

ENVIRONMENTAL SERVICES

4014 NW THIRTEENTH STREET  
GAINESVILLE, FLORIDA 32609  
352/377-5822 ■ FAX/377-7158

KA 690-05-01  
October 10, 2005

Via Email and USPS

Mr. Al Linero, Program Administrator  
FDEP  
Twin Towers Office Bldg  
2600 Blair Stone Rd  
Tallahassee, FL 32399-2400

RECEIVED

OCT 13 2005

BUREAU OF AIR REGULATION

**RE: American Cement Company  
Sumter County, Florida  
Supplemental Information in Support for an Air Construction Permit  
Application**

Dear Al,

During our September 30, 2005 meeting, during which the application for an air construction permit for the American Cement Company was submitted, various issues were discussed that might require information in addition to that provided in the application, or a clarification of information provided in the application. Attached is this additional information. In our opinion, none of the information is substantive enough to require a resetting of the permit review time clock.

We appreciated meeting with you, Cindy Mulkey and Debbie Nelson to discuss our application and appreciate the preliminary comments that you and the other provided.

We will stay in touch during the 30-day review period and will provide additional information as needed. If there are questions regarding the attached or if other questions come up during the review, please do not hesitate to contact either Cary Cohrs or me.

Very truly yours,

KOOGLER & ASSOCIATES, INC.

John B. Koogler, Ph.D., P.E.

JBK/lt

Enclosure

cc: Ms. Cindy Mulkey  
Ms. Debbie Nelson  
Mr. Cary Cohrs

*J. Satter, SWD  
J. Worley, EPA  
G. Benyak, NPS*

# STATEMENT OF INFORMATION

## **Shipment/Receipt of Off-Site Materials**

No rail access is available to the site. The closest rail spur is approximately 10 miles away. All materials procured off-site and delivered to the plant will be delivered by truck. Most of the trucks providing raw material deliveries will be associated with back-hauls from the base rock (limestone) operations in the area. Therefore, only minimal additional truck traffic is added to the roadways for deliveries to the site.

The cement produced by the plant will be transported from the site by enclosed tanker trucks and on trucks hauling palletted bagged cement. The balance of the traffic at the plant will be employee automobiles and miscellaneous deliveries necessary to support plant operations.

All of this traffic has been included in the air quality impact analysis prepared and submitted with the permit application. The fugitive particulate matter emission factor for roadways used to assess PM10 impacts of the plant and its operation was developed at a similar operating cement plant and has been previously reported the Department. Dust loading on the plant roadways will be controlled to assure the fugitive particulate matter factor is representative by paving plant roads and controlling the surface dust loading on the roadways by the daily vacuum sweeping. The vacuum sweeper will operate daily except during days with measurable rainfall.

## **Fuel Firing**

The fuels that will be fired to the kiln and calciner will include coal, petroleum coke, tires, natural gas and No. 2 fuel oil. The natural gas and No. 2 fuel oil will be primarily used as start up fuels and fuels for the auxiliary dryer associated with the raw mill. High-carbon flyash will not be used as a fuel or raw material.

Coal and petroleum coke will be fired in both the kiln and the calciner. The ratio of coal to petroleum coke (pet coke) will be dependent upon process conditions such as material

build up, the alkali content of the feed, the heating value of the fuel, and other such factors. It is not expected that pet coke will exceed 25-30 percent of pet coke/coal fuel mix.

As the alkali content of the feed will be one of the factors controlling the pet coke/coal ratio, American Cement does not anticipate adding additional alkaline materials to maintain an acceptable alkali/sulfur ratio.

The fuel split between the kiln burner and the calciner burner will vary depending on fuel and feed characteristics and operating parameters such as refractory. The typical starting point for the fuel split is 50/50. This will ultimately change with the aforementioned factors; hence, a precise fuel ratio cannot be stated and, for that matter, a precise ratio will never exist because of the changing characteristics of the feed, fuel, and refractory. Regarding the effects of this fuel split on regulated pollutant emission rates, the following comments are provided.

Particulate matter emissions from the kiln/raw mill are independent of fuels and heat input ratio. The majority of the particulate matter leaving the preheater and eventually entering the kiln particulate matter control device (a baghouse) will be a mixture of raw meal and partially to fully calcined meal. It is estimated that approximately 7-10 percent of the preheater feed is carried back toward the kiln/raw mill baghouse. It is this particulate matter, not particulate matter associated with fuel combustion that will affect particulate matter emissions from the plant.

Sulfur dioxide generated during fuel combustion will be adsorbed in the kiln, calciner, and the lower sections of the preheater. It has been reported that virtually none of the SO<sub>2</sub> emitted from a modern preheater/precalciner cement plant in Florida results from fuel sulfur. SO<sub>2</sub> emissions, if they do occur from Florida plants are associated with sulfur in feed materials. Analytical data from CTL (a wholly owned subsidiary of the Portland Cement Association) provided with the permit application by American Cement demonstrates no pyritic sulfur or organic sulfur in the on-site raw materials. Raw materials procured off-site will be managed such that there will be no organic or pyritic

sulfur in these materials. And, as previously stated, American Cement will control the alkali/sulfur balance in the plant to assure that this ratio is maintained in an acceptable range for both plant operations and to assure no SO<sub>2</sub> from fuel sulfur is released. Hence SO<sub>2</sub> emissions will be independent of the fuel split.

Nitrogen oxides emissions will be affected by burner design, plant design, and plant operations. As stated in the permit application, American Cement has not selected a designer/supplier for the proposed plant, nor has the company selected specific burners. The Department can be assured that the kiln burner will be a low-NO<sub>x</sub> burner of the Pillard, Greco, or equivalent design. Information regarding the Pillard and Greco burners was provided to the Department at the time the permit application was submitted. The burner in the calciner will be a burner provided by the plant designer/supplier to be compatible with calciner design and expected plant operations.

Regarding plant design, the design will incorporate multistage combustion (MSC) capability. The MSC will be able to function with either fuel staging or combustion air staging, and there will be flexibility meal splitting.

The plant operations that most affect NO<sub>x</sub> emissions include the amount of excess air fired at the kiln burner, the degree to which multistage combustion is employed and various factors associated with meal splitting. In addition to these operating factors, American Cement will employ SNCR for NO<sub>x</sub> control. As a result of SNCR, NO<sub>x</sub> emissions will be independent of the fuel firing ratio.

As discussed in the permit application, VOC emissions from the plant will be a function of the organic component of the feed materials and CO emissions, in large part, will be a function of organic carbon in the raw meal. As stated in the application, material management will be used to assure the CO and VOC emissions resulting from the feed materials are maintained in an acceptable range.

A fraction of CO emissions will be associated with fuel firing, but this will be controlled by plant design and plant operation as described in the permit application. Although a

designer/supplier has not been selected for the plant, it is expected that the residence time in the calciner will be in the range 5-7 seconds; adequate time to provide for fuel and CO burnout (also, see below – **Calciner Design/Residence Time**). The pet coke/coal firing ratio in the calciner will also be controlled to assure that there is proper fuel burnout in the calciner and that CO emissions from fuel combustion are minimized.

During startup of the plant, fuel consumption will be greater than during steady state operation because heat is not recovered for combustion air. Emissions may likewise be affected as the kiln system is heated and raw materials are initially introduced into the preheater. Data from operating cement plants in Florida have demonstrated that mass emission limits are typically not exceeded during plant startup. Again, with reasonable averaging times for permitted emission limits, startups are not expected to cause compliance problems. During plant shutdowns, excess emissions are not expected as preheater feed is stopped and the fuel supplies to the kiln and calciner are cut off at approximately the same time.

As a side note, American Cement stated in their permit application that it does not intend to fire high-carbon flyash into the calciner or into the kiln as a fuel. Thus, potential operating problems and effects on emissions associated with the firing of this material will not occur at the American Cement plant.

Regarding the use of tires as a supplemental fuel, the tires (when used) will be fired through a double air-lock feed onto the feed shelf of the kiln. Tires are expected to provide up to 10-12 percent of the total pyroprocessing heat input. Data from operating plants in Florida have shown that the use of tires as a fuel has virtually no effect on emissions from the kiln system.

### **Calciner Design/Residence Time**

As stated in the permit application, American Cement has not selected a supplier/designer for the proposed plant. Because of this, the residence time in the calciner cannot be specified, and likewise, dimension/volume information cannot be provided. If required

by the Department, this information can be provided prior to the beginning of plant construction.

Regarding the residence time in the calciner, it can be stated that if an F.L. Smidth (FLS) plant is selected with the in-line calciner design, the residence time in the calciner will be in the order of seven seconds. On the other hand, if a Polysius plant with a separate calciner is selected, the calciner residence time will be in the order of five seconds.

The permit application submitted by American Cement includes a description of the FLS and Polysius designs and the factors driving these designs. The factors include both the necessity to provide a residence time for the burn-out of hard-to-burn fuels such as pet coke and for the burn-out of CO. It is doubtful that information exists that can provide insight into the relationship between the amount of combustion CO entering the preheater and the combustion of various fuels or fuel mixes.

For example, the Department has cited the Titan Plant in Dade County and the reported CO emission rates in the range of 0.5-1.0 pounds per ton of clinker. It was pointed out in the American Cement permit application that these emission levels are achieved in an FLS plant designed to burn pet coke when:

- the plant was operating at approximately 82 percent capacity,
- bituminous coal (a readily burnable fuel) was fired to the calciner (not pet coke), and
- bauxite was used in the raw feed as an alumina source.

Providing levels of combustion CO entering the preheater as a function of calciner residence time and a function of coal/pet coke/tire firing ratios in the calciner for a plant like the Titan plant, or any other plant, is probably not possible with information currently available.

### **Collected Particulate Matter**

The proposed American Cement Plant will have a single baghouse controlling particulate matter emissions from the kiln/raw mill and clinker cooler and approximately 20

additional baghouses controlling particulate matter emissions from other processing material handling points. Particulate matter collected in all of these baghouses will be returned to the system. There will not be any waste dust streams.

Regarding the intergrinding of dust collected in the kiln/raw mill/cooler baghouse during periods of time when the raw mill is not operating with clinker and additives in the finish mill, has been discussed with the Department. There is a potential for such a practice to reduce mercury emissions from the plant. American Cement has discussed this matter with the Department and has provided the Department with information that American Cement believes is outside of the scope of the permit application. Based upon the information provided by American Cement, the major obstacles that must be overcome before the intergrinding can occur are matters related to cement specifications and the operational difficulties of blending and grinding two materials with extremely different bulk densities.

Regarding the reduction of mercury emissions, one of the factors that has been pretty much ignored during Florida cement plant permitting thus far is the mercury contained in clinker. The assumption made thus far is that negligible amount of mercury exit the kiln with clinker. In other words, the assumption is that all of the mercury that enters the plant in feed and fuels is released to the atmosphere, and none leaves with the product.

In a paper presented by Grossman\* it is reported that the mercury concentration of clinker can be as high as 0.02-0.04 milligrams per kilogram. For a plant producing one million tons a year of clinker, 40 or more pounds of mercury per year could be tied up in the clinker and eventually in the finished cement.

### **Fuel Storage Tanks**

40 CFR 60, Subpart Kb applies to storage tanks that are 75 cubic meters (approximately

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\* Grossman, *A Comparison of Normal and Worst Case Cement Plant Emissions*, a paper presented at AWMA International Specialty Conference on Waste Combustion on Boilers and Industrial Furnaces, March 1996.

19,800 gallons) or larger and are used to store volatile organic liquids. The largest fuel oil storage tank anticipated at the American Cement Plant site will be approximately 10,000 gallons in capacity.

### **Growth Related Impacts**

Growth related impacts were addressed in the permit application submitted to the Department on September 30, 2005. As suggested by the Department, this section has been expanded and a revised Section 5.2 of the report supporting the permit application is included as Attachment 1 hereto.

### **Compatibility of Plant Design and Materials Mined On-Site**

During the meeting between American Cement and the Department on September 30, 2005, an opinion letter from Fred W. Cohrs was provided to the Department. This letter stated Mr. Cohrs' opinion regarding the emission control technology proposed by American Cement, the technologies offered by various plant designers/suppliers, the probability of constructing a plant achieving the proposed production capacity and emission limits and, the compatibility of the raw materials mined at the American Cement site with current cement plant technology. Mr. Cohrs concluded that the cement plant technology is available, the control technology as proposed by American Cement is reasonable and that a plant of the capacity proposed by American Cement could operate without difficulty given the on-site raw materials and current cement plant technology. A copy of Mr. Cohrs letter is provided again as Attachment 2.

### **Plant Manager/Operator Experience**

The manager of the proposed American Cement Plant will be Cary Cohrs. A copy of Mr. Cohrs' resume is provided in Attachment 3.

Also included in Attachment 3 is a policy statement by Mr. Cohrs outlining the staffing of the remaining positions at the plant. As stated in the original permit application, the



plant will have approximately 80 employees. It is anticipated that a limited number of these positions will be filled by experienced people relocated to the site. These will include the plant manager, the production manager, and the chief chemist. The majority of the remaining employees will be from the regional work force.

### **Past Violations**

As American Cement (Natural Resources of Central Florida, Incorporated, d/b/a American Cement Company) has just been incorporated, the plant has no previous operating record and thus, no past violations. Companies that share some degree of common ownership with American Cement include Trap Rock Industries, Inc. with several operations in New Jersey and Dixie Lime and Stone with operations in Florida.

The New Jersey Department of Environmental Protection, Bureau of Compliance and Enforcement public records were reviewed on that department's website. Attachment 4 provides the enforcement record of nine Trap Rock operations in New Jersey for the period 1995-October 2005. Only one of the facilities (the Kingston Quarry) had any unresolved enforcement actions as of October 5, 2005. These enforcement actions were for minor alleged water quality monitoring violations.

In Florida, the Dixie Lime and Stone mine in Sumter County also has an unresolved water quality monitoring citation issued by the Florida Department of Environmental Protection. This violation is related to a discharge of water from a limerock mining operation during a period of excessive rainfall. It is anticipated that this citation will be resolved shortly.

To the best of our knowledge, the compliance records reported herein accurately represent compliance action against companies sharing some degree of common ownership with the American Cement Company.

Attachment 1

## **5.2 Growth Related Impacts on Air Quality (revised 10/06/05)**

The permit application submitted to the Department on September 30, 2005 included a section on *Growth Related Impacts*. This addendum is provided at the suggestion of the Department and incorporates growth related information for both Sumter County and Lake County. This addendum is provided even though the proposed project will not have a significant impact on sulfur dioxide, nitrogen oxides, or carbon monoxide levels in the ambient air at any point and will have a significant impact on particulate matter (PM10) levels only within three kilometers of the plant site. The three kilometer radius of significant impact for PM10 falls entirely within Sumter County.

The area in which the plant is located is in the northern part of Sumter County on the north side of State Road 470. The plant site is approximately four miles west of the Sumter/Lake County line and approximately four miles east of Interstate 75. The area in which the plant is located is rural and land use activities are primarily agricultural and limerock mining. There are a few scattered residences in the area and immediately east of the plant site is the Coleman Federal Correction Facility.

In the following sections, the growths in both Sumter County and Lake County are documented. Sumter County is still a rural county, with a 2004 population of 60,705. The majority of the population increase in the county has been in the far northern section of the county in the Villages; a planned development. A significant part of the growth of Lake County is in this same development which extends from Sumter County across into the northern part of Lake County. The other major growth area of Lake County is along the US 441 corridor between Leesburg and Apopka.

### **5.2.1 Population & Housing**

The population of Sumter County increased from 24,272 in 1980, to 60,705 in 2004; an increase of 150% over the 24-year period. The population of Sumter County was 0.2% of the population of Florida in 1980, and this percentage slightly increased to 0.3% of Florida's population in 2004. The population ranking versus other counties slightly changed from 41<sup>st</sup> in 1980 to 40<sup>th</sup> in 2004, of 67 counties. Total housing units increased from 11,083 in 1980 (0.3% of statewide total), to 28,956 in 2002 (0.4% of statewide total).

The population of Lake County increased from 104,870 in 1980, to 260,788 in 2004; an increase of 148% over the 24-year period. The population of Lake County was 1.1% of the population of Florida in 1980, and this percentage increased to 1.5% of Florida's population in 2004. The population ranking versus other counties slightly changed from 21<sup>st</sup> in 1980 to 19<sup>th</sup> in 2004, of 67 counties. Total housing units increased from 50,511 in 1980 (1.2% of statewide total), to 112,535 in 2002 (1.5% of statewide total).

### **5.2.2 Manufacturing**

The number of manufacturing establishments in Sumter County increased from 11 in 1977, to 26 in 2003; an increase of 136% over the 26-year period. The manufacturing establishments in Sumter County were 0.1% of the total manufacturing establishments in Florida in 1977, and this percentage slightly increased to 0.2% in 2003. The ranking versus other counties changed from 64<sup>th</sup> to 43<sup>rd</sup> of 67 counties.

The number of manufacturing establishments in Lake County increased from 105 in 1977, to 162 in 2003; an increase of 54% over the 26-year period. The manufacturing establishments in Lake County were 0.8% of the total manufacturing establishments in Florida in 1977, and this percentage increased to 1.1% in 2003. The ranking versus other counties changed slightly from 18<sup>th</sup> to 19<sup>th</sup> of 67 counties.

### **5.2.3 Retail**

The number of retail establishments in Sumter County decreased from 192 in 1977, to 130 in 2003; a decrease of 32% over the 26-year period. The retail establishments in Sumter County were 0.2% of the total retail establishments in Florida in 1977, and this percentage was unchanged at 0.2% in 2003. The ranking versus other counties changed slightly from 45<sup>th</sup> to 46<sup>th</sup> of 67 counties.

The number of retail establishments in Lake County decreased from 993 in 1977, to 869 in 2003; a decrease of 12% over the 26-year period. The retail establishments in Lake County were 1.2% of the total retail establishments in Florida in 1977, and this percentage was unchanged at 1.2% in 2003. The ranking versus other counties changed slightly from 21<sup>st</sup> to 22<sup>nd</sup> of 67 counties.

### **5.2.4 Wholesale**

The number of wholesale establishments in Sumter County increased slightly from 23 in 1977, to 27 in 2003; an increase of 17% over the 26-year period. The wholesale establishments in Sumter County were 0.1% of the total wholesale establishments in Florida in 1977, and this percentage was unchanged at 0.1% in 2003. The ranking versus other counties changed from 47<sup>th</sup> to 44<sup>th</sup> of 67 counties.

The number of wholesale establishments in Lake County increased from 121 in 1977, to 253 in 2003; an increase of 109% over the 26-year period. The wholesale establishments in Lake County were 0.8% of the total wholesale establishments in Florida in 1977, and this percentage was unchanged at 0.8% in 2003. The ranking versus other counties was unchanged from 20<sup>th</sup> of 67 counties.

### **5.2.5 Agriculture**

The number of farms in Sumter County increased from 646 in 1978, to 902 in 2002; an increase of 40% over the 24-year period. The farms in Sumter County were 1.8% of the

total farms in Florida in 1978, and this percentage was slightly increased at 2.0% in 2002. The ranking versus other counties changed from 17<sup>th</sup> to 15<sup>th</sup> of 67 counties. Land acreage in farms was 187,003 acres in 1978 (1.4% of state-wide total), and was essentially unchanged at 187,373 acres in 2002 (1.8% of state-wide total).

The number of farms in Lake County increased from 1,678 in 1978, to 1798 in 2002; an increase of 7% over the 24-year period. The farms in Lake County were 4.6% of the total farms in Florida in 1978, and this percentage was decreased at 4.1% in 2002. The ranking versus other counties changed from 3<sup>rd</sup> to 5<sup>th</sup> of 67 counties. Land acreage in farms was 314,816 acres in 1978 (2.4% of state-wide total), and was decreased at 180,245 acres in 2002 (1.7% of state-wide total).

### **5.2.6 Growth Related Impact of the Project**

The construction of the proposed plant will require 18-24 months. During this period, the construction personnel will peak at approximately 300. The majority of this work force will be drawn from the regional work force or will be brought on site by the contractor or subcontractors on a temporary basis. There will be no permanent or long-term impact on growth related activities associated with construction personnel.

Once the proposed facility becomes operational, it will employ approximately 80-100 people. The majority of these people will be drawn from the regional work force; with only a limited number of individuals with special skills relocating into the area.

Ancillary growth associated with the proposed plant will not be significant.

### **5.2.7 Air Quality Impacts Associated with Growth**

The major growth factors in the two-county area that will impact air quality is the increased population and the associated air pollutant emissions associated with general anthropogenic activities and air pollutant emissions from manufacturing and/or commercial facilities. In general, the growth of commercial and manufacturing facilities in the two-county area has been quite limited as described in preceding sections. Facilities with significant air pollutant emissions are regulated by FDEP permits. As a result of this, the impacts of emissions from these facilities have been taken into consideration in the air quality impact analysis associated with this project.

The population increase in the two-county area during the period 1977-2005 has been approximately 150%. This growth translates to an increase in vehicle traffic and vehicle-miles-traveled (VMT). It is estimated that the increase in VMT is approximately proportional to the increase in population. As a result of this increase in VMT, and the contemporaneous reduction in emissions from motor vehicles as a result of fuel economy and more efficient combustion, carbon monoxide and VOC emissions related to mobile sources in the two-county region have decreased 35-45 percent. During this same period,

there has been approximately a 10 percent increase in NOx emissions from mobile sources.

Ambient air quality monitoring has not been conducted in the two-county area until 1997 for PM10 and 2004 ozone. As a result, long-term trends of ambient air pollutant levels are not available. It can be presumed, however, that as ambient air quality monitoring was not conducted there has been no concern about the possibility of air quality standards being exceeded or even approached in the region. The overall quality of the air is reflected by the attainment status of both counties during the period 1977-2005.

The minor growth related impacts on air quality coupled with the fact that the proposed project will not have a significant impact on sulfur dioxide, nitrogen oxide and carbon monoxide levels provide assurance that compliance with air quality standards for these three pollutants in the two-county area will continue to be achieved. Likewise, for particulate matter (PM10), the moderate growth in the two-county area and the minimal growth in the area immediately surrounding the proposed plant coupled with the projected impact of the proposed plant, provide assurance that the growth related impacts of PM10 will not cause the air quality standard for PM10 to be exceeded.

**Attachment 2**

**Cohrs Opinion Letter  
September 29, 2005**

**Cohrs Consulting, LLC**  
**598 Queen's Harbor Boulevard**  
**Jacksonville, FL 32225**  
Tel: 904-221-6188/e-mail: [cohrrfw@aol.com](mailto:cohrrfw@aol.com)

September 29, 2005

Florida Department of Environmental Protection  
Division of Air Resource Management  
2600 Blair Stone Road MS 5500  
Tallahassee, Florida 32399-2400

Re: American Cement Company/Air Construction Permit Application

Dear Sir/Madam:

In support of the permit application submitted by American Cement Company (ACC) to construct a Portland cement manufacturing facility in Sumter County, Florida I am offering my professional opinion on the viability of the emission control technology proposed by the applicant with respect to its meeting the emission limits contained in the application.

ACC and I have reviewed representations made by various suppliers of cement process equipment to determine the state of the art in the industry, examined recently issued permits for similar plants, both by FDEP and authorities of other U.S. states and have concluded that BACT can be achieved with any of the methods discussed in the application.

Based on my experience with a great number of raw materials used to manufacture Portland cement, particularly materials available and commonly used in Florida for this purpose, as well as the process designs offered by recognized technology and equipment suppliers under consideration by American Cement Company for the proposed Cohrs Consulting, LLC plant, I am confident that FDEP can be assured of ACC's ability to comply with the proposed permit limits.

Respectfully,

  
Fred W. Cohrs  
Cohrs Consulting, LLC



**Attachment 3**

**Plant Manager and Operator Experience Statement**

*Curriculum Vitae*  
**Cary O. Cohrs**

4909 SW 95<sup>th</sup> Terrace  
Gainesville, Florida 32608

Phone: (352) 371-1232  
Cohrs5@aol.com

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**SUMMARY OF QUALIFICATIONS**

- An individual with a proven track record in managing profitable operations.
- Experienced at leading a team to establish and grow a Greenfield Cement Manufacturing Facility.
- Goal oriented, dedicated and committed leader who focuses on maximizing the potentials of individuals and assets to meet objectives.
- An excellent communicator with a strong technical background in all facets of cement manufacturing and chemical limestone production.

**PROFESSIONAL EXPERIENCE**

**AMERICAN CEMENT COMPANY**

Ocala, Florida

**General Manager**

2005

Responsible for the development of a newly established Cement Company in Florida, including all facets related the construction of a Greenfield Plant. Duties include plant design, raw material analysis, permitting, financial justification, market development and personal issues.

**COHRS CONSULTING, LLC**

Jacksonville, Florida

**Principle**

2004-2005

Consulting services related to the development of a Greenfield Cement Plant in North Carolina. Duties included site selection, raw materials evaluation, mix design and plant design. Additional projects included an aggregate rail terminal study, kiln operation evaluation and quarry assessment.

**FLORIDA ROCK INDUSTRIES, INC.**

Newberry, Florida

**Vice President Operations/Plant Manager, Cement Group**

2000-2003

Operating and P&L responsibility for an 860,000 TPY cement manufacturing facility and two calcium carbonate grinding plants. Directly managed 12 professionals and was responsible for 130 employees.

- Facilitated the development and presented the annual operating budget.
- Created an environment for continued operational efficiencies and improvements.
- Established a team for oversight on personnel issues.
- Directly involved with environmental and legal issues as necessary.
- Plant production increased from a rated 750,000 TPY to new permitted level of 860,000 TPY.

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**PROFESSIONAL EXPERIENCE (continued)**
**Plant Manager**

1998-2000

Operating responsibility for a 750,000 TPY, preheater precalciner cement plant. Involved in the hiring and training of over 90 persons in the process of completing construction and commissioning of a Greenfield plant.

- Established a team to develop operating and information reporting procedures for plant.
- Coordinated and assisted in the implementation of a plant personnel training program, preventative maintenance program and community outreach program.
- Lead a team of highly motivated managers to successfully commission and operate a Greenfield plant.
- Temporarily filled roles as Production Manager, Quality Control Manager, E&I Manager and Environmental Manager and implemented a 1.4 mm ton per year mining plan.
- Was responsible for purchasing of off site raw materials used in operations.

**Assistant Plant Manager/Construction Manager**

1996-1998

Plant site manager for the construction of a Greenfield cement plant. Was actively involved in the planning and building of the facility. Participated in legal issues and permitting of the facility. Was company's representative and actively involved in the coordination between the equipment supplier, general contractor and subcontractors. Participated in the negotiation of purchasing over \$16 mm in plant machinery, auxiliary equipment and sub contracts.

**ESSROC MATERIALS, INC.**

Bath, Pennsylvania

**Corporate Project Manager**

1994-1996

Participated in the development and was responsible for the installation and commissioning of capital projects in six cement plants and two grinding plants

**CAROLINAS CEMENT COMPANY, LLC.**

Roanoke, Virginia

**Plant Engineer**

1991-1994

**CLAUDIUS PETERS, INC**

Dallas, Texas

**Applications Engineer**

1989-1991

**Professional Affiliations**

Portland Cement Association, Manufacturing Technical Committee

Member IEEE National Committee, Local Chairman for the 2003 IEEE/PCA

**Education**

THE FLORIDA STATE UNIVERSITY  
Bachelor of Science – Industrial Engineering

Tallahassee, Florida  
1989

THE FLORIDA STATE UNIVERSITY  
Bachelor of Science – Business

Tallahassee, Florida  
1986

## **Greenfield Cement Plant/Staffing**

Cement plant employees for a Greenfield facility are generally inexperienced when it comes to detailed knowledge of plant operations. Many factors play into this; 1) Efforts made to provide jobs to local residents, 2) Cost of relocation of experienced personnel and 3) Management's ability to develop personnel to function within a new system and with methods.

A few key positions, requiring experience in the process are typically filled from industry personnel. These, however, can be limited to the Plant Manager, Production Manager and Chief Chemist. In these roles, knowledge of plant operations, functioning of the equipment and the natural progression of the process is required to assist in training those with limited or no experience.

These key personnel typically come from various backgrounds, i.e. mechanical maintenance, process engineer, environmental compliance, project management, plant engineering etc. Their success in these respective roles is the ability to lead people, exhibit good mental skills, react to changing conditions and above all, the desire to succeed. This desire is what allows people to work thru problems and complications despite the time required or time of day issues. Higher level education is not necessary, but helpful as the training assists in deductive reasoning. There is no set number of years of experience required, rather the confidence that a "get it done" attitude exists.

The plant has many positions all requiring different basic skill sets. Maintenance Technicians, QC Technicians, Shipping Clerks, Equipment Operators, Process Attendants, Electricians and Control Room Operators to name a few. Each position has some unique skill that is helpful in the person's performance, although not always necessary. For example, maintenance technicians should have some basic welding skills, but if that is missing then a good mechanical aptitude will be just as beneficial. Shipping Clerks need to be attentive to detail, like interacting with the public, but could also spend their time in the bagging operation where neither skill is required.

Control Room Operators must have the ability to stay focused on the plant control interface, have a certain amount of curiosity and exhibit good deductive reasoning. However previous control room experience at times can be detrimental, as those things previously learned could be problematic in a new or different operation. Many commissioning engineers prefer to train operators with no previous experience, as all new things learned are first and foremost.

The backgrounds, training and experience of new personnel is not always applicable from location to location, rather the method by which people interact, the effort put forth and the desire to learn will make for a better employee.

The few key positions that require knowledge of the process can be filled with people who have varying backgrounds and experiences. But in the end, desire makes the for success. The remaining positions will be filled with people who are conscientious, motivated and have a willingness to learn.


Attachment 4

Compliance Record of Trap Rock Industries, Inc.

Operations in New Jersey

**NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION  
BUREAU OF COMPLIANCE AND ENFORCEMENT  
OPEN PUBLIC RECORDS ACT (OPRA)  
October 5, 2005**

<b>SITE NAME</b>	<b>ADDRESS</b>	<b>REPORTS</b>
TRAP ROCK INDUSTRIES	9525 RIVER RD , Camden, Pennsauken Twp, 081100000	No Enforcement Action 7/1995-10/2005
TRAP ROCK INDUSTRIES INC	79 UPPER SAREPTA RD , Warren, White Twp, 07823	No Enforcement Action 7/1995-10/2005
TRAP ROCK INDUSTRIES INC	1949 JACKSONVILLE JOBSTOWN RD , Burlington, Springfield Twp, 08041	No Unresolved Enforcement Issues No Enforcement Action Since 2001
TRAP ROCK INDUSTRIES INC	RIVER RD , Somerset, Franklin Twp, 08528	No Enforcement Action 7/1995-10/2005
TRAP ROCK INDUSTRIES INC	RT 29 , Hunterdon, Delaware Twp, 07833	No Enforcement Action 7/1995-10/2005
TRAP ROCK INDUSTRIES INC KINGSTON QUARRY	130 LAUREL AVE , Somerset, Franklin Twp, 08528	See Attached; Minor Water Quality Monitoring Issues for Quarry Pending
TRAP ROCK INDUSTRIES MOORES STATION QUARRY	RT 29 & PLEASANT VALLEY RD , Mercer, Hopewell Twp, 085600000	No Enforcement Action 7/1995-10/2005
TRAP ROCK INDUSTRIES PENNINGTON PLNT	RT 31 , Mercer, Hopewell Twp, 08528	No Enforcement Action 7/1995-10/2005
TRAP ROCK INDUSTRIES RUNNEMEDE PLANT	1201 BLACKHORSE PK , Camden, Runnemede Boro, 08078	No Enforcement Action 7/1995-10/2005


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## Enforcement Actions Issued At The TRAP ROCK INDUSTRIES INC KINGSTON QUARRY - Site ID: 15929 Between 7/4/1995 and 10/4/2005

Oct 04, 2005 03:29

**NOTE:** The information contained in this report will be limited to the date each program began using the Department's integrated database, NJEMS. The programs began using the system for this information as follows: Air - 10/1998; Hazardous Waste - 1/2000; Water - 7/2000; Right To Know - 11/2000; TCPA - 12/2001; Land Use 12/2001; DPCC - 1/2002; Solid Waste - 1/2002 and Pesticides - 4/2002. For complete information prior to these dates, please submit an official OPRA request form to the Department. If printing this report, select landscape orientation. For a list of terms and definitions, click on the following link:<http://www.state.nj.us/dep/infoview/enforcement.html>

**Disclaimer:** All listed enforcement actions address alleged violations based on facts and information known to the Department at the time the violation information was determined. Errors or omissions in the factual basis for any violation may result in a future change in classification as a violation when such information becomes known. Persons cited for violations may contest the Department's enforcement action or penalty assessment. The resultant final decision may uphold, negate or modify the original violation findings or penalty.



Program Description: Air Program Interest ID: 35021

Program Interest Name: TRAP ROCK INDUSTRIES INC

Activity Number: NEA 030001 Document Type: Settlement Agreement



Effective Start Date	Current Document	Penalty	Received Amount	Related Activities
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Status and Date: **2/5/04** Closed **3/2/04** Assessed: **\$375.00** Received Amount: **\$375.00** Related Activities: **Supersedes: 35021 - PEA 030001**

Description of Non-compliance	Violated Citation	Violation Status	Related Inspection	Related Violations
You failed to submit the test report to the Department within 30 days after the completion of the sampling, unless a longer period for submission is approved in writing by the Department. The test was conducted July 26, 2002. The test results submitted September 19, 2003.	[N.J.A.C. 7:27- 8.13(d)4]	Satisfied	 Inspection	 Violations

Activity Number: **PEA 030001** Document Type: **AONOCAPA**

Effective Start Date: **11/10/03** Current Document Status and Date: **Superseded 3/2/04** Penalty Assessed: **\$500.00** Received Amount: **Cancelled** Related Activities: **Superseded By: 35021 - NEA 030001**

Description of Non-compliance	Violated Citation	Violation Status	Related Inspection	Related Violations
You failed to submit the test report to the Department within 30 days after the completion of the sampling, unless a longer period for submission is approved in writing by the Department. The test was conducted July 26, 2002. The test results submitted September 19, 2003.	[N.J.A.C. 7:27- 8.13(d)4]	Satisfied	 Inspection	 Violations

Program Description: **Water Quality** Program Interest ID: **46995**





Program Interest Name: **KINGSTON QUARRY**

Activity Number: **PEA 010001** Document Type: **NOV**

Effective Start Date: **7/3/01** Current Document Status and Date: **Superseded 7/21/03** Penalty Assessed: **N/A** Received Amount: **N/A** Related Activities: **No Related Activities**

Description of Non-compliance	Violated Citation	Violation Status	Related Inspection	Related Violations











Failure to maintain a current O&M Manual which includes an emergency plan	[N.J.A.C. 7:14A- 6.12(c & d)]	No Further Action		
Failure to maintain a current O&M Manual which includes an Emergency Plan	[N.J.A.C. 7:14A- 6.12(c)&(d)]	No Further Action		

Activity Number: **PEA 040001**

Document Type: **NOV**





Effective Start Date	Current Document Status and Date	Penalty Assessed	Received Amount	Related Activities
7/21/03	Effective 7/21/03	N/A	N/A	No Related Activities

Description of Non-compliance	Violated Citation	Violation Status	Related Inspection	Related Violations
Failure to conduct monitoring as specified in Part III of the permit	[N.J.A.C. 7:14A- 6.5(b)]	Pending		
Failure to report the results of stormwater analyses on Waste Characterization Reports Waste Characterization Quarterly Reports not submitted for 9/01-11/01, 9/02-11/02, 12/02-2/03and 3/03-5/03.	[N.J.A.C. 7:14A- 6.8]	No Further Action		
Failure to submit the appropriate storm event information with Waste Characterization Reports See above	[N.J.A.C. 7:14A- 6.5(b)]	No Further Action		
Failure to maintain a current O&M Manual which includes an emergency plan.	[N.J.A.C. 7:14A- 6.12(c & d)]	No Further Action		

Activity Number: **PEA 040002**

Document Type: **NOV**

Effective Start Date	Current Document Status and Date	Penalty Assessed	Received Amount	Related Activities
7/21/03	Effective 7/21/03	N/A	N/A	No Related Activities

Description of Non-compliance	Violated Citation	Violation Status	Related Inspection	Related Violations
pH is not tested immediately	[N.J.A.C. 7:14A- 6.5(b)4]	Pending		
				

Failure to properly perform analyses	[N.J.A.C. 7:14A- 6.5(a)2]	Pending	Inspection	Violations
Failure to properly conduct sampling	[N.J.A.C. 7:14A- 6.5(b)4]	Pending	Inspection	Violations
Failure to conduct monitoring as specified in Part III of the permit. 1. pH is not tested immediately 2. Analysis time for samples collected on 9/20/02 at IO1 not indicated on the laboratory data/reports. 3. Laboratory report for samples collected on 9/20/02 at IO2 not available. 4. Monitoring reports & Laboratory data for 12/01 - 5/02 (IO1 and IO2) not available	[N.J.A.C. 7:14A- 6.5(b)]	Pending	Inspection	Violations
Failure to retain monitoring records as required by the permit	[N.J.A.C. 7:14A- 6.6(a)]	Pending	Inspection	Violations

Activity Number: **PEA 040003**

Document Type: **NOV**

Effective Start Date	Current Document Status and Date	Penalty Assessed	Received Amount	Related Activities
7/21/03	Closed 7/20/04	N/A	N/A	No Related Activities

Description of Non-compliance	Violated Citation	Violation Status	Related Inspection	Related Violations
Failure to maintain a current O&M Manual which includes an emergency plan.	[N.J.A.C. 7:14A- 6.12(c & d)]	No Further Action	Inspection	Violations

Activity Number: **PEA 040004**

Document Type: **NOV**

Effective Start Date	Current Document Status and Date	Penalty Assessed	Received Amount	Related Activities
7/20/04	Effective 7/20/04	N/A	N/A	No Related Activities

Description of Non-compliance	Violated Citation	Violation Status	Related Inspection	Related Violations
Failure to conduct monitoring as specified in Part III of the permit. PH is not tested immediately. Exceeded holding time for pH during 9/03-11/03, 12/03-2/04 and 3/04-5/04	[N.J.A.C. 7:14A- 6.5(b)]	Pending	Inspection	Violations

monitoring periods at 008A

Activity Number: **PEA 040005**

Document Type: **NOV**

Effective Start Date

Current Document Status and Date

Penalty Assessed

Received Amount

Related Activities



7/20/04

Effective 7/20/04

N/A

N/A

No Related Activities

Description of Non-compliance	Violated Citation	Violation Status	Related Inspection	Related Violations
Failure to conduct monitoring as specified in Part III of the permit. pH is not tested immediately. Exceeded holding time for pH at I01 during 12/02-5/03, 6/03-11/03 and 12/03-5/04. Exceeded holding time for pH at I02 during 12/02-5/03, 6/03-11/03 and 12/03-5/04 monitoring periods.	[N.J.A.C. 7:14A- 6.5(b)]	Pending	 Inspection	 Violations

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