



# Concrete Batch Plant Air Regulation Guidance Booklet

June, 2012

Northeast District  
7825 Baymeadows Way, Suite B200  
Jacksonville, Florida 32256  
(904) 256-1700

# **Compliance Checklist for Concrete Batching Plants**

## General Requirements:

1. Has the owner/operator of the facility previously submitted a DEP General Permit registration? ☐YES ☐NO

2. Does the facility keep records to show that it does not have the potential to emit:

a) 10 tons per year of or more of any hazardous air pollutant?  
☐YES ☐NO

b) 25 tons per year or more of any combination of hazardous air pollutants? ☐YES ☐NO

c) 100 tons per year or more of any other regulated air pollutant  
☐YES ☐NO

3. Did the facility provide written notification within 30 days of any administrative change to the facility or with a physical relocation of the facility or any of its emission units? ☐YES ☐NO

4. Is the total combined annual facility wide fuel usage of less than or equal to:

a) 275,000 gallons of diesel fuel? ☐YES ☐NO

b) 23,000 gallons of gasoline? ☐YES ☐NO

c) 44 million standard cubic feet of natural gas? ☐YES ☐NO

d) 1.3 million gallons of propane? ☐YES ☐NO

e) Or an equivalent prorated amount if multiple fuels are used?

☐YES ☐NO

5. Has the owner/operator maintained, available for inspection, records of monthly fuel consumption for each consecutive 12 month period for the past 5 years? ☐YES ☐NO

## **Emissions:**

1. Emissions from silos, weigh hoppers (batchers) and other enclosed storage and conveying equipment controlled to limit visible emissions to 5% opacity? ☐YES ☐NO

2. Management of roads, parking areas, stock piles and yards include one or more of the following?:

a) paving and maintenance of roads, parking areas and yards?

☐YES ☐NO

b) application of water or environmentally safe dust-suppressant chemicals to control emissions? ☐YES ☐NO

c) removal of particulate matter from roads and other paved areas near building and work areas? ☐YES ☐NO

d) installation of wind breaks or reduction of stockpile height?

☐YES ☐NO



3. Use of spray bar, chute or partial enclosure to mitigate emissions at the drop point to truck ☐YES ☐NO

## Testing:

1. Was a visible emissions test performed using EPA Method 9 in the last calendar year? ☐YES ☐NO

2. During testing of the silo dust collector exhaust points, was the loading of the silo conducted at a rate that is representative of the normal silo loading rate? ☐YES ☐NO

3. Was the minimum loading rate of 25 tons/hour achievable?

☐YES ☐NO

4. During testing of the weigh hopper (batcher) was the batching at a rate that is representative of the normal batching rate and duration?

☐YES ☐NO

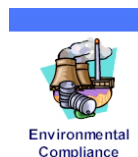
5. VE test results filed with the DEP no later than 45 days after the test? ☐YES ☐NO



# **CONCRETE BATCHING PLANTS**

## **REGISTRATION**

## **WORKBOOK**



### ■ **What is the Purpose of the Regulation?**

The Department of Environmental Protection (DEP) has established an Air General Permit (AGP) under Rule 62-210.310 (5) (b), Florida Administrative Code, (F.A.C.), for Concrete Batching Plants. By simply registering to “use” the AGP, the owner or operator of an eligible facility is allowed to construct and operate the facility under the terms and conditions of the AGP rule. There is no need for the owner or operator to incur the additional time and expense of applying for an individual air construction or air operation permit.

### ■ **Who is Eligible to use the Concrete Batching Plants APG?**

- Eligible facilities must not emit more than ten tons per year of any listed hazardous air pollutant (HAP), twenty-five tons per year of any combination of HAPs, or 100 tons per year or more of any other regulated air pollutant.
- Eligible facilities must not operate any other emission units that would require an AO permit.
- Existing facilities with an AO permit may renew that permit or apply for the AG permit at least thirty days prior to the expiration date of the existing permit.

### ■ **How Do I Register or Re-register for Concrete Batching Plants AGP?**

- The owner/operator of existing or new concrete batching plants can use the optional registration worksheet found at (web address) to comply with the Concrete Batching Plant AG permit registration procedures in 62-210.310 (5)(b) F.A.C.
- The registration along with a \$100 fee must be submitted to the Department at least thirty (30) days prior to the expiration date of an existing facility’s authorization.
- For a new facility, the registration must be submitted at least thirty (30) days before intending to use the AGP rule authority.
- If certain changes occur at an existing concrete batch facility, the owner/operator must re-register for use of the AGP. Re-registration of the AGP is required for the following changes:

- Change of ownership
  - The new owner/operator must submit a registration along with a fee of \$100.00, at least thirty (30) days before intending to use the AGP rule authority
  - The current owner operator is encouraged to notify the Department prior to the sale of the facility.
- Physical change in location
- Proposed new construction
- Modifications to equipment (installation of new process or air pollution equipment; alteration of existing process or control equipment; or replacement of existing process or control equipment with equipment substantially different in terms of capacity, method of operation, material processed, or intended use than that noted in the most recent registration form)

## ■ **What is required by Concrete Batching Plants when using an AGP Rule Authorization?**

### **☒ General Requirements**

- This general permit is valid only for the specific activity indicated. Any deviation from the specified activity and the conditions for undertaking that activity shall constitute a violation of the permit.
- The facility must not emit objectionable odors.
- Use of the AG does not eliminate the necessity for the owner/operator or authorized representative to obtain any other federal, state, or local permits that may be required, or relieve the owner/operator or authorized representative from the duty to comply with any federal, state, or local requirements that may apply.

### **☒ Control Technology Requirements**

#### **1) Stack Emissions**

- Emissions from silos, weigh hoppers (batchers), and other enclosed storage and conveying equipment shall be controlled to the extent necessary to limit visible emissions to 5 percent opacity.

## 2) Unconfined Emissions

- The owner or operator shall take reasonable precautions to control unconfined emissions from hoppers, storage and conveying equipment, conveyor drop points, truck loading and unloading, roads, parking areas, stock piles, and yards by doing the following:

**a) Management of roads, parking areas, stock piles, and yards, which shall include one or more of the following:**

1. Paving and maintenance of roads, parking areas, and yards.
2. Application of water or environmentally safe dust-suppressant chemicals when necessary to control emissions.
3. Removal of particulate matter from roads and other paved areas under control of the owner or operator to mitigate reentrainment, and from building or work areas to reduce airborne particulate matter from stock piles.
4. Reduction of stock pile height or installation of wind breaks to mitigate wind entrainment of particulate matter from stock piles.

**b) Use of spray bar, chute, or partial enclosure to mitigate emissions at the drop point to the truck.**

### ☒ **Control Technology**

#### 1) Stack Emissions

- Emissions from silos, weigh hoppers (batchers), and other enclosed storage and conveying equipment shall be controlled to the extent necessary to limit visible emissions to 5 percent opacity.

#### 2) Unconfined Emissions

- The owner or operator shall take reasonable precautions to control unconfined emissions from hoppers, storage and conveying equipment, conveyor drop points, truck loading and unloading, roads, parking areas, stock piles, and yards by doing the following:

**a) Management of roads, parking areas, stock piles, and yards, which shall include one or more of the following:**

1. Paving and maintenance of roads, parking areas, and yards.
2. Application of water or environmentally safe dust-suppressant chemicals when necessary to control emissions.
3. Removal of particulate matter from roads and other paved areas under control of the owner or operator to mitigate reentrainment, and from building or work areas to reduce airborne particulate matter from stock piles.

4. Reduction of stock pile height or installation of wind breaks to mitigate wind entrainment of particulate matter from stock piles.

**b) Use of spray bar, chute, or partial enclosure to mitigate emissions at the drop point to the truck.**

**☑ Test Methods and Procedures**

- All emissions tests performed pursuant to the requirements of this subsection shall comply with the following requirements.
  - a) The reference test method for visible emissions is EPA Method 9, 40 CFR 60 Appendix A.
  - b) Test procedures that shall be followed are specified in Rule 62-297.310, F.A.C. and shall be reported to the Department.
  - c) Visible emissions test of silo dust collector exhaust points shall be conducted while loading the silo at a rate that represents the normal silo loading rate. The minimum loading rate shall be 25 tons per hour unless such a rate is unachievable in practice. If emissions from the weigh hopper (batcher) operation are also controlled by the silo dust collector, the batching operation shall be in operation during batching rate and duration. Each test report shall state the actual silo loading rate during emissions testing and, if applicable, whether or not batching occurred during emissions testing.
  - d) If emissions from the weigh hopper (batcher) operation are controlled by a dust collector which is separate from the silo dust collector, visible emissions tests of the weigh hopper (batcher) dust collector exhaust point shall be conducted while batching at a rate that is representative of the normal batching rate and duration. Each test report shall state the actual batching rate during emissions testing.

**☑ Record-keeping**

- The owners/operators of all collocated concrete batching plants and nonmetallic mineral processing plants shall maintain records to account for site-wide fuel consumption for each calendar month and each consecutive twelve months. These records shall be retained available for Department inspection for a period of at least five years.

**☑ Equipment Maintenance**

- All Concrete Batch Plant units shall be maintained in proper working order in accordance with the manufacturer's specifications to ensure the integrity and efficiency of the equipment.

- If a concrete batch unit contains a defect that affects the integrity or efficiency of the unit, the unit shall be taken out of service. The unit shall not be operated until it has been repaired or adjusted.
- A written plan containing operating procedures for startup, shutdown and malfunction shall be maintained and followed during those events.

### ■ **Where do I submit my Registration or Receive Additional Information?**

- Please send your AGP registration and the \$100.00 fee payable to FDEP:  
FDEP Receipts  
PO Box 3070  
Tallahassee, FL 32315-3070
- For overnight delivery:  
FDEP Receipts  
3800 Commonwealth Blvd.  
Tallahassee, FL 32399
- Questions regarding the AGP registration procedures should be directed to:
  - o DEP's Air General Permits Section (850) 717-9000 or
  - o Small Business Environmental Assistance Program 1-800-722-7457 or
  - o Reference the departments website at:

<http://www.dep.state.fl.us/air/emission/concrete.htm>

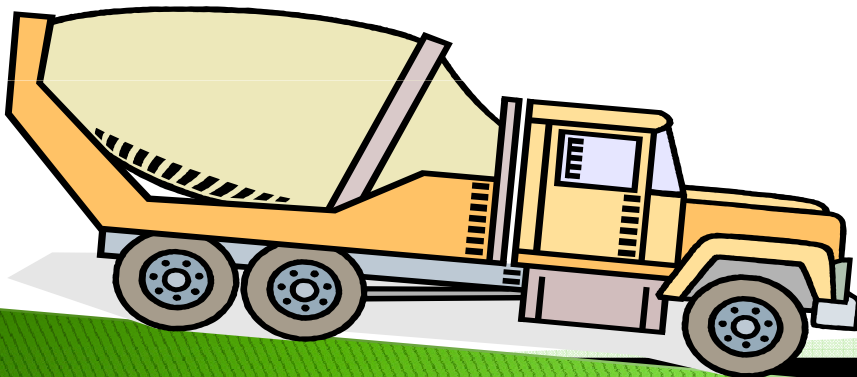
**DISCLAIMER: This workbook is for guidance purposes only. It is not official rule language and does not include a comprehensive listing of all environmental regulations that may be applicable to Concrete Batching Plants. Please refer to Rule 62-210.310 (5) (b) for complete and up-to-date rule language.**



# *Florida Department of Environmental Protection*

## Concrete Batch Plant Outreach Project

Air Resource Management  
Northeast District Office



# Project Team

Yasmin Enriquez  
Scott Johnston  
Marc Lovallo  
Lary Perkins  
(904) 256-1700

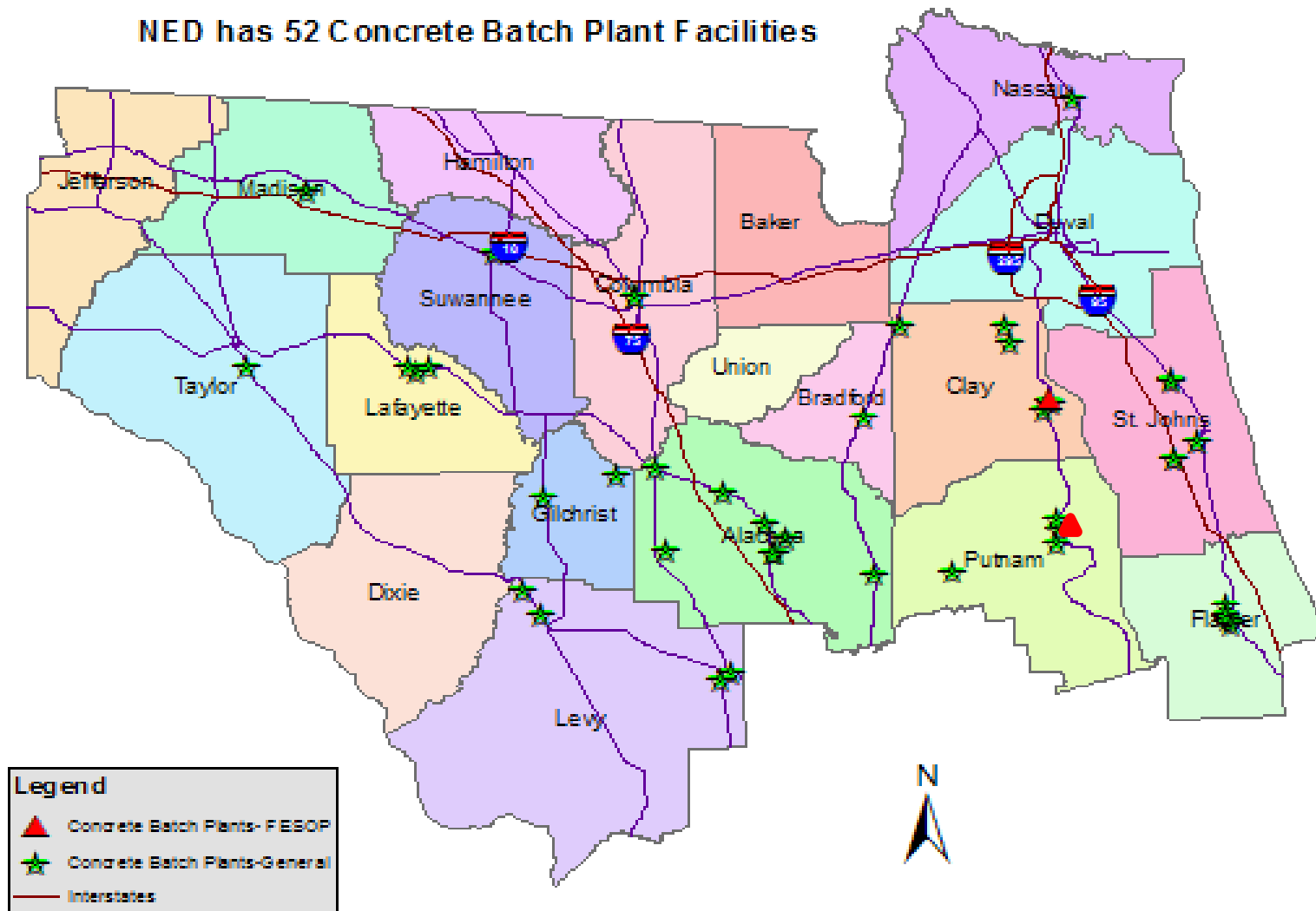




# Concrete Batch Plant (CBP) General Permit (GP) Requirements



## NED has 52 Concrete Batch Plant Facilities



# Definition of a CBP

- ▶ Rule 62–296.414, F.A.C.
- ▶ Concrete Batching Plants. The following requirements apply to new and existing emissions units producing concrete and concrete products by batching or mixing cement and other materials. This rule also applies to facilities processing cement and other materials for the purposes of producing concrete, and to equipment used to mix cement and soil for onsite soil augmentation or stabilization.



# Concrete Batch Plant (CBP)

The use of an AG permit serves two purposes:

- Provides notice to the Department that the facility is in operation and
- Prescribes the requirements under which the facility is allowed to operate

(Rule 62-210.310(5)(b), F.A.C.)



# Air General Permit Eligibility Requirements

- ▶ Must not emit 10 TPY or more of any listed Hazardous Air Pollutants (HAPs)
- ▶ Or– 25 TPY or more of any combination of HAPs
- ▶ OR– 100 TPY or more of any regulated air pollutant



# Eligible Facilities That Collocate [Rule 62-210.310(5)(b)4, F.A.C.]

A facility using the Concrete Batching Plant  
AG permit may collocate with other facilities:

- That have separate concrete batching air general permits
- With facilities using the Nonmetallic Mineral Processing Plant “crushers” AG permit, even if under the control of different persons.

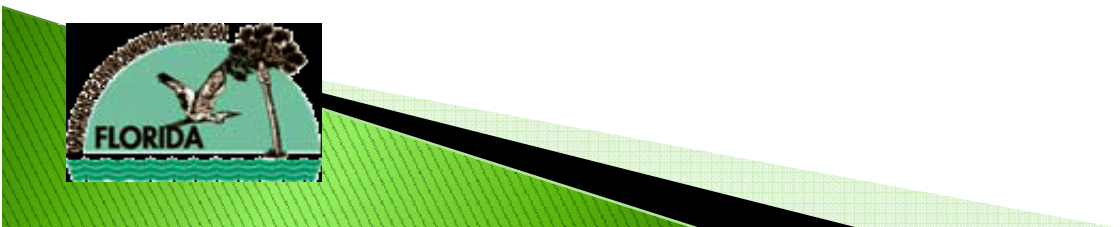


# Collocate Requirements

## [Rule 62-210.310(5)(b)4.a., F.A.C.]

The facility must meet the following conditions:

- The collocation site must not contain any emission units and pollutant-emitting activities other than concrete batching plants and nonmetallic processing plants using the general permit, and nonmetallic mineral processing plants or other emissions units and pollutant-emitting activities exempted from permitting.



# Collocate Requirements

## [Rule 62-210.310(5)(b)5, F.A.C.]

Under the authority of an air general permit:

A relocatable CBP may perform a non-routine task

- making concrete for a construction project, at a facility with authorization by individual air construction or non-Title V Air Operating Permit, without revision to the facility's air permit.

Any such CBP shall remain at the individually permitted facility for no more than:

- (6) months from the day it relocates to such facility. The owner or operator of such concrete batching plant shall keep records to indicate how long the plant has been at the permitted facility.





# General Conditions

[Rule 62-210.310(3), F.A.C.]

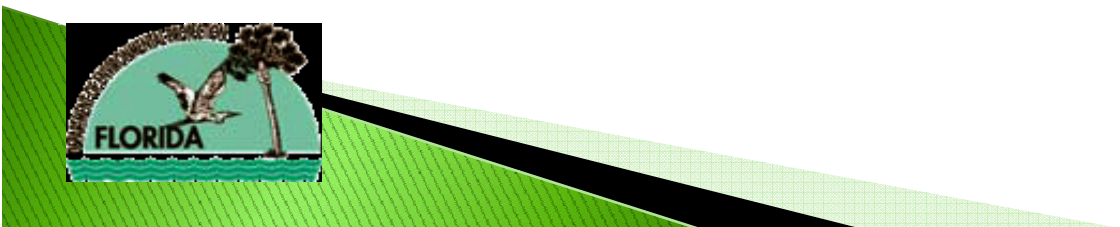
- ▶ The duration of the Concrete Batching Plant AG permit is five (5) years. The owner /operator or authorized representative must submit the proper registration form and processing fee of \$100.00 at least thirty (30) days prior to the expiration of the facility's existing AG permit



# General Conditions

[Rule 62-210.310(3), F.A.C.]

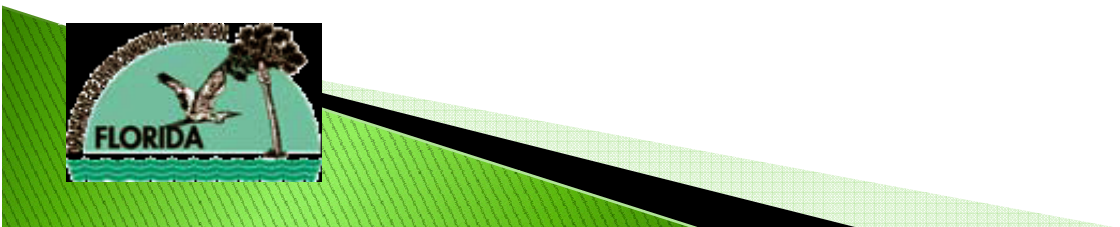
If, for any reason, the owner or operator of any facility or emissions unit operating under an AG permit **does not comply** with or **will be unable to comply** with any condition or limitation of the permit, the owner or operator shall immediately provide the Department with:



# General Conditions

## [Rule 62–210.310(3), F.A.C.]

1. A description of and cause of noncompliance; and,
2. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.



# General Conditions

[Rule 62-210.310(3)n, F.A.C.]

Use of the AG permit does not eliminate or relieve the necessity for the owner/operator or authorized representative to obtain any other federal, state, or local permits that may be required.



# Control Technology



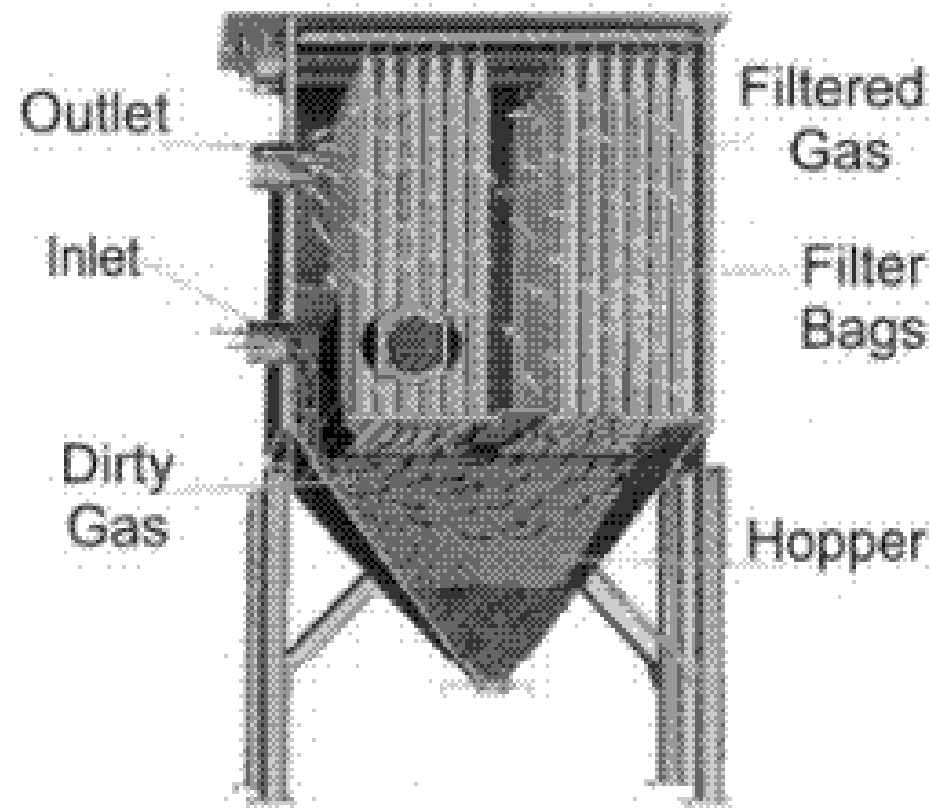


## Control Technology requirements Rule 62–296.414(1),F.A.C.

1. **Stack Emissions**–Emissions from silos, weigh hoppers (batchers), and other enclosed storage and conveying equipment shall be controlled to the extent necessary to limit visible emissions to 5 percent opacity.



# Control Technology Baghouse



# Baghouse Maintenance

**Regularly scheduled preventative maintenance is important on a baghouse/dust collector.**

**An improperly running baghouse can be a production chokepoint, a hazard or an environmental problem.**

**Fixing minor problems before they become bigger ones are key to a successful operation.**





# Control Technology



Cartridge Filter



Central Dust Collector



## Control Technology requirements Rule 62–296.414(2),F.A.C.

2. Unconfined Emissions–The owner or operator shall take reasonable precautions to control unconfined emissions from hoppers, storage and conveying equipment, conveyor drop points, truck loading and unloading, roads, parking areas, stock piles and yards by doing the following:



# Control Technology –Unconfined Emissions Rule 62–296.414(2),F.A.C.



a) Management of roads, parking areas, stock piles, and yards, which shall include one or more of the following:



# Control Technology–Unconfined Emissions

## Rule 62–296.414(2),F.A.C.

1. Paving and maintenance of roads, parking areas, and yards.
2. Application of water or environmentally safe dust-suppressant chemicals when necessary to control emissions.
3. Removal of particulate matter from roads and other paved areas under control of the owner or operator to mitigate reentrainment, from building or work areas to reduce airborne particulate matter from stock piles.
4. Reduction of stock pile height or installation of wind breaks to mitigate wind entrainment of particulate matter from stock piles.





# Control Technology–Unconfined Emissions Rule 62–296.414(2),F.A.C.

**b) Use of spray bar, chute, or partial enclosure to mitigate emissions at the drop point to the truck.**



# Visible Emission Test Methods and Procedures Rule 62–296.414(3), F.A.C.

All emissions tests performed pursuant to the requirements of this subsection shall comply with the following requirements.

- a) The reference test method for visible emissions is *EPA Method 9*, 40 CFR 60 Appendix A
- b) Test procedures that shall be followed are specified in **Rule 62–297.310**, F.A.C. and shall be reported to the Department. (15 day prior notice, list EU's/within 45 days submitted)



# Test Methods and Procedures

## Rule 62-296.414(3), F.A.C.

- c) Visible emissions test of silo dust collector exhaust points shall be conducted:
- while loading the silo at a rate that represents the normal silo loading rate. The minimum loading rate shall be 25 tons per hour unless such a rate is unachievable in practice.
  - *If emissions from the weigh hopper (batcher) operation are also controlled by the silo dust collector, the batching operation shall be in operation during batching rate and duration.*
  - Each test report shall state the actual silo loading rate during emissions testing and, if applicable, whether or not batching occurred during emissions testing.



# Test Methods and Procedures

## Rule 62-296.414(4), F.A.C.

- ▶ The owner or operator of any concrete batching plant using the AG permit shall have a performance test conducted for visible emissions for each dust collector exhaust point no later than 30 days after commencing operation and once every calendar year thereafter.





# Violations that resulted in non compliance, 2006–2011

- ▶ 15 total violations
- ▶ 4 SNC, 11 MNC
- ▶ 5 Excess emissions violations
- ▶ 3 Failed to perform VE test
- ▶ 3 Operating unpermitted machinery
- ▶ 2 Changed control device without notification
- ▶ 1 Fugitive dust emissions
- ▶ 1 Operating in excess of permitted rate



## ☑Reporting & Record-Keeping Relocation Requirements Rule 62-210.310(5)(b)3.b., F.A.C.

The owner or operator of equipment used to mix cement and soil for augmentation or stabilization proposing to change location shall notify the appropriate Department of Environmental Protection district office or local air pollution control program by phone, e-mail, fax, or written communication at least one business day prior to changing location and transmit a Facility Relocation Notification Form (DEP Form No. 62-210.900(6)) to the Department no later than five business day following relocation.



## ☑Reporting & Record-Keeping Relocation Requirements Rule 62-210.310(5)(b)3.b., F.A.C.

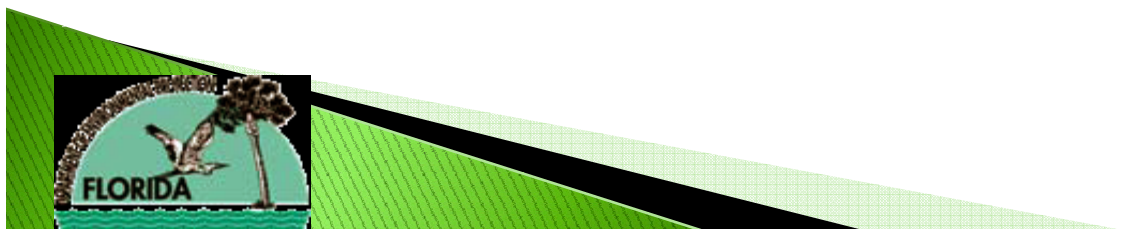
Any other relocatable concrete batching plant proposing to change location shall transmit a Facility Relocation Notification Form (DEP Form No. 62-210.900(6), F.A.C.) to the appropriate Department of Environmental Protection district or local air pollution control program office at least five (5) business days prior to relocation. The form and a statewide list of fax numbers are provided at the web link below for your convenience.

<http://www.floridadep.org/air/rules/forms/relocation.htm>



# Temporary Facility/Emissions Unit Shutdown and Startup Guidance

- ▶ Due to the current economic climate, there seem to be many permitted facilities that have temporarily shut down one or all of their emissions units. The purpose of this guidance is to review what is currently recommended in these situations.



# Temporary Facility/Emissions Unit Shutdown and Startup Guidance

## Compliance Testing

- ▶ It is recommended that you not require a shutdown emissions unit to start-up in order to perform a compliance test by its due date, even if other parts of the facility are in operation. Please use care and reasonable judgment in evaluating the situation. For instance, even if there is activity at a concrete block plant but the cement silo itself is too full to accept a load of cement, the facility cannot be reasonably expected to test the filling of the silo for visible emissions until business improves and requires that a load of cement be delivered.



# *Any Questions, Comments?*

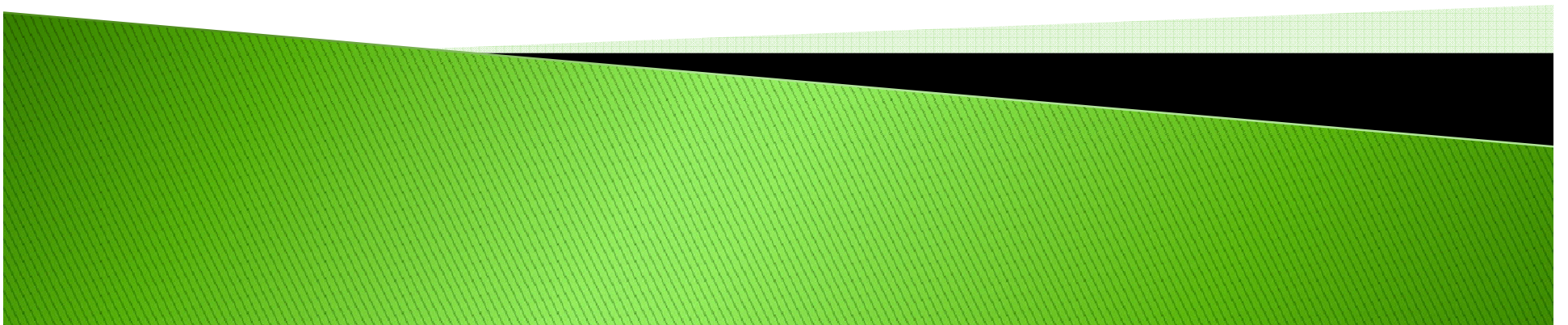
Dickson E. Dibble , Div. of Air Resource  
Management  
Air General Permit Program

(850) 717-9071

[Dickson.Dibble@dep.state.fl.us](mailto:Dickson.Dibble@dep.state.fl.us)



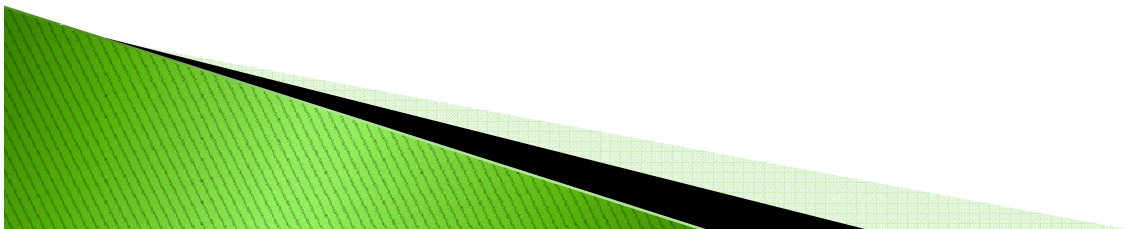
# Compliance Checklist For Concrete Batching Plants





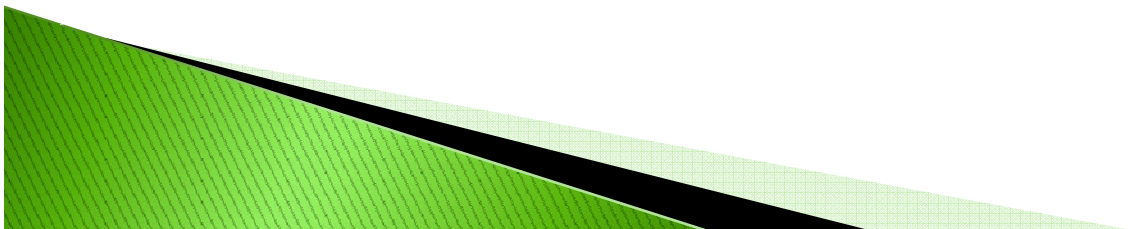
# General Requirements:

1. Has the owner/operator of the facility previously submitted a DEP General Permit registration? ☐YES ☐NO
2. Does the facility keep records to show that it does not have the potential to emit:
  - a) 10 tons per year or more of any hazardous air pollutant?  
☐YES ☐NO
  - b) 25 tons per year or more of any combination of hazardous air pollutants? ☐YES ☐NO
  - c) 100 tons per year or more of any other regulated air pollutant  
☐YES ☐NO
3. Did the facility provide written notification within 30 days of any administrative change to the facility or with a physical relocation of the facility or any of its emission units? ☐YES ☐NO



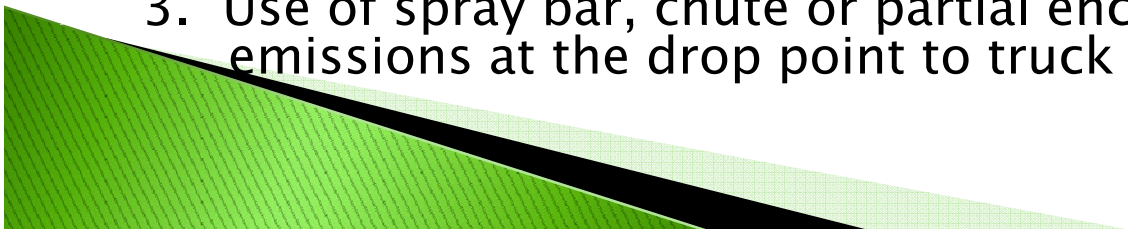
# General Requirements:

4. Is the total combined annual facility wide fuel usage of less than or equal to:
  - a) 275,000 gallons of diesel fuel? ☐YES ☐NO
  - b) 23,000 gallons of gasoline? ☐YES ☐NO
  - c) 44 million standard cubic feet of natural gas? ☐YES ☐NO
  - d) 1.3 million gallons of propane? ☐YES ☐NO
  - e) Or an equivalent prorated amount if multiple fuels are used?  
☐YES ☐NO
5. Has the owner/operator maintained, available for inspection, records of monthly fuel consumption for each consecutive 12 month period for the past 5 years? ☐YES ☐NO



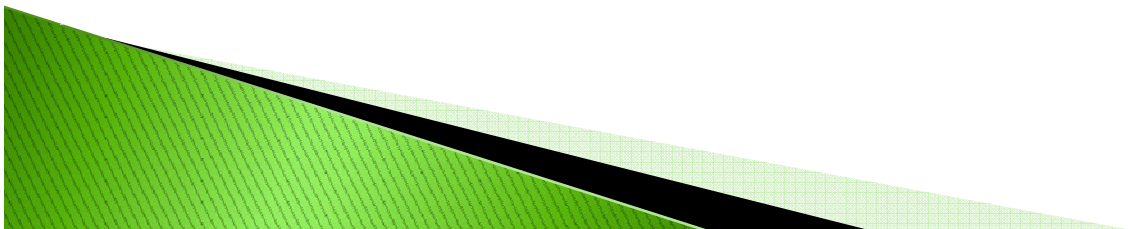
# Emissions

1. Emissions from silos, weigh hoppers (batchers) and other enclosed storage and conveying equipment controlled to limit visible emissions to 5% opacity? ☐YES ☐NO
2. Management of roads, parking areas, stock piles and yards include one or more of the following?:
  - a) paving and maintenance of roads, parking areas and yards? ☐YES ☐NO
  - b) application of water or environmentally safe dust-suppressant chemicals to control emissions? ☐YES ☐NO
  - c) removal of particulate matter from roads and other paved areas near building and work areas? ☐YES ☐NO
  - d) installation of wind breaks or reduction of stockpile height? ☐YES ☐NO
3. Use of spray bar, chute or partial enclosure to mitigate emissions at the drop point to truck ☐YES ☐NO



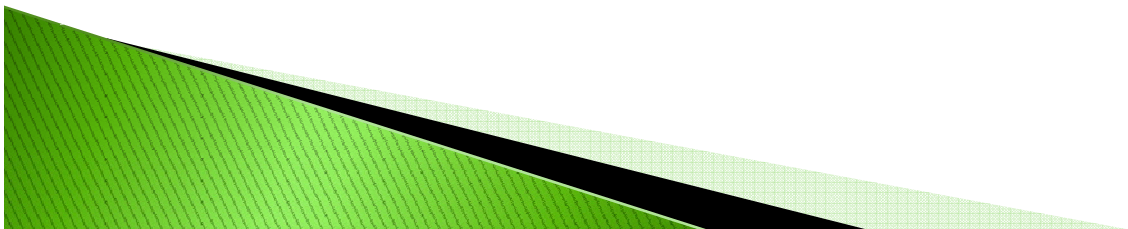
# Testing

1. Was a visible emissions test performed using EPA Method 9 in the last calendar year? ☐YES ☐NO
2. During testing of the silo dust collector exhaust points, was the loading of the silo conducted at a rate that is representative of the normal silo loading rate? ☐YES ☐NO
3. Was the minimum loading rate of 25 tons/hour achievable? ☐YES ☐NO
4. During testing of the weigh hopper (batcher) was the batching at a rate that is representative of the normal batching rate and duration? ☐YES ☐NO
5. VE test results filed with the DEP no later than 45 days after the test? ☐YES ☐NO



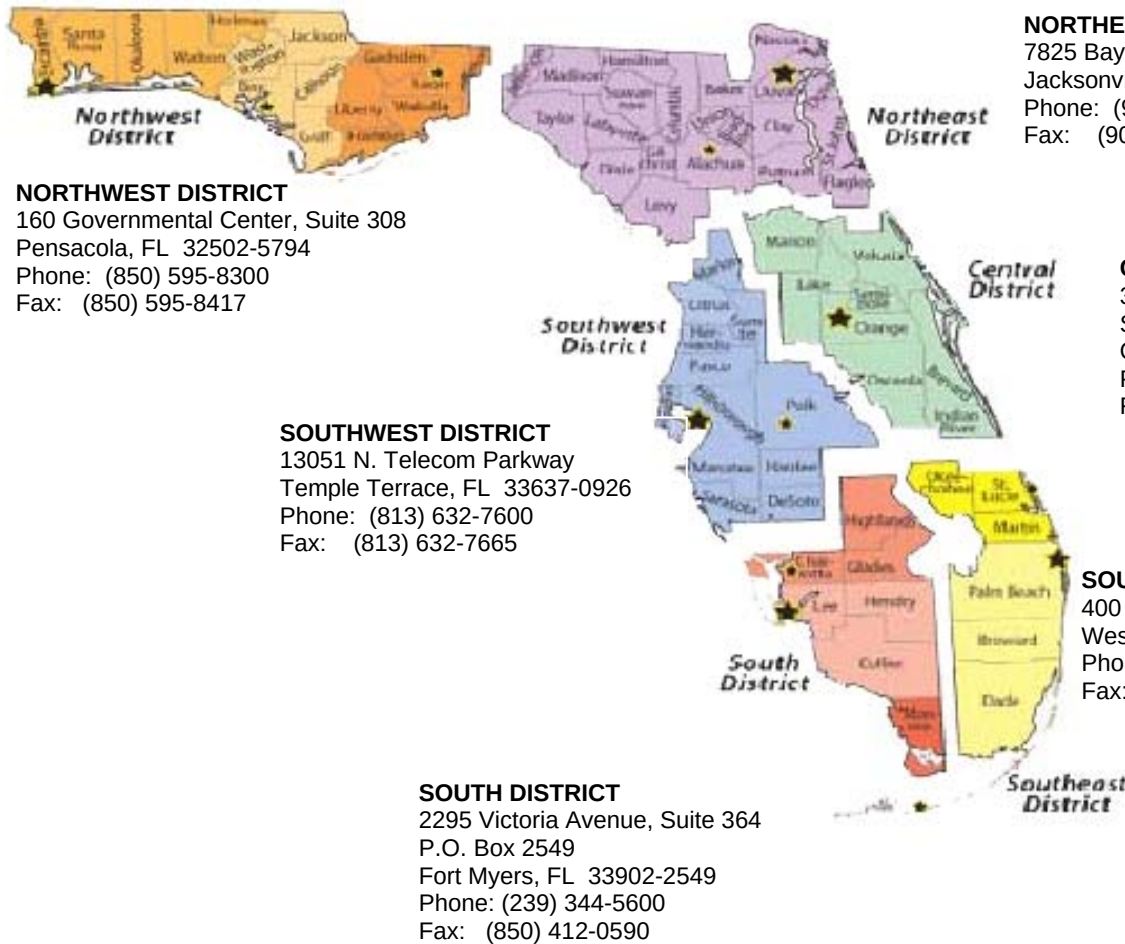
# Credits:

- ▶ The Northeast District would like to thank the Southwest District Office. Several of the slides and some formatting were borrowed from their Online 2010 Workshop Guidance presentation.



# Department of Environmental Protection

## District Office Air **Phone** and **Fax** Numbers



**If you are relocating to any of the following seven counties, fax your facility relocation notification directly to their numbers below:**

| COUNTY       | PHONE        | FAX          |
|--------------|--------------|--------------|
| Broward      | 954-519-1220 | 954-519-1495 |
| Miami-Dade   | 305-372-6925 | 305-372-6954 |
| Duval        | 904-630-4900 | 904-630-3638 |
| Sarasota     | 941-861-6230 | 941-861-6267 |
| Orange       | 407-836-1400 | 407-836-1498 |
| Palm Beach   | 561-837-5900 | 561-837-5295 |
| Hillsborough | 813-627-2600 | 813-627-2660 |