



North Carolina Department of Environment and Natural Resources
Division of Air Quality

Michael F. Easley, Governor

William G. Ross, Jr., Secretary
B. Keith Overcash, P.E., Director

(DRAFT) XXX xx, 2007

Mr. Vernon Moore
Vice President, Operations
Pine Hall Brick Company, Inc.
Post Office Box 836
Madison, North Carolina 27025

Dear Mr. Moore:

SUBJECT: Air Quality Permit No. 03997T20
Facility ID: 04/079/00038
Pine Hall Brick Company, Inc.
Madison, Rockingham County, North Carolina
Fee Class: Title V

In accordance with your completed Air Quality Permit Applications for significant modifications (Application Nos. 7900038.06B and 7900038.07A (2Q .0501(d)(2))) of a Title V permit received on 4/18/2007, we are forwarding herewith Air Quality Permit No. 03997T20 to Pine Hall Brick Company, Inc., Madison Facility, 634 Lindsay Bridge Road, Madison, North Carolina authorizing the construction and operation, of the emission source(s) and associated air pollution control device(s) specified herein. Additionally, any emissions activities determined from your Air Quality Permit Application as being insignificant per 15A North Carolina Administrative Code 2Q .0503(8) have been listed for informational purposes as an "ATTACHMENT." Please note the requirements for the annual compliance certification are contained in General Condition P in Section 3 of Part I. **The current owner is responsible for submitting a compliance certification for the entire year regardless of who owned the facility during the year.**

As the designated responsible official it is your responsibility to review, understand, and abide by all of the terms and conditions of the attached permit. It is also your responsibility to ensure that any person who operates any emission source and associated air pollution control device subject to any term or condition of the attached permit reviews, understands, and abides by the condition(s) of the attached permit that are applicable to that particular emission source.

Permitting Section

1641 Mail Service Center, Raleigh, North Carolina 27699-1641
2728 Capital Blvd., Raleigh, North Carolina 27604
Phone: 919-715-6235 / FAX 919-733-5317 / Internet: www.ncair.org

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If any parts, requirements, or limitations contained in this Air Quality Permit are unacceptable to you, you have the right to request a formal adjudicatory hearing within 30 days following receipt of this permit, identifying the specific issues to be contested. This hearing request must be in the form of a written petition, conforming to NCGS (North Carolina General Statutes) 150B-23, and filed with **both** the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, North Carolina 27699-6714 and the Division of Air Quality, Permitting Section, 1641 Mail Service Center, Raleigh, North Carolina 27699-1641. The form for requesting a formal adjudicatory hearing may be obtained upon request from the Office of Administrative Hearings. Please note that this permit will be stayed in its entirety upon receipt of the request for a hearing Unless a request for a hearing is made pursuant to NCGS 150B-23, this Air Quality Permit shall be final and binding 30 days after issuance.

You may request modification of your Air Quality Permit through informal means pursuant to NCGS 150B-22. This request must be submitted in writing to the Director and must identify the specific provisions or issues for which the modification is sought. Please note that this Air Quality Permit will become final and binding regardless of a request for informal modification unless a request for a hearing is also made under NCGS 150B-23.

The construction of new air pollution emission source(s) and associated air pollution control device(s), or modifications to the emission source(s) and air pollution control device(s) described in this permit must be covered under an Air Quality Permit issued by the Division of Air Quality prior to construction unless the Permittee has fulfilled the requirements of GS 143-215-108A(b) and received written approval from the Director of the Division of Air Quality to commence construction. Failure to receive an Air Quality Permit or written approval prior to commencing construction is a violation of GS 143-215.108A and may subject the Permittee to civil or criminal penalties as described in GS 143-215.114A and 143-215.114B.

This modification will result in an emission increase of PM₁₀ at the rate of 2.96 lbs per hour.

This Air Quality Permit shall be effective from XXX xx, 2007 until February 28, 2008, is nontransferable to future owners and operators, and shall be subject to the conditions and limitations as specified therein. Should you have any questions concerning this matter, please contact Gautam Patnaik at (919) 715-6246.

Sincerely yours,

Donald R. van der Vaart, Ph.D., P.E.
Chief

c: Gregg Worley, EPA Region 4
Supervisor, Winston-Salem Regional Office
Connie Horne
Central Files

INSIGNIFICANT ACTIVITIES UNDER 15A NCAC 2Q .0503(8)

Grinding Facilities and Plants 4

Emission Source ID Nos.		Emission Source Description	Insignificant Activity Regulation
33 Making Line	I-FD-008	one Plant 3 feeder [150 ton per hour (tph)]	15A NCAC 2Q .0503(8)
	I-CV-032	conveyor to Plant 3 (150 tph)	15A NCAC 2Q .0503(8)
	I-33 Dirt Bin	dirt bin (60 tph)	15A NCAC 2Q .0503(8)
	I-CV-056	33 dirt belt (60 tph)	15A NCAC 2Q .0503(8)
	I-PG-001	pug mill (60 tph)	15A NCAC 2Q .0503(8)
	I-FD-012	33 88-C feeder (15 tph)	15A NCAC 2Q .0503(8)
	I-CH-001	33 Waste Brick Chipper (8 tph)	15A NCAC 2Q .0503(8)
731-125 33 Extruder	I-EX-001	22 Extruder (60 tph)	15A NCAC 2Q .0503(8)
731-165 33 Delivery Conveyors	I-CV-049	33 Cutter Timing belt (3 tph)	15A NCAC 2Q .0503(8)
	I-CV-050	33 Tumble Ramp belt (60 tph)	15A NCAC 2Q .0503(8)
	I-CV-051	33 Delivery belt (60 tph)	15A NCAC 2Q .0503(8)
	I-CV-052	33 Short Scrap belt from Chopper (10 tph)	15A NCAC 2Q .0503(8)
	I-CV-053	Scrap belt over tracks (10 tph)	15A NCAC 2Q .0503(8)
	I-CV-054	33 Scrap belt to 88C feeder (10 tph)	15A NCAC 2Q .0503(8)
	I-CV-055	33 Short belt from 88C feeder (13 tph)	15A NCAC 2Q .0503(8)
	I-CV-057	33 Dirt belt (60 tph)	15A NCAC 2Q .0503(8)
	I-CV-058	33 Die Scrap Belt (3 tph)	15A NCAC 2Q .0503(8)
	I-CV-068	33 & 34 Cutter Scrap Belt (3 tph)	15A NCAC 2Q .0503(8)
	I-CV-122	Waste conveyor (3 tph)	15A NCAC 2Q .0503(8)
	731-150 33 Coatings	I-MX-001	33 Sand Mixer
I-CV-059		33 Sand mixer belt	15A NCAC 2Q .0503(8)
I-MX-002		33 Slurry Barrel Mixer	15A NCAC 2Q .0503(8)
I-MX-003		Slurry Mixer over line	15A NCAC 2Q .0503(8)
I-SB-001		33 Sandbox	15A NCAC 2Q .0503(8)
I-SL-001		33 Slurry Barrel	15A NCAC 2Q .0503(8)
I-SL-002		Slurry Barrel Over Line	15A NCAC 2Q .0503(8)
I-TU-001		33 Tumble Ramp	15A NCAC 2Q .0503(8)

	I-TU-002	33 Tumble Rollers	15A NCAC 2Q .0503(8)
	I-VB-001	33 Sand Vibrator Bin 1	15A NCAC 2Q .0503(8)
	I-VB-002	33 Sand Vibrator Bin 2	15A NCAC 2Q .0503(8)
	I-VB-003	33 Sand Vibrator Bin 3	15A NCAC 2Q .0503(8)
34 Making Line	I-FD-008	Plant 3 feeder (150 tph)	15A NCAC 2Q .0503(8)
	I-CV-161	34 Dirt belt on top of building (150 tph)	15A NCAC 2Q .0503(8)
	I-BN-002	34 Dirt Bin (60 tph)	15A NCAC 2Q .0503(8)
	I-CV-064	34 Dirt belt to pug mill (60 tph)	15A NCAC 2Q .0503(8)
	I-PG-002	34 Pug Mill (60 tph)	15A NCAC 2Q .0503(8)
	I-FD-013	34 88-C feeder (18 tph)	15A NCAC 2Q .0503(8)
	I-CH-002	34 Waste Brick chopper (8 tph)	15A NCAC 2Q .0503(8)
732-125 34 Extruder	I-EX-002	34 Extruder (60 tph)	15A NCAC 2Q .0503(8)
732-165 34 Delivery Conveyors	I-CV-060	34 Cutter Timing belt	15A NCAC 2Q .0503(8)
	I-CV-061	34 Delivery Belt	15A NCAC 2Q .0503(8)
	I-CV-062	34 Scrap Belt from Chopper	15A NCAC 2Q .0503(8)
	I-CV-063	34 Scrap Belt from 88C feeder	15A NCAC 2Q .0503(8)
	I-CV-064	34 Dirt Belt to Pug Mill	15A NCAC 2Q .0503(8)
	I-CV-066	34 Dirt Belt	15A NCAC 2Q .0503(8)
	I-CV-066	34 Die Scrap Belt	15A NCAC 2Q .0503(8)
732-150 34 Coating/ Texturing	I-FL-002	34 Flapper	15A NCAC 2Q .0503(8)
	I-MX-004	34 Sand Mixer	15A NCAC 2Q .0503(8)
	I-CV-067	34 Sand Mixer Belt	15A NCAC 2Q .0503(8)
	I-SB-002	34 Sandbox	15A NCAC 2Q .0503(8)
	I-TU-003	34 Tumble Ramp Incline	15A NCAC 2Q .0503(8)
	I-TU-005	34 Tumble Rollers	15A NCAC 2Q .0503(8)
	I-VB-004	34 Sand Vibrator Bin 1	15A NCAC 2Q .0503(8)
	I-VB-005	34 Sand Vibrator Bin 2	15A NCAC 2Q .0503(8)
	I-VB-006	34 Sand Vibrator Bin 3	15A NCAC 2Q .0503(8)
732-199 34 Line Misc.	I-PP-015	34 Vacuum Pump	15A NCAC 2Q .0503(8)

	I-HI-VAC3	Hi-Vac (housekeeping at Plant 3 kiln cars)	15A NCAC 2Q .0503(8)
DC-001 Dust Collection System Making 3	I-BF3	Bagfilter vents inside	15A NCAC 2Q .0503(8)
	I-TK-004	Coray 22 brick oil tank	15A NCAC 2Q .0503(8)
	I-TK-005	P#-Additive -A Tank (calcium Lignofulfate 20,000 gallons)	15A NCAC 2Q .0503(8)
Material Storage in Plant 3 Making	I-AU-031	Sand Bin Auger Bin #1	15A NCAC 2Q .0503(8)
	I-AU-032	Pine Hall Sand Bin Auger	15A NCAC 2Q .0503(8)
	I-AU-033	Sawdust Bin Auger	15A NCAC 2Q .0503(8)
	I-AU-034	Fire Clay bulk bin Auger	15A NCAC 2Q .0503(8)
	I-BN-033	Misc. Sand bin #1	15A NCAC 2Q .0503(8)
	I-BN-034	Pine Hall sand bin #2	15A NCAC 2Q .0503(8)
	I-BN-035	Sawdust bin- feeds plant 4 mixer	15A NCAC 2Q .0503(8)
	I-BN-036	Fire Clay bulk bin	15A NCAC 2Q .0503(8)
	I-BN-037	Plant 3 Pine Hall sand bin	15A NCAC 2Q .0503(8)
	I-BN-038	Waste bin -Middle	15A NCAC 2Q .0503(8)
	I-BN-039	Aberdeen Sand holding bin	15A NCAC 2Q .0503(8)
	I-BN-040	Old Dutch Sand bin	15A NCAC 2Q .0503(8)
	I-BN-041	Sawdust holding bin	15A NCAC 2Q .0503(8)
	I-BN-042	Pine Hall sand holding bin	15A NCAC 2Q .0503(8)
	I-BN-043	Aberdeen sand holding bin	15A NCAC 2Q .0503(8)
	I-BN-044	Old Dutch Sand holding bin	15A NCAC 2Q .0503(8)
	I-BN-045	Aplite holding bin	15A NCAC 2Q .0503(8)
	I-CV-124	Conveyor 3#-Auger	15A NCAC 2Q .0503(8)
	I-MX-005	Plant 4 mixer	15A NCAC 2Q .0503(8)
	I-MX-006	Old Muller mixer	15A NCAC 2Q .0503(8)
Grinding Facilities	I-3ES-CRUSH	one raw material crushing and handling operation including:	15A NCAC 2Q .0503(8)
	I-3CR972-4	one thirty inches by forty two inches primary jaw crusher (250 tons per hour capacity)	15A NCAC 2Q .0503(8)
	I-3CR972-5	one twenty four inches by forty eight inches standby crusher (250 tons per hour capacity)	15A NCAC 2Q .0503(8)

	I-3HM972-6	one double roll hammermill	15A NCAC 2Q .0503(8)
	I-3GR972-7	three Steele Incla grinders	15A NCAC 2Q .0503(8)
	I-3SS972-8	two Simplicity scalping screens	15A NCAC 2Q .0503(8)
	I-3SS972-9	eight Simplicity screens (4 feet by 10 feet each)	15A NCAC 2Q .0503(8)
	I-3DS972-10	six Deister screens (4 feet by 8 feet each)	15A NCAC 2Q .0503(8)
	I-3C-33	one conveyor belt from the standby crusher into the grinding building (30 inches in width)	15A NCAC 2Q .0503(8)
	I-3PBCS	one portable brick crushing and screening unit (100 tons per hour capacity)	15A NCAC 2Q .0503(8)
78-120 Sand Drying	I-AU-029	Auger #1 Top of Conveyor #1	15A NCAC 2Q .0503(8)
	I-BN-032	Big bin	15A NCAC 2Q .0503(8)
	I-BU-007	Gas burner on tub (250,000 Btu/hr)	15A NCAC 2Q .0503(8)
	I-CV-120	Big bin conveyor-under bin	15A NCAC 2Q .0503(8)
	I-CV-121	conveyor #1 -leaving bin	15A NCAC 2Q .0503(8)
	I-CV-122	Waste conveyor	15A NCAC 2Q .0503(8)
	I-CV-123	Conveyor #2 under tub	15A NCAC 2Q .0503(8)
	I-DR-005	Dryer tub	15A NCAC 2Q .0503(8)
	I-SC-034	Screen #1	15A NCAC 2Q .0503(8)
Plant 4 Making	I-FD-007	Plant 4 feeder (150 tph)	15A NCAC 2Q .0503(8)
	I-CV-033	Short belt to Plant 4	15A NCAC 2Q .0503(8)
	I-CV-034	Long belt to Plant 4	15A NCAC 2Q .0503(8)
831-110 41 Bins	I-BN-005	Bin #1	15A NCAC 2Q .0503(8)
	I-BN-006	Bin #2	15A NCAC 2Q .0503(8)
	I-CV-074	Bin #1 conveyor	15A NCAC 2Q .0503(8)
	I-CV-075	Bin #2 conveyor	15A NCAC 2Q .0503(8)
	I-CV-076	Conveyor #1	15A NCAC 2Q .0503(8)
	I-CV-077	Conveyor #2	15A NCAC 2Q .0503(8)
831-120 41 Pugs	I-CV-078	Conveyor #3	15A NCAC 2Q .0503(8)
	I-CV-079	Conveyor #4	15A NCAC 2Q .0503(8)
	I-PB-003	Pug mill #1	15A NCAC 2Q .0503(8)
	I-PUG-004	Pug mill #2	15A NCAC 2Q .0503(8)

	I-FD-041	41-88 even feeder	15A NCAC 2Q .0503(8)
831-130 41 Extruder	I-EX-009	41 Extruder	15A NCAC 2Q .0503(8)
	I-PP-021	Vacuum pump	15A NCAC 2Q .0503(8)
831-140 41 Making line Misc.	I-AU-011	Waste auger under 41 line	15A NCAC 2Q .0503(8)
	I-CH-003	41 Waste Brick Chopper	15A NCAC 2Q .0503(8)
	I-CT-007	41 Slug Cutter	15A NCAC 2Q .0503(8)
	I-CV-080	Conveyor #5	15A NCAC 2Q .0503(8)
	I-CV-081	Conveyor #6	15A NCAC 2Q .0503(8)
	I-CV-082	Conveyor #7	15A NCAC 2Q .0503(8)
	I-CV-083	Conveyor #8	15A NCAC 2Q .0503(8)
831-150 41 Setter	I-AU-012	Slug ejector auger 41 setter	15A NCAC 2Q .0503(8)
	I-CT-008	Wire Bank 41 Setter	15A NCAC 2Q .0503(8)
	I-CV-084	41-23 waste conveyor	15A NCAC 2Q .0503(8)
	I-CV-085	41-25 conveyor	15A NCAC 2Q .0503(8)
	I-CV-086	41-26 conveyor	15A NCAC 2Q .0503(8)
	I-CV-087	41-27 conveyor	15A NCAC 2Q .0503(8)
Sand Coatings SB-003-CY003	I-SB-003	41 Sandbox	15A NCAC 2Q .0503(8)
	I-AU-013	41-18 Big Hopper Auger #1	15A NCAC 2Q .0503(8)
	I-AU-014	41-19 Big Hopper Auger #2	15A NCAC 2Q .0503(8)
	I-AU-015	41-20 Big Hopper Auger #3	15A NCAC 2Q .0503(8)
	I-BN-007	Big Hopper Bin#1	15A NCAC 2Q .0503(8)
	I-BN-008	Big Hopper Bin#2	15A NCAC 2Q .0503(8)
	I-BN-009	Big Hopper Bin#3	15A NCAC 2Q .0503(8)
	I-BN-010	Small Hopper Bin #1	15A NCAC 2Q .0503(8)
	I-BN-011	Small Hopper Bin #2	15A NCAC 2Q .0503(8)
	I-BN-012	Small Hopper Bin #3	15A NCAC 2Q .0503(8)
	I-BN-013	Small Hopper Bin #4	15A NCAC 2Q .0503(8)
	I-CV-088	41-14 Small Hopper Conveyor #1	15A NCAC 2Q .0503(8)
	I-CV-089	41-15 Small Hopper Conveyor #2	15A NCAC 2Q .0503(8)
	I-CV-090	41-16 Small Hopper Conveyor #3	15A NCAC 2Q .0503(8)

	I-CV-091	41-17 Small Hopper Conveyor #4	15A NCAC 2Q .0503(8)
	I-CV-092	41-104 Bin out Conveyor	15A NCAC 2Q .0503(8)
	I-CV-093	41-11 Conveyor to sandbox	15A NCAC 2Q .0503(8)
	I-CV-094	Return Waste Conveyor to Sandbox	15A NCAC 2Q .0503(8)
	I-CV-095	41-13 Waste cleanout Conveyor	15A NCAC 2Q .0503(8)
	I-SC-032	Vibrator Screen	15A NCAC 2Q .0503(8)
831-180 41 4- Hopper Rig	I-AU-016	4- Hopper Auger #1	15A NCAC 2Q .0503(8)
	I-AU-017	4- Hopper Auger #2	15A NCAC 2Q .0503(8)
	I-AU-018	4- Hopper Auger #3	15A NCAC 2Q .0503(8)
	I-AU-019	4- Hopper Auger #4	15A NCAC 2Q .0503(8)
	I-BN-014	4- Hopper big Bin#1	15A NCAC 2Q .0503(8)
	I-BN-015	4- Hopper big Bin#2	15A NCAC 2Q .0503(8)
	I-BN-016	4- Hopper Big Bin#3	15A NCAC 2Q .0503(8)
	I-BN-017	4- Hopper Big Bin#4	15A NCAC 2Q .0503(8)
	I-BN-018	4- Hopper Small Bin	15A NCAC 2Q .0503(8)
	I-CV-096	41-4 Hopper clean out Conveyor	15A NCAC 2Q .0503(8)
	I-VB-010	41-4 Hopper small bin vibrators	15A NCAC 2Q .0503(8)
	I-CY-003	Dust Collector Plant 4 Bagfilter vents into building	15A NCAC 2Q .0503(8)
	I-TK-006	Brick Machine oil tank	15A NCAC 2Q .0503(8)
832-110 42 Making Line	I-BN-019	bin#1	15A NCAC 2Q .0503(8)
	I-CV-097	Bin #1 Conveyor	15A NCAC 2Q .0503(8)
	I-FD-040	Special Colorant Feeder FD-040	15A NCAC 2Q .0503(8)
	I-CV-099	Conveyor #3	15A NCAC 2Q .0503(8)
832-120 42 Pugs	I-CV-100	Conveyor#4	15A NCAC 2Q .0503(8)
	I-FD-043	42-88 Even Feeder	15A NCAC 2Q .0503(8)
	I-PG-005	Pug #3	15A NCAC 2Q .0503(8)
	I-PG-006	Pug #4	15A NCAC 2Q .0503(8)
832-130 42 Extruder	I-EX-013	42 Extruder	15A NCAC 2Q .0503(8)
	I-PP-029	Vacuum Pump	15A NCAC 2Q .0503(8)
832-140 42 Line	I-AU-020	Waste Augers under 42 line	15A NCAC 2Q .0503(8)
	I-CH-004	42 Waste Brick Chopper	15A NCAC 2Q .0503(8)

	I-CT-009	42 Slug Cutter	15A NCAC 2Q .0503(8)
	I-CV-101	Conveyor #5	15A NCAC 2Q .0503(8)
	I-CV-102	Conveyor #6	15A NCAC 2Q .0503(8)
	I-CV-103	Conveyor #7	15A NCAC 2Q .0503(8)
	I-CV-104	Conveyor #8	15A NCAC 2Q .0503(8)
832-150 42 Setter	I-CV-105	Double Conveyor	15A NCAC 2Q .0503(8)
	I-CV-106	42-14 Waste Conveyor	15A NCAC 2Q .0503(8)
	I-CV-107	42-13 Waste Conveyor	15A NCAC 2Q .0503(8)
Sand Coatings 832-160	I-AU-024	4-Hopper auger#1	15A NCAC 2Q .0503(8)
	I-AU-025	4-Hopper auger#2	15A NCAC 2Q .0503(8)
	I-AU-026	4-Hopper auger#3	15A NCAC 2Q .0503(8)
	I-AU-027	4-Hopper auger#4	15A NCAC 2Q .0503(8)
	I-BN-020	Big Hopper Bin#1	15A NCAC 2Q .0503(8)
	I-BN-021	Big Hopper Bin#2	15A NCAC 2Q .0503(8)
	I-BN-022	Big Hopper Bin#3	15A NCAC 2Q .0503(8)
	I-BN-023	Small hopper Bin #1	15A NCAC 2Q .0503(8)
	I-BN-024	Small hopper Bin #2	15A NCAC 2Q .0503(8)
	I-BN-025	Small Hopper Bin #3	15A NCAC 2Q .0503(8)
	I-BN-026	Small Hopper Bin #4	15A NCAC 2Q .0503(8)
	I-CV-108	42-21 Small Hopper Conveyor #1	15A NCAC 2Q .0503(8)
	I-CV-109	42-20 Small Hopper Conveyor #2	15A NCAC 2Q .0503(8)
	I-CV-110	42-19 Small Hopper Conveyor #3	15A NCAC 2Q .0503(8)
	I-CV-111	42-22 Small Hopper Conveyor #4	15A NCAC 2Q .0503(8)
	I-CV-112	42-23 Bin out Conveyor to sandbox	15A NCAC 2Q .0503(8)
	I-CV-113	42-24 bin out Conveyor to sandbox	15A NCAC 2Q .0503(8)
	I-CV-114	42-25 Bin out conveyor to sandbox	15A NCAC 2Q .0503(8)
	I-CV-115	42-26 bin out Conveyor to sandbox	15A NCAC 2Q .0503(8)
	I-CV-116	42-17 return waste conveyor	15A NCAC 2Q .0503(8)
	I-CV-117	42-22 waste cleanout conveyor	15A NCAC 2Q .0503(8)
	I-EC-038	42 Varitex control	15A NCAC 2Q .0503(8)
	I-SC-033	Vibrator Screen	15A NCAC 2Q .0503(8)

832-180 42 4 Hopper Rig	I-AU-024	4-Hopper auger#1	15A NCAC 2Q .0503(8)
	I-AU-025	4-Hopper auger#2	15A NCAC 2Q .0503(8)
	I-AU-026	4-Hopper auger#3	15A NCAC 2Q .0503(8)
	I-AU-027	4-Hopper auger#4	15A NCAC 2Q .0503(8)
	I-AU-028	Portable waste auger	15A NCAC 2Q .0503(8)
	I-BN-027	4 Hopper big bin#1	15A NCAC 2Q .0503(8)
	I-BN-028	4 Hopper big bin#2	15A NCAC 2Q .0503(8)
	I-BN-029	4 Hopper big bin#3	15A NCAC 2Q .0503(8)
	I-BN-030	4 Hopper big bin#4	15A NCAC 2Q .0503(8)
	I-BN-031	4 Hopper small bins	15A NCAC 2Q .0503(8)
	I-CV-119	42-41 Hopper clean out conveyor	15A NCAC 2Q .0503(8)
	I-VB-008	Single hopper vibrator#1	15A NCAC 2Q .0503(8)
	I-VB-009	Single hopper vibrator#2	15A NCAC 2Q .0503(8)
871-110 Monorail 1	I-CV-125	Waste Conveyor Monorail 1	15A NCAC 2Q .0503(8)
	I-CV-131	Belt Conveyor # 1 Monorail 1	15A NCAC 2Q .0503(8)
	I-CV-132	Belt Conveyor # 2 Monorail 1	15A NCAC 2Q .0503(8)
	I-CV-133	Belt Conveyor # 3 Monorail 1	15A NCAC 2Q .0503(8)
	I-CV-134	Belt Conveyor # 4 Monorail 1	15A NCAC 2Q .0503(8)
	I-CV-135	Belt Conveyor # 5 Monorail 1	15A NCAC 2Q .0503(8)
	I-CV-136	Belt Conveyor # 6 Monorail 1	15A NCAC 2Q .0503(8)
	I-CV-137	Belt Conveyor # 7 Monorail 1	15A NCAC 2Q .0503(8)
	I-CV-138	Belt Conveyor # 8 Monorail 1	15A NCAC 2Q .0503(8)
872-110 Monorail 2	I-CV-126	Waste Conveyor Monorail 2	15A NCAC 2Q .0503(8)
	I-CV-139	Belt Conveyor # 1 Monorail 2	15A NCAC 2Q .0503(8)
	I-CV-140	Belt Conveyor # 2 Monorail 2	15A NCAC 2Q .0503(8)
	I-CV-141	Belt Conveyor # 3 Monorail 2	15A NCAC 2Q .0503(8)
	I-CV-142	Belt Conveyor # 4 Monorail 2	15A NCAC 2Q .0503(8)
	I-CV-143	Belt Conveyor # 5 Monorail 2	15A NCAC 2Q .0503(8)
	I-CV-144	Belt Conveyor # 6 Monorail 2	15A NCAC 2Q .0503(8)
	I-CV-145	Belt Conveyor # 7 Monorail 2	15A NCAC 2Q .0503(8)
	I-CM-008	Refrigerant dryer	15A NCAC 2Q .0503(8)

	I-DC-003	Dust Collection System	15A NCAC 2Q .0503(8)
	I-TK-00	P4-Additive Tank [Calcium Lignosulfate] - 30,000 gallons	15A NCAC 2Q .0503(8)
896-110 Pugs and Feeders	I-BN-046	Dirt Bin auger#1	15A NCAC 2Q .0503(8)
	I-CV-148	Belt under bin (15 tph)	15A NCAC 2Q .0503(8)
	I-CV-149	Belt feeding 25A pug (15 tph)	15A NCAC 2Q .0503(8)
	I-PG-007	25A Pug mill	15A NCAC 2Q .0503(8)
	I-CV-150	Belt From 88 Feeder (2 tph)	15A NCAC 2Q .0503(8)
	I-FD-045	Even Feeder	15A NCAC 2Q .0503(8)
896-120 Extruder	I-EX-018	25A Extruder (15 tph)	15A NCAC 2Q .0503(8)
	I-PP-042	Vacuum Pump	15A NCAC 2Q .0503(8)
	I-PP-043	Oil Pump	15A NCAC 2Q .0503(8)
	I-CV-151	Short scrap belt (2tph)	15A NCAC 2Q .0503(8)
	I-CV-152	Scrap belt under pt cutter	15A NCAC 2Q .0503(8)
	I-CV-153	Scrap belt behind hacking line (2tph)	15A NCAC 2Q .0503(8)
	I-CV-154	Scrap belt to 88 feeder (2tph)	15A NCAC 2Q .0503(8)
	I-CV-155	#1-off bearing belt(15 tph)	15A NCAC 2Q .0503(8)
	I-CV-156	#2-off bearing belt(15 tph)	15A NCAC 2Q .0503(8)
	I-CV-157	Tumble belt(15 tph)	15A NCAC 2Q .0503(8)
	I-CV-158	Delivery belt(15 tph)	15A NCAC 2Q .0503(8)
	I-PU-042	Push-thru pusher (cutter)(15 tph)	15A NCAC 2Q .0503(8)
	I-SB-006	Shapes sandbox(0.25tph)	15A NCAC 2Q .0503(8)
962-120 Sawdust Scales/Dump/Screeens	I-DP-001	Sawdust dump	15A NCAC 2Q .0503(8)
	I-SC-023	Link-Belt Screen #1	15A NCAC 2Q .0503(8)
	I-SC-024	Link-Belt Screen #2	15A NCAC 2Q .0503(8)
	I-SC-025	Link-Belt Screen #3	15A NCAC 2Q .0503(8)
	I-SC-026	Link-Belt Screen #4	15A NCAC 2Q .0503(8)
	I-SC-027	Link-Belt Screen #5	15A NCAC 2Q .0503(8)
	I-SC-028	Link-Belt Screen #6	15A NCAC 2Q .0503(8)
	I-SC-029	Link-Belt Screen #7	15A NCAC 2Q .0503(8)
	I-SC-030	Scalping screen	15A NCAC 2Q .0503(8)

962-130 Sawdust Conveyors	I-CV-035	#3 Belt (sawdust)	15A NCAC 2Q .0503(8)
	I-CV-036	#5 Stacker belt	15A NCAC 2Q .0503(8)
	I-CV-037	#6 Waste Belt	15A NCAC 2Q .0503(8)
	I-CV-038	#10 Belt	15A NCAC 2Q .0503(8)
	I-CV-039	#11 Belt	15A NCAC 2Q .0503(8)
	I-CV-040	#12 Belt	15A NCAC 2Q .0503(8)
	I-CV-041	#13 Belt	15A NCAC 2Q .0503(8)
	I-CV-042	#14 Belt	15A NCAC 2Q .0503(8)
	I-CV-043	#15 Belt	15A NCAC 2Q .0503(8)
	I-CV-044	#16 Screw Conveyor- Top of silo	15A NCAC 2Q .0503(8)
	I-CV-045	#A Short Belt Plant 4	15A NCAC 2Q .0503(8)
	I-CV-046	#B Belt Plant 4	15A NCAC 2Q .0503(8)
	962-150 Sawdust Feeders	I-FD-009	#1 Feeder -on road
I-FD-010		#2 Feeder -on dump	15A NCAC 2Q .0503(8)
I-FD-011		#9 Feeder -New hopper	15A NCAC 2Q .0503(8)
972-165 Conveyors	I-CV-002	1C-4(125 tph)	15A NCAC 2Q .0503(8)
	I-CV-003	1C-2(125 tph)	15A NCAC 2Q .0503(8)
	I-CV-004	1C-3(125 tph)	15A NCAC 2Q .0503(8)
	I-CV-005	2C-4(125 tph)	15A NCAC 2Q .0503(8)
	I-CV-006	2C-2(125 tph)	15A NCAC 2Q .0503(8)
	I-CV-007	2C-3 (125 tph)	15A NCAC 2Q .0503(8)
	I-CV-009	2C-1(84 tph)	15A NCAC 2Q .0503(8)
	I-CV-010	#11 Belt (25 tph)	15A NCAC 2Q .0503(8)
	I-CV-011	#12 Belt (81 tph)	15A NCAC 2Q .0503(8)
	I-CV-012	#13 Belt (25 tph)	15A NCAC 2Q .0503(8)
	I-CV-013	CC-1(250 tph)	15A NCAC 2Q .0503(8)
	I-CV-014	Plant 5 truck belt(200 tph)	15A NCAC 2Q .0503(8)
	I-CV-015	CC-1-B(250 tph)	15A NCAC 2Q .0503(8)
	I-CV-017	CC-3 (100 tph)	15A NCAC 2Q .0503(8)
	I-CV-018	#6 Belt and Hopper(50 tph)	15A NCAC 2Q .0503(8)

	I-CV-019	#7 Belt(25 tph)	15A NCAC 2Q .0503(8)
	I-CV-159	#9 Belt (75 tph)	15A NCAC 2Q .0503(8)
	I-CV-020	#10 Belt (100 tph)	15A NCAC 2Q .0503(8)
	I-CV-022	#1 Waste Belt(3 tph)	15A NCAC 2Q .0503(8)
	I-PP-008	Diesel fuel tank with hand pump (100 gallons)	15A NCAC 2Q .0503(8)
	I-Ptank 1 & 2	Two 30,000 gallon propane tanks	15A NCAC 2Q .0503(8)
	I-HI-VAC4	Hi-Vac housekeeping at plant 4 kilns	15A NCAC 2Q .0503(8)
	I-ES-1.1	Raw material Storage	15A NCAC 2Q .0503(8)
	I-ES-1.4	Ground Storage	15A NCAC 2Q .0503(8)
-	I-3-WHS	Plant 3 wood dust bin, screener, and two conveyors	15A NCAC 2Q .0503(8)
-	I-4-WHS	Plant 4 wood dust bin, screener, and two conveyors	15A NCAC 2Q .0503(8)

Plant 5

Emission Source ID Nos.	Emission Source Description	Insignificant Activity Regulation	
Water Controlled sources and clay extrusion under vacuum	I-MX-501	Double shaft mixer (55 tph)	15A NCAC 2Q .0503(8)
	I-CV-509	Conveyor C-7 (55 tph)	15A NCAC 2Q .0503(8)
	I-CV-510	Conveyor C-8 (55 tph)	15A NCAC 2Q .0503(8)
	I-CV-511	Conveyor C-9 (55 tph)	15A NCAC 2Q .0503(8)
	I-CV-512	Conveyor C-17 (5 tph)	15A NCAC 2Q .0503(8)
	I-CV-513	Conveyor C-19 (5 tph)	15A NCAC 2Q .0503(8)
	I-CV-514	Conveyor C-20 (5 tph)	15A NCAC 2Q .0503(8)
	I-FD-511	Even feeder (55 tph)	15A NCAC 2Q .0503(8)
	I-PG-501	Pug Mill (55 tph)	15A NCAC 2Q .0503(8)
	I-EX-501	Extruder (55 tph)	15A NCAC 2Q .0503(8)
	I-MX-502	Slinger #1 (0.075 tph)	15A NCAC 2Q .0503(8)
	I-MX-502	Slinger #2 (0.075 tph)	15A NCAC 2Q .0503(8)
	I-MX-502	Slinger #3 (0.075 tph)	15A NCAC 2Q .0503(8)
	I-SL-501	Slurry System (0.075 tph)	15A NCAC 2Q .0503(8)
	I-VB-501	Vibrating Feeder-Mangro (0.025 tph)	15A NCAC 2Q .0503(8)
	I-CV-515	Conveyor C-10 (55 tph)	15A NCAC 2Q .0503(8)
	I-CV-516	Conveyor C-11A (55 tph)	15A NCAC 2Q .0503(8)
	I-CV-517	Conveyor C-11B (55 tph)	15A NCAC 2Q .0503(8)
	I-CV-518	Conveyor C-11C (5 tph)	15A NCAC 2Q .0503(8)
	I-CV-519	Conveyor C-12 (5 tph)	15A NCAC 2Q .0503(8)
	I-CV-520	Conveyor C-13 (5 tph)	15A NCAC 2Q .0503(8)
	I-CV-521	Conveyor C-14 (55 tph)	15A NCAC 2Q .0503(8)
	I-CV-522	Conveyor C-15(3 tph)	15A NCAC 2Q .0503(8)
	I-CV-523	Conveyor C-16(3 tph)	15A NCAC 2Q .0503(8)
	I-CV-524	Marshalling conveyor (55 tph)	15A NCAC 2Q .0503(8)
	I-CV-525	Separation conveyor (55 tph)	15A NCAC 2Q .0503(8)
	I-CV-526	2 ¼ English Edge Press (55tph)	15A NCAC 2Q .0503(8)
I-CV-527	3inch English Edge Press (55 tph)	15A NCAC 2Q .0503(8)	

I-MI-503	Setting Machine (55 tph)	15A NCAC 2Q .0503(8)
I-CV-535	Setter Robot Scrap Conveyor (3 tph)	15A NCAC 2Q .0503(8)
I-RB-501	Setter Robot #1 (27.5 tph)	15A NCAC 2Q .0503(8)
I-RB-502	Setter Robot #2 (27.5 tph)	15A NCAC 2Q .0503(8)
I-MI-508	Packaging Machine (55 tph)	15A NCAC 2Q .0503(8)
I-CH-501	Waste Chopper (8 tph)	15A NCAC 2Q .0503(8)
I-PP-503	Vacuum pump	15A NCAC 2Q .0503(8)
I-PTANK 3	Propane tank 30,000 gallon	15A NCAC 2Q .0503(8)
I-D_TANKS	100 gallon diesel fuel tank	15A NCAC 2Q .0503(8)
I-G_TANKS	100 gallon gas tank	15A NCAC 2Q .0503(8)
I-K_TANKS	100 gallon kerosene tank	15A NCAC 2Q .0503(8)
I-HI-VAC5	HI-Vac (housekeeping at kiln cars	15A NCAC 2Q .0503(8)
I-ES5.5	Raw material storage	15A NCAC 2Q .0503(8)

ATTACHMENT

The following describes the changes to be performed to the existing permit 03997T20:

Page(s)	Section	Description of Change(s)
4	Source table	Increase maximum production rates for the kilns ID Nos. 5ES-LKD5.1 and 5ES-LKD5.2
15	2.1 D. 4. g. ii	Modification of operating limits for table 2 to and compliance language for subpart JJJJ.
16	2.1 D. 4. h. iii	Modification for general compliance requirements for subpart JJJJ.
18 and 19	2.1 D. 4. i. iii	Modification of table 4 to subpart JJJJ for initial compliance with emission limitations
23	2.1 D. 4. l. i	Modification of table 5 to subpart JJJJ for continuous compliance with emission limits and operating limits.
24	2.1 D. 4. l. iii. C.	Modification of SSM plans.
24	2.1 D. 4. l. iii	Modification for general compliance for subpart JJJJ to include bypass damper position
35 and 36	2.2. B. i.	Changes to TAPs emission rate for 2D .1100 from facility wide to a source by source basis.

State of North Carolina,
Department of Environment
and Natural Resources



Division of Air Quality

AIR QUALITY PERMIT

Permit No.	Replaces Permit No.	Effective Date	Expiration Date
03997T19	03997T18	XXX xx, 2007	February 28, 2008

Until such time as this permit expires or is modified or revoked, the below named Permittee is permitted to construct and operate the emission source(s) and associated air pollution control device(s) specified herein, in accordance with the terms, conditions, and limitations within this permit. This permit is issued under the provisions of Article 21B of Chapter 143, General Statutes of North Carolina as amended, and Title 15A North Carolina Administrative Codes (15A NCAC), Subchapters 2D and 2Q, and other applicable Laws.

Pursuant to Title 15A NCAC, Subchapter 2Q, the Permittee shall not construct, operate, or modify any emission source(s) or air pollution control device(s) without having first submitted a complete Air Quality Permit Application to the permitting authority and received an Air Quality Permit, except as provided in this permit.

Permittee:

Pine Hall Brick Company, Inc.

Facility ID:

04/079/00038

Facility Site Location:

634 Lindsay Bridge Road

City, County, State, Zip:

Madison, Rockingham County, NC 27025

Mailing Address:

Post Office Box 836

City, State, Zip:

Madison, NC 27025

Application Number:

7900038.07B

Complete Application Date:

4/17/07

Primary SIC Code:

3251

Division of Air Quality,

Winston-Salem Regional Office

Regional Office Address:

585 Waughtown Street

Winston-Salem, NC 27107-2241

Permit issued this the xxth day of XXX, 2007.

Donald R. van der Vaart, Ph.D., P.E., Chief, Air Permits Section
By Authority of the Environmental Management Commission

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(Including specific requirements, monitoring/testing, record keeping, and
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SECTION 3: GENERAL PERMIT CONDITIONS

ATTACHMENT

List of Acronyms

Compliance Extension and Routine Control Device Maintenance Exemption Request
dated November 22, 2005

PART II

This permit does not include a Part II.

PART I

The Division of Air Quality (DAQ), the United States Environmental Protection Agency (EPA), and citizens as defined under the Federal Clean Air Act have the authority to enforce the terms, conditions, and limitations contained in Part I of this permit unless otherwise specified.

Under Title 15A NCAC 2Q, the operation of emission source(s) and associated air pollution control device(s) and appurtenances listed in Part I of this permit is based on plans, specifications, operating parameters, and other information as submitted in the Air Quality Permit Application.

SECTION 1 - PERMITTED EMISSION SOURCE(S) AND ASSOCIATED AIR POLLUTION CONTROL DEVICE(S)

The following table contains a summary of all permitted emission sources and associated air pollution control devices:

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
Plant 3			
NSPS 3VS3.4A and 3VS3.4B	Two Leahy vibrating screens (4 feet by 8 feet each, 20 tons per hour capacity each)	N/A	N/A
NSPS 3VS3.4C and 3VS3.4D	Two Simplicity vibrating screens (4 feet by 10 feet each, 25 tons per hour capacity each)	N/A	N/A
NSPS 3C-32	One conveyor belt from the primary crusher into the grinding building (36 inches in width)	N/A	N/A
3ES- KILNDRY	One combination brick kiln and wood fuel drying system consisting of:	N/A	N/A
3ES-LK3.1 and 3ES- LK3.2	Two natural gas/wood*-fired brick kilns (19.8 million Btu per hour heat input each, 10 tons per hour fired brick capacity each) with:		
ES-DRY2	-One brick kiln exhaust gas heated fluidized bed wood (sawdust) drying system (10,000 pounds per hour capacity), or	3CY3.1 and 3CY3.2	Two parallel simple cyclones (58 inches in diameter each)
ES-DRY3	-Natural gas-fired standby "flash" dryer (7.8 million Btu per hour heat input)	3CY2	one simple cyclone (50 inches in diameter)
3ES-BRICK ROOM	Plant 3 Brick making room air exhaust sent to cyclones followed by bagfilter venting indoors	3CY-T	One set of twin parallel simple cyclones (59 inches in diameter each)

Emission Source ID No.		Emission Source Description	Control Device ID No.	Control Device Description
Plant 4	4ES-LKD4.1 and 4ES-LKD4.2 MACT (JJJJ)	Two natural gas/propane/wood*-fired combination brick kilns (28.8 million Btu per hour heat input, 13.5 tons per hour fired brick capacity each) sharing a single stack	4ES-DLA	One dry limestone adsorber, consisting of four cascades each 157.5" (l) x 157.5" (w) x 72" (h) and capable of handling a maximum 48,400 scfm (66,000 acfm @ 500 °F) emission stream flow rate
	4ES-BRICK ROOM	Plant 4 brick packing and making room air exhaust controlled by cyclones and making room air exhaust controlled by cyclones followed by bagfilter vented indoors	4CY-2T	Two sets of twin parallel simple cyclones (one set 52 inches in diameter each and one set 64 inches in diameter each)
Plant 5	5ES-LKD5.1 and 5ES-LKD5.2	Two natural gas-fired combination brick dryer and kiln systems (28.88 million Btu per hour heat input each, 11.95 tons per hour fired brick capacity)	N/A	N/A

* Includes off-site green wood and processed wood.

SECTION 2 - SPECIFIC LIMITATIONS AND CONDITIONS

2.1 - Emission Source(s) and Control Devices(s) Specific Limitations and Conditions

The emission source(s) and associated air pollution control device(s) listed below are subject to the following specific terms, conditions, and limitations, including the monitoring, recordkeeping, and reporting requirements as specified herein:

A. Grinding Building NSPS affected facilities including: two Leahy vibrating screens, two Simplicity vibrating screens, and one conveyor belt from the primary crusher

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter and visible emissions	10 percent opacity at each screen and conveyor belt transfer point, OR 7% opacity and 0.05 grains per dry standard cubic meter from any vent of the building enclosing the affected facilities	15A NCAC 2D .0524 (40 CFR 60.670, Subpart 000)
Toxic air pollutants	See Section 2.2 B.1. - State enforceable only	15A NCAC 2D .1100
	See Section 2.2 B.2. - State enforceable only	15A NCAC 2Q .0705
Odors	See Section 2.2 B.3. - Odorous emissions must be controlled; State enforceable only	15A NCAC 2D .1806

1. 15A NCAC 2D .0524: NSPS 40 CFR PART 60, SUBPART OOO - STANDARDS OF PERFORMANCE FOR NONMETALLIC MINERAL PROCESSING PLANTS.

a. **Emission Standard(s)** [15A NCAC 2D .0524]

For the Screens (**ID Nos 3VS3.4A, 3VS3.4B, 3VS3.4C, 3VS3.4D**), and conveyor (**ID No. 3C-32**), the Permittee shall meet the requirements of this Subpart by demonstrating compliance with 40 CFR 60.672(b) particulate matter emissions limit of ten (10) percent opacity from each individual affected facility **OR** for the **screens only**, by complying with 40 CFR 60.672(a) limits of 7% opacity and 0.05 grains per dry standard cubic meter from any vent of the building enclosure. Additionally, the Permittee shall comply with all applicable provisions, notification, testing, reporting, record keeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 2D .0524 "New Source Performance Standards (NSPS) as promulgated in 40 CFR Part 60.670, Subpart OOO, including Subpart A "General Provisions."

b. **Testing** [15A NCAC 2D .0501(c)(3)]

Initial compliance or when subsequent additional testing is required, shall be in accordance with the requirements of 15A NCAC 2D .0524 (40 CFR 60.670, Subpart OOO), 15A NCAC 2D .0501(c)(8) and (18) and General Condition JJ. If test results exceed the applicable limit(s) as given in Section 2.1 A. 1. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.

c. **Monitoring** [15A NCAC 2Q .0508(f)]

Monitoring to assure compliance with the applicable emissions standard(s) of Section 2.1 A.1.a. above, shall be performed by the Permittee as follows:

i. observation of a building enclosure with vents containing affected facilities (**screens only**):

- A. observe building vents each month for any visible emissions which exceed normal. Should monthly observed emissions exceed the established normal visible emissions for the affected facilities, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524, **UNLESS**,
- B. an approved Method 9 opacity determination meeting the requirements of 40 CFR 60.670 (Subpart OOO, 15A NCAC 2D .0501(c)(8) and (18) is performed at each vent, or each enclosed affected facility and visible emissions are demonstrated to comply with the applicable limit(s) given in 60.672(a) or 60.672(b), as applicable. Compliance with the opacity limit under 60.672(a) shall be deemed compliance with the mass particulate matter limit.

ii. observation of an individual affected facility enclosed or not enclosed in a building (**conveyor only**):

- A. observe the transfer point each month for any visible emissions which exceed normal. Should monthly observed emissions exceed the established normal visible emissions for the affected facility, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524, **UNLESS**,
- B. an approved Method 9 opacity determination meeting the requirements of 40 CFR 60.670 (Subpart OOO, 15A NCAC 2D .0501(c)(8) and (18) is performed at each affected facility and visible emissions are demonstrated to comply with the applicable limit(s) given in 60.672(b). If compliance for the affected facility cannot be demonstrated, then the affected facility shall be deemed to be in noncompliance with 15A NCAC 2D .0524.

d. **Record keeping** [15A NCAC 2Q .0508(f)]

The results of the monitoring shall be maintained in a log (written or electronic format) on-site and made available to an authorized representative upon request. The log shall record the following:

- i. the date and time of each recorded action;
- ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
- iii. the results of any corrective actions performed.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524, if records of the monitoring results are not maintained.

e. **Reporting** [15A NCAC 2Q .0508(f)]

The Permittee shall submit, in writing a summary report of the observations by January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

B. Plant 3 combination brick kiln and wood fuel drying system including: two natural gas/wood-fired brick tunnel kilns and one brick kiln exhaust gas-heated fluidized bed wood (sawdust) drying system controlled by two parallel simple cyclones, or natural gas-fired standby “Flash” dryer controlled by one simple cyclone

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter including PM ₁₀	$E = 4.10 * (P)^{0.67}$	15A NCAC 2D .0515
Sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 2D .0516
Visible emissions	20 percent opacity	15A NCAC 2D .0521
Toxic air pollutants	See Section 2.2 B.1. - State enforceable only	15A NCAC 2D .1100
	See Section 2.2 B.2. - State enforceable only	15A NCAC 2Q .0705
Odors	See Section 2.2 B.3. - Odorous emissions must be controlled; State enforceable only	15A NCAC 2D .1806
Carbon monoxide	Less than 250 tons per consecutive 12-month period, See Section 2.2 A.1.	15A NCAC 2Q .0317(a)(1) (Avoidance of PSD)
HAPs	Limit kiln operation rate to less than 10 tons per hour fired brick on a 12-month rolling average basis each	15A NCAC 2Q .0317(a)(5) (Avoidance of MACT)

1. 15A NCAC 2D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

a. **Emission Standard** [15A NCAC 2D .0515(a)]

Emissions of particulate matter from the **combination brick kiln and wood fuel drying system**, shall not exceed an allowable emission rate calculated by the following equation:

$$E = 4.10 * (P)^{0.67} \quad \text{Where } E = \text{allowable emission rate in pounds per hour}$$

$$P = \text{process weight in tons per hour}$$

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

b. **Testing** [15A NCAC 2Q .0501 (c)(3)]

If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 B.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515.

c. **Monitoring** [15A NCAC 2Q .0508(f)]

Particulate matter emissions from the combination brick kiln and wood fuel drying system shall be controlled by one simple cyclone or two parallel simple cyclones. To assure compliance, the Permittee shall perform inspections and maintenance as recommended by the control device manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there is no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:

- i. a monthly visual inspection of the system ductwork and material collection units for leaks; and
- ii. an annual external inspection of the cyclones' structural integrity
- iii. every six months, perform a visual inspection of the fuel combustion systems.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if inspections of the system ductwork or fuel combustion systems are not performed.

d. **Record keeping** [15A NCAC 2Q .0508(f)]

The results of the monitoring shall be maintained in a log (written or electronic format) on-site and made available to an authorized representative upon request. The log shall record the following:

- i. the date and time of each recorded action;
- ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions;
- iii. the results of any maintenance performed on the cyclones; and
- iv. any variance from manufacturer's recommendations, if any, and corrections made.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515, if records of the monitoring results are not maintained.

e. **Reporting** [15A NCAC 2Q .0508(f)]

The Permittee shall submit, in writing a summary report of the observations by January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

2. 15A NCAC 2D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

a. **Emission Standard** [15A NCAC 2D .0516]

Emissions of sulfur dioxide from the **combination brick kiln and wood fuel drying system** shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard. [15A NCAC 2D .0516]

b. **Testing** [15A NCAC 2D .0501(c)(4)]

If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(4) and General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1 B.2.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516.

c. **Monitoring/Recordkeeping** [15A NCAC 2Q .0508(f)]

No monitoring or recordkeeping is required to show compliance with this regulation.

d. **Reporting** [15A NCAC 2Q .0508(f)]

No reporting is required to show compliance with this regulation.

3. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS

a. **Emission Standard** [15A NCAC 2D .0521(d)]

Visible emissions from the **combination brick kiln and wood fuel drying system** shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 2D .0521 (d)]

b. **Testing** [15A NCAC 2D .0501(c)(8)]

If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(8) and (18) and General Condition JJ. If the results of this test are above the limit given in Section 2.1 B.3.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

c. **Monitoring** [15A NCAC 2Q .0508(f)]

To assure compliance, once each month the Permittee shall observe the emission points of this source for any visible emissions above normal. If visible emissions from this source are observed to be above normal, the Permittee shall either:

- i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
- ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 2D .0501(c)(8) is below the limit given in Section 2.1 B.3.a. above.

If the above-normal emissions are not corrected per (i) above or if the demonstration in (ii) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0521.

d. **Record keeping** [15A NCAC 2Q .0508(f)]

The results of the monitoring shall be maintained in a log (written or electronic format) on-site and made available to an authorized representative upon request. The log shall record the following:

- i. the date and time of each recorded action;
- ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
- iii. the results of any corrective actions performed.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521, if records of the monitoring results are not maintained.

e. **Reporting** [15A NCAC 2Q .0508(f)]

The Permittee shall submit, in writing a summary report of the observations by January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

**4. 15A NCAC 2Q .0317: AVOIDANCE CONDITIONS for
15A NCAC 2D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY**

- a. In order to avoid applicability of 15A NCAC 2D .1111 and 40 CFR Part 63 Subpart JJJJ "National Emission Standards for Hazardous Air Pollutants for Brick and Structural Clay Products", the Permittee shall restrict the operation rate of each kiln (ID Nos. 3ES-LK3.1 and 3ES-LK3.2) to less than 10 tons per hour fired product on a 12-month rolling average basis, beginning on May 16, 2006. Compliance with the 12-month rolling average of operation rate of each kiln shall begin on May 16, 2006 and for compliance purposes, the 12 months preceding May 16, 2006 shall be considered as zero value inputs for averaging purposes. [15A NCAC 2Q .0317(a)(5), and 40 CFR 63.8390(d) and 63.8395(b)]

b. **Testing** [15A NCAC 2Q .0501 (c)(4)]

If emissions testing is required, the Permittee shall perform such testing in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 B. 4. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2Q .0317.

- c. **Monitoring/Recordkeeping** [15A NCAC 2Q .0508 (f)]
Beginning on May 16, 2006, the Permittee shall keep monthly records of each kiln (**ID Nos. 3ES-LK3.1 and 3ES-LK3.2**) operation rate and the calculations for 12-month rolling average for kiln operation rate, in a logbook (written or electronic format). The Permittee shall be deemed in noncompliance with 15A NCAC 2Q .0317, if the above records are not maintained.
- d. **Reporting** [15A NCAC 2Q .0508(f)]
The Permittee shall submit a semi-annual summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and record keeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the following:
 - i. Each kiln process rate for the previous 17 months. The kiln process rate must be calculated for each of the 12-month periods on a rolling average basis, over the previous 17 months.

C. Plant 3 equipment including: Brick making room controlled by simple cyclones followed by bagfilter venting indoors

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Visible emissions	20 percent opacity	15A NCAC 2D .0521
Particulate matter including PM ₁₀	$E = 55 (P)^{0.11} - 40$	15A NCAC 2D .0515
Toxic air pollutants	See Section 2.2 B.1. - State enforceable only	15A NCAC 2D .1100
	See Section 2.2 B.2. - State enforceable only	15A NCAC 2Q .0705
Odors	See Section 2.2 B.3. - Odorous emissions must be controlled; State enforceable only	15A NCAC 2D .1806

1. 15A NCAC 2D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

- a. **Emission Standard/limitation**
Emissions of particulate matter from the brick making room air exhaust shall not exceed an allowable emission rate as calculated by the following equation: [15A NCAC 2D .0515(a)]

$$E = 55 (P)^{0.11} - 40 \quad \text{Where } E = \text{allowable emission rate in pounds per hour}$$

$$P = \text{process weight in tons per hour}$$

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

- b. **Testing** [15A NCAC 2D .0501 (c)(3)]
If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 C.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515.
- c. **Monitoring** [15A NCAC 2Q .0508(f)]

Particulate matter emissions from the brick making room air exhaust shall be controlled by one set of twin parallel simple cyclones followed by a bagfilter. To assure compliance, the Permittee shall perform inspections and maintenance as recommended by the control device manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there is no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:

- i. a monthly visual inspection of the system ductwork and material collection unit for leaks; and
- ii. an annual external inspection of the cyclones' structural integrity.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515, if the equipment is not inspected and maintained.

d. **Record keeping** [15A NCAC 2Q .0508(f)]

The results of inspection and maintenance shall be maintained in a log (written or electronic format) on-site and made available to an authorized representative upon request. The log shall record the following:

- i. the date and time of each recorded action;
- ii. the results of each inspection;
- iii. the results of any maintenance performed on the cyclones; and
- iv. any variance from manufacturer's recommendations, if any, and corrections made.

The Permittee shall be deemed in non-compliance with 15A NCAC 2D .0515, if records of the monitoring results are not maintained.

e. **Reporting** [15A NCAC 2Q .0508(f)]

The Permittee shall submit, in writing a summary report of the observations by January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

2. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS

a. **Emission Standard** [15A NCAC 2D .0521(d)]

Visible emissions from the brick making room air exhaust shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 2D .0521 (d)]

b. **Testing** [15A NCAC 2D .0501(c)(8)]

If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(8) and (18) and General Condition JJ. If the results of this test are above the limit given in Section 2.1 C.2.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

c. **Monitoring** [15A NCAC 2Q .0508(f)]

No visual observations are required when the emission sources are exhausting indoors through the bagfilter. To assure compliance when the bagfilter is bypassed and emissions are exhausted outdoors, the Permittee shall observe the emission point for any emissions above normal. During the periods of bagfilter bypass, if visible emissions are observed to be above normal, the Permittee shall either:

- i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
- ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 2D .0501(c)(8) is below the limit given in Section 2.1 C.2.a. above.

If the above-normal emissions are not corrected per (i) above or if the demonstration in (ii) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0521.

- d. **Record keeping** [15A NCAC 2Q .0508(f)]
The results of the monitoring shall be maintained in a log (written or electronic format) on-site and made available to an authorized representative upon request. The log shall record the following:
 - i. the date and time of each recorded action;
 - ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
 - iii. the results of any corrective actions performed.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521, if records of the monitoring results are not maintained.

- e. **Reporting** [15A NCAC 2Q .0508(f)]
The Permittee shall submit, in writing a summary report of the observations by January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

D. Plant 4 equipment including: two natural gas/propane/wood-fired brick kilns sharing a single stack and one dry limestone adsorber

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter including PM ₁₀	$E = 4.10 * (P)^{0.67}$	15A NCAC 2D .0515
Sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 2D .0516
Visible emissions	20 percent opacity (effective until 11/15/06)	15A NCAC 2D .0521
	0 percent opacity (effective 11/16/06)	15A NCAC 2D .1111 (40 CFR 63 Subpart JJJJ)
Toxic air pollutants	See Section 2.2 B.1. - State enforceable only See Section 2.2 B.2. - State enforceable only	15A NCAC 2D .1100 15A NCAC 2Q .0705
HAPs	See Section 2.1 D.4.	15A NCAC 2D .1111 (40 CFR 63 Subpart JJJJ)
Odors	See Section 2.2 B.3. - odorous emissions must be controlled; State enforceable only	15A NCAC 2D .1806
Carbon monoxide	less than 250 tons per consecutive 12-month period, See Section 2.2 A.1.	15A NCAC 2Q .0317(a)(1) (Avoidance of PSD)

1. 15A NCAC 2D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

- a. **Emission Standard/limitation**
Emissions of particulate matter from this source shall not exceed an allowable emission rate as calculated by the following equation: [15A NCAC 2D .0515(a)]

$$E = 4.10 \times P^{0.67} \quad \text{Where } E = \text{allowable emission rate in pounds per hour}$$

$$P = \text{process weight in tons per hour}$$

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

- b. **Testing** [15A NCAC 2D .0501 (c)(3)]
If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 D.1.a. above, the Permittee shall be deemed in noncompliance.
- c. **Monitoring** [15A NCAC 2Q .0508(f)]
To assure compliance, the Permittee shall perform an inspection of the brick kilns in accordance with the following:
- i. a monthly visual inspection of the system ductwork for leaks; and
 - ii. every six months, perform a visual inspection of the fuel combustion system.

The Permittee shall be deemed in noncompliance with Section 2.1 D.1.a above if the ductwork and combustion system are not inspected and maintained.

- d. **Record keeping** [15A NCAC 2Q .0508(f)]
The results of inspection and maintenance shall be maintained in a log (written or electronic format) on-site and made available to an authorized representative upon request. The log shall record the following:
- i. the date and time of each recorded action;
 - ii. the results of each inspection;
 - iii. the results of any maintenance performed; and
 - iv. any variance from manufacturer's recommendations, if any, and corrections made.

The Permittee shall be deemed in noncompliance with Section 2.1 D.1.a. if records of the monitoring results are not maintained.

- e. **Reporting** [15A NCAC 2Q .0508(f)]
The Permittee shall submit, in writing a summary report of monitoring and record keeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

2. 15A NCAC 2D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

- a. **Emission Standard** [15A NCAC 2D .0516]
Emissions of sulfur dioxide from the source shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard. [15A NCAC 2D .0516]
- b. **Testing** [15A NCAC 2D .0501(c)(4)]
If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(4) and General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1 D.2.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516.
- c. **Monitoring/Recordkeeping** [15A NCAC 2Q .0508(f)]
No monitoring or recordkeeping is required to show compliance with this regulation.
- Reporting** [15A NCAC 2Q .0508(f)]
- d. No reporting is required to show compliance with this regulation.

3. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS

- a. **Emission Standard** [15A NCAC 2D .0521(d)]
Visible emissions from the source shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 2D .0521 (d)]
- b. **Testing** [15A NCAC 2D .0501(c)(8)]
If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(8) and (18) and General Condition JJ. If the results of this test are above the limit given in Section 2.1 D.3.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.
- c. **Monitoring** [15A NCAC 2Q .0508(f)]
To assure compliance, once a month the Permittee shall observe the emission points of this source for any visible emissions above normal. The Permittee shall establish [normal] for the source in the first 30 days following the date the Plant 4 kilns commence operating at revised (increased) production rate. If visible emissions from this source are observed to be above normal, the Permittee shall either:
 - i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
 - ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 2D .0501(c)(8) is below the limit given in Section 2.1 D.3.a. above.If the above-normal emissions are not corrected per (i) above or if the demonstration in (ii) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0521.
- d. **Record keeping** [15A NCAC 2Q .0508(f)]
The results of the monitoring shall be maintained in a log (written or electronic format) on-site and made available to an authorized representative upon request. The log shall record the following:
 - i. the date and time of each recorded action;
 - ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
 - iii. the results of any corrective actions performed.The Permittee shall be deemed in non-compliance with 15A NCAC 2D .0521 if records of the monitoring results are not maintained.
- e. **Reporting** [15A NCAC 2Q .0508(f)]
The Permittee shall submit, in writing a summary report of the observations by January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

4. 15A NCAC 2D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY

Applicability

- a. The brick and structural clay products (BSCP) manufacturing facilities (**ID Nos. 4ES-LKD4.1 and 4ES-LKD4.2**) shall comply with all requirements of 15A NCAC 2D .1111 "Maximum Achievable Control Technology" and 40 CFR Part 63 Subpart JJJJ "National Emission Standards for Hazardous Air Pollutants for Brick and Structural Clay Products Manufacturing" by no later than May 16, 2006, except any extensions approved for compliance with any MACT requirements in Section 2.1 D.4.b. below [40 CFR 63.6(i)(3), 63.8380, and 63.8395].
- b. **Compliance Date Extension Approval**
The DAQ has approved a request from a Permittee for a six-month extension to the MACT compliance date through a letter dated February 3, 2006. This approval contains certain terms of conditions. The Permittee shall comply with the following conditions:

- i. The affected sources for the MACT are two wood/natural gas/propane-fired combination brick kilns sharing a single stack (**ID Nos. 4ES-LKD4.1 and 4ES-LKD4.2**).
- ii. On-site construction shall begin by June 1, 2006.
- iii. The purchase of the equipment or the component parts to accomplish emission control or process changes shall be completed by July 1, 2006.
- iv. On-site construction, installation of emission control equipment or a process change shall be completed by September 16, 2006.
- v. Initial start-up of the emission control equipment or a process change shall occur by October 16, 2006.
- vi. The initial performance tests on the affected sources shall be completed by November 16, 2006.
- vii. The new compliance date or the termination date of the extension shall be November 16, 2006.
- viii. The compliance with record keeping and reporting requirements of this MACT standard has been waived for a limited time for kilns (**ID Nos. 4ES-LKD4.1 and 4ES-LKD4.2**). The termination date for this waiver shall be November 16, 2006.

Definitions

- c. For the purpose of this permit condition only, the definitions contained in 40 CFR 63.8515 shall apply.

Regulated Pollutants

- d. Hazardous air pollutants (HAP) emitted by the facilities covered by this rule include hydrogen chloride, hydrogen fluoride, and particulate matter as a surrogate for metal HAP contained in the particulate including, but not limited to, antimony, arsenic, beryllium, cadmium, chromium, cobalt, lead, manganese, mercury, nickel and selenium.

General Provisions

- e. The Permittee shall comply with the requirements of 40 CFR Part 63 Subpart A “General Provisions” (specifically 40 CFR 63.1 through 63.15) according to Table 7 of 40 CFR Part 63 Subpart JJJJ [40 CFR 63.8420(f)].

Compliance Statement

- f. Failure to comply with the emission limitations contained in § 63.8405 and § 63.8410, general compliance requirements contained in § 63.8420 and § 63.8425, testing and initial compliance requirements contained in § 63.8435 through § 63.8455, continuous compliance requirements contained in § 63.8465 and § 63.8470, and the notification, record keeping and reporting requirements contained in § 63.8480 through § 63.8495, as described below, shall be considered a violation of 15A NCAC 2D .1111 (40 CFR Part 63 Subpart JJJJ).

Emission Limitations

- g. i. As stated in § 63.8405, the Permittee shall meet each **emission** limits in the following Table that applies:

TABLE 1 TO SUBPART JJJJ OF PART 63 — EMISSION LIMITS

For each	You must meet the following emission limits . . .	Or you must comply with the following
1. Existing large tunnel kiln (design capacity =10 tph of fired product), excluding any process stream that is ducted to a sawdust dryer prior to July 22, 2002; or including any process stream that exhausts directly to the atmosphere or to an APCD and any process stream that is first ducted to a sawdust on or after July 22, 2002; each new or reconstructed small tunnel kiln (design capacity	a. HF emissions must not exceed 0.029 kilograms per megagram (kg/Mg) (0.057 pounds per ton (lb/ton)) of fired product.	Reduce uncontrolled HF emissions by at least 90 percent.
	b. HCl emissions must not exceed 0.13 kg/Mg (0.26 lb/ton) of fired product.	Reduce uncontrolled HCl emissions by at least 30 percent.
	c. PM emissions must not	Not applicable

<p><10 tph of fired product), including all process streams; each tunnel kiln that would be considered reconstructed but for § 63.8390(i)(1), including all process streams; and each large tunnel kiln previously equipped with a DLA that would be considered reconstructed but for § 63.8390(i)(2), including all process streams.</p>	<p>exceed 0.21 kg/Mg (0.42 lb/ton) of fired product.</p>	
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- ii. As stated in § 63.8405, the Permittee shall meet each **operating** limit in the following Table that applies:

TABLE 2 TO SUBPART JJJJ OF PART 63 — OPERATING LIMITS

For Each	You must
<p>1. Kiln quipped with a DLA</p>	<p>a. [∇] Bypass damper position shall be monitored and recorded at least every 15 minutes (electronically or manually), or recorded as a daily cumulative time of damper position. The “Adsorber” position is the normal operating mode (with the damper open to the DLA), while “Bypass” indicates that the damper is closed to the DLA and “Damper Moving” indicates that the damper is closing or opening depending on Mode or Operation being requested. Pressure drop values across the DLA shall be monitored and recorded every 15 minutes. The 3-hour block average for pressure drop across the DLA shall be recorded. The pressure drop value is not indicative of compliance status of the source; and</p> <p>b. Maintain an adequate amount of limestone in the limestone hopper, storage bin (located at the top of the DLA), and DLA at all times; maintain the limestone feeder setting at or above the level established during the performance test; and</p> <p>c. Use the same grade of limestone from the same source as was used during the performance test; maintain records of the source and grade of limestone; and</p> <p>d. Maintain no VE from the DLA stack.</p>

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 (40 CFR Part 63 Subpart JJJJ) if the above emission limits and operating limits are exceeded, excluding the 3-hour block average pressure drop across the DLA. The Permittee shall be deemed in noncompliance if the bypass damper is in the “Bypass” position during normal operation excluding startup, shutdown, malfunction, and periods of routine control device maintenance.

- iii. The Permittee has chosen the option in § 63.8410(a) "Emissions Control System" to meet the emissions limitations in Table 1 and Table 2 to this Subpart (both Tables included above). The Permittee shall use an emissions capture and collection system and an air pollution control device (APCD), and demonstrate that the resulting emissions or emissions reductions meet the emission limits in Table 1 to this Subpart and that the capture and collection system and APCD meet the applicable operating limits in Table 2 to this Subpart [40 CFR 63.8410].
- h. **General Compliance Requirements** [40 CFR 63.8420 and 63.8425]
- i. The Permittee shall be in compliance with the emission limitations (including operating limits) in this Subpart at all times, except during periods of startup, shutdown, and malfunction and during periods of routine control device maintenance as specified in paragraph (v) below of this section [40 CFR 63.8420(a)].

[∇] This is in lieu of maintaining the average pressure drop across the DLA for each 3-hour block period at or above the average pressure drop established during the performance test, to meet operation limit.

- ii. Except as specified in paragraph (v) below of this section, the Permittee shall always operate and maintain the affected source, including air pollution control and monitoring equipment, according to the provisions in §63.6(e)(1)(i). During the period between the compliance date specified for the affected source in §63.8395 and the date upon which continuous monitoring systems (CMS) (*e.g.*, continuous parameter monitoring systems) have been installed and verified and any applicable operating limits have been set, the Permittee shall maintain a log detailing the operation and maintenance of the process and emissions control equipment [40 CFR 63.8420(b)].
- iii. The Permittee shall develop a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in §63.6(e)(3) [40 CFR 63.8420(c)].
- iv. The Permittee shall prepare and implement a written operation, maintenance, and monitoring (OM&M) plan according to the requirements in §63.8425 [40 CFR 63.8420(d)].
- v. If the Permittee owns or operates an affected kiln and performs routine maintenance on the control device for that kiln, the Permittee may bypass the kiln control device and continue operating the kiln upon approval by the Director provided the Permittee satisfies the conditions listed in subparagraphs (v)(A) through (D) below of this section. [40 CFR 63.8420(e)]
The Permittee has submitted a request to DAQ on November 22, 2005 to bypass the kiln control device (ID No. 4ES-DLA) during the routine maintenance on the control device. DAQ is approving this request, based upon the following conditions:
 - (A) The routine control device maintenance exemption shall not exceed 4 percent of the annual operating uptime of the kiln.
 - (B) This request from the Permittee - November 22, 2005 request, shall be attached to the Title V permit.
 - (C) The Permittee shall minimize HAP emissions during the period when the kiln is operating and the control device is offline.
 - (D) The Permittee shall minimize the time period during which the kiln is operating and the control device is offline.
- vi. The Permittee shall prepare, implement, and revise as necessary an OM&M plan that includes the information in paragraph (vii) below. The Permittee's OM&M plan shall be available for inspection by the permitting authority upon request [40 CFR 63.8425(a)].
- vii. The Permittee's OM&M plan shall include, as a minimum, the information in subparagraphs (viii)(A) through (M) below [40 CFR 63.8425(b)]:
 - (A) Each process and APCD to be monitored, the type of monitoring device that will be used, and the operating parameters that will be monitored.
 - (B) A monitoring schedule that specifies the frequency that the parameter values will be determined and recorded.
 - (C) The limits for each parameter that represent continuous compliance with the emission limitations in §63.8405. The limits shall be based on values of the monitored parameters recorded during performance tests.
 - (D) Procedures for the proper operation and routine and long-term maintenance of each APCD, including a maintenance and inspection schedule that is consistent with the manufacturer's recommendations.
 - (E) Procedures for installing the CMS sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (*e.g.*, on or downstream of the last APCD).
 - (F) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction system.
 - (G) Continuous monitoring system performance evaluation procedures and acceptance criteria (*e.g.*, calibrations).
 - (H) Procedures for the proper operation and maintenance of monitoring equipment consistent with the requirements in §§63.8450 and 63.8(c)(1), (3), (4)(ii), (7), and (8).
 - (I) Continuous monitoring system data quality assurance procedures consistent with the requirements in §63.8(d).
 - (J) Continuous monitoring system record keeping and reporting procedures consistent with the requirements in §63.10(c), (e)(1), and (e)(2)(i).

- (K) Procedures for responding to operating parameter deviations, including the procedures in subparagraphs (K)(1) through (3) below.
 - (1) Procedures for determining the cause of the operating parameter deviation.
 - (2) Actions for correcting the deviation and returning the operating parameters to the allowable limits.
 - (3) Procedures for recording the times that the deviation began and ended and corrective actions were initiated and completed.
- (L) Procedures for keeping records to document compliance.
- (M) If the Permittee operates an affected kiln and the Permittee plans to take the kiln control device out of service for routine maintenance, as specified in §63.8420(e), the procedures specified in subparagraphs (M)(1) and (2) below.
 - (1) Procedures for minimizing HAP emissions from the kiln during periods of routine maintenance of the kiln control device when the kiln is operating and the control device is offline.
 - (2) Procedures for minimizing the duration of any period of routine maintenance on the kiln control device when the kiln is operating and the control device is offline.
- viii. Changes to the operating limits in the Permittee's OM&M plan require a new performance test. If the Permittee is revising an operating limit parameter value, the Permittee shall meet the requirements in subparagraphs (ix)(A) and (B) below [40 CFR 63.8425(c)]:
 - (A) Submit a notification of performance test to the Director as specified in §63.7(b).
 - (B) After completing the performance tests to demonstrate that compliance with the emission limits can be achieved at the revised operating limit parameter value, the Permittee shall submit the performance test results and the revised operating limits as part of the Notification of Compliance Status required under §63.9(h).
- ix. If the Permittee is revising the inspection and maintenance procedures in the OM&M plan, the Permittee does not need to conduct a new performance test [40 CFR 63.8425(d)].

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 (40 CFR Part 63 Subpart JJJJ), if the written SSMP and OM&M plan are not developed and implemented as stated above.

Testing and Initial Compliance [40 CFR 63.8435 and 63.8455]

- i. i. The Permittee shall conduct the initial performance tests within 180 calendar days after the compliance date that is specified for the affected source in § 63.8395 or by any extension date for performance of initial tests included in compliance date extension approval in § 63.6(i)(3), and in accordance with the provisions in § 63.7(a)(2). [40 CFR 63.8435]
- ii. The Permittee shall demonstrate initial compliance with the emission limitations according to the following:
 - [40 CFR 63.8455]
 - (A) The Permittee shall demonstrate initial compliance with each emission limitation that applies according to Table 4 below.
 - (B) The Permittee shall establish each site-specific operating limit in Table 2 above that applies according to the requirements in § 63.8445 and Table 3 below.
 - (C) The Permittee shall submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in § 63.8480(e).
- iii. As stated in § 63.8455, the Permittee shall demonstrate initial compliance with each limitation that applies according to the following Table:

TABLE 4 TO SUBPART JJJJ OF PART 63 — INITIAL COMPLIANCE WITH EMISSION LIMITATIONS

For Each	For the following emission limitation	You have demonstrated initial compliance if
1. Existing large tunnel kiln (design capacity =10 tph of fired product),	a. HF emissions must not exceed 0.029	i. The HF emissions measured using Method 26A of 40 CFR part 60, appendix A or Method 320 of 40 CFR part 63, appendix A over the period of the initial

<p>excluding any process stream that is ducted to a sawdust dryer prior to July 22, 2002; or including any process stream that exhausts directly to the atmosphere or to an APCD and any process stream that is first ducted to a sawdust dryer on or after July 22, 2002; each new or reconstructed small tunnel kiln (design capacity <10 tph of fired product), including all process streams; each tunnel kiln that would be considered reconstructed but for § 63.8390(i)(1), including all process streams; and each large tunnel kiln previously equipped with a DLA that would be considered reconstructed but for § 63.8390(i)(2), including all process streams.</p>	<p>kg/ Mg (0.057 lb/ton) of fired product; or uncontrolled HF emissions must be reduced by at least 90 percent; and</p> <p>b. HCl emissions must not exceed 0.13 kg/Mg (0.26 lb/ton) of fired product; or uncontrolled HCl emissions must be reduced by at least 30 percent; and</p>	<p>performance test, according to the calculations in § 63.8445(g)(1), do not exceed 0.029 kg/Mg (0.057 lb/ton); or uncontrolled HF emissions measured using Method 26A of 40 CFR part 60, appendix A or Method 320 of 40 CFR part 63, appendix A over the period of the initial performance test are reduced by at least 90 percent, according to the calculations in § 63.8445(g)(2); and</p> <p>ii. ^ΦBypass damper position shall be monitored and recorded at least every 15 minutes (electronically or manually), or recorded as a daily cumulative time of damper position. The “Adsorber” position is the normal operating mode (with the damper open to the DLA), while “Bypass” indicates that the damper is closed to the DLA and “Damper Moving” indicates that the damper is closing or opening depending on Mode or Operation being requested. Pressure drop values across the DLA shall be monitored and recorded every 15 minutes. The 3-hour block average for pressure drop across the DLA shall be recorded. The pressure drop value is not indicative of compliance status of the source;</p> <p>i. The HCl emissions measured using Method 26A of 40 CFR part 60, appendix A or Method 320 of 40 CFR part 63, appendix A over the period of the initial performance test, according to the calculations in § 63.8445(g)(1), do not exceed 0.13 kg/Mg (0.26 lb/ton); or uncontrolled HCl emissions measured using Method 26A of 40 CFR part 60, appendix A or Method 320 of 40 CFR part 63, appendix A over the period of the initial performance test are reduced by at least 30 percent, according to the calculations in § 63.8445(g)(2); and</p> <p>ii. ^ΓBypass damper position shall be monitored and recorded at least every 15 minutes (electronically or manually), or recorded as a daily cumulative time of damper position. The “Adsorber” position is the normal operating mode (with the damper open to the DLA), while “Bypass” indicates that the damper is closed to the DLA and “Damper Moving” indicates that the damper is closing or opening depending on Mode or Operation being requested. Pressure drop values across the DLA shall be monitored and recorded every 15 minutes. The 3-hour block average for pressure drop across the DLA shall be recorded.</p>
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^Φ This is in lieu of establishing the operating limits listed in Table 2 to this subpart over the 3-hour performance test during which HF emissions did not exceed 0.029 kg/Mg (0.057 lb/ton) or uncontrolled HF emissions were reduced by at least 90 percent.

^Γ This is in lieu of establishing the operating limits listed in Table 2 to this subpart over the 3-hour performance test during which HCl emissions did not exceed 0.13 kg/Mg (0.26 lb/ton) or uncontrolled HCl emissions were reduced by at least 30 percent.

	<p>c. PM emissions must not exceed 0.21 kg/Mg (0.42 lb/ton) of fired product.</p>	<p>The pressure drop value is not indicative of compliance status of the source.</p> <p>i. The PM emissions measured using Method 5 of 40 CFR part 60, appendix A, over the period of the initial performance test, according to the calculations in § 63.8445(g)(1), do not exceed 0.21 kg/Mg (0.42 lb/ton); and</p> <p>ii. ⁹Bypass damper position shall be monitored and recorded at least every 15 minutes (electronically or manually), or recorded as a daily cumulative time of damper position. The “Adsorber” position is the normal operating mode (with the damper open to the DLA), while “Bypass” indicates that the damper is closed to the DLA and “Damper Moving” indicates that the damper is closing or opening depending on Mode or Operation being requested. Pressure drop values across the DLA shall be monitored and recorded every 15 minutes. The 3-hour block average for pressure drop across the DLA shall be recorded. The pressure drop value is not indicative of compliance status of the source.</p>
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Performance Testing and Operating Limit Establishment [40 CFR 63.8440 and 63.8445]

- j.
 - i. The Permittee shall conduct a performance test before renewing the Title V Operation Permit or at least every 5 years following the initial performance test.
 - ii. The Permittee shall conduct a performance test when the Permittee wants to change a parameter value for any operating limit specified in the Operation, Maintenance and Monitoring (OM&M) plan.
 - iii. As stated in § 63.8445, the Permittee shall conduct each performance test in the following Table that applies:

TABLE 3 TO SUBPART JJJJ OF PART 63 — REQUIREMENTS FOR PERFORMANCE TESTS

For Each	You Must	Using	According to the following requirements
Kiln	<p>a. Select locations of sampling ports and the number of traverse points.</p> <p>b. Determine velocities and volumetric flow rate.</p> <p>c. Conduct gas molecular</p>	<p>Method 1 or 1A of 40 CFR part 60, appendix A.</p> <p>Method 2 of 40 CFR part 60, appendix A.</p> <p>Method 3 of 40 CFR part 60, appendix A.</p>	<p>Sampling sites must be located at the outlet of the APCD and prior to any releases to the atmosphere for all affected sources. If you choose to meet the percent emission reduction requirements for HF or HCl, a sampling site must also be located at the APCD inlet.</p> <p>You may use Method 2A, 2C, 2D, 2F, or 2G of 40 CFR part 60, appendix A, as appropriate, as an alternative to using Method 2 of 40 CFR part 60, appendix A.</p> <p>You may use Method 3A or 3B of 40 CFR part 60, appendix A, as appropriate, as an</p>

⁹ The Permittee shall establish and have a record of the operating limits listed in Table 2 to this subpart over the 3-hour performance test during which PM emissions did not exceed 0.21 kg/Mg (0.42 lb/ton).

	<p>weight analysis.</p> <p>d. Measure moisture content of the stack gas.</p> <p>e. Measure HF and HCl emissions</p> <p>f. Measure PM emissions.</p>	<p>Method 4 of 40 CFR part 60, appendix A.</p> <p>Method 26A of 40 CFR part 60, appendix A; or</p> <p>Method 320 of 40 CFR part 63, appendix A.</p> <p>Method 5 of 40 CFR part 60, appendix A.</p>	<p>alternative to using Method 3 of 40 CFR part 60, appendix A.</p> <p>Conduct the test while operating at the maximum production level. You may use Method 26 of 40 CFR part 60, appendix A, as an alternative to using Method 26A of 40 CFR part 60, appendix A, when no acid PM (e.g., HF or HCl dissolved in water droplets emitted by sources controlled by a WS) is present.</p> <p>Conduct the test while operating at the maximum production level. When using Method 320 of 40 CFR part 63, appendix A, you must follow the analyte spiking procedures of section 13 of Method 320 of 40 CFR part 63, appendix A, unless you can demonstrate that the complete spiking procedure has been conducted at a similar source.</p> <p>Conduct the test while operating at the maximum production level.</p>
2. Kiln that is complying with production-based emission limits.	Determine the production rate during each test run in order to determine compliance with production-based emission limits.	Production data collected during the performance tests (e.g., no. of pushes per hour, no. of bricks per kiln car, weight of a typical fired brick).	You must measure and record the production rate, on a fired-product basis, of the affected source for each of the three test runs.
3. Kiln equipped with a DLA	<p>a. Establish the operating limit for the average pressure drop across the DLA.</p> <p>b. Establish the operating limit for the limestone feeder setting.</p>	<p>Data from the pressure drop measurement device during the performance test.</p> <p>Data from the limestone feeder during the performance test.</p>	<p>You must continuously measure the pressure drop across the DLA, determine and record the block average pressure drop values for the three test runs, and determine and record the 3-hour block average of the recorded pressure drop measurements for the three test runs.</p> <p>You must ensure that you maintain an adequate amount of limestone in the limestone hopper, storage bin (located at the top of the DLA), and DLA at all times during the performance test. You must establish your limestone feeder setting one week prior to the performance test and maintain the feeder setting for the one-week period that precedes the performance test and during the</p>

	c. Document the source and grade of limestone used.	Records of limestone purchase.	performance test.
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iv. The Permittee shall conduct performance tests and establish operating limits according to the following:

[40 CFR 63.8445]

- (A) The Permittee shall conduct each performance test in Table 3 above that applies.
- (B) Before conducting the performance test, the Permittee install and calibrate all monitoring equipment.
- (C) Each performance test shall be conducted according to the requirements in 40 CFR 63.7 and under the specific conditions in Table 3 above.
- (D) The Permittee shall test while operating at the maximum production level.
- (E) The Permittee shall not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in 40 CFR 63.7(e)(1).
- (F) The Permittee shall conduct at least three separate test runs for each performance test required in this section, as specified in 40 CFR 63.7(e)(3). Each test run shall last at least 1 hour.
- (G) The Permittee shall use the data gathered during the performance test and the equations in subparagraphs (G)(1) and (G)(2) of this section to determine compliance with the emission limitations.
 - (1) To determine compliance with the production-based hydrogen fluoride (HF), hydrogen chloride (HCl), and particulate matter (PM) emission limits in Table 1 above, the Permittee shall calculate the mass emissions per unit of production for each test run using Equation 1 below:

$$MP = ER / P \quad (\text{Eq. 1})$$

Where:

MP = mass per unit of production, pounds of pollutant per ton of fired product

ER = mass emission rate of pollutant (HF, HCl or PM) during each test run, pounds per hour

P = production rate during each performance test run, tons of fired product per hour.

- (2) To determine compliance with the percent reduction HF and HCl emission limits in Table 1 above, the Permittee shall calculate the percent reduction for each test run using Equation 2 below:

$$PR = \frac{ER_i - ER_o}{ER_i} (100) \quad (\text{Eq. 2})$$

Where:

PR = percent reduction, percent

ER_i = mass emission rate of specific HAP (HF or HCl) entering the APCD, pounds per hour

ER_o = mass emission rate of specific HAP (HF or HCl) exiting the APCD, pounds per hour.

- (H) The Permittee shall establish each site-specific operating limit in Table 2 above that applies in Table 3.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 (40 CFR Part 63 Subpart JJJJ), if the performance tests are not conducted as per Table 1 through Table 4 above or the test results

indicate exceedance of the emission limits in Table 4 above, or the operating limits are not established in Table 3 above.

Continuous Monitoring System: Installation, Operation, and Maintenance Requirements [40 CFR 63.8450]

- k. i. The Permittee shall install, operate and maintain each CMS according to the OM&M plan and the requirements listed below:
 - (A) Conduct a performance evaluation of each CMS according to the OM&M plan.
 - (B) The CMS shall complete a minimum of one cycle of operation for each successive 15-minute period. To have a valid hour of data, the Permittee shall have at least three of four equally spaced data values (or at least 75 percent if the Permittee collects more than four data values per hour) for that hour (not including startup, shutdown, malfunction, out-of-control periods, or periods of routine control device maintenance covered by a routine control device maintenance exemption as specified in § 63.8420(e)).
 - (C) Determine and record the 3-hour block averages of all recorded readings, calculated after every 3 hours of operation as the average of the previous 3 operating hours. To calculate the average for each 3-hour average period, the Permittee shall have at least 75 percent of the recorded readings for that period (not including startup, shutdown, malfunction, out-of-control periods, or periods of routine control device maintenance covered by a routine control device maintenance exemption as specified in § 63.8420(e)).
 - (D) Record the results of each inspection, calibration, and validation check.
 - (E) At all times, maintain the monitoring equipment including, but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.
- ii. For each pressure measurement device, the Permittee shall meet the requirements in subparagraphs i.(A) through i.(E) above and subparagraphs ii.(A) through (G) below.
 - (A) Locate the pressure sensor(s) in or as close to a position that provides a representative measurement of the pressure.
 - (B) Minimize or eliminate pulsating pressure, vibration, and internal and external corrosion.
 - (C) Use a gauge with a minimum measurement sensitivity of 0.5 inch of water or a transducer with a minimum measurement sensitivity of 1 percent of the pressure range.
 - (D) Check the pressure tap daily to ensure that it is not plugged.
 - (E) Using a manometer, check gauge calibration quarterly and transducer calibration monthly.
 - (F) Any time the sensor exceeds the manufacturer's specified maximum operating pressure range, conduct calibration checks or install a new pressure sensor.
 - (G) At least monthly, inspect all components for integrity, all electrical connections for continuity, and all mechanical connections for leakage.
- iii. For each limestone feed system on a DLA, the Permittee shall meet the requirements in subparagraphs i.(A), (D), and (E) above and shall ensure on a monthly basis that the feed system replaces limestone at least as frequently as the schedule set during the performance test.
- iv. Requests for approval of alternate monitoring procedures shall meet the requirements in §§ 63.8445(i) and 63.8(f).

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 (40 CFR Part 63 Subpart JJJJ) if the continuous monitoring systems are not installed, operated and maintained as stated above.

Continuous Compliance Requirements [40 CFR 63.8465 and 63.8470]

- 1. i. As stated in § 63.8470, the Permittee shall demonstrate continuous compliance with each emission limit and operating limit that applies according to the following Table:

TABLE 5 TO SUBPART JJJJ OF PART 63 — CONTINUOUS COMPLIANCE WITH EMISSION LIMITS AND OPERATING LIMITS

For each	For the following emission limits and operating limits	You must demonstrate continuous compliance by .

<p>1. Kiln equipped with a DLA</p>	<p>Each emission limit in Table 1 to this subpart and each operating limit in Item 1 of Table 2 to this subpart for kilns equipped with a DLA.</p>	<p>i. ^ΩBypass damper position shall be monitored and recorded at least every 15 minutes (electronically or manually), or recorded as a daily cumulative time of damper position. The “Adsorber” position is the normal operating mode (with the damper open to the DLA), while “Bypass” indicates that the damper is closed to the DLA and “Damper Moving” indicates that the damper is closing or opening depending on Mode or Operation being requested. Pressure drop values across the DLA shall be monitored and recorded every 15 minutes. The 3-hour block average for pressure drop across the DLA shall be recorded. The pressure drop value is not indicative of compliance status of the source; and</p> <p>ii. Verifying that the limestone hopper and storage bin (located at the top of the DLA) contain adequate limestone by performing a daily visual check; and</p> <p>iii. Recording the limestone feeder setting daily to verify that the feeder setting is being maintained at or above the level established during the performance test; and</p> <p>iv. Using the same grade of limestone from the same source as was used during the performance test; maintaining records of the source and type of limestone; and</p> <p>v. Performing VE observations of the DLA stack at the frequency specified in § 63.8470(g) using Method 22 of 40 CFR part 60, appendix A; maintaining no VE from the DLA stack.</p>
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- ii. The Permittee shall monitor and collect data to demonstrate continuous compliance according to the following: [40 CFR 63.8465]
 - (A) Except for periods of monitor malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the Permittee shall monitor continuously (or collect data at all required intervals) at all times that the affected source is operating. This includes periods of startup, shutdown, malfunction, and routine control device maintenance as specified in 40 CFR 63.8420(e) when the affected source is operating.
 - (B) The Permittee shall not use data recorded during monitoring malfunctions, associated repairs, out-of-control periods, or required quality assurance or control activities for purposes of calculating data averages. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. The Permittee shall use all the valid data collected during all other periods in assessing compliance. Any averaging period for which the Permittee does not have valid monitoring data and such data are required constitutes a deviation from the monitoring requirements.

- iii. The Permittee shall demonstrate continuous compliance with the emission limitations according to the following: [40 CFR 63.8470]
 - (A) The Permittee shall demonstrate continuous compliance with each emission limit and operating limit in Tables 1 and 2 above that applies according to the methods specified in Table 5 above.
 - (B) The Permittee shall report each instance in which the Permittee did not meet each emission limit and each operating limit that applies. This includes periods of startup, shutdown, malfunction, and routine control device maintenance. These instances are deviations from the emission limitations in this Subpart. These deviations shall be reported according to the requirements in § 63.8485.

^Ω This is in lieu of maintaining the average pressure drop across the DLA for each 3-hour block period at or above the average pressure drop established during the performance test.

- (C) Consistent with §§ 63.6(e) and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction are not violations if you demonstrate to the Director's satisfaction that you were operating in accordance with § 63.6(e)(1) and your OM&M plan. [40 CFR 63.8470(e)]
- (D) Deviations that occur during periods of control device maintenance covered by an approved routine control device maintenance exemption according to § 63.8420(e) are not violations if the Permittee demonstrates to the Director's satisfaction that the Permittee was operating in accordance with the approved routine control device maintenance exemption.
- (E) The Permittee shall demonstrate continuous compliance with the operating limits in Table 2 above for visible emissions (VE) from tunnel kilns equipped with DLA by monitoring VE at each kiln stack according to the following:
 - (1) Perform daily VE observations of each kiln stack according to the procedures of Method 22 of 40 CFR Part 60, Appendix A. The Permittee shall conduct the Method 22 test while the affected source is operating under normal conditions. The duration of each Method 22 test shall be at least 15 minutes.
 - (2) If VE are observed during any daily test conducted using Method 22 of 40 CFR Part 60, Appendix A, the Permittee shall promptly initiate and complete corrective actions according to the OM&M plan. If no VE are observed in 30 consecutive daily Method 22 tests for any kiln stack, the Permittee may decrease the frequency of Method 22 testing from daily to weekly for that kiln stack. If VE are observed during any weekly test, the Permittee shall promptly initiate and complete corrective actions according to the OM&M plan, resume Method 22 testing of that kiln stack on a daily basis, and maintain that schedule until no VE are observed in 30 consecutive daily tests, at which time the Permittee may again decrease the frequency of Method 22 testing to a weekly basis.
 - (3) If VE are observed during any test conducted using Method 22 of 40 CFR Part 60, Appendix A, the Permittee shall report these deviations by following the requirements in § 63.8485.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 (40 CFR Part 63 Subpart JJJJ) if the **bypass damper position**, DLA pressure drop, and the limestone hopper/storage bin are not monitored or if the limestone feeder setting and the source/type of limestone are not recorded according to Table 5 above. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 (40 CFR Part 63 Subpart JJJJ) if monitoring is not performed or the records are not maintained or any deviations which **do** not occur during startup, shutdown or malfunction, or during routine control device maintenance as per the requirements stated above.

Record keeping Requirements [40 CFR 63.8490 and 63.8495]

- m. i. The Permittee shall keep the following records: [40 CFR 63.8490]
 - (A) A copy of each notification and report that the Permittee submitted to comply with this Subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that the Permittee submitted, according to the requirements in § 63.10(b)(2)(xiv).
 - (B) The records in § 63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.
 - (C) Records of performance tests as required in § 63.10(b)(2)(viii).
 - (D) Records relating to control device maintenance and documentation of the approved routine control device maintenance exemption, if the Permittee requests such an exemption under § 63.8420(e).
- ii. The Permittee shall keep the records required in Table 5 above to show continuous compliance with each emission limitation that applies to the Permittee.
- iii. The Permittee shall also maintain records according to the following:
 - (A) For each deviation of an operating limit parameter value, the date, time, and duration of the deviation, a brief explanation of the cause of the deviation and the corrective action taken, and whether the deviation occurred during a period of startup, shutdown, or malfunction.
 - (B) For each affected source, records of production rates on a fired-product basis.
 - (C) Records for any approved alternative monitoring or test procedures.
 - (D) Records of maintenance and inspections performed on the APCD.

- (E) Current copies of the SSMP and OM&M plan, including any revisions, with records documenting conformance.
- iv. The Permittee shall keep records according to the following: [40 CFR 63.8495]
 - (A) The Permittee’s records shall be in a form suitable and readily available for expeditious review, according to § 63.10(b)(1).
 - (B) As specified in § 63.10(b)(1), the Permittee shall keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.
 - (C) The Permittee shall keep each record onsite for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to § 63.10(b)(1). The Permittee may keep the records offsite for the remaining 3 years.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 (40 CFR Part 63 Subpart JJJJ) if the Permittee does not keep records according to the requirements above.

Notification Requirements [40 CFR 63.8480]

- n. i. The Permittee shall submit all applicable notifications according to the following:
 - (A) The Permittee shall submit all of the notifications in §§ 63.7(b) and (c), 63.8(f)(4), and 63.9 (b) through (e), (g)(1), and (h) that apply, by the dates specified.
 - (B) As specified in §63.9(b)(2) and (3), if the Permittee starts up the affected source before May 16, 2003, the Permittee shall submit an Initial Notification not later than 120 calendar days after May 16, 2003.
 - (C) If the Permittee is required to conduct a performance test, the Permittee shall submit a notification of intent to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin, as required in § 63.7(b)(1).
 - (D) If the Permittee is required to conduct a performance test as specified in Table 3 above, the Permittee shall submit a Notification of Compliance Status as specified in § 63.9(h) and paragraphs (iv)(1) and (2) below:
 - (1) For each compliance demonstration that includes a performance test conducted according to the requirements in Table 3 above, the Permittee shall submit the Notification of Compliance Status, including the performance test results, before the close of business on the 60th calendar day following the completion of the performance test, according to § 63.10(d)(2).
 - (2) In addition to the requirements in § 63.9(h)(2)(i), the Permittee shall include the following information in the Notification of Compliance Status.
 - (i) The operating limit parameter values established for each affected source with supporting documentation and a description of the procedure used to establish the values.
 - (E) If the Permittee requests a routine control device maintenance exemption according to § 63.8420(e), the Permittee shall submit the request for the exemption no later than 30 days before the compliance date.

Reporting Requirements [40 CFR 63.8485]

- o. i. As stated in § 63.8485, the Permittee shall submit each report that applies according to the following Table:

TABLE 6 TO SUBPART JJJJ OF PART 63 — REQUIREMENTS FOR REPORTS

You must submit	The report must contain	You must submit the report
1. A compliance report	a. If there are no deviations from any emission limitations (emission limits, operating limits) that apply to you, a statement that there were no deviations from the emission limitations during the reporting period. If there were no periods during which the CMS was out-of-control as specified in your OM&M plan, a statement that there were no periods during which the CMS	Semiannually according to the requirements in § 63.8485(b).

	<p>was out- of-control during the reporting period.</p> <p>b. If you have a deviation from any emission limitation (emission limit, operating limit) during the reporting period, the report must contain the information in § 63.8485(d) or (e). If there were periods during which the CMS was out-of-control, as specified in your OM&M plan, the report must contain the information in § 63.8485(e).</p> <p>c. If you had a startup, shutdown or malfunction during the reporting period and you took actions consistent with your SSMP, the compliance report must include the information in § 63.10(d)(5)(i).</p>	<p>Semiannually according to the requirements in § 63.8485(b).</p> <p>Semiannually according to the requirements in § 63.8485(b).</p>
<p>2. An immediate startup, shutdown, and malfunction report if you took actions during a startup, shutdown, or malfunction during the reporting period that are not consistent with your SSMP.</p>	<p>a. Actions taken for the event according to the requirements in § 63.10(d)(5)(ii).</p> <p>b. The information in § 63.10(d)(5)(ii)</p>	<p>By fax or telephone within 2 working days after starting actions inconsistent with the plan.</p> <p>By letter within 7 working days after the end of the event unless you have made alternative arrangements with the permitting authority.</p>

ii. The Permittee shall submit each report in Table 6 above that applies to the Permittee as follows:
[40 CFR 63.8485]

(A) The Director has approved a different schedule for submission of reports under § 63.10(a). The Permittee shall submit each report by the date in Table 6 above and as specified as follows:

- (1) The first compliance report shall cover the period beginning on the compliance date that is specified for the affected source in § 63.8395 and ending on June 30 or December 31, and lasting at least 6 months, but less than 12 months. For example, if the compliance date is March 1, then the first semiannual reporting period would begin on March 1 and end on December 31.
- (2) The first compliance report shall be postmarked or delivered no later than July 30 or January 30 for compliance periods ending on June 30 and December 31, respectively.
- (3) Each subsequent compliance report shall cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.
- (4) Each subsequent compliance report shall be postmarked or delivered no later than July 30 or January 30 for compliance periods ending on June 30 and December 31, respectively.

(B) The compliance report shall contain the following information:

- (1) Company name and address.
- (2) Statement by a responsible official with that official's name, title, and signature, certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
- (3) Date of report and beginning and ending dates of the reporting period.
- (4) If the Permittee had a startup, shutdown or malfunction during the reporting period and the Permittee took actions consistent with the SSMP and OM&M plan, the compliance report shall include the information specified in § 63.10(d)(5)(i).

- (5) A description of control device maintenance performed while the control device was offline and the kiln controlled by the control device was operating, including the information specified as follows:
 - (a) The date and time when the control device was shutdown and restarted.
 - (b) Identification of the kiln that was operating and the number of hours that the kiln operated while the control device was offline.
 - (c) A statement of whether or not the control device maintenance was included in the approved routine control device maintenance exemption developed as specified in § 63.8420(e). If the control device maintenance was included in the approved routine control device maintenance exemption, then the Permittee shall report the following information:
 - (i) The total amount of time that the kiln controlled by the control device operated during the current semiannual compliance period and during the previous semiannual compliance period.
 - (ii) The amount of time that each kiln controlled by the control device operated while the control device was offline for maintenance covered under the routine control device maintenance exemption during the current semiannual compliance period and during the previous semiannual compliance period.
 - (iii) Based on the information recorded under paragraphs (i)(5)(c)(i) and (ii) above, compute the annual percent of kiln operating uptime during which the control device was offline for routine maintenance using Equation 1 below.

$$RM = \frac{DT_p + DT_c}{KU_p + KU_c} 100 \quad (\text{Eq. 1})$$

Where:

RM = Annual percentage of kiln uptime during which control device was offline for offline control device maintenance

DTp = Control device downtime claimed under the routine control device maintenance exemption for the previous semiannual compliance period

DTc = Control device downtime claimed under the routine control device maintenance exemption for the current semiannual compliance period

KUp = Kiln uptime for the previous semiannual compliance period

KUc = Kiln uptime for the current semiannual compliance period

- (6) If there are no deviations from any emission limitations (emission limits or operating limits) that apply to the Permittee, the compliance report shall contain a statement that there were no deviations from the emission limitations during the reporting period.
- (7) If there were no periods during which the CMS was out-of-control as specified in the OM&M plan, the compliance report shall contain a statement that there were no periods during which the CMS was out of control during the reporting period.
- iii. For each deviation from an emission limitation (emission limit or operating limit) that occurs at an affected source where the Permittee is not using a CMS to comply with the emission limitations in this Subpart, the compliance report shall contain the information in subparagraphs (B)(1) through (B)(5) above and subparagraphs (A) and (B) below of this section. This includes periods of startup, shutdown, malfunction, and routine control device maintenance.
 - (A) The total operating time of each affected source during the reporting period.
 - (B) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.
- iv. For each deviation from an emission limitation (emission limit or operating limit) occurring at an affected source where the Permittee is using a CMS to comply with the emission limitations in this Subpart, the Permittee shall include the information in subparagraphs (B)(1) through (B)(5) above and subparagraphs (A) through (M) below of this section. This includes periods of startup, shutdown, malfunction, and routine control device maintenance.
 - (A) The total operating time of each affected source during the reporting period.

- (B) The date and time that each malfunction started and stopped.
 - (C) The date and time that each CMS was inoperative, except for zero (low level) and high-level checks.
 - (D) The date, time, and duration that each CMS was out-of-control, including the pertinent information in the OM&M plan.
 - (E) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction; during routine control device maintenance covered in the approved routine control device maintenance exemption; or during another period.
 - (F) A description of corrective action taken in response to a deviation.
 - (G) A summary of the total duration of the deviation during the reporting period and the total duration as a percent of the total source operating time during that reporting period.
 - (H) A breakdown of the total duration of the deviations during the reporting period into those that were due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.
 - (I) A summary of the total duration of CMS downtime during the reporting period and the total duration of CMS downtime as a percent of the total source operating time during that reporting period.
 - (J) A brief description of the process units.
 - (K) A brief description of the CMS.
 - (L) The date of the latest CMS certification or audit.
 - (M) A description of any changes in CMS, processes, or control equipment since the last reporting period.
- v. If the Permittee has obtained a Title V operating permit according to 40 CFR Part 70, the Permittee shall report all deviations in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A). If the Permittee submits a compliance report according to Table 6 above along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A), and the compliance report includes all required information concerning deviations from any emission limitation (including any operating limit), then submitting the compliance report will satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submitting a compliance report will not otherwise affect any obligation the Permittee may have to report deviations from permit requirements to the permitting authority.

E. Plant 4 equipment including: brick packing controlled by simple cyclones and making room controlled by simple cyclones followed by bagfilter venting indoors

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter including PM ₁₀	$E = 55*(P)^{0.11} - 40$	15A NCAC 2D .0515
Visible emissions	20 percent opacity	15A NCAC 2D .0521
Toxic air pollutants	See Section 2.2 B.1. - State enforceable only	15A NCAC 2D .1100
	See Section 2.2 B.2. - State enforceable only	15A NCAC 2Q .0705
Odors	See Section 2.2 B.3. - odorous emissions must be controlled; State enforceable only	15A NCAC 2D .1806

1. 15A NCAC 2D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

a. **Emission Standard/limitation**

Emissions of particulate matter from the brick packing and making room air exhaust shall not exceed an allowable emission rate as calculated by the following equation: [15A NCAC 2D .0515(a)]

$$E = 55 (P)^{0.11} - 40 \quad \text{Where } E = \text{allowable emission rate in pounds per hour} \\ P = \text{process weight in tons per hour}$$

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

b. **Testing** [15A NCAC 2D .0501 (c)(3)]

If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 E.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515.

c. **Monitoring** [15A NCAC 2Q .0508(f)]

Particulate matter emissions from the brick packing and making room air exhaust shall be controlled by simple cyclones followed by a bagfilter. To assure compliance, the Permittee shall perform inspections and maintenance as recommended by the control device manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there is no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:

- i. a monthly visual inspection of the system ductwork and material collection units for leaks; and
- ii. an annual external inspection of the cyclones' structural integrity

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if inspections of the system ductwork and material collection units are not performed.

d. **Record keeping** [15A NCAC 2Q .0508(f)]

The results of the monitoring shall be maintained in a log (written or electronic format) on-site and made available to an authorized representative upon request. The log shall record the following:

- i. the date and time of each recorded action;
- ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions;
- iii. the results of any maintenance performed on the cyclones; and
- iv. any variance from manufacturer's recommendations, if any, and corrections made.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if records of the monitoring results are not maintained.

e. **Reporting** [15A NCAC 2Q .0508(f)]

The Permittee shall submit, in writing a summary report of the observations by January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

2. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS

a. **Emission Standard** [15A NCAC 2D .0521(d)]

Visible emissions from the Brick making room air exhaust shall not be more than 20 percent opacity when averaged over a six-minute period except that six-minute periods averaging not more than 87 percent opacity may occur not more than once in any hour nor more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

b. **Testing** [15A NCAC 2D .0501(c)(8)]

If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(8) and (18) and General Condition JJ. If the results of this test are above the limit given in Section 2.1 E.2.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

c. **Monitoring** [15A NCAC 2Q .0508(f)]

No visual observations are required when the emission sources are exhausting indoors through the bagfilter. When the bagfilter is bypassed and emissions are exhausted outdoors, the Permittee shall observe the emission point for any visible emissions above normal. During the periods of bagfilter bypass, if visible emissions are observed to be above normal, the Permittee shall either:

- i. take appropriate action to correct the above-normal emissions within as soon as practicable and the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
- ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 2D .0501(c)(8) is below the limit given in Section 2.1 E.2.a. above.

If the above-normal emissions are not corrected per (i) above or if the demonstration in (ii) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0521.

d. **Record keeping** [15A NCAC 2Q .0508(f)]

The results of the monitoring shall be maintained in a log (written or electronic format) on-site and made available to an authorized representative upon request. The log shall record the following:

- i. the date and time of each recorded action;
- ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
- iii. the results of any corrective actions performed.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521 if records of the monitoring results are not maintained.

e. **Reporting** [15A NCAC 2Q .0508(f)]

The Permittee shall submit, in writing a summary report of the observations by January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

F. Plant 5 equipment including: two natural gas-fired combination brick dryer and kiln systems

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter including PM ₁₀	$E = 4.10 * (P)^{0.67}$	15A NCAC 2D .0515
Sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 2D .0516
Visible emissions	20 percent opacity	15A NCAC 2D .0521
Toxic air pollutants	See Section 2.2 B.1. - State enforceable only	15A NCAC 2D .1100
	See Section 2.2 B.2. - State enforceable only	15A NCAC 2Q .0705
Odors	See Section 2.2 B.3. - odorous emissions must be controlled; State enforceable only	15A NCAC 2D .1806

HAPs	Limit kiln operation rate to less than 10 tons per hour fired brick on a 12-month rolling average basis each	15A NCAC 2Q .0317(a)(5) (Avoidance of MACT)
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1. 15A NCAC 2D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

a. **Emission Standard/limitation**

Emissions of particulate matter from this source shall not exceed an allowable emission rate as calculated by the following equation: [15A NCAC 2D .0515(a)]

$$E = 4.10 \times P^{0.67} \quad \text{Where } E = \text{allowable emission rate in pounds per hour}$$

$$P = \text{process weight in tons per hour}$$

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

b. **Testing** [15A NCAC 2D .0501 (c)(3)]

If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 F.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515.

c. **Monitoring** [15A NCAC 2Q .0508(f)]

To assure compliance with the emissions limitations, the Permittee shall perform the following monitoring exercises:

- i. a monthly visual inspection of the system ductwork for leaks; and
- ii. every six months, perform a visual inspection of the brick kiln fuel combustion system.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the ductwork is not inspected and maintained.

d. **Record keeping** [15A NCAC 2Q .0508(f)]

The results of inspection and maintenance shall be maintained in a log (written or electronic format) on-site and made available to an authorized representative upon request. The log shall record the following:

- i. the date and time of each recorded action;
- ii. the results of each inspection;
- iii. the results of any maintenance performed ; and
- iv. any variance from manufacturer’s recommendations, if any, and corrections made.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if records of the monitoring results are not maintained.

e. **Reporting** [15A NCAC 2Q .0508(f)]

The Permittee shall submit, in writing a summary report of monitoring and record keeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

2. 15A NCAC 2D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

a. **Emission Standard** [15A NCAC 2D .0516]

Emissions of sulfur dioxide from the source shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard. [15A NCAC 2D .0516]

- b. **Testing** [15A NCAC 2D .0501(c)(4)]
If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(4) and General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1 F.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516.
- c. **Monitoring/Recordkeeping** [15A NCAC 2Q .0508(f)]
No monitoring or recordkeeping is required to show compliance with this regulation.

Reporting [15A NCAC 2Q .0508(f)]

- d. No reporting is required to show compliance with this regulation.

3. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS

- a. **Emission Standard** [15A NCAC 2D .0521(d)]
Visible emissions from the sources shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 2D .0521 (d)]

- b. **Testing** [15A NCAC 2D .0501(c)(8)]
If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(8) and (18) and General Condition JJ. If the results of this test are above the limit given in Section 2.1 F.3.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

Monitoring [15A NCAC 2Q .0508(f)]

- c. To assure compliance, once a month the Permittee shall observe the emission points of this source for any visible emissions above normal. The monthly observation must be made for each month of the calendar year period to ensure compliance with this requirement. The Permittee shall establish "normal" for the sources in the first 30 days following the production increase of each kilns (**ID Nos. 5ES-LKD5.1 and 5ES-LKD5.2**). If visible emissions from the sources are observed to be above normal, the Permittee shall either:
- take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
 - demonstrate that the percent opacity from the emission points of the emission sources in accordance with 15A NCAC 2D .0501(c)(8) is below the limit given in Section 2.1 F.3.a. above.
- If the above-normal emissions are not corrected per (i) above or if the demonstration in (ii) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0521.

- d. **Record keeping** [15A NCAC 2Q .0508(f)]

The results of the monitoring shall be maintained in a log (written or electronic format) on-site and made available to an authorized representative upon request. The log shall record the following:

- the date and time of each recorded action;
- the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
- the results of any corrective actions performed.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521 if records of the monitoring results are not maintained.

- e. **Reporting** [15A NCAC 2Q .0508(f)]

The Permittee shall submit, in writing a summary report of the observations by January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for

the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

**4. 15A NCAC 2Q .0317: AVOIDANCE CONDITIONS for
15A NCAC 2D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY**

- a. In order to avoid applicability of 15A NCAC 2D .1111 and 40 CFR Part 63 Subpart JJJJ "National Emission Standards for Hazardous Air Pollutants for Brick and Structural Clay Products", the Permittee shall restrict the operation rate of each kiln (**ID Nos. 5ES-LKD5.1 and 5ES-LKD5.2**) to less than 10 tons per hour fired product on a 12-month rolling average basis, beginning on May 16, 2006. Compliance with the 12-month rolling average of operation rate of each kiln shall begin on May 16, 2006 and for compliance purposes, the 12 months preceding May 16, 2006 shall be considered as zero value inputs for averaging purposes. [15A NCAC 2Q .0317(a)(5), and 40 CFR 63.8390(d) and 63.8395(b)]
- b. **Testing** [15A NCAC 2Q .0501 (c)(4)]
If emissions testing is required, the Permittee shall perform such testing in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 F. 4. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111.
- c. **Monitoring/Recordkeeping** [15A NCAC 2Q .0508 (f)]
Beginning on May 16, 2006, the Permittee shall keep monthly records of each kiln (**ID Nos. 5ES-LKD5.1 and 5ES-LKD5.2**) operation rate and the calculations for 12-month rolling average for kiln operation rate, in a logbook (written or electronic format). The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111, if the above records are not maintained, or if the rates exceeds the limit pursuant to 2.1 F. 4. a. above.
- d. **Reporting** [15A NCAC 2Q .0508(f)]
The Permittee shall submit a semi-annual summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and record keeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the following:
 - i. Each kiln process rate for the previous 17 months. The kiln process rate must be calculated for each of the 12-month periods on a rolling average basis, over the previous 17 months.

2.2 MULTIPLE EMISSION SOURCE(s): Specific Limitations and Conditions (Including specific requirements, monitoring/testing, record keeping, and reporting requirements)

A. Plant 3 and Plant 4 Equipment

The emission source(s) and associated air pollution control device(s) listed below are subject to the following specific terms, conditions, and limitations, including the monitoring, recordkeeping, and reporting requirements as specified herein:

The following provides a summary of limits and/or standards for the emission source(s) described above. A review of the information in the application was performed to ensure the appropriate limits and associated calculations used to show compliance were correct.

Regulated Pollutant	Limits/Standards	Applicable Regulation
Carbon monoxide	Less than 250 tons per consecutive 12-month period	15A NCAC 2Q .0317 (Avoidance of 15A NCAC 2D .0530)

**1. 15A NCAC 2Q .0317: AVOIDANCE CONDITIONS
for 15A NCAC 2D. 0530: PREVENTION OF SIGNIFICANT DETERIORATION**

- a. **Emission Standard(s)** [15A NCAC 2Q .0317]
In order to avoid applicability of 15A NCAC 2D .0530 (g) for major sources and major modifications, **Plant 3 and Plant 4** equipment shall discharge into the atmosphere less than 250 tons of carbon monoxide (CO) total, per consecutive 12-month period.

In order to avoid applicability of 15A NCAC 2D .0530(g) for major sources and major modification, **Plant 4** production rate shall be limited to 232,000 tpy of fired brick.

Testing [15A NCAC 2Q .0501 (c)(4)]

- b. If emissions testing is required, the Permittee shall perform such testing in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.2 A. 1. a., the Permittee shall be deemed in noncompliance with 15A NCAC 2Q .0530.

Monitoring/Recordkeeping [15A NCAC 2Q .0508 (f)]

- c. The Permittee shall keep monthly records of the amount of bricks produced while firing natural gas and while firing wood (sawdust) in a log (written or in electronic format). The Permittee shall be deemed in noncompliance with 15A NCAC 2Q .0317 if the amount of bricks used is not monitored.
- d. The monthly brick production shall be limited such that carbon monoxide emissions shall not exceed 250 tons for any consecutive 12-month period. Calculations shall be made monthly and recorded in a log (written or electronic format), according to the following formula:

$$CO = \frac{[(0.85) \times (B1)] + [(1.6) \times (B2)]}{2000}$$

where, CO = carbon monoxide emission in units of tons per year
B1 = tons of bricks produced while firing natural gas
B2 = tons of bricks produced while firing wood (sawdust)

It shall be the Permittee's responsibility to request that the permit be amended administratively upon becoming aware of an emission factor change.

- e. The Permittee shall keep each monthly records on site for a minimum of three years and make them available to DAQ personnel. The Permittee shall be deemed in noncompliance with 15A NCAC 2Q .0317 if the above records are not kept or if the carbon monoxide emissions exceed the limit in Section 2.2 A.1.a. above.

Reporting [15A NCAC 2Q .0508 (f)]

- f. The Permittee shall submit a semi-annual summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the following:
- i. The monthly brick production while firing natural gas in units of tons for the previous 17 months. The total brick production must be calculated for each of the 12-month periods over the previous 17 months;
 - ii. The monthly brick production while firing wood (sawdust) in units of tons for the previous 17 months. The total brick production must be calculated for each of the 12-month periods over the previous 17 months;
 - iii. The total monthly carbon monoxide emissions in units of tons for the previous 17 months. The emissions must be calculated for each of the 12-month periods over the previous 17 months;

- iv. All instances of deviations from the requirements of this permit must be clearly identified.

B. Facility wide Sources

State-enforceable only

1. 15A NCAC 2D .1100: TOXIC AIR POLLUTANT EMISSIONS LIMITATION AND REPORTING REQUIREMENT

- a. **Emission Limits** - In accordance with the approved application for an air toxic compliance demonstration, the following permit limits for the combined total emission of toxic air pollutants from each source shall not exceed the following:

Sources: TAPs (emission rate):	3ES-LK3.1 and 3ES-LK3.2	4ES-LKD4.1 and 4ES-LKD4.2	5ES-LKD5.1	5ES-LKD5.2
Ammonia lbs/hr	0.0	8.92	0.0	0.0
Arsenic lbs/year	5.439	7.367	3.249	3.249
Beryllium lb/yr	0.073	0.098	0.087	0.087
Benzene lbs/yr	508.08	683.28	297.84	297.84
Cadmium lbs/yr	3.854	5.203	1.568	1.568
Chlorine lb/day	0.624	0.84	0.36	0.36
Chromium lb/day	0.024	0.033	0.014	0.014
di (2-thylhexyl)phthalate lbs/day	0.96	1.296	0.573	0.573
Formaldehyde lbs/hr	3.303	4.464	0.001	0.001
Hydrogen Chloride lbs/hr	3.403	7.026	2.063	2.063
Hydrogen Fluoride lbs/hr	11.81	1.541	7.063	7.063
Hydrogen Fluoride lbs/day	283.44	36.984	169.512	169.512
Mercury lb/day	0.005	0.007	0.002	0.002
Manganese lb/day	0.230	0.309	0.081	0.081
Nickel lb/day	0.033	0.046	0.02	0.02

- i. To insure compliance with the above limits, the following restrictions shall apply:

- (A) The height of the stacks above ground for the following equipment shall be no less than and the tons of brick per hour shall not be exceeded for the following sources:

Emission Source ID No.	Emission Source Description	Emission Point ID Nos.	Brick production tons per hour	Stack height meters	
Plant 3	one raw material crushing and handling operation including:				
3VS3.4A and 3VS3.4B	two Leahy vibrating screens	EP3.4A-EP3.4B			
3VS3.4C and 3VS3.4D	two Simplicity vibrating screens	EP3.4C-EP3.4D			
3ES-KILNDRY	one combination brick kiln and wood fuel drying system including:		20		
3ES-LK3.1	one natural gas/wood-fired brick kiln				
3ES-LK3.2	one natural gas/wood-fired brick kiln				
3ES-DRY2	one brick kiln exhaust gas heated or stand-by natural gas-fired fluidized bed wood (sawdust) drying system	EP3.1/3.2(CY)		21.6	
3PBCS	one portable brick crushing and screening unit				
Plant 4	4ES-LKD4.1 and 4ES-LKD4.2	a combination brick kiln and wood fuel drying system consisting of two wood/natural gas/propane-fired brick kilns sharing a single stack	EP-4.1 and EP- 4.2	27	33.53
Plant 5	5ES-LKD5.1 and 5ES-LKD5.2	two natural gas-fired combination brick dryer and kiln systems	EP-5.1C and EP5.2C	11.95 each	^r 16.76

b. **Testing**

The DAQ may require the Permittee to perform periodic sampling and analysis of clay and weathered clay used at the facility for determination of fluoride concentration.

The Permittee shall notify the Air Quality Regional Supervisor, DAQ within 30 days of initial start-up of the use of any clay or weathered clay received from a new source (supplier), and provide the analytical results of fluoride concentration within 30 days of such date.

Monitoring/Recordkeeping/Reporting

- c. No monitoring/recordkeeping/reporting is required to assure compliance with this requirement.

State-enforceable only

2. 15A NCAC 2Q .0705: EXISTING FACILITIES AND SIC CALLS for TOXIC AIR POLLUTANT EMISSIONS LIMITATION REQUIREMENT

^r the stack heights must be raised to 16.76 meters for each of the stacks prior to operating at the process rate of 11.76 tph for each kiln. The increased stack height is not required as long as the kilns operate at or below their previously permitted process rate of 10.25 tph each.

- a. As of the issuance date of air permit 03997T18, April 12, 2006, emissions of toxic air pollutants have been demonstrated on a facility-wide basis (excluding those sources exempt under 15A NCAC 2Q .0702 "Exemptions") that each of the toxic air pollutants (TAPs) emitted from all sources at the facility are either below its respective toxic permit emission rates (TPER) listed in 15A NCAC 2Q .0711 - "Emission Rates Requiring a Permit" or the TAPs are in compliance with 15A NCAC 2D .1100 "Control of Toxic Air Pollutants" as described elsewhere in this permit.
- b. The facility shall be operated and maintained in such a manner that any new, existing or increased actual emissions of any TAP listed in 15A NCAC 2Q .0711 or in this permit from all sources at the facility (excluding those sources exempt under 15A NCAC 2Q .0702 "Exemptions"), including fugitive emissions and emission sources not otherwise required to have a permit, will not exceed its respective TPER listed in 15A NCAC 2Q .0711 without first obtaining an air permit to construct or operate.
- c. PRIOR to exceeding any of the TPERs listed in 15A NCAC 2Q .0711, the Permittee shall be responsible for obtaining an air permit to emit TAPs and for demonstrating compliance with the requirements of 15A NCAC 2D .1100 "Control of Toxic Air Pollutants".
- d. The Permittee shall maintain at the facility records of operational information sufficient for demonstrating to the Division of Air Quality staff that actual TAPs are less than the rate listed in 15A NCAC 2Q .0711.
- e. The TPER table listed below is provided to assist the Permittee in determining when an air permit is required pursuant to 15A NCAC 2Q .0711 and may not represent all TAPs being emitted from the facility. This table will be updated at such time as the permit is either modified or renewed.

Pollutant (CAS Number)	TPER Limitation			
	Carcinogens (lb/yr)	Chronic Toxicants (lb/day)	Acute Systemic Toxicants (lb/hr)	Acute Irritants (lb/hr)
benzo(a)pyrene (50-32-8)	2.2			
carbon disulfide (75-15-0)		3.9		
p- dichlorobenzene (106-46-7)				16.8
n-hexane (110-54-3)		23		
methyl ethyl ketone (78-93-3)		78		22.4
methyl chloroform (71-55-6)		250		64
perchloroethylene (127-18-4)	13000			
phenol (108-95-2)			0.24	
styrene (100-42-5)			2.7	
toluene (108-88-3)		98		14.4
xylene (1330-20-7)	57			16.4

State-enforceable Only

**3. 15A NCAC 2D .1806: CONTROL AND PROHIBITION OF ODOROUS EMISSIONS:
 All emission sources**

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Odors	Odorous emissions must be controlled; State-enforceable only	15A NCAC 2D .1806

- a. The Permittee shall not operate the facility without implementing management practices or installing and operating odor control equipment sufficient to prevent odorous emissions from the facility from causing or contributing to objectionable odors beyond the facility’s boundary.

SECTION 3 - GENERAL CONDITIONS

This section describes terms and conditions applicable to this Title V facility. All references to the “permit” in this section apply only to Part I of the permit.

- A. **General Provisions** [NCGS 143-215 and 15A NCAC 2Q .0508(i)(16)]
 - 1. Terms not otherwise defined in this permit shall have the meaning assigned to such terms as defined in 15A NCAC 2D and 2Q.
 - 2. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are binding and enforceable pursuant to NCGS 143-215.114A and 143-215.114B, including assessment of civil and/or criminal penalties. Any unauthorized deviation from the conditions of this permit may constitute grounds for revocation and/or enforcement action by the DAQ.
 - 3. This permit is not a waiver of or approval of any other Department permits that may be required for other aspects of the facility which are not addressed in this permit.
 - 4. This permit does not relieve the Permittee from liability for harm or injury to human health or welfare, animal or plant life, or property caused by the construction or operation of this permitted facility, or from penalties therefore, nor does it allow the Permittee to cause pollution in contravention of state laws or rules, unless specifically authorized by an order from the North Carolina Environmental Management Commission.
 - 5. Except as identified as state-only requirements in this permit, all terms and conditions contained herein shall be enforceable by the DAQ, the EPA, and citizens of the United States as defined in the Federal Clean Air Act.
 - 6. Any stationary source of air pollution shall not be operated, maintained, or modified without the appropriate and valid permits issued by the DAQ, unless the source is exempted by rule. The DAQ may issue a permit only after it receives reasonable assurance that the installation will not cause air pollution in violation of any of the applicable requirements. A permitted installation may only be operated, maintained, constructed, expanded, or modified in a manner that is consistent with the terms of this permit.

- B. **Permit Availability** [15A NCAC 2Q .0507(k) and .0508(i)(9)(B)]

The Permittee shall have available at the facility a copy of this permit and shall retain for the duration of the permit term one complete copy of the application and any information submitted in support of the application package. The permit and application shall be made available to an authorized representative of Department of Environment and Natural Resources upon request.

- C. **Severability Clause** [15A NCAC 2Q .0508(i)(2)]

In the event of an administrative challenge to a final and binding permit in which a condition is held to be invalid, the provisions in this permit are severable so that all requirements contained in the permit, except those held to be invalid, shall remain valid and must be complied with.

D. **Submissions** [15A NCAC 2Q .0507(e) and 2Q .0508(i)(16)]

Except as otherwise specified herein, two copies of all documents, reports, test data, monitoring data, notifications, request for renewal, and any other information required by this permit shall be submitted to the appropriate Regional Office. Refer to the Regional Office address on the cover page of this permit. For continuous emissions monitoring systems (CEMS) reports, continuous opacity monitoring systems (COMS) reports, quality assurance (QA)/quality control (QC) reports, acid rain CEM certification reports, and NOx budget CEM certification reports, one copy shall be sent to the appropriate Regional Office and one copy shall be sent to:

Supervisor, Stationary Source Compliance
North Carolina Division of Air Quality
1641 Mail Service Center
Raleigh, NC 27699-1641

E. **Duty to Comply** [15A NCAC 2Q .0508(i)(2)]

The Permittee shall comply with all terms, conditions, requirements, limitations and restrictions set forth in this permit. Noncompliance with any permit condition except conditions identified as state-only requirements constitutes a violation of the Federal Clean Air Act. Noncompliance with any permit condition is grounds for enforcement action, for permit termination, revocation and reissuance, or modification, or for denial of a permit renewal application.

F. **Circumvention** - STATE ENFORCEABLE ONLY

The facility shall be properly operated and maintained at all times in a manner that will effect an overall reduction in air pollution. Unless otherwise specified by this permit, no emission source may be operated without the concurrent operation of its associated air pollution control device(s) and appurtenances.

G. **Permit Modifications**

1. Administrative Permit Amendments [15A NCAC 2Q .0514]
The Permittee shall submit an application for an administrative permit amendment in accordance with 15A NCAC 2Q .0514.
2. Transfer in Ownership or Operation and Application Submittal Content [15A NCAC 2Q .0524 and 2Q .0505]
The Permittee shall submit an application for an ownership change in accordance with 15A NCAC 2Q.0524 and 2Q .0505.
3. Minor Permit Modifications [15A NCAC 2Q .0515]
The Permittee shall submit an application for a minor permit modification in accordance with 15A NCAC 2Q .0515.
4. Significant Permit Modifications [15A NCAC 2Q .0516]
The Permittee shall submit an application for a significant permit modification in accordance with 15A NCAC 2Q .0516.
5. Reopening for Cause [15A NCAC 2Q .0517]
The Permittee shall submit an application for reopening for cause in accordance with 15A NCAC 2Q .0517.

H. **Changes Not Requiring Permit Modifications**

1. Section 502(b)(10) Changes [15A NCAC 2Q .0523(a)]
 - a. "Section 502(b)(10) changes" means changes that contravene an express permit term or condition. Such changes do not include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.
 - b. The Permittee may make Section 502(b)(10) changes without having the permit revised if:
 - i. the changes are not a modification under Title I of the Federal Clean Air Act;
 - ii. the changes do not cause the allowable emissions under the permit to be exceeded;

- iii. the Permittee notifies the Director and EPA with written notification at least seven days before the change is made; and
 - iv. the Permittee shall attach the notice to the relevant permit.
 - c. The written notification shall include:
 - i. a description of the change;
 - ii. the date on which the change will occur;
 - iii. any change in emissions; and
 - iv. any permit term or condition that is no longer applicable as a result of the change.
 - d. Section 502(b)(10) changes shall be made in the permit the next time that the permit is revised or renewed, whichever comes first.
2. Off Permit Changes [15A NCAC 2Q .0523(b)]

The Permittee may make changes in the operation or emissions without revising the permit if:

 - a. the change affects only insignificant activities and the activities remain insignificant after the change; or
 - b. the change is not covered under any applicable requirement.
3. Emissions Trading [15A NCAC 2Q .0523(c)]

To the extent that emissions trading is allowed under 15A NCAC 2D, including subsequently adopted maximum achievable control technology standards, emissions trading shall be allowed without permit revision pursuant to 15A NCAC 2Q .0523(c).

I.A. Reporting Requirements for Excess Emissions and Permit Deviations

[15A NCAC 2D .0535(f) and 2Q .0508(f)(2)]

“Excess Emissions” - means an emission rate that exceeds any applicable emission limitation or standard allowed by any rule in Sections .0500, .0900, .1200, or .1400 of Subchapter 2D; or by a permit condition; or that exceeds an emission limit established in a permit issued under 15A NCAC 2Q .0700. (*Note: Definitions of excess emissions under 2D .1110 and 2D .1111 shall apply where defined by rule.*)

“Deviations” - for the purposes of this condition, any action or condition not in accordance with the terms and conditions of this permit including those attributable to upset conditions as well as excess emissions as defined above lasting less than four hours.

Excess Emissions

1. If a source is required to report excess emissions under NSPS (15A NCAC 2D .0524), NESHAPS (15A NCAC 2D .1110 or .1111), or the operating permit provides for periodic (e.g., quarterly) reporting of excess emissions, reporting shall be performed as prescribed therein.
2. If the source is not subject to NSPS (15A NCAC 2D .0524), NESHAPS (15A NCAC 2D .1110 or .1111), or these rules do NOT define "excess emissions," the Permittee shall report excess emissions in accordance with 15A NCAC 2D .0535 as follows:
 - a. Pursuant to 15A NCAC 2D .0535, if excess emissions last for more than four hours resulting from a malfunction, a breakdown of process or control equipment, or any other abnormal condition, the owner or operator shall:
 - i. notify the Regional Supervisor or Director of any such occurrence by 9:00 a.m. Eastern Time of the Division's next business day of becoming aware of the occurrence and provide:
 - name and location of the facility;
 - nature and cause of the malfunction or breakdown;
 - time when the malfunction or breakdown is first observed;
 - expected duration; and
 - estimated rate of emissions;
 - ii. notify the Regional Supervisor or Director immediately when corrective measures have been accomplished; and
 - iii. submit to the Regional Supervisor or Director within 15 days a written report as described in 15A NCAC 2D .0535(f)(3).

Permit Deviations

3. Pursuant to 15A NCAC 2Q .0508(f)(2), the Permittee shall report deviations from permit requirements (terms and conditions) as follows:

- a. Notify the Regional Supervisor or Director of all other deviations from permit requirements not covered under 15A NCAC 2D .0535 quarterly. A written report to the Regional Supervisor shall include the probable cause of such deviation and any corrective actions or preventative actions taken. The responsible official shall certify all deviations from permit requirements.

I.B. Other Requirements under 15A NCAC 2D .0535

The Permittee shall comply with all other applicable requirements contained in 15A NCAC 2D .0535, including 15A NCAC 2D .0535(c) as follows:

1. Any excess emissions that do not occur during start-up and shut-down shall be considered a violation of the appropriate rule unless the owner or operator of the sources demonstrates to the Director, that the excess emissions are a result of a malfunction. The Director shall consider, along with any other pertinent information, the criteria contained in 15A NCAC 2D .0535(c)(1) through (7).
2. 15A NCAC 2D .0535(g). Excess emissions during start-up and shut-down shall be considered a violation of the appropriate rule if the owner or operator cannot demonstrate that excess emissions are unavoidable.

J. Emergency Provisions [40 CFR 70.6(g)]

The Permittee shall be subject to the following provisions with respect to emergencies:

1. An emergency means any situation arising from sudden and reasonably unforeseeable events beyond the control of the facility, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the facility to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error.
2. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions specified in 3. below are met.
3. The affirmative defense of emergency shall be demonstrated through properly signed contemporaneous operating logs or other relevant evidence that include information as follows:
 - a. an emergency occurred and the Permittee can identify the cause(s) of the emergency;
 - b. the permitted facility was at the time being properly operated;
 - c. during the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the standards or other requirements in the permit; and
 - d. the Permittee submitted notice of the emergency to the DAQ within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
4. In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
5. This provision is in addition to any emergency or upset provision contained in any applicable requirement specified elsewhere herein.

K. Permit Renewal [15A NCAC 2Q .0508(e) and 2Q .0513(b)]

This permit is issued for a fixed term of five years for facilities subject to Title IV requirements and for a term not to exceed five years in the case of all other facilities. This permit shall expire at the end of its term. Permit expiration terminates the facility's right to operate unless a complete renewal application is submitted at least nine months before the date of permit expiration. If the Permittee or applicant has complied with 15A NCAC 2Q .0512(b)(1), this permit shall not expire until the renewal permit has been issued or denied. All terms and conditions of this permit shall remain in effect until the renewal permit has been issued or denied.

L. Need to Halt or Reduce Activity Not a Defense [15A NCAC 2Q .0508(i)(4)]

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.

M. Duty to Provide Information (submittal of information) [15A NCAC 2Q .0508(i)(9)]

1. The Permittee shall furnish to the DAQ, in a timely manner, any reasonable 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.
2. The Permittee shall furnish the DAQ copies of records required to be kept by the permit when such copies are requested by the Director. For information claimed to be confidential, the Permittee may furnish such records directly to the EPA upon request along with a claim of confidentiality.

N. **Duty to Supplement** [15A NCAC 2Q .0507(f)]

The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the DAQ. The Permittee shall also provide additional information as necessary to address any requirement that becomes applicable to the facility after the date a complete permit application was submitted but prior to the release of the draft permit.

O. **Retention of Records** [15A NCAC 2Q .0508(f) and 2Q .0508 (l)]

The Permittee shall retain records of all required monitoring data and supporting information for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Supporting information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring information, and copies of all reports required by the permit. These records shall be maintained in a form suitable and readily available for expeditious inspection and review. Any records required by the conditions of this permit shall be kept on site and made available to DAQ personnel for inspection upon request.

P. **Compliance Certification** [15A NCAC 2Q .0508(n)]

The Permittee shall submit to the DAQ and the EPA (Air and EPCRA Enforcement Branch, EPA, Region 4, 61 Forsyth Street, Atlanta, GA 30303) postmarked on or before March 1 a compliance certification (for the preceding calendar year) by a responsible official with all federally-enforceable terms and conditions in the permit, including emissions limitations, standards, or work practices. It shall be the responsibility of the current owner to submit a compliance certification for the entire year regardless of who owned the facility during the year. The compliance certification

shall comply with additional requirements as may be specified under Sections 114(a)(3) or 504(b) of the Federal Clean Air Act. The compliance certification shall specify:

1. the identification of each term or condition of the permit that is the basis of the certification;
2. the compliance status (with the terms and conditions of the permit for the period covered by the certification);
3. whether compliance was continuous or intermittent; and
4. the method(s) used for determining the compliance status of the source during the certification period.

Q. **Certification by Responsible Official** [15A NCAC 2Q .0520]

A responsible official shall certify the truth, accuracy, and completeness of any application form, report, or compliance certification required by this permit. All certifications shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

R. **Permit Shield for Applicable Requirements** [15A NCAC 2Q .0512]

1. Compliance with the terms and conditions of this permit shall be deemed compliance with applicable requirements, where such applicable requirements are included and specifically identified in the permit as of the date of permit issuance.
2. A permit shield shall not alter or affect:
 - a. the power of the Commission, Secretary of the Department, or Governor under NCGS 143-215.3(a)(12), or EPA under Section 303 of the Federal Clean Air Act;
 - b. the liability of an owner or operator of a facility for any violation of applicable requirements prior to the effective date of the permit or at the time of permit issuance;
 - c. the applicable requirements under Title IV; or
 - d. the ability of the Director or the EPA under Section 114 of the Federal Clean Air Act to obtain information to determine compliance of the facility with its permit.

3. A permit shield does not apply to any change made at a facility that does not require a permit or permit revision made under 15A NCAC 2Q .0523.
4. A permit shield does not extend to minor permit modifications made under 15A NCAC 2Q .0515.

S. **Termination, Modification, and Revocation of the Permit** [15A NCAC 2Q .0519]

The Director may terminate, modify, or revoke and reissue this permit if:

1. the information contained in the application or presented in support thereof is determined to be incorrect;
2. the conditions under which the permit or permit renewal was granted have changed;
3. violations of conditions contained in the permit have occurred;
4. the EPA requests that the permit be revoked under 40 CFR 70.7(g) or 70.8(d); or
5. the Director finds that termination, modification, or revocation and reissuance of the permit is necessary to carry out the purpose of NCGS Chapter 143, Article 21B.

T. **Insignificant Activities** [15A NCAC 2Q .0503]

Because an emission source or activity is insignificant does not mean that the emission source or activity is exempted from any applicable requirement or that the owner or operator of the source is exempted from demonstrating compliance with any applicable requirement. The Permittee shall have available at the facility at all times and made available to an authorized representative upon request, documentation, including calculations, if necessary, to demonstrate that an emission source or activity is insignificant.

U. **Property Rights** [15A NCAC 2Q .0508(i)(8)]

This permit does not convey any property rights in either real or personal property or any exclusive privileges.

V. **Inspection and Entry** [15A NCAC 2Q .0508(l) and NCGS 143-215.3(a)(2)]

1. Upon presentation of credentials and other documents as may be required by law, the Permittee shall allow the DAQ, or an authorized representative, to perform the following:
 - a. enter the Permittee's premises where the permitted facility is located or emissions-related activity is conducted, or where records are kept under the conditions of the permit;
 - b. have access to and copy, at reasonable times, any records that are required to be kept under the conditions of the permit;
 - c. inspect at reasonable times and using reasonable safety practices any source, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
 - d. sample or monitor substances or parameters, using reasonable safety practices, for the purpose of assuring compliance with the permit or applicable requirements at reasonable times.

Nothing in this condition shall limit the ability of the EPA to inspect or enter the premises of the Permittee under Section 114 or other provisions of the Federal Clean Air Act.

2. No person shall refuse entry or access to any authorized representative of the DAQ who requests entry for purposes of inspection, and who presents appropriate credentials, nor shall any person obstruct, hamper, or interfere with any such authorized representative while in the process of carrying out his official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

W. **Annual Fee Payment** [15A NCAC 2Q .0508(i)(10)]

1. The Permittee shall pay all fees in accordance with 15A NCAC 2Q .0200.
2. Payment of fees may be by check or money order made payable to the N.C. Department of Environment and Natural Resources. Annual permit fee payments shall refer to the permit number.
3. If, within 30 days after being billed, the Permittee fails to pay an annual fee, the Director may initiate action to terminate the permit under 15A NCAC 2Q .0519.

X. **Annual Emission Inventory Requirements** [15A NCAC 2Q .0207]

The Permittee shall report by **June 30 of each year** the actual emissions of each air pollutant listed in 15A NCAC 2Q .0207(a) from each emission source within the facility during the previous calendar year. The report shall be in or on such form as may be established by the Director. The accuracy of the report shall be certified by a responsible official of the facility.

- Y. **Confidential Information** [15A NCAC 2Q .0107 and 2Q. 0508(i)(9)]
Whenever the Permittee submits information under a claim of confidentiality pursuant to 15A NCAC 2Q .0107, the Permittee may also submit a copy of all such information and claim directly to the EPA upon request. All requests for confidentiality must be in accordance with 15A NCAC 2Q .0107.
- Z. **Construction and Operation Permits** [15A NCAC 2Q .0100 and .0300]
A construction and operating permit shall be obtained by the Permittee for any proposed new or modified facility or emission source which is not exempted from having a permit prior to the beginning of construction or modification, in accordance with all applicable provisions of 15A NCAC 2Q .0100 and .0300.
- AA. **Standard Application Form and Required Information** [15A NCAC 2Q .0505 and .0507]
The Permittee shall submit applications and required information in accordance with the provisions of 15A NCAC 2Q .0505 and .0507.
- BB. **Financial Responsibility and Compliance History** [15A NCAC 2Q .0507(d)(3)]
The DAQ may require an applicant to submit a statement of financial qualifications and/or a statement of substantial compliance history.
- CC. **Refrigerant Requirements (Stratospheric Ozone and Climate Protection)** [15A NCAC 2Q .0501(e)]
 1. If the Permittee has appliances or refrigeration equipment, including air conditioning equipment, which use Class I or II ozone-depleting substances such as chlorofluorocarbons and hydrochlorofluorocarbons listed as refrigerants in 40 CFR Part 82 Subpart A Appendices A and B, the Permittee shall service, repair, and maintain such equipment according to the work practices, personnel certification requirements, and certified recycling and recovery equipment specified in 40 CFR Part 82 Subpart F.
 2. The Permittee shall not knowingly vent or otherwise release any Class I or II substance into the environment during the repair, servicing, maintenance, or disposal of any such device except as provided in 40 CFR Part 82 Subpart F.
 3. The Permittee shall comply with all reporting and recordkeeping requirements of 40 CFR 82.166. Reports shall be submitted to the EPA or its designee as required.
- DD. **Prevention of Accidental Releases - Section 112(r)** [15A NCAC 2Q .0508(h)]
If the Permittee is required to develop and register a Risk Management Plan with EPA pursuant to Section 112(r) of the Clean Air Act, then the Permittee is required to register this plan in accordance with 40 CFR Part 68.
- EE. **Prevention of Accidental Releases General Duty Clause - Section 112(r)(1) -**
FEDERALLY-ENFORCEABLE ONLY
Although a risk management plan may not be required, if the Permittee produces, processes, handles, or stores any amount of a listed hazardous substance, the Permittee has a general duty to take such steps as are necessary to prevent the accidental release of such substance and to minimize the consequences of any release.
- FF. **Title IV Allowances** [15A NCAC 2Q .0508(i)(1)]
This permit does not limit the number of Title IV allowances held by the Permittee, but the Permittee may not use allowances as a defense to noncompliance with any other applicable requirement. The Permittee's emissions may not exceed any allowances that the facility lawfully holds under Title IV of the Federal Clean Air Act.
- GG. **Air Pollution Emergency Episode** [15A NCAC 2D .0300]
Should the Director of the DAQ declare an Air Pollution Emergency Episode, the Permittee will be required to operate in accordance with the Permittee's previously approved Emission Reduction Plan or, in the absence of an approved plan, with the appropriate requirements specified in 15A NCAC 2D .0300.
- HH. **Registration of Air Pollution Sources** [15A NCAC 2D .0200]

The Director of the DAQ may require the Permittee to register a source of air pollution. If the Permittee is required to register a source of air pollution, this registration and required information will be in accordance with 15A NCAC 2D .0202(b).

II. **Ambient Air Quality Standards** [15A NCAC 2D .0501(e)]

In addition to any control or manner of operation necessary to meet emission standards specified in this permit, any source of air pollution shall be operated with such control or in such manner that the source shall not cause the ambient air quality standards in 15A NCAC 2D .0400 to be exceeded at any point beyond the premises on which the source is located. When controls more stringent than named in the applicable emission standards in this permit are required to prevent violation of the ambient air quality standards or are required to create an offset, the permit shall contain a condition requiring these controls.

JJ. **General Emissions Testing and Reporting Requirements** [15A NCAC 2Q .0508(i)(16)]

If emissions testing is required by this permit or the DAQ or if the Permittee submits emissions testing to the DAQ in support of a permit application, the Permittee shall perform such testing in accordance with the appropriate EPA reference method(s) as approved by the DAQ and follow the procedures outlined below. The Permittee must request **in writing** and receive approval from the DAQ for an alternate test method or procedure.

1. The Permittee shall submit a completed Protocol Submittal Form to the DAQ Regional Supervisor at least 45 days prior to the scheduled test date. A copy of the Protocol Submittal Form may be obtained from the Regional Supervisor.
2. The Permittee shall notify the Regional Supervisor of the specific test dates at least 15 days prior to testing in order to afford the DAQ the opportunity to have an observer on-site during the sampling program.
3. During all sampling periods, the Permittee shall operate the emission source(s) under maximum normal operating conditions or alternative operating conditions as deemed appropriate by the Regional Supervisor or his delegate.
4. The Permittee shall submit **two** copies of the test report to the DAQ. The test report shall contain at a minimum the following information:
 - a. a certification of the test results by sampling team leader and facility representative;
 - b. a summary of emissions results and text detailing the objectives of the testing program, the applicable state and federal regulations, and conclusions about the testing and compliance status of the emission source(s);
 - c. a detailed description of the tested emission source(s) and sampling location(s) process flow diagrams, engineering drawings, and sampling location schematics should be included as necessary;
 - d. all field, analytical, and calibration data necessary to verify that the testing was performed as specified in the applicable test methods;
 - e. example calculations for at least one test run using equations in the applicable test methods and all test results including intermediate parameter calculations; and
 - f. documentation of facility operating conditions during all testing periods and an explanation relating these operating conditions to maximum normal operation. If necessary, provide historical process data to verify maximum normal operation.
5. The testing requirement(s) shall be considered satisfied only upon written approval of the test results by the DAQ.
6. The DAQ will review emission test results with respect exclusively to the specified testing objectives as proposed by the Permittee and approved by the DAQ. The use of the test results beyond the stated objectives remains subject to the approval of the DAQ.

KK. **Reopening for Cause** [15A NCAC 2Q .0517]

1. A permit shall be reopened and revised under the following circumstances:
 - a. additional applicable requirements become applicable to a facility with remaining permit term of three or more years;
 - b. additional requirements (including excess emission requirements) become applicable to a source covered by Title IV;
 - c. the Director or EPA finds that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; or

- d. the Director or EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
2. Any permit reopening shall be completed or a revised permit issued within 18 months after the applicable requirement is promulgated. No reopening is required if the effective date of the requirement is after the expiration of the permit term unless the term of the permit was extended pursuant to 15A NCAC 2Q .0513(c).
3. Except for the state-enforceable only portion of the permit, the procedures set out in 15A NCAC 2Q .0507, .0521, or .0522 shall be followed to reissue the permit. If the State-enforceable only portion of the permit is reopened, the procedures in 15A NCAC 2Q .0300 shall be followed. The proceedings shall affect only those parts of the permit for which cause to reopen exists.
4. The Director shall notify the Permittee at least 60 days in advance of the date that the permit is to be reopened, except in cases of imminent threat to public health or safety the notification period may be less than 60 days.
5. Within 90 days, or 180 days if the EPA extends the response period, after receiving notification from the EPA that a permit needs to be terminated, modified, or revoked and reissued, the Director shall send to the EPA a proposed determination of termination, modification, or revocation and reissuance, as appropriate.

LL. Reporting Requirements for Non-Operating Equipment [15A NCAC 2Q .0508(i)(16)]

The Permittee shall maintain a record of operation for permitted equipment noting whenever the equipment is taken from and placed into operation. During operation the monitoring recordkeeping and reporting requirements as prescribed by the permit shall be implemented within the monitoring period.

ATTACHMENT

List of Acronyms

AOS	Alternate Operating Scenario
BACT	Best Available Control Technology
Btu	British thermal unit
CEM	Continuous Emission Monitor
CFR	Code of Federal Regulations
CAA	Clean Air Act
DAQ	Division of Air Quality
DENR	Department of Environment and Natural Resources
EMC	Environmental Management Commission
EPA	Environmental Protection Agency
FR	Federal Register
GACT	Generally Available Control Technology
HAP	Hazardous Air Pollutant
MACT	Maximum Achievable Control Technology
NCAC	North Carolina Administrative Code
NCGS	North Carolina General Statutes
NESHAPS	National Emission Standards for Hazardous Air Pollutants
NO_x	Nitrogen Oxides
NSPS	New Source Performance Standard
OAH	Office of Administrative Hearings
PM	Particulate Matter
PM₁₀	Particulate Matter with Nominal Aerodynamic Diameter of 10 Micrometers or Less
POS	Primary Operating Scenario
PSD	Prevention of Significant Deterioration
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SO₂	Sulfur Dioxide
tpy	Tons Per Year
VOC	Volatile Organic Compound