et seq of Regulation 19 and 40 CFR Part 52, Subpart E, the permittee shall annually test source SN-24Q for particulate matter using EPA Reference Method 5 in order to demonstrate compliance with the pound per hour emission limit set forth in Specific Condition 118 and the grain loading factor set forth in Specific Condition 135. All tests shall take place in accordance with the plantwide conditions of this permit.

SO_2 (CAM Plan)

137. Pursuant to §19.705 and §19.901 et seq of Regulation 19, 40 CFR Part 52, Subpart E, 40 CFR 70.6, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the sulfur content of the fuel mix used to fire the kiln shall not exceed 4% by weight on a daily basis as fired in the kiln and shall not exceed 3% on a rolling 30-day average.

138. Pursuant to §19.705 and §19.901 et seq of Regulation 19 and 40 CFR Part 52, Subpart E, the permittee shall obtain manufacturer's certification of the sulfur content of each shipment of the coal/coke mix or conduct tests of each shipment of fuel to determine the sulfur content, shall obtain a supplier's certification of the sulfur content of the natural gas, and shall perform any necessary calculations in order to demonstrate compliance with Specific Condition 137 and which may be used by the Department for enforcement purposes. These records shall be updated daily, shall be kept on site, and shall be made available to Department personnel upon request.

139. Pursuant to 40 CFR Part 64, §19.703 and §19.901 et seq of Regulation 19, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall install, calibrate, maintain, and operate a device to continuously monitor and record the pressure across the baghouse at source SN-29. This device shall be installed prior to operation of the rotary lime kiln. Compliance with the pressure drop range will be based on a 3-hour average.

140. Pursuant to 40 CFR Part 64, §19.702 and §19.901 et seq of Regulation 19, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, within 60 days of achieving maximum production but no later than 180 days after initial start-up of the lime kiln, the permittee shall test the rotary lime kiln for sulfur dioxide emissions using EPA Reference Method 6C. The test shall take place while burning coal and/or coke with a sulfur content of at least 3.75%. The permittee may use a fuel blend with a sulfur content lower than 3.75%. If a lower sulfur content fuel blend in used, the permittee will be limited to using fuel blends with sulfur contents 10% above the content used during the testing. In no instance shall the permittee be allowed to exceed the sulfur content limit of 4.0% on a daily basis or 3.0% on a 30-day average. The minimum pressure drop at which any of the tests are conducted will be the lowest allowable pressure drop provided that the sulfur dioxide emission rate was not exceeded during the test. The permittee shall conduct these tests once every five years.

141. Pursuant to 40 CFR Part 64, §19.703 and §19.901 et seq of Regulation 19, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, a pressure drop reading outside of the range established in the testing required by Specific Condition 140 shall be considered an exceedence or excursion of the sulfur dioxide emission rate.

142. Pursuant to 40 CFR §64.7(d)(1), upon detection of an excursion or exceedence, the permittee shall restore operation of the baghouse at the rotary lime kiln to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown, or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of an excursion or exceedence (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

143. Pursuant to 40 CFR §64.7(e), if the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedence while providing valid data, or the results of the compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the owner or operator shall promptly notify the permitting authority and, if necessary, submit a proposed modification to this part 70 permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.

NO_X

144. Pursuant to §19.501 et seq and §19.901 et seq, 40 CFR Part 52, Subpart E, 40 CFR 70.6, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, emissions of oxides of nitrogen shall not exceed 3.5 lbs per ton of lime produced on a 30-day rolling average.

145. Pursuant to §19.702 and §19.901 et seq of Regulation 19 and 40 CFR Part 52, Subpart E, the permittee shall test source SN-11Q for oxides of nitrogen using EPA Reference Method 7E. While the tests for oxides of nitrogen are taking place the permittee shall also monitor the items listed below. The permittee shall conduct a sufficient number of tests to accurately establish a % O_2 range which will demonstrate compliance with the NO_X emission rate on a continual basis. During the testing, the permittee shall also vary the other items listed below to determine if any variability will cause a change in the % O_2 in the stack gases. The permittee shall notify the Department at least 30 days in advance of the tests taking place and shall repeat these tests annually.

A. BTUs of heat produced
B. Fuel to air ratio
C. Feed rate of the fuel
D. Moisture content of the fuel and of the aggregate
E. Stack temperature
F. % O_2 in the stack gases

146. Pursuant to §19.703 of Regulation 19 and §19.901 et seq of Regulation 19, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall install, calibrate, maintain, and operate a continuous oxygen monitor on source SN-24Q. A copy of the Department's CEMS standards are contained in Appendix C of this permit. The permittee shall use this oxygen monitor to demonstrate compliance with the % O_2 range established by the testing required by Specific Condition 145. The Department reserves the right to require the permittee to monitor any of the variables listed in Specific Condition 145 if the testing demonstrates that they will have an effect on the oxides of nitrogen emission rates. If no valid correlation was established during the testing, the permittee will be required to install, calibrate, maintain, and operate a NO_X CEMS. The permittee shall use the information from the continuous monitor and the lime production records in order to demonstrate compliance with Specific Condition 144.

VOC

147. Pursuant to §19.702 of Regulation 19 and 40 CFR Part 52, Subpart E, the permittee shall test the rotary lime kiln for volatile organic compounds using EPA Reference Method 25A within 60 days of achieving maximum production but no later than 180 days after initial start-up. Using the results of this test, the permittee shall correlate the VOC emissions to the solid fuel usage rate. Compliance with the VOC emission rates will be demonstrated through the coal and coke usage limits.

CO

148. Pursuant to §19.702 of Regulation 19 and 40 CFR Part 52, Subpart E, the permittee shall test source SN-24Q for carbon monoxide using EPA Reference Method 10. While the tests for carbon monoxide are taking place the permittee shall also monitor the items listed below. The permittee shall conduct a sufficient number of tests to accurately establish a % O_2 range which will demonstrate compliance with the CO emission rate on a continual basis. During the testing, the permittee shall also vary the other items listed below to determine if any variability will cause a change in the % O_2 in the stack gases. The permittee shall notify the Department at least 30 days in advance of the tests taking place and shall repeat these tests annually.

A. BTUs of heat produced
B. Fuel to air ratio
C. Feed rate of the fuel
D. Moisture content of the fuel and of the aggregate
E. Stack temperature
F. % O_2 in the stack gases

149. Pursuant to §19.703 of Regulation 19, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall install, calibrate, maintain, and operate a continuous oxygen monitor on source SN-11Q. A copy of the Department's CEMS standards are contained in Appendix C of this permit. The permittee shall use this oxygen monitor to demonstrate compliance with the % O_2 range established by the testing required by Specific Condition 148. The Department reserves the right to require the permittee to monitor any of the variables listed in Specific Condition 148 if the testing demonstrates that they will have an effect on the carbon monoxide emission rates. If no valid correlation was established during the testing, the permittee will be required to install, calibrate, maintain, and operate a CO CEMS.

SN-25Q
#2 Lime Product Cooler

Source Description

After the limestone has been calcined in the #2 rotary lime kiln, it is sent to the #2 lime product cooler. Emissions from this source are controlled through the use of a dust collector.

Specific Conditions

150. Pursuant to §19.501 et seq and §19.901 et seq of Regulation 19 and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table at source SN-25Q. The hourly and annual emissions are based on the capacity of the equipment.

Pollutant	lb/hr	tpy
PM	0.4	1.7
PM_{10}	0.4	1.7

151. Pursuant to §18.501 of Regulation 18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed 5% opacity as measured by EPA Reference Method 9 at source SN-25Q.

152. Pursuant to §19.705 of Regulation 19 and 40 CFR Part 52, Subpart E, the permittee shall conduct weekly observations of the opacity from source SN-25Q. If any visible emissions are detected, the permittee shall take immediate action to identify and correct the cause of the visible emissions. After corrective action has been taken, the permittee shall conduct another observation of the opacity from source SN-25Q in order to verify that visible emissions are no longer present. The permittee shall maintain records all visible emissions observations, any corrective action taken, and the cause of the visible emissions.

153. Pursuant to §19.501 et seq and §19.901 et seq of Regulation 19, particulate matter emissions from source SN-25Q shall not exceed 0.015 grains per dry standard cubic foot of air.

154. Pursuant to §19.702 of Regulation 19 and 40 CFR Part 52, Subpart E, the permittee shall test source SN-25Q for opacity using EPA Reference Method 9 and in accordance with the plantwide conditions of this permit and annually thereafter.

SN-26Q
#2 Lime Product Silo Dust Collector

Source Description

After the lime has been cooled in the #2 lime product cooler, it is transferred to the #2 lime product silo. Emissions from this source are controlled through the use of a dust collector.

Specific Conditions

155. Pursuant to §19.501 et seq and §19.901 et seq of Regulation 19 and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table at source SN-25Q. The hourly and annual emissions are based on the capacity of the equipment.

Pollutant	lb/hr	tpy
PM	0.7	2.9
PM_{10}	0.7	2.9

156. Pursuant to §18.501 of Regulation 18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed 5% opacity as measured by EPA Reference Method 9 at source SN-26Q.

157. Pursuant to §19.705 of Regulation 19 and 40 CFR Part 52, Subpart E, the permittee shall conduct weekly observations of the opacity from source SN-26Q. If any visible emissions are detected, the permittee shall take immediate action to identify and correct the cause of the visible emissions. After corrective action has been taken, the permittee shall conduct another observation of the opacity from source SN-26Q in order to verify that visible emissions are no longer present. The permittee shall maintain records all visible emissions observations, any corrective action taken, and the cause of the visible emissions.

158. Pursuant to §19.501 et seq and §19.901 et seq of Regulation 19, particulate matter emissions from source SN-26Q shall not exceed 0.015 grains per dry standard cubic foot of air.

159. Pursuant to §19.702 of Regulation 19 and 40 CFR Part 52, Subpart E, the permittee shall test source SN-26Q for opacity using EPA Reference Method 9 and in accordance with the plantwide conditions of this permit and annually thereafter.

SN-01P
Limestone Drop Points

Source Description

Currently, there is a total of eleven conveyors transfer points located at this facility. Arkansas Lime will remove seven of these as a part of the modernization of this facility. This source is subject to the provisions of 40 CFR Part 60, Subpart OOO - *Standards of Performance for Non-Metallic Mineral Processing Plants*. Water sprays are the only controls associated with this source.

Specific Conditions

160. Pursuant to §19.501 et seq of the Regulations of the Arkansas State Implementation Plan for Air Pollution Control, effective February 15, 1999 (Regulation 19) and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table at source SN-01P. Compliance with these emission rates will be demonstrated through use of the water sprays and the limit on the amount of limestone that may be processed at this source.

Pollutant	lb/hr	tpy
PM_{10}	0.2	0.1

161. Pursuant to §18.801 of Regulation 18, effective February 15, 1999, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table at source SN-01P. Compliance with these emission rates will be demonstrated through use of the water sprays and the limit on the amount of limestone that may be processed at this source.

Pollutant	lb/hr	tpy
PM	0.4	0.3

162. Pursuant to §19.705 of Regulation 19, 40 CFR 70.6, and/or A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311 and §18.1004 of Regulation 18, the permittee shall operate water sprays in order to reduce fugitive emissions from the conveyor transfer points comprising source SN-01P.

163. Pursuant to §19.705 of Regulation 19, 40 CFR 70.6, and/or A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311 and §18.1004 of Regulation 18, the permittee shall not process in excess of 1,500,000 tons of limestone at source SN-01P in any consecutive twelve month period.

164. Pursuant to §19.705 of Regulation 19 and 40 CFR Part 52, Subpart E, or §18.1004 of Regulation 18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall maintain records of the amount of limestone processed at source SN-01P in order to demonstrate compliance with Specific Condition 163 and which may be used by the Department for enforcement purposes. These records shall be updated no later than the tenth day of the month following the month which the records represent, shall be kept on site, and shall be made available to Department personnel upon request.

165. Source SN-01P is subject to 40 CFR Part 60, Subpart A - *General Provisions* and 40 CFR Part 60, Subpart OOO - *Standards of Performance for Nonmetallic Mineral Processing Plants*. A copy of Subpart OOO may be found in Appendix A of this permit. The requirements of this subpart include, but are not limited to, the items found in Specific Conditions 166, 213 and 167.

166. Pursuant to 40 CFR §60.672(b), §19.304 and §19.503 of Regulation 19, and 40 CFR Part 52, Subpart E, no owner or operator subject to this subpart shall cause to be discharged into the atmosphere from any transfer point on belt conveyors or from any other affected facility any fugitive emissions which exhibit greater than 10 percent opacity, except as provided in paragraph (e) of this section.

167. Pursuant to 40 CFR §60.672(e), §19.304 and §19.503 of Regulation 19, and 40 CFR Part 52, Subpart E, if any conveyor transfer point on a conveyor belt or any other affected facility is enclosed in a building, then each affected facility must comply with the emission limits in paragraph (b) of this section, or the building enclosing the affected facility or facilities must comply with the following emission limits:

    A. No owner or operator shall cause to be discharged into the atmosphere from any building enclosing any transfer point on a conveyor belt or any other affected facility any visible fugitive except emissions from a vent as defined in §60.671.

    B. No owner or operator shall cause to be discharged into the atmosphere from any vent of any building enclosing any transfer point on a conveyor belt or any other affected facility emissions which exceed the stack emissions limits in paragraph (a) of this section.

168. Pursuant to §19.705 of Regulation 19 and 40 CFR Part 52, Subpart E, the operators of source SN-01P shall immediately report any visible emissions to their supervisor. At least one formal observation per week shall be made by a person familiar with the source's emissions. Upon detection of any visible emissions and notification of the supervisor, the permittee shall immediately take action to identify and correct the cause of the visible emissions. Upon completion of corrective action, a person familiar with the source's emissions shall make an observation of the source in question in order to verify that visible emissions are no longer present. The permittee shall maintain records of all visible emissions observations, any corrective action taken, and whether visible emissions were present after corrective action was taken. These records shall be updated daily, kept on site, and made available to Department personnel upon request.

169. Pursuant to §19.901 et seq of Regulation 19 and 40 CFR Part 52, Subpart E, the permittee shall discontinue use of the following conveyor transfer points associated with source SN-01P when source SN-11Q becomes operational. SN-11Q will be considered operational after a reasonable shakedown period which shall not exceed 180 days. The permittee shall not operate these sources on or after the date of the initial performance tests for SN-11Q have been performed.

A.	SN01PE	Crossover to Stack
B.	SN01PF	Stacker to Pile
C.	SN01PG	Kiln Reclaim Belts to Screen
D.	SN01PH	PLS Reclaim Belt to Belt 2
E.	SN01PI	2nd Belt to 3rd PLS Belt
F.	SN01PJ	3rd Belt to 4th PLS Belt
G.	SN01PK	4th Belt to PLS Tank

SN-02P
Stockpile Fugitives

Source Description

The limestone stockpiles serve as storage for the limestone which has not yet been calcined in the lime kiln(s). These stockpiles will be removed as a part of the modifications.

No opacity limit has been assigned to the limestone stockpiles due to the difficulty in obtaining an accurate reading for this type of source. Instead, plantwide conditions have been added to the permit requiring Arkansas Lime to conduct operations in a manner that will reduce any fugitive emissions from these sources.

Specific Conditions

170. Pursuant to §19.501 et seq of the Regulations of the Arkansas State Implementation Plan for Air Pollution Control, effective February 15, 1999 (Regulation 19) and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table at source SN-02P. Compliance with the emission rates listed below will be demonstrated through use of the required water sprays.

Pollutant	lb/hr	tpy
PM_{10}	0.1	0.2

171. Pursuant to §18.801 of Regulation 18, effective February 15, 1999, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table at source SN-02P. Compliance with the emission rates listed below will be demonstrated through use of the required water sprays.

Pollutant	lb/hr	tpy
PM	0.1	0.2

172. Pursuant to §19.705 of Regulation 19, 40 CFR 70.6, and/or A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311 and §18.1004 of Regulation 18, the permittee shall water the stockpiles comprising source SN-02P as necessary in order to reduce fugitive emissions.

173. Pursuant to §19.901 et seq of Regulation 19 and 40 CFR Part 52, Subpart E, the permittee shall discontinue use of source SN-02P when source SN-11Q becomes operational. SN-11Q will be considered operational after a reasonable shakedown period which shall not exceed 180 days. The permittee shall not operate this source on or after the date of the initial performance tests for SN-11Q have been performed.

SN-03P, SN-04P, SN-05P, SN-06P, SN-07P, & SN-08P
Vertical Lime Kilns #1 thru #6

Source Description

Currently, there are six vertical lime kilns in use at this facility. These kilns have a combined capacity to produce approximately 250 tons of lime per day. After the new rotary lime kiln is in operation, these kilns will be removed from service.

Emissions of particulate matter, carbon monoxide, and oxides of nitrogen are based upon test data and the maximum capacity of the equipment. Emissions of sulfur dioxide and volatile organic compounds are based upon AP-42 factors for natural gas combustion and the maximum capacity of the equipment. No control equipment is associated with any of the vertical lime kilns.

Specific Conditions

174. Pursuant to §19.501 et seq of the Regulations of the Arkansas State Implementation Plan for Air Pollution Control, effective February 15, 1999 (Regulation 19) and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table at the designated sources. The emission rates listed below are based on the capacity of the equipment and only firing natural gas.

SN	Pollutant	lb/hr	tpy
03P	PM_{10}	8.8	38.6
	SO_2	0.1	0.1
	VOC	0.1	0.4
	CO	50.0	219.0
	NO_X	1.5	6.6
04P	PM_{10}	8.8	38.6
	SO_2	0.1	0.1
	VOC	0.1	0.4
	CO	50.0	219.0
	NO_X	1.5	6.6

SN	Pollutant	lb/hr	tpy
05P	PM_{10}	8.8	38.6
	SO_2	0.1	0.1
	VOC	0.1	0.4
	CO	50.0	219.0
	NO_X	1.5	6.6
06P	PM_{10}	8.8	38.6
	SO_2	0.1	0.1
	VOC	0.1	0.4
	CO	50.0	219.0
	NO_X	1.5	6.6
07P	PM_{10}	8.8	38.6
	SO_2	0.1	0.1
	VOC	0.1	0.4
	CO	50.0	219.0
	NO_X	1.5	6.6
08P	PM_{10}	8.8	38.6
	SO_2	0.1	0.1
	VOC	0.1	0.4
	CO	50.0	219.0
	NO_X	1.5	6.6

175. Pursuant to §18.801 of Regulation 18, effective February 15, 1999, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table at the designated sources. The emission rates listed below are based on the capacity of the equipment and firing only natural gas.

SN	Pollutant	lb/hr	tpy
03P	PM	8.8	38.6
04P	PM	8.8	38.6
05P	PM	8.8	38.6
06P	PM	8.8	38.6
07P	PM	8.8	38.6

SN	Pollutant	lb/hr	tpy
08P	PM	8.8	38.6

176. Pursuant to §19.503 of Regulation 19 and 40 CFR Part 52, Subpart E, the permittee shall not exceed 20% opacity as measured by EPA Reference Method 9 from sources SN-03P, SN-04P, SN-05P, SN-06P, SN-07P, and SN-08P.

177. Pursuant to §19.705 of Regulation 19 and 40 CFR Part 52, Subpart E, daily observations of the opacities from sources SN-03P, SN-04P, SN-05P, SN-06P, SN-07P, and SN-08P shall be conducted by a person trained, but not necessarily certified in EPA Reference Method 9. If visible emissions which appear to be in excess of the permitted opacity are detected, the permittee shall take immediate action to identify the cause of the excess visible emissions, implement corrective action, and document that visible emissions did not appear to be in excess of the permitted opacity following the corrective action. The permittee shall maintain records of the following items in order to demonstrate compliance with this specific condition. These records shall be updated daily, kept on site, and made available to Department personnel upon request. These daily readings shall not be required when the EPA Reference Method 9 training sessions offered by the Department are in session.

a. The date and the time of the observation
b. If visible emissions which appeared to be above the permitted level were detected
c. If visible emissions which appeared to be above the permitted level were detected, the cause of the exceedence of the opacity limit, the corrective action taken, and if the visible emissions appeared to be below the permitted limit after the corrective action was taken
d. The name of the person conducting the opacity observations

178. Pursuant to §19.705 of Regulation 19, 40 CFR 70.6, and/or A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311 and §18.1004 of Regulation 18, pipeline quality natural gas shall be the only fuel used to fire the vertical lime kilns.

179. Pursuant to §19.702 of Regulation 19 and 40 CFR Part 52, Subpart E, the permittee shall annually test one of the lime kilns for carbon monoxide and oxides of nitrogen simultaneously using EPA Reference Methods 10 and 7E, respectively. The kiln to be tested shall be determined by the Department prior to testing. During the test, the kiln shall be operating within 10% of the rated throughput capacity. Failure to test at this capacity shall limit the permittee to operating 10% above the tested throughput. These tests shall be conducted in accordance with Plantwide Condition 3. The permittee will not need to perform these tests if the new rotary lime kiln (source SN-11Q) is scheduled to be fully operational with the shakedown period completed within 180 days of the test date. The permittee will need to obtain in writing from the Department that testing is not necessary in order to not be out of compliance with this specific condition.

180. Pursuant to CAO LIS 99-012, §19.702 of Regulation 19, and 40 CFR Part52, Subpart E, the permittee shall test source SN-04 for carbon monoxide using EPA Reference Method 10 every six months. The first test required by the CAO was performed on June 15, 1999. During the test, the kiln shall be operating within 10% of the rated throughput capacity. Failure to test at this capacity shall limit the permittee to operating 10% above the tested throughput. These tests shall be conducted in accordance with Plantwide Condition 3. This required test is in addition to the test required by Specific Condition and may not be used to replace those testing requirements.

181. Pursuant to §19.901 et seq of Regulation 19 and 40 CFR Part 52, Subpart E, the permittee shall discontinue use of sources SN-03P through SN-08P when source SN-11Q becomes operational. SN-11Q will be considered operational after a reasonable shakedown period which shall not exceed 180 days. The permittee shall not operate these sources on or after the date of the initial performance tests for SN-11Q have been performed.

SN-10P, SN-11P, SN-12P, SN-13P, SN-14P, & SN-29P
Hydrated Lime System

Source Description

Quicklime is reacted with water to form hydrated lime which is a soft powder. Emissions from sources SN-10 and SN-11 are routed through the baghouse located at source SN-12. Previously, emissions from source SN-10 and SN-11 were controlled through the use of wet scrubbers. Source SN-12 is equipped with a natural gas fired heater.

Source SN-13P is a fabric filter type dust collector which controls emissions generated by the hydrate sales loadout. Source SN-14P is a fabric filter type dust collector which controls emissions generated by the hydrate bagging operations. Source SN-29P is a fabric filter type dust collector which controls emissions generated by the hydrate storage tank.

Specific Conditions

182. Pursuant to §19.501 et seq of the Regulations of the Arkansas State Implementation Plan for Air Pollution Control, effective February 15, 1999 (Regulation 19) and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table at the designated sources. The emission rates listed below are based on the capacity of the equipment. Compliance with the emission rates listed for source SN-12P will also be demonstrated by using only pipeline quality natural gas to fire its heater.

SN	Pollutant	lb/hr	tpy
12P	PM_{10}	1.9	8.2
	SO_2	0.1	0.1
	VOC	0.1	0.1
	CO	0.4	1.5
	NO_X	0.4	1.8
13P	PM_{10}	0.3	1.0
14P	PM_{10}	0.8	3.3
29P	PM_{10}	0.2	0.7

183. Pursuant to §18.801 of Regulation 18, effective February 15, 1999, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table at the designated sources. The emission rates listed below are based on the capacity of the equipment. Compliance with the emission rates listed for source SN-12P will also be demonstrated by using only pipeline quality natural gas to fire its heater.

SN	Pollutant	lb/hr	tpy
12P	PM	1.9	8.2
13P	PM	0.3	1.0
14P	PM	0.8	3.3
29P	PM	0.2	0.7

184. Pursuant to §18.501 of Regulation 18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed 5% opacity from sources SN-12P, SN-13P, SN-14P, and SN-29P as measured by EPA Reference Method 9.

185. Pursuant to §19.705 of Regulation 19 and 40 CFR Part 52, Subpart E, the operators of sources SN-12P, SN-13P, SN-14P, and SN-29P shall immediately report any visible emissions to their supervisor. At least one formal observation per week shall be made by a person familiar with the source's emissions. Upon detection of any visible emissions and notification of the supervisor, the permittee shall immediately take action to identify and correct the cause of the visible emissions. Upon completion of corrective action, a person familiar with the source's emissions shall make an observation of the source in question in order to verify that visible emissions are no longer present. The permittee shall maintain records of all visible emissions observations, any corrective action taken, and whether visible emissions were present after corrective action was taken. These records shall be updated daily, kept on site, and made available to Department personnel upon request.

186. Pursuant to §19.705 of Regulation 19, 40 CFR 70.6, and/or A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311 and §18.1004 of Regulation 18, pipeline quality natural gas shall be the only fuel used to fire the heater located at source SN-12P.

SN-15P & SN-16P
Rice Lime Screen and Storage Tank Loadouts

Source Description

Source SN-15P is a fabric filter type dust collector which will control emissions generated by the rice lime screen. Source SN-16P is a fabric filter type dust collector which will control emissions generated by the truck loadout of quicklime sales.

Specific Conditions

187. Pursuant to §19.501 et seq of the Regulations of the Arkansas State Implementation Plan for Air Pollution Control, effective February 15, 1999 (Regulation 19) and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table at the designated sources. The emission rates listed below are based on the capacity of the equipment.

SN	Pollutant	lb/hr	tpy
15P	PM_{10}	0.1	0.1
16P	PM_{10}	0.4	1.8

188. Pursuant to §18.801 of Regulation 18, effective February 15, 1999, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table at the designated sources. The emission rates listed below are based on the capacity of the equipment.

SN	Pollutant	lb/hr	tpy
15P	PM	0.1	0.1
16P	PM	0.4	1.8

189. Pursuant to §18.501 of Regulation 18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed 5% opacity from sources SN-15P and SN-16P as measured by EPA Reference Method 9.

190. Pursuant to §19.705 of Regulation 19 and 40 CFR Part 52, Subpart E, the operators of sources SN-15P and SN-16P shall immediately report any visible emissions to their supervisor. At least one formal observation per week shall be made by a person familiar with the source's emissions. Upon detection of any visible emissions and notification of the supervisor, the permittee shall immediately take action to identify and correct the cause of the visible emissions. Upon completion of corrective action, a person familiar with the source's emissions shall make an observation of the source in question in order to verify that visible emissions are no longer present. The permittee shall maintain records of all visible emissions observations, any corrective action taken, and whether visible emissions were present after corrective action was taken. These records shall be updated daily, kept on site, and made available to Department personnel upon request.

191. Pursuant to §19.901 et seq of Regulation 19 and 40 CFR Part 52, Subpart E, the permittee shall discontinue use of the crusher associated with source SN-15P when source SN-11Q becomes operational. SN-11Q will be considered operational after a reasonable shakedown period which shall not exceed 180 days. The permittee shall not operate this source on or after the date of the initial performance tests for SN-11Q have been performed.

SN-18P & SN-19P
Stone and Roller Mill Plants

Source Description

The two roller mills are nearly identical. These systems rely on air circulation to remove the ground limestone from the mill and also rely on baghouses for the control of particulate matter emissions. The two roller mills are also both fired by natural gas.

Permitted emissions from these two sources are changing slightly due to the availability of new emission factors. No change in the method of operation will occur with these sources during the modifications at this facility.

Specific Conditions

192. Pursuant to §19.501 et seq of the Regulations of the Arkansas State Implementation Plan for Air Pollution Control, effective February 15, 1999 (Regulation 19) and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table at the designated sources. The emission rates listed below are based on the capacity of the equipment while burning natural gas.

SN	Pollutant	lb/hr	tpy
18P	PM_{10}	2.6	11.4
	SO_2	0.1	0.1
	VOC	0.1	0.1
	CO	0.3	1.1
	NO_X	0.3	1.2
19P	PM_{10}	1.8	7.8
	SO_2	0.1	0.1
	VOC	0.1	0.1
	CO	0.3	1.1
	NO_X	0.3	1.2

193. Pursuant to §18.801 of Regulation 18, effective February 15, 1999, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table at the designated sources. The emission rates listed below are based on the capacity of the equipment while burning natural gas.

SN	Pollutant	lb/hr	tpy
18P	PM	2.6	11.4
19P	PM	1.8	7.8

194. Pursuant to §19.705 of Regulation 19, 40 CFR 70.6, and/or A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311 and §18.1004 of Regulation 18, the permittee shall use only pipeline quality natural gas to fire sources SN-18P and SN-19P.

195. Pursuant to §18.501 of Regulation 18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed 5% opacity from sources SN-18P and SN-19P as measured by EPA Reference Method 9.

196. Pursuant to §19.705 of Regulation 19 and 40 CFR Part 52, Subpart E, the operators of sources SN-18P and SN-19P shall immediately report any visible emissions to their supervisor. At least one formal observation per week shall be made by a person familiar with the source's emissions. Upon detection of any visible emissions and notification of the supervisor, the permittee shall immediately take action to identify and correct the cause of the visible emissions. Upon completion of corrective action, a person familiar with the source's emissions shall make an observation of the source in question in order to verify that visible emissions are no longer present. The permittee shall maintain records of all visible emissions observations, any corrective action taken, and whether visible emissions were present after corrective action was taken. These records shall be updated daily, kept on site, and made available to Department personnel upon request.

SN-20P, SN-21P, SN-22P, SN-23P, & SN-24P
PLS Screening, Bagging, and Loadout Operations

Source Description

The PLS screening operations have been designated as source SN-20P. These operations take place inside a partially enclosed building which has flexible strips on the openings in order to reduce emissions. Source SN-21P is a fabric filter bin vent dust collector that controls emissions from the 270/280 product storage bin. The PLS bagging operations have been designated as source SN-24P. These operations also take place inside a partially enclosed building.

Sources SN-21P, SN-22P, and SN-23P are the current PLS loadout operations. Sources SN-22P and SN-23P will be removed from service in 2000 as part of the modifications taking place.

Specific Conditions

197. Pursuant to §19.501 et seq of the Regulations of the Arkansas State Implementation Plan for Air Pollution Control, effective February 15, 1999 (Regulation 19) and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table at the designated sources. The emission rates listed below are based on the capacity of the equipment. Compliance with the emission rates for source SN-20P will also be demonstrated by maintaining the flexible strips.

SN	Pollutant	lb/hr	tpy
20P	PM_{10}	0.6	2.6
21P	PM_{10}	0.3	0.9
22P	PM_{10}	0.3	0.9
23P	PM_{10}	3.4	6.1
24P	PM_{10}	0.4	1.7

198. Pursuant to §18.801 of Regulation 18, effective February 15, 1999, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table at the designated sources. The emission rates listed below are based on the capacity of the equipment. Compliance with the emission rates for source SN-20P will also be demonstrated by maintaining the flexible strips.

SN	Pollutant	lb/hr	tpy
20P	PM	1.3	5.5
21P	PM	0.1	0.4
22P	PM	0.3	0.9
23P	PM	3.4	6.1
24P	PM	0.4	1.7

199. Pursuant to §19.503 of Regulation 19 and 40 CFR Part 52, Subpart E, the permittee shall not exceed 20% opacity as measured by EPA Reference Method 9 from sources SN-20P and SN-23P.

200. Pursuant to §18.501 of Regulation 18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed 5% opacity as measured by EPA Reference Method 9 from sources SN-21P, SN-22P, and SN-24P.

201. Pursuant to §19.705 of Regulation 19 and 40 CFR Part 52, Subpart E, daily observations of the opacities from sources SN-20P and SN-23P shall be conducted by a person trained, but not necessarily certified in EPA Reference Method 9. If visible emissions which appear to be in excess of the permitted opacity are detected, the permittee shall take immediate action to identify the cause of the excess visible emissions, implement corrective action, and document that visible emissions did not appear to be in excess of the permitted opacity following the corrective action. The permittee shall maintain records of the following items in order to demonstrate compliance with this specific condition. These records shall be updated daily, kept on site, and made available to Department personnel upon request. These daily readings shall not be required when the EPA Reference Method 9 training sessions offered by the Department are in session.

a. The date and the time of the observation
b. If visible emissions which appeared to be above the permitted level were detected
c. If visible emissions which appeared to be above the permitted level were detected, the cause of the exceedence of the opacity limit, the corrective action taken, and if the visible emissions appeared to be below the permitted limit after the corrective action was taken
d. The name of the person conducting the opacity observations

202. Pursuant to §19.705 of Regulation 19 and 40 CFR Part 52, Subpart E, the operators of sources SN-21P, SN-22P, and SN-24P shall immediately report any visible emissions to their supervisor. At least one formal observation per week shall be made by a person familiar with the source's emissions. Upon detection of any visible emissions and notification of the supervisor, the permittee shall immediately take action to identify and correct the cause of the visible emissions. Upon completion of corrective action, a person familiar with the source's emissions shall make an observation of the source in question in order to verify that visible emissions are no longer present. The permittee shall maintain records of all visible emissions observations, any corrective action taken, and whether visible emissions were present after corrective action was taken. These records shall be updated daily, kept on site, and made available to Department personnel upon request.

203. Pursuant to §19.705 of Regulation 19, 40 CFR 70.6, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall maintain flexible strips (canvas or plastic) at the building(s) partially enclosing source SN-20P.

204. Pursuant to §19.901 et seq of Regulation 19 and 40 CFR Part 52, Subpart E, the permittee shall discontinue use of sources SN-22P and SN-23P when source SN-11Q becomes operational. SN-11Q will be considered operational after a reasonable shakedown period which shall not exceed 180 days. The permittee shall not operate these sources on or after the date of the initial performance tests for SN-11Q have been performed.

SN-26P
Lime Plant Haul Roads

Source Descriptions

Currently, none of the haul roads located at the lime plant are paved. The permittee will be paving these roads as a part of the modifications taking place at this facility. The permittee will be required to have the haul roads paved prior to any operation of the rotary lime kiln or its associated equipment because operations of the vertical kilns and their associated equipment are independent of whether the haul roads are paved or not.

The only controls associated with the unpaved haul roads are water sprays. The permittee will not be required to water the roads once they have been paved.

Specific Conditions

205. Pursuant to §19.501 et seq of the Regulations of the Arkansas State Implementation Plan for Air Pollution Control, effective February 15, 1999 (Regulation 19) and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table at source SN-26P. Compliance with the emission rates listed below will be demonstrated by keeping the haul roads paved.

Pollutant	lb/hr	tpy
PM_{10}	0.4	1.0

206. Pursuant to §18.801 of Regulation 18, effective February 15, 1999, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table at source SN-26P. Compliance with the emission rates listed below will be demonstrated by keeping the haul roads paved.

Pollutant	lb/hr	tpy
PM	1.6	4.3

207. Pursuant to §19.705 and §19.901 et seq of Regulation 19, 40 CFR 70.6, and 40 CFR Part 52, Subpart E, the permittee shall pave the haul roads located at the lime plant portion of this facility. The roads shall be paved prior to any sort of operation of the rotary lime kiln. The permittee is required to pave the roads prior to operation of the rotary lime kiln because reductions in emissions were used to net out of PSD review for particulate matter and the operation of the vertical lime kilns is not dependent on the haul roads not being paved.

208. Pursuant to §19.705 of Regulation 19, 40 CFR 70.6, and/or A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311 and §18.1004 of Regulation 18, the permittee shall water all unpaved haul roads as necessary in order to reduce fugitive emissions.

SN-30P, SN-31P, SN-32P, SN-33P, & SN-34P
Consolidated PLS Truck Loadouts and Railcar Drop-Outs

Source Description

Source SN-30P controls the emissions generated by the new consolidated PLS loadout bin vent. Source SN-31P controls the emissions generated by new consolidated PLS truck loadout and will vent back into the loadout bin. Source SN-33P controls the emissions generated by the consolidated PLS 140 railcar drop-out. Source SN-34P controls the emissions generated by the consolidated PLS 270 railcar drop-out. All of these sources use fabric-filter type dust collectors to control the emissions.

Specific Conditions

209. Pursuant to §19.501 et seq of the Regulations of the Arkansas State Implementation Plan for Air Pollution Control, effective February 15, 1999 (Regulation 19) and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table at the designated sources. The emission rates listed below are based on the capacity of the equipment.

SN	Pollutant	lb/hr	tpy
30P	PM_{10}	0.4	1.8
31P	vents back into the loadout bin		
33P	PM_{10}	0.2	0.6
34P	PM_{10}	0.2	0.6

210. Pursuant to §18.801 of Regulation 18, effective February 15, 1999, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table at the designated sources. The emission rates listed below are based on the capacity of the equipment.

SN	Pollutant	lb/hr	tpy
30P	PM	0.4	1.8
31P	vents back into the loadout bin		
33P	PM	0.2	0.6

SN	Pollutant	lb/hr	tpy
34P	PM	0.2	0.6

211. Sources SN-30P, SN-33P, and SN-34P are subject to 40 CFR Part 60, Subpart A - *General Provisions* and 40 CFR Part 60, Subpart OOO - *Standards of Performance for Nonmetallic Mineral Processing Plants*. A copy of Subpart OOO may be found in Appendix A of this permit. The requirements of this subpart include, but are not limited to, the items found in Specific Conditions 212 through 218.

212. Pursuant to §19.304 and §19.503 of Regulation 19, 40 CFR Part 52, Subpart E, and 40 CFR §60.672(a), On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under §60.11 of this part, no owner or operator shall cause to be discharged into the atmosphere from any affected facility stack emissions which:

    1. Contain particulate matter in excess of 0.05 g/dscm; and

    2. Exhibit greater than 7 percent opacity.

213. Pursuant to §19.304 and §19.503 of Regulation 19, 40 CFR Part 52, Subpart E, and 40 CFR §60.672(f), owners and operators of multiple storage bins with combined stack emissions (source SN-30P) shall comply with the emission limits in paragraphs (a)(1) and (a)(2) of this section. (See Specific Condition 212)

214. Pursuant to §19.304 and §19.702 of Regulation 19, 40 CFR Part 52, Subpart E, and 40 CFR §60.675(a), in conducting the performance tests required in §60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in §60.8(b). Acceptable alternate methods and procedures are given in paragraph (e) of this section.

215. Pursuant to §19.304 and §19.702 of Regulation 19, 40 CFR Part 52, Subpart E, and 40 CFR §60.675(b), the owner or operator shall determine compliance with the particulate matter standards in §60.672(a) as follows for sources SN-30P, SN-33P, and SN-34P:

    A. Method 5 or Method 17 shall be used to determine the particulate matter concentration. The sample volume shall be at least 1.7 dscm (60 dscf). For Method 5, if the gas stream being sampled is at ambient temperature, the sampling probe and filter may be operated without heaters. If the gas stream is above

ambient temperature, the sampling probe and filter may be operated at a temperature high enough, but no higher than 121EC (250EF), to prevent water condensation on the filter.

B. Method 9 and the procedures in §60.11 shall be used to determine opacity.

216. Pursuant to §19.304 of Regulation 19 and 40 CFR §60.676(f), the owner or operator of any affected facility shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in §60.672 of this subpart.

217. Pursuant to §19.304 of Regulation 19 and 40 CFR §60.676(h), the subpart A requirement under §60.7(a)(2) for notification of the anticipated date of initial startup of an affected facility shall be waived for owners or operators of affected facilities under this subpart.

218. Pursuant to §19.304 of Regulation 19 and 40 CFR §60.676(i), a notification of the actual date of initial startup of each affected facility shall be submitted to the Administrator.

A. For a combination of affected facilities in a production line that begin actual initial startup on the same day, a single notification of startup may be submitted by the owner or operator to the Administrator. The notification shall be postmarked within 15 days after such date and shall include a description of each affected facility, equipment manufacturer, and serial number of the equipment, if available.

219. Pursuant to §19.705 of Regulation 19 and 40 CFR Part 52, Subpart E, the operators of sources SN-30P, SN-33P, and SN-34P shall immediately report any visible emissions to their supervisor. At least one formal observation per week shall be made by a person familiar with the source's emissions. Upon detection of any visible emissions and notification of the supervisor, the permittee shall immediately take action to identify and correct the cause of the visible emissions. Upon completion of corrective action, a person familiar with the source's emissions shall make an observation of the source in question in order to verify that visible emissions are no longer present. The permittee shall maintain records of all visible emissions observations, any corrective action taken, and whether visible emissions were present after corrective action was taken. These records shall be updated daily, kept on site, and made available to Department personnel upon request.

SN-35P
New Quicklime Fines Rail Unloading Pit

Source Description

Emissions will be generated by the unloading of railcars containing lime. The only control equipment associated with this source is a boot sleeve and underground enclosure.

Specific Conditions

220. Pursuant to §19.501 et seq of the Regulations of the Arkansas State Implementation Plan for Air Pollution Control, effective February 15, 1999 (Regulation 19) and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table at source SN-35P. The emission rates listed below are based on the capacity of the equipment.

Pollutant	lb/hr	tpy
PM_{10}	0.2	0.9

221. Pursuant to §18.801 of Regulation 18, effective February 15, 1999, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table at source SN-35P. The emission rates listed below are based on the capacity of the equipment.

Pollutant	lb/hr	tpy
PM	0.4	1.8

SN-42P
Undersize Stone Conveyors and Drop Points

Source Description

These conveyor currently transport undersize stone from the front end loader to the PLS stockpile located nearby. No control equipment is associated with this source. The permittee will be removing this source from service in 2000 as part of the modifications taking place.

Specific Conditions

222. Pursuant to §19.501 et seq of the Regulations of the Arkansas State Implementation Plan for Air Pollution Control, effective February 15, 1999 (Regulation 19) and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table at source SN-42P. The hourly rate is based on the capacity of the equipment. Compliance with the annual rate will be demonstrated through the limit on the amount of limestone that may be processed at this source.

Pollutant	lb/hr	tpy
PM_{10}	0.3	0.1

223. Pursuant to §18.801 of Regulation 18, effective February 15, 1999, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table at source SN-42P. The hourly rate is based on the capacity of the equipment. Compliance with the annual rate will be demonstrated through the limit on the amount of limestone that may be processed at this source.

Pollutant	lb/hr	tpy
PM	0.3	0.1

224. Pursuant to §19.705 of Regulation 19, 40 CFR 70.6, and/or A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311 and §18.1004 of Regulation 18, the permittee shall not process in excess of 43,800 tons of limestone at source SN-42P in any consecutive twelve month period.

225. Pursuant to §19.705 of Regulation 19 and 40 CFR Part 52, Subpart E, or §18.1004 of Regulation 18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall maintain records of the amount of limestone processed at source SN-42P in order to demonstrate compliance with Specific Condition 224 and which may be used by the Department for enforcement purposes. These records shall be updated no later than the tenth day of the month following the month which the records represent, shall be kept on site, and shall be made available to Department personnel upon request.

226. Pursuant to §19.901 et seq of Regulation 19 and 40 CFR Part 52, Subpart E, the permittee shall discontinue use of source SN-42P when source SN-11Q becomes operational. SN-11Q will be considered operational after a reasonable shakedown period which shall not exceed 180 days. The permittee shall not operate this source on or after the date of the initial performance tests for SN-11Q have been performed.

227. Pursuant to §19.503 of Regulation 19 and 40 CFR Part 52, Subpart E, the permittee shall not exceed 20% opacity as measured by EPA Reference Method 9 from source SN-42P.

228. Pursuant to §19.705 of Regulation 19 and 40 CFR Part 52, Subpart E, daily observations of the opacities from source SN-43P shall be conducted by a person trained, but not necessarily certified in EPA Reference Method 9. If visible emissions which appear to be in excess of the permitted opacity are detected, the permittee shall take immediate action to identify the cause of the excess visible emissions, implement corrective action, and document that visible emissions did not appear to be in excess of the permitted opacity following the corrective action. The permittee shall maintain records of the following items in order to demonstrate compliance with this specific condition. These records shall be updated daily, kept on site, and made available to Department personnel upon request. These daily readings shall not be required when the EPA Reference Method 9 training sessions offered by the Department are in session.

a. The date and the time of the observation
b. If visible emissions which appeared to be above the permitted level were detected
c. If visible emissions which appeared to be above the permitted level were detected, the cause of the exceedence of the opacity limit, the corrective action taken, and if the visible emissions appeared to be below the permitted limit after the corrective action was taken
d. The name of the person conducting the opacity observations

SN-43P
Kiln Feed/Undersize Stone Screen

Source Description

This screen separates the undersize stones from the feed for the vertical lime kilns. No control equipment is associated with this screen. The permittee will be removing this screen from service as part of the modifications taking place.

Specific Conditions

229. Pursuant to §19.501 et seq of the Regulations of the Arkansas State Implementation Plan for Air Pollution Control, effective February 15, 1999 (Regulation 19) and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table at source SN-43P. The hourly rate is based on the capacity of the equipment. Compliance with the annual rate will be demonstrated through the limit on the amount of limestone that may be processed at this source.

Pollutant	lb/hr	tpy
PM_{10}	0.1	0.1

230. Pursuant to §18.801 of Regulation 18, effective February 15, 1999, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table at source SN-43P. The hourly rate is based on the capacity of the equipment. Compliance with the annual rate will be demonstrated through the limit on the amount of limestone that may be processed at this source.

Pollutant	lb/hr	tpy
PM	0.1	0.1

231. Pursuant to §19.705 of Regulation 19, 40 CFR 70.6, and/or A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311 and §18.1004 of Regulation 18, the permittee shall not process in excess of 228,125 tons of limestone at source SN-43Q in any consecutive twelve month period.

232. Pursuant to §19.705 of Regulation 19 and 40 CFR Part 52, Subpart E, or §18.1004 of Regulation 18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall maintain records of the amount of limestone processed at source SN-43P in order to demonstrate compliance with Specific Condition 231 and which may be used by the Department for enforcement purposes. These records shall be updated no later than the tenth day of the month following the month which the records represent, shall be kept on site, and shall be made available to Department personnel upon request.

233. Pursuant to §19.901 et seq of Regulation 19 and 40 CFR Part 52, Subpart E, the permittee shall discontinue use of source SN-43P when source SN-11Q becomes operational. SN-11Q will be considered operational after a reasonable shakedown period which shall not exceed 180 days. The permittee shall not operate this source on or after the date of the initial performance tests for SN-11Q have been performed.

234. Pursuant to §19.503 of Regulation 19 and 40 CFR Part 52, Subpart E, the permittee shall not exceed 20% opacity as measured by EPA Reference Method 9 from source SN-43P.

235. Pursuant to §19.705 of Regulation 19 and 40 CFR Part 52, Subpart E, daily observations of the opacities from source SN-43P shall be conducted by a person trained, but not necessarily certified in EPA Reference Method 9. If visible emissions which appear to be in excess of the permitted opacity are detected, the permittee shall take immediate action to identify the cause of the excess visible emissions, implement corrective action, and document that visible emissions did not appear to be in excess of the permitted opacity following the corrective action. The permittee shall maintain records of the following items in order to demonstrate compliance with this specific condition. These records shall be updated daily, kept on site, and made available to Department personnel upon request. These daily readings shall not be required when the EPA Reference Method 9 training sessions offered by the Department are in session.

a. The date and the time of the observation
b. If visible emissions which appeared to be above the permitted level were detected
c. If visible emissions which appeared to be above the permitted level were detected, the cause of the exceedence of the opacity limit, the corrective action taken, and if the visible emissions appeared to be below the permitted limit after the corrective action was taken
d. The name of the person conducting the opacity observations

SECTION V: COMPLIANCE PLAN AND SCHEDULE

Arkansas Lime Company is in compliance with the applicable regulations cited in the permit application. Arkansas Lime Company will continue to operate in compliance with those identified regulatory provisions. The facility will examine and analyze future regulations that may apply and determine their applicability with any necessary action taken on a timely basis.

SECTION VI: PLANTWIDE CONDITIONS

1. Pursuant to §19.704 of Regulation 19, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the Director shall be notified in writing within thirty (30) days after construction has commenced, construction is complete, the equipment and/or facility is first placed in operation, and the equipment and/or facility first reaches the target production rate.

2. Pursuant to §19.410(B) of Regulation 19, 40 CFR Part 52, Subpart E, the Director may cancel all or part of this permit if the construction or modification authorized herein is not begun within 18 months from the date of the permit issuance if the work involved in the construction or modification is suspended for a total of 18 months or more.

3. Pursuant to §19.702 of Regulation 19 and/or §18.1002 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, any equipment that is to be tested, unless stated in the Specific Conditions of this permit or by any federally regulated requirements, shall be tested with the following time frames: (1) Equipment to be constructed or modified shall be tested within sixty (60) days of achieving the maximum production rate, but in no event later than 180 days after initial start-up of the permitted source or (2) equipment already operating shall be tested according to the time frames set forth by the Department. The permittee shall notify the Department of the scheduled date of compliance testing at least fifteen (15) days in advance of such test. Compliance test results shall be submitted to the Department within thirty (30) days after the completed testing.

4. Pursuant to §19.702 of Regulation 19 and/or §18.1002 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, the permittee shall provide:

   A. Sampling ports adequate for applicable test methods
   B. Safe sampling platforms
   C. Safe access to sampling platforms
   D. Utilities for sampling and testing equipment

5. Pursuant to §19.303 of Regulation 19 and A.C.A. §8-4-203 as referenced by A.C. A. §8-4-304 and §8-4-311, the equipment, control apparatus and emission monitoring equipment shall be operated within their design limitations and maintained in good condition at all times.

6. Pursuant to Regulation 26 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, this permit subsumes and incorporates all previously issued air permits for this facility.

7. Pursuant to §18.801 of Regulation 18, the permittee shall not cause or permit the emission of air contaminants, including odors or water vapor and including an air contaminant whose emission is not otherwise prohibited by Regulation #18, if the emission of the air contaminant constitutes air pollution within the meaning of A.C.A. §8-4-303.

8. Pursuant to §18.901 of Regulation 18, the permittee shall not conduct operations in such a manner as to unnecessarily cause air contaminants and other pollutants from becoming airborne.

Permit Shield

9. Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements, as of the date of permit issuance, included in and specifically identified in item A of this condition:

   A. The following have been specifically identified as federally enforceable applicable requirements based upon information submitted by the permittee in an application dated January 13, 2000.

Source No.	Regulation	Description
Facility	19	SIP
Facility	26	Title V

   B. Nothing shall alter or affect the following:

   Provisions of Section 303 of the Clean Air Act;

   The liability of an owner or operator for any violation of applicable requirements prior to or at the time of permit issuance;

   The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; or

   The ability of the EPA to obtain information under Section 114 of the Clean Air Act.

Title VI Provisions

10. The permittee shall comply with the standards for labeling of products using ozone depleting substances pursuant to 40 CFR Part 82, Subpart E:

    A. All containers containing a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced to interstate commerce pursuant to §82.106.

    B. The placement of the required warning statement must comply with the requirements pursuant to §82.108.

    C. The form of the label bearing the required warning must comply with the requirements pursuant to §82.110.

    D. No person may modify, remove, or interfere with the required warning statement except as described in §82.112.

11. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for MVACs in Subpart B:

    A. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to §82.156.

    B. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to §82.158.

    C. Persons performing maintenance, service repair, or disposal of appliances must be certified by an approved technician certification program pursuant to §82.161.

    D. Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with record keeping requirements pursuant to §82.166. (“MVAC-like appliance” as defined at §82.152.)

    E. Persons owning commercial or industrial process refrigeration equipment must comply with leak repair requirements pursuant to §82.156.

F. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to §82.166.

12. If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all requirements as specified in 40 CFR Part 82, Subpart A, Production and Consumption Controls.

13. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.

The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or systems used on passenger busses using HCFC-22 refrigerant.

14. The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR Part 82, Subpart G, Significant New Alternatives Policy Program.

SECTION VII: INSIGNIFICANT ACTIVITIES

Pursuant to §26.3(d) of Regulation 26, the following sources are insignificant activities. Insignificant and trivial activities will be allowable after approval and federal register notice publication of a final list as part of the operating air permit program. Any activity for which a state or federal applicable requirement applies is not insignificant even if this activity meets the criteria of §3(d) of Regulation 26 or is listed below. Insignificant activity determinations rely upon the information submitted by the permittee in an application dated January 13, 2000.

No insignificant activities required to be listed were identified in the January 13, 2000, application.

Pursuant to §26.3(d) of Regulation 26, the following emission units, operations, or activities have been determined by the Department to be insignificant activities. Activities included in this list are allowable under this permit and need not be specifically identified.

1. Combustion emissions from propulsion of mobile sources and emissions from refueling these sources unless regulated by Title II and required to obtain a permit under Title V of the federal Clean Air Act, as amended. This does not include emissions from any transportable units, such as temporary compressors or boilers. This does not include emissions from loading racks or fueling operations covered under any applicable federal requirements.

2. Air conditioning and heating units used for comfort that do not have applicable requirements under Title VI of the Act.

3. Ventilating units used for human comfort that do not exhaust air pollutants into the ambient air from any manufacturing/industrial or commercial process.

4. Non-commercial food preparation or food preparation at restaurants, cafeterias, or caterers, etc.

5. Consumer use of office equipment and products, not including commercial printers or business primarily involved in photographic reproduction.

6. Janitorial services and consumer use of janitorial products.

7. Internal combustion engines used for landscaping purposes.

8. Laundry activities, except for dry-cleaning and steam boilers.

9. Bathroom/toilet emissions.

10. Emergency (backup) electrical generators at residential locations.

11. Tobacco smoking rooms and areas.

12. Blacksmith forges.

13. Maintenance of grounds or buildings, including: lawn care, weed control, pest control, and water washing activities.

14. Repair, up-keep, maintenance, or construction activities not related to the sources' primary business activity, and not otherwise triggering a permit modification. This may include, but is not limited to such activities as general repairs, cleaning, painting, welding, woodworking, plumbing, re-tarring roofs, installing insulation, paved/paving parking lots, miscellaneous solvent use, application of refractory, or insulation, brazing, soldering, the use of adhesives, grinding, and cutting.[1]

15. Surface-coating equipment during miscellaneous maintenance and construction activities. This activity specifically does not include any facility whose primary business activity is surface-coating or includes surface-coating or products.

16. Portable electrical generators that can be "moved by hand" from one location to another.[2]

17. Hand-held equipment for buffing, polishing, cutting, drilling, sawing, grinding, turning, or machining wood, metal, or plastic.

[1] Cleaning and painting activities qualify if they are not subject to VOC or HAP control requirements. Asphalt batch plant owners/operators must get a permit.

[2] "Moved by hand" means that it can be moved by one person without assistance of any motorized or non-motorized vehicle, conveyance, or device.

18. Brazing or soldering equipment related to manufacturing activities that do not result in emission of HAPs.[3]

19. Air compressors and pneumatically operated equipment, including hand tools.

20. Batteries and battery charging stations, except at battery manufacturing plants.

21. Storage tanks, vessels, and containers holding or storing liquid substances that do not contain any VOCs or HAPs.[4]

22. Storage tanks, reservoirs, and pumping and handling equipment of any size containing soaps, vegetable oil, grease, animal fat, and no volatile aqueous salt solutions, provided appropriate lids and covers are used and appropriate odor control is achieved.

23. Equipment used to mix and package soaps, vegetable oil, grease, animal fat, and non-volatile aqueous salt solutions, provided appropriate lids and covers are used and appropriate odor control is achieved.

24. Drop hammers or presses for forging or metalworking.

25. Equipment used exclusively to slaughter animals, but not including other equipment at slaughter-houses, such as rendering cookers, boilers, heating plants, incinerators, and electrical power generating equipment.

26. Vents from continuous emissions monitors and other analyzers.

27. Natural gas pressure regulator vents, excluding venting at oil and gas production facilities.

28. Hand-held applicator equipment for hot melt adhesives with no VOCs in the adhesive.

29. Lasers used only on metals and other materials which do not emit HAPs in the process.

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[3] Brazing, soldering, and welding equipment, and cutting torches related to manufacturing and construction activities that emit HAP metals are more appropriate for treatment as insignificant activities based on size or production thresholds. Brazing, soldering, and welding equipment, and cutting torches related directly to plant maintenance and upkeep and repair or maintenance shop activities that emit HAP metals are treated as trivial and listed separately in this appendix.

[4] Exemptions for storage tanks containing petroleum liquids or other volatile organic liquids are based on size and limits including storage tank capacity and vapor pressure of liquids stored and are not appropriate for this list.

30. Consumer use of paper trimmers/binders.

31. Electric or steam-heated drying ovens and autoclaves, but not the emissions from the articles or substances being processed in the ovens or autoclaves or the boilers delivering the steam.

32. Salt baths using non-volatile salts that do not result in emissions of any air pollutant covered by this regulation.

33. Laser trimmers using dust collection to prevent fugitive emissions.

34. Bench-scale laboratory equipment used for physical or chemical analysis not including lab fume hoods or vents.

35. Routine calibration and maintenance of laboratory equipment or other analytical instruments.

36. Equipment used for quality control/assurance or inspection purposes, including sampling equipment used to withdraw materials for analysis.

37. Hydraulic and hydrostatic testing equipment.

38. Environmental chambers not using hazardous air pollutant gases.

39. Shock chambers, humidity chambers, and solar simulators.

40. Fugitive emissions related to movement of passenger vehicles, provided the emissions are not counted for applicability purposes and any required fugitive dust control plan or its equivalent is submitted.

41. Process water filtration systems and demineralizers.

42. Demineralized water tanks and demineralizer vents.

43. Boiler water treatment operations, not including cooling towers.

44. Emissions from storage or use of water treatment chemicals, except for hazardous air pollutants or pollutants listed under regulations promulgated pursuant to Section 112(r) of the Act, for use in cooling towers, drinking water systems, and boiler water/feed systems.

45. Oxygen scavenging (de-aeration) of water.

46. Ozone generators.

47. Fire suppression systems.

48. Emergency road flares.

49. Steam vents and safety relief valves.

50. Steam leaks.

51. Steam cleaning operations.

52. Steam and microwave sterilizers.

53. Site assessment work to characterize waste disposal or remediation sites.

54. Miscellaneous additions or upgrades of instrumentation.

55. Emissions from combustion controllers or combustion shutoff devices but not combustion units itself.

56. Use of products for the purpose of maintaining motor vehicles operated by the facility, not including air cleaning units of such vehicles (i.e. antifreeze, fuel additives).

57. Stacks or vents to prevent escape of sanitary sewer gases through the plumbing traps.

58. Emissions from equipment lubricating systems (i.e. oil mist), not including storage tanks, unless otherwise exempt.

59. Residential wood heaters, cookstoves, or fireplaces.

60. Barbecue equipment or outdoor fireplaces used in connection with any residence or recreation.

61. Log wetting areas and log flumes.

62. Periodic use of pressurized air for cleanup.

63. Solid waste dumpsters.

64. Emissions of wet lime from lime mud tanks, lime mud washers, lime mud piles, lime mud filter and filtrate tanks, and lime mud slurry tanks.

65. Natural gas odoring activities unless the Department determines that emissions constitute air pollution.

66. Emissions from engine crankcase vents.
67. Storage tanks used for the temporary containment of materials resulting from an emergency reporting to an unanticipated release.

68. Equipment used exclusively to mill or grind coatings in roll grinding rebuilding, and molding compounds where all materials charged are in paste form.

69. Mixers, blenders, roll mills, or calendars for rubber or plastic for which no materials in powder form are added and in which no organic solvents, diluents, or thinners are used.

70. The storage , handling, and handling equipment for bark and wood residues not subject to fugitive dispersion offsite (this applies to the equipment only).

71. Maintenance dredging of pulp and paper mill surface impoundments and ditches containing cellulosic and cellulosic derived biosolids and inorganic materials such as lime, ash, or sand.

72. Tall oil soap storage, skimming, and loading.

73. Water heaters used strictly for domestic (non-process) purposes.

74. Facility roads and parking areas, unless necessary to control offsite fugitive emissions.

75. Agricultural operations, including onsite grain storage, not including IC engines or grain elevators.

76. The following natural gas and oil exploration production site equipment: separators, dehydration units, natural gas fired compressors, and pumping units. This does not include compressors located on natural gas transmission pipelines.

SECTION VIII: GENERAL PROVISIONS

1. Pursuant to 40 C.F.R. 70.6(b)(2), any terms or conditions included in this permit which specify and reference Arkansas Pollution Control & Ecology Commission Regulation 18 or the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 *et seq*.) as the sole origin of and authority for the terms or conditions are not required under the Clean Air Act or any of its applicable requirements, and are not federally enforceable under the Clean Air Act. Arkansas Pollution Control & Ecology Commission Regulation 18 was adopted pursuant to the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 *et seq*.). Any terms or conditions included in this permit which specify and reference Arkansas Pollution Control & Ecology Commission Regulation 18 or the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 *et seq*.) as the origin of and authority for the terms or conditions are enforceable under this Arkansas statute.

2. Pursuant to 40 C.F.R. 70.6(a)(2) and §26.7 of the Regulations of the Arkansas Operating Air Permit Program (Regulation 26), this permit shall be valid for a period of five (5) years beginning on the date this permit becomes effective and ending five (5) years later.

3. Pursuant to §26.4 of Regulation #26, it is the duty of the permittee to submit a complete application for permit renewal at least six (6) months prior to the date of permit expiration. Permit expiration terminates the permittee's right to operate unless a complete renewal application was submitted at least six (6) months prior to permit expiration, in which case the existing permit shall remain in effect until the Department takes final action on the renewal application. The Department will not necessarily notify the permittee when the permit renewal application is due.

4. Pursuant to 40 C.F.R. 70.6(a)(1)(ii) and §26.7 of Regulation #26, where an applicable requirement of the Clean Air Act, as amended, 42 U.S.C. 7401, *et seq* (Act) is more stringent than an applicable requirement of regulations promulgated under Title IV of the Act, both provisions are incorporated into the permit and shall be enforceable by the Director or Administrator.

5. Pursuant to 40 C.F.R. 70.6(a)(3)(ii)(A) and §26.7 of Regulation #26, records of monitoring information required by this permit shall include the following:

   A. The date, place as defined in this permit, and time of sampling or measurements;
   B. The date(s) analyses were performed;
   C. The company or entity that performed the analyses;
   D. The analytical techniques or methods used;
   E. The results of such analyses; and
   F. The operating conditions existing at the time of sampling or measurement.

6. Pursuant to 40 C.F.R. 70.6(a)(3)(ii)(B) and §26.7 of Regulation #26, records of all required monitoring data and support information shall be retained for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.

7. Pursuant to 40 C.F.R. 70.6(a)(3)(iii)(A) and §26.7 of Regulation #26, the permittee shall submit reports of all required monitoring every 6 months. If no other reporting period has been established, the reporting period shall end on the last day of the anniversary month of this permit. The report shall be due within 30 days of the end of the reporting period. Even though the reports are due every six months, each report shall contain a full year of data. All instances of deviations from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official as defined in §26.2 of Regulation #26 and must be sent to the address below.

    Arkansas Department of Environmental Quality
    Air Division
    ATTN: Compliance Inspector Supervisor
    Post Office Box 8913
    Little Rock, AR 72219

8. Pursuant to 40 C.F.R. 70.6(a)(3)(iii)(B), §26.7 of Regulation #26, and §19.601 and 19.602 of Regulation #19, all deviations from permit requirements, including those attributable to upset conditions as defined in the permit shall be reported to the Department. An initial report shall be made to the Department by the next business day after the occurrence. The initial report may be made by telephone and shall include:

    A. The facility name and location,
    B. The process unit or emission source which is deviating from the permit limit,
    C. The permit limit, including the identification of pollutants, from which deviation occurs,
    D. The date and time the deviation started,
    E. The duration of the deviation,
    F. The average emissions during the deviation,
    G. The probable cause of such deviations,
    H. Any corrective actions or preventive measures taken or being taken to prevent such deviations in the future, and
    I. The name of the person submitting the report.

A full report shall be made in writing to the Department within five (5) business days of discovery of the occurrence and shall include in addition to the information required by initial report a schedule of actions to be taken to eliminate future occurrences and/or to minimize the amount by which the permits limits are exceeded and to reduce the length of time for which said limits are exceeded. If the permittee wishes, they may submit a full report in writing (by facsimile, overnight courier, or other means) by the next business day after discovery of the occurrence and such report will serve as both the initial report and full report.

9. Pursuant to 40 C.F.R. 70.6(a)(5) and §26.7 of Regulation #26, and A.C.A.§8-4-203, as referenced by §8-4-304 and §8-4-311, if any provision of the permit or the application thereof to any person or circumstance is held invalid, such invalidity shall not affect other provisions or applications hereof which can be given effect without the invalid provision or application, and to this end, provisions of this Regulation are declared to be separable and severable.

10. Pursuant to 40 C.F.R. 70.6(a)(6)(i) and §26.7 of Regulation #26, the permittee must comply with all conditions of this Part 70 permit. Any permit noncompliance with applicable requirements as defined in Regulation #26 constitutes a violation of the Clean Air Act, as amended, 42 U.S.C. 7401, *et seq.* and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. Any permit noncompliance with a state requirement constitutes a violation of the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 *et seq*.) and is also grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

11. Pursuant to 40 C.F.R. 70.6(a)(6)(ii) and §26.7 of Regulation #26, it shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

12. Pursuant to 40 C.F.R. 70.6(a)(6)(iii) and §26.7 of Regulation #26, this permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

13. Pursuant to 40 C.F.R. 70.6(a)(6)(iv) and §26.7 of Regulation #26, this permit does not convey any property rights of any sort, or any exclusive privilege.

14. Pursuant to 40 C.F.R. 70.6(a)(6)(v) and §26.7 of Regulation #26, the permittee shall furnish to the Director, within the time specified by the Director, any information that the Director may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Director copies of records required to be kept by the permit. For information claimed to be confidential, the permittee may be required to furnish such records directly to the Administrator along with a claim of confidentiality.

15. Pursuant to 40 C.F.R. 70.6(a)(7) and §26.7 of Regulation #26, the permittee shall pay all permit fees in accordance with the procedures established in Regulation #9.

16. Pursuant to 40 C.F.R. 70.6(a)(8) and §26.7 of Regulation #26, no permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for elsewhere in this permit.

17. Pursuant to 40 C.F.R. 70.6(a)(9)(i) and §26.7 of Regulation #26, if the permittee is allowed to operate under different operating scenarios, the permittee shall, contemporaneously with making a change from one operating scenario to another, record in a log at the permitted facility a record of the scenario under which the facility or source is operating.

18. Pursuant to 40 C.F.R. 70.6(b) and §26.7 of Regulation #26, all terms and conditions in this permit, including any provisions designed to limit a source's potential to emit, are enforceable by the Administrator and citizens under the Act unless the Department has specifically designated as not being federally enforceable under the Act any terms and conditions included in the permit that are not required under the Act or under any of its applicable requirements.

19. Pursuant to 40 C.F.R. 70.6(c)(1) and §26.7 of Regulation #26, any document (including reports) required by this permit shall contain a certification by a responsible official as defined in §26.2 of Regulation #26.

20. Pursuant to 40 C.F.R. 70.6(c)(2) and §26.7 of Regulation #26, the permittee shall allow an authorized representative of the Department, upon presentation of credentials, to perform the following:

    A. Enter upon the permittee's premises where the permitted source is located or emissions-related activity is conducted, or where records must be kept under the conditions of this permit;

B. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
C. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
D. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with this permit or applicable requirements.

21. Pursuant to 40 C.F.R. 70.6(c)(5) and §26.7 of Regulation #26, the permittee shall submit a compliance certification with terms and conditions contained in the permit, including emission limitations, standards, or work practices. This compliance certification shall be submitted annually and shall be submitted to the Administrator as well as to the Department. All compliance certifications required by this permit shall include the following:

A. The identification of each term or condition of the permit that is the basis of the certification;
B. The compliance status;
C. Whether compliance was continuous or intermittent;
D. The method(s) used for determining the compliance status of the source, currently and over the reporting period established by the monitoring requirements of this permit; and
E. Such other facts as the Department may require elsewhere in this permit or by §114(a)(3) and 504(b) of the Act.

22. Pursuant to §26.7 of Regulation #26, nothing in this permit shall alter or affect the following:

A. The provisions of Section 303 of the Act (emergency orders), including the authority of the Administrator under that section;
B. The liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance;
C. The applicable requirements of the acid rain program, consistent with §408(a) of the Act; or
D. The ability of EPA to obtain information from a source pursuant to §114 of the Act.

23. Pursuant to A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, this permit authorizes only those pollutant emitting activities addressed herein.

APPENDIX A

APPENDIX B

APPENDIX C

Public Notice

Pursuant to the Arkansas Operating Air Permit Program (Regulation #26) Section 6(b), the Air Division of the Arkansas Department of Pollution Control and Ecology gives the following notice:

Arkansas Lime Company (CSN: 32-0014) is proposing to make several changes at their existing lime plant and quarry located at 600 Limedale Road near Batesville. The most significant change will be the installation of a second 625 tpd rotary lime kiln at the quarry. Arkansas Lime will also be installing additional equipment for handling limestone, lime, coal, and coke.

Emissions of total suspended particulate, particulate matter under 10 microns, sulfur dioxide, and oxides of nitrogen will be increasing significantly as a result of the modifications. Arkansas Lime Company has submitted a Prevention of Significant Deterioration (PSD) application, including the required BACT and Ambient Air Quality analyses, addressing these increases and the changes being made at this facility. Permitted emissions of volatile organic compounds and carbon monoxide will not be increasing significantly as a result of the modifications taking place.

The application has been reviewed by the staff of the Department and has received the Department's tentative approval subject to the terms of this notice.

Citizens wishing to examine the permit application and staff findings and recommendations may do so by contacting Rhonda Sharp, Information Officer. Citizens desiring technical information concerning the application or permit should contact Loretta Reiber, Engineer. Both Rhonda Sharp and Loretta Reiber can be reached at the Department's central office, 8001 National Drive, Little Rock, Arkansas 72209, telephone: (501) 682-0744.

The draft permit and permit application are available for copying at the above address. A copy of the draft permit has also been placed at the White River Regional Library, 368 East Main, Batesville, Arkansas 72501. This information may be reviewed during normal business hours.

Interested or affected persons may also submit written comments or request a hearing on the proposal, or the proposed modification, to the Department at the above address - Attention: Rhonda Sharp. In order to be considered, the comments must be submitted within thirty (30) days of publication of this notice. Although the Department is not proposing to conduct a public hearing, one will be scheduled if significant comments on the permit provisions are received. If a hearing is scheduled, adequate public notice will be given in the newspaper of largest circulation in the county in which the facility in question is, or will be, located.

The Director shall make a final decision to issue or deny this application or to impose special conditions in accordance with Section 2.1 of the Arkansas Pollution Control and Ecology Commission’s Administrative Procedures (Regulation #8) and Regulation #26.

Dated this
Randall Mathis, Director