# TECHNICAL EVALUATION
# &
# PRELIMINARY DETERMINATION

## APPLICANT

The QUIKRETE Companies
*dba* QUIKRETE of Pensacola
7101 Windwood Lane
Milton, Florida 32583

QUIKRETE Milton Facility
Facility ID No. 1130031

## PROJECT

Project No. 1130031-011-AC
Application for Minor Source After-the-Fact Air Construction Permit
Project Name: Packaging Line Modification

## COUNTY

Santa Rosa County, Florida

## PERMITTING AUTHORITY

Florida Department of Environmental Protection
Air Resource Section
Northwest District Office
160 W. Government Street, Suite 308
Pensacola, Florida 32502-5740

September 20, 2011

## 1. GENERAL PROJECT INFORMATION

### Air Pollution Regulations

Projects at stationary sources with the potential to emit air pollution are subject to the applicable environmental laws specified in Section 403 of the Florida Statutes (F.S.). The statutes authorize the Department of Environmental Protection (Department) to establish regulations regarding air quality as part of the Florida Administrative Code (F.A.C.), which includes the following applicable chapters: 62-4 (Permits); 62-204 (Air Pollution Control – General Provisions); 62-210 (Stationary Sources – General Requirements); 62-212 (Stationary Sources – Preconstruction Review); 62-296 (Stationary Sources - Emission Standards); and 62-297 (Stationary Sources – Emissions Monitoring). Specifically, air construction permits are required pursuant to Rules 62-4, 62-210 and 62-212, F.A.C.

In addition, the U. S. Environmental Protection Agency (EPA) establishes air quality regulations in Title 40 of the Code of Federal Regulations (CFR). Part 60 specifies New Source Performance Standards (NSPS) for numerous industrial categories. Part 61 specifies National Emission Standards for Hazardous Air Pollutants (NESHAP) based on specific pollutants. Part 63 specifies NESHAP based on the Maximum Achievable Control Technology (MACT) for numerous industrial categories. The Department adopts these federal regulations on a quarterly basis in Rule 62-204.800, F.A.C.

### Glossary of Common Terms

Because of the technical nature of the project, the permit contains numerous acronyms and abbreviations, which are defined in Appendix A of this permit.

### Facility Description and Location

The QUIKRETE Milton facility is an existing concrete dry mix packaging plant, which is categorized under Standard Industrial Classification Code No. 3272 AND 3295. The facility is located in Santa Rosa County at 7101 Windwood Lane in Milton, Florida. The UTM coordinates of the existing facility are Zone 16, 497.1 km East and 3383.5 km North. This site is in an area that is in attainment (or designated as unclassifiable) for all air pollutants subject to state and federal Ambient Air Quality Standards (AAQS).

### Facility Regulatory Categories

- The facility is not a major source of hazardous air pollutants (HAP).
- The facility has no units subject to the acid rain provisions of the Clean Air Act.
- The facility is not a Title V major source of air pollution in accordance with Chapter 213, F.A.C.
- The facility is not a major stationary source in accordance with Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.

### Project Description

This after-the-fact construction permit is a result of inspections that noted a cement packer was added to one of the packaging lines and this additional process is not covered by the current permit. This permit modifies permit 1130031-009-AC with an authorization to install equipment necessary to add a cement packer to line #2.

This proposed construction project will also <u>rename</u> the following:

| FROM: | TO: |
|---|---|
| Premix concrete packaging (Line 1) | Packaging Line #1<br>*{Packaging premixed concrete only}* |
| Sand/Aggregate packaging only (Line 2) | Packaging Line #2<br>*{Package premixed concrete , cement/flyash and sand}* |

Packaging Line #1 remains dedicated to packaging premixed concrete only. Packaging Line #2 is used to package premixed concrete cement/flyash and sand; it is equipped with two packers, one used to meter cement

and one used to meter sand. Packaging Line #2 can also be used to package premixed concrete in case packaging Line #1 malfunctions. Packaging Line #2, however, is not equipped with premixed concrete packager; instead, mixture is metered by Line #1 packer and conveyed through a fully enclosed conveyor to Packaging Line #2.

**Compliance History**

The June 7, 2011, Department inspection noted the facility as **SNC** – Significant Non-Compliance. A third bagger for cement was added to one of the packaging lines and this additional process is not covered by the current permit. This non-compliance issue was brought to the facility`s attention following the previous inspection on December 9, 2009. The facility failed to follow through and have the additional bagger included in the permit.

The previous inspection, conducted on December 9, 2009, revealed an additional bagging process was constructed without notifying the Department. Consent Order OGC File No. 10-0774-57-AC was executed on March 1, 2010 for failing to obtain an air construction permit. The facility was required to obtain an after-the-fact permit. However, at the time of this inspection, the Department had not received an application. This ongoing non-compliance was discussed during the inspection and facility personnel indicated they believed the issue was resolved by changing how they calculated their operating rates.

**Processing Schedule**

June 23, 2011 Received the application for a minor source air pollution construction permit.

## 2. PSD APPLICABILITY

**General PSD Applicability**

For areas currently in attainment with the state and federal AAQS or areas otherwise designated as unclassifiable, the Department regulates major stationary sources of air pollution in accordance with Florida's PSD preconstruction review program as defined in Rule 62-212.400, F.A.C. Under preconstruction review, the Department first must determine if a project is subject to the PSD requirements ("PSD applicability review") and, if so, must conduct a PSD preconstruction review. A PSD applicability review is required for projects at new and existing major stationary sources. In addition, proposed projects at existing minor sources are subject to a PSD applicability review to determine whether potential emissions *from the proposed project itself* will exceed the PSD major stationary source thresholds. A facility is considered a major stationary source with respect to PSD if it emits or has the potential to emit:

- 250 tons per year or more of any regulated air pollutant; or
- 100 tons per year or more of any regulated air pollutant and the facility belongs to one of the following 28 PSD-major facility categories: fossil fuel-fired steam electric plants of more than 250 million British thermal units per hour heat input, coal cleaning plants (with thermal dryers), Kraft pulp mills, portland cement plants, primary zinc smelters, iron and steel mill plants, primary aluminum ore reduction plants, primary copper smelters, municipal incinerators capable of charging more than 250 tons of refuse per day, hydrofluoric, sulfuric, and nitric acid plants, petroleum refineries, lime plants, phosphate rock processing plants, coke oven batteries, sulfur recovery plants, carbon black plants (furnace process), primary lead smelters, fuel conversion plants, sintering plants, secondary metal production plants, chemical process plants, fossil fuel boilers (or combinations thereof) totaling more than 250 million British thermal units per hour heat input, petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels, taconite ore processing plants, glass fiber processing plants and charcoal production plants.

Once it is determined that a project is subject to PSD preconstruction review, the project emissions are compared to the "significant emission rates" defined in Rule 62-210.200, F.A.C. for the following pollutants: carbon monoxide (CO); nitrogen oxides ($NO_X$); sulfur dioxide ($SO_2$); particulate matter (PM); particulate matter with a mean particle diameter of 10 microns or less ($PM_{10}$); volatile organic compounds (VOC); lead (Pb); fluorides (Fl); sulfuric acid mist (SAM); hydrogen sulfide ($H_2S$); total reduced sulfur (TRS), including $H_2S$; reduced sulfur

compounds, including $H_2S$; municipal waste combustor organics measured as total tetra- through octa-chlorinated dibenzo-p-dioxins and dibenzofurans; municipal waste combustor metals measured as particulate matter; municipal waste combustor acid gases measured as $SO_2$ and hydrogen chloride (HCl); municipal solid waste landfills emissions measured as non-methane organic compounds (NMOC); and mercury (Hg). In addition, significant emissions rate also means any emissions rate or any net emissions increase associated with a major stationary source or major modification which would construct within 10 kilometers of a Class I area and have an impact on such area equal to or greater than 1 $\mu g/m^3$, 24-hour average.

If the potential emission exceeds the defined significant emissions rate of a PSD pollutant, the project is considered "significant" for the pollutant and the applicant must employ the Best Available Control Technology (BACT) to minimize the emissions and evaluate the air quality impacts. Although a facility or project may be *major* with respect to PSD for only one regulated pollutant, it may be required to install BACT controls for several "significant" regulated pollutants.

**PSD Applicability for Project**

As provided in the application, the following table summarizes potential emissions and PSD applicability for the project.

Table A. Potential Emissions (Tons/Year) and PSD Applicability

| Pollutant (TPY) | Pre-Project Potential Emissions | Contempo-raneous Emissions | Post Project Potential Emissions | Total Emissions Change | Significant Emissions Rate | Subject to PSD |
|---|---|---|---|---|---|---|
| CO | 4.0 | | | Limits remain unchanged | 100 | **NO** |
| $NO_X$ | 4.7 | | | | 40 | **NO** |
| $PM/PM_{10}$ | 99.1 | | 0.12 | 99.22 | 25/15 | **NO** |
| $SO_2$ | 0.3 | | | Limits remain unchanged | 40 | **NO** |
| VOC | 0.3 | | | | 40 | **NO** |

The facility is not an existing major stationary source with respect to PSD, because its potential emissions are less than 250 TPY of a regulated pollutant, and the facility is not on the list of 28 and does not emit 100 TPY of a regulated pollutant. The project's potential emissions increase is less than 250 TPY of a regulated pollutant. Based on these facts, the project is not subject to PSD preconstruction review.

## 3. APPLICATION REVIEW

### Application Fee

AC/M1 ($250 fee) – Minor Modification.

### Discussion of Emissions

The proposed construction project results in an emissions increase for PM of 0.12 tons per year.

### State Requirements

This source is regulated in accordance with Rules 62-296.414 and 62-296.320(4), F.A.C. This permit imposes restrictions on operating hours and production rates to maintain the status of the facility as a minor source of air emissions.

### Federal NSPS Provisions

N/A

### Federal NESHAP Provisions

N/A

**Other Draft Permit Requirements**

Initial PM and VE tests shall be performed.

## 4. PRELIMINARY DETERMINATION

The Department makes a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations as conditioned by the draft permit. This determination is based on a technical review of the complete application, reasonable assurances provided by the applicant, and the conditions specified in the draft permit. Angelia Jackson is the project engineer responsible for reviewing the application and drafting the permit. Additional details of this analysis may be obtained by contacting the project engineer at 850/595-0598 or angelia.jackson@dep.state.fl.us.