



REQUEST FOR EXTENSION OF BOILER MACT COMPLIANCE DATE

OSCEOLA FARMS COMPANY

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Table of Contents

1.0 INTRODUCTION..... 1

2.0 REQUIREMENTS FOR AN EXTENSION AND EXTENSION REQUESTS 3

3.0 REQUEST FOR AN EXTENSION 4

 3.1 Description of Existing Osceola Boilers 4

 3.2 Applicability of MACT Regulations to Osceola Boilers..... 4

 3.3 Description of Controls to Comply with the Standards 5

 3.4 Steps Osceola Has Already Taken Towards Boiler MACT Compliance..... 7

 3.5 Need for Extension of Compliance Date..... 8

 3.6 Compliance Schedule 11

 3.6.1 Engineering Design, Procurement and Installation..... 12

 3.6.2 Acceptance Testing and Operation..... 12

 3.6.3 Performance Testing..... 12

 3.7 Title V Permit Revision 13

Tables

- Table 3-1 Final Boiler MACT Limits Applicable to Osceola Boilers
- Table 3-2 Summary of Air Pollution Control Devices to Meet Boiler MACT Limits

Figures

- Figure 3-1 Osceola Farms Company – Boiler MACT Upgrade Project Schedule

Attachment

- Title V Revision Application Form (6 pages)



1.0 INTRODUCTION

Osceola Farms Company (Osceola) operates a sugar mill located near Pahokee in western Palm Beach County, Florida. The Osceola sugar mill is currently operating under Title V Operating Permit No. 0990019-012-AV, issued on June 28, 2013. This facility is classified as a major source of hazardous air pollutants (HAPs). The mill has five steam boilers (Boilers 2, 3, 4, 5, and 6) that are operated to generate steam and electricity for the mill. These boilers are fired by bagasse, which is a fibrous biomass material and a byproduct of the sugarcane processing operations. No. 6 fuel oil is used in the boilers as a backup or supplemental fuel.

On January 31, 2013, the U.S. Environmental Protection Agency (EPA) published a final rule that substantially revised the “National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters” (“Boiler MACT Rule”). The Boiler MACT Rule was published in the Federal Register (FR) at 78 FR 7138 and it is codified in Title 40, Part 63, Subpart DDDDD, of the Code of Federal Regulations (CFR).

The Osceola boilers are regulated as industrial boilers under the Boiler MACT Rule and, therefore, the boilers are subject to the newly promulgated standards in Subpart DDDDD. The compliance date under the Boiler MACT Rule is January 31, 2016.

New air pollution control systems and other improvements will need to be installed on each of the five boilers at the Osceola sugar mill in order to comply with the Boiler MACT Rule. A considerable amount of time, money, and effort is needed to complete the required work. This work is complicated by a variety of factors, including the large number of boilers that need to be upgraded, the seasonal operations of the boilers, and the relatively cramped space around the boilers.

Osceola’s efforts to comply have been hindered by EPA’s failure to act in a timely manner, which has created some uncertainty about the specific requirements that will be applicable to the Osceola boilers. In early 2013, the Florida Sugar Industry petitioned EPA to reconsider the carbon monoxide (CO) emission limit that is applicable to bagasse boilers, like the ones used by Osceola. EPA has acknowledged informally that the CO emission limit for bagasse boilers may need to be revised, but Osceola is still awaiting the EPA’s final ruling on this issue. Until EPA rules on the petition for reconsideration, it is difficult for Osceola to know precisely what level of CO control must be achieved by its boilers. This uncertainty about the CO standard has hindered Osceola’s ability to determine whether the Osceola boilers will be able to comply with certain emission limits for oxides of nitrogen (NO_x) while simultaneously complying with the yet-to-be-determined CO standard.

Pursuant to 40 CFR 63, Subpart A (General Provisions), an owner/operator who is unable to comply with a relevant standard established under Section 112(d) of the Clean Air Act (CAA) by the compliance date



may request the Administrator or a State (if delegated) to grant an extension of up to 1 additional year to comply with the standard, if such additional period is necessary for the installation of controls. When EPA issued the Boiler MACT Rule in 2013, EPA expressly recognized that some sources may need a 1-year extension of the compliance date under the Boiler MACT Rule. See 78 FR 7143.

Due to the magnitude of work that needs to be performed and the amount of time required for the installation of the necessary air pollution controls on the five boilers at the Osceola mill, as well as the uncertainty surrounding EPA's reconsideration of the applicable CO emission limits, and the other factors discussed herein, Osceola hereby requests the Florida Department of Environmental Protection (FDEP) to grant a 1-year extension of the compliance date (i.e., an extension until January 31, 2017). Please note that this request is for Boiler Nos. 2 and 5 only. Osceola anticipates that Boiler Nos. 3, 4, and 6 will achieve compliance with the Boiler MACT Rule by the compliance date.

These issues are discussed in more detail in the following sections of this document. The requirements for a request for an extension of the compliance date are summarized in Section 2, below. The justification for Osceola's request is presented in Section 3.0, below. Section 3 also discusses the types of boilers operating at the Osceola mill, the control systems that need to be installed, and Osceola's compliance schedule. The compliance schedule summarizes the tasks that need to be performed to comply with the standards in the Boiler MACT Rule.



2.0 REQUIREMENTS FOR AN EXTENSION AND EXTENSION REQUESTS

Pursuant to Section 112(i)(4)(i)(A) of the Clean Air Act and 40 CFR 63.6(i)(4)(i)(A), the owner or operator of an affected source that is unable to comply with the relevant standards may request an extension of up to 1 additional year to comply with the standard. The owner/operator must submit a Title V revision application to incorporate the conditions of the extension of compliance. The request must be submitted in writing to the appropriate compliance authority no later than 120 days prior to the source's compliance date.

A request for an extension of the compliance date must include the following information, pursuant to 40 CFR 63.6(i)(6)(i):

(A) A description of the controls to be installed to comply with the standard;

(B) A compliance schedule, including the date by which each step toward compliance will be reached. At a minimum, the list of dates shall include:

- (1) The date by which on-site construction, installation of emission control equipment, or a process change is planned to be initiated; and*
- (2) The date by which final compliance is to be achieved.*
- (3) The date by which on-site construction, installation of emission control equipment, or a process change is to be completed; and*
- (4) The date by which final compliance is to be achieved;*

The rules concerning an extension of the compliance date also include requirements for the Administrator regarding issuing or denying the request, notification, and contents of the extension approval. The extension must be granted in writing, and specify the following:

- Identify each affected source covered by the extension
- Specify the termination date of the extension
- Specify the dates by which steps toward compliance are to be taken, if appropriate
- Specify other applicable requirements to which the compliance extension applies (e.g., performance tests), and
- Specify any additional conditions that the Administrator (or the State) deems necessary to assure installation of the necessary controls and protection of the health of persons during the extension period.

The justification for Osceola's request for an extension of the compliance date, and Osceola's schedule for achieving compliance, are presented in Section 3.



3.0 REQUEST FOR AN EXTENSION

3.1 Description of Existing Osceola Boilers

The Osceola boilers supply the sugar mill with process steam during the sugarcane grinding season. The maximum steam rate and maximum heat input rate for each boiler are shown below:

Unit	Maximum Steam Rate (lb/hr)	Maximum Heat Input Rate (MMBtu/hr)
Boiler No. 2	140,000 (24-hr)	280
Boiler No. 3	150,000 (1-hr)	292
Boiler No. 4	140,000 (24-hr)	280
Boiler No. 5	165,000 (24-hr)	330
Boiler No. 6	195,000 (1-hr)	379

Note: lb/hr = pounds per hour.
MMBtu/hr = million British thermal units per hour.

The five steam boilers operated by Osceola are primarily fired with bagasse, which is a fibrous biomass byproduct of the sugarcane processing operation. Small amounts of No. 6 fuel oil also are fired at times during startup, shutdown and malfunction events, and for supplemental fuel. All the boilers are permitted to operate 3,840 hours per year and 160 days during the crop season. The crop season can extend from October 1 through April 30, but generally runs from mid-October through mid- to late March.

The existing air emissions controls on the Osceola boilers consist of wet impingement scrubbers. Boiler Nos. 2, 4, and 5 each have two scrubbers, which operate in parallel (i.e., the boiler exhaust flow splits). Boiler Nos. 2 and 5 each have two stacks (one on each scrubber). Boiler No. 4 utilizes a single stack (both scrubbers exhaust to a common stack). Boiler Nos. 3 and 6 each have one wet scrubber and one stack. Good combustion practices are used on all boilers to limit CO and organic HAP emissions.

3.2 Applicability of MACT Regulations to Osceola Boilers

The five boilers operated by Osceola primarily burn bagasse, which is a solid fuel. Consequently, the Osceola boilers are subject to the standards in the Boiler MACT Rule that apply to boilers designed to burn solid fuels. In the Boiler MACT Rule, the solid fuel category includes a subcategory for boilers that burn "biomass/bio-based solids." This subcategory includes boilers that burn at least 10 percent biomass or bio-based solids (as defined in §63.7575) on an annual heat input basis, in combination with solid fossil fuels, liquid fuels, or gaseous fuels. Since the Osceola boilers burn biomass (bagasse) for 95% or more



of the boilers' annual heat input, the Osceola boilers fit within the subcategory for biomass/bio-based solid fuels.

In the Boiler MACT Rule, EPA established a separate subcategory for bagasse-fired boilers, which EPA designated as "hybrid suspension grate" (HSG) boilers. A hybrid suspension grate boiler is defined in the Boiler MACT Rule (§ 63.7575) as follows:

a boiler designed with air distributors to spread the fuel material over the entire width and depth of the boiler combustion zone. The biomass fuel combusted in these units exceeds a moisture content of 40 percent on an as-fired annual heat input basis. The drying and much of the combustion of the fuel takes place in suspension, and the combustion is completed on the grate or floor of the boiler. Fluidized bed, dutch oven, and pile burner designs are not part of the hybrid suspension grate boiler design category.

Based on EPA's definition of a hybrid suspension grate boiler, Osceola has determined and EPA has agreed that each of the five boilers at Osceola fall in the HSG subcategory.

The solid fuel subcategory contains emission limits for hydrogen chloride (HCl) and for mercury (Hg). In addition, the biomass/bio-based solid fuel subcategory contains emission limits for particulate matter (PM) or total selected metals (TSM), and carbon monoxide (CO), emitted from HSG boilers. The emission limits applicable to the five Osceola boilers are shown in Table 3-1.

3.3 Description of Controls to Comply with the Standards

Osceola has evaluated the emissions from its boilers and compared those emissions to the applicable emission limits in the Boiler MACT Rule. Based on the historical test data available for PM/TSM, HCl, and Hg, Osceola and Golder have concluded that no additional controls will be required on the Osceola boilers to comply with the MACT standards for each of these pollutants. However, based on the historical test data for CO, Osceola and Golder have concluded that none of the Osceola boilers will be able to comply with CO standard in the Boiler MACT Rule. More specifically, none of the Osceola boilers, as currently constructed and operated, will be able to comply with EPA's CO limit of 2,800 ppmvd @ 3% O₂.

As noted above, the Florida Sugar Industry (FSI) filed a timely petition for reconsideration in 2013 because the FSI believes EPA miscalculated the CO emission limit that was published in the Boiler MACT Rule. In its petition, the FSI requested EPA to set the CO emission limit for HSG boilers at 3,500 ppmvd @ 3% O₂. EPA still has not ruled on the FSI's petition. Even if EPA grants the FSI's request, none of the Osceola boilers currently would be able to comply with the revised, higher CO limit.

To comply with the MACT standards for CO, advanced overfire air (OFA) systems, new bagasse feeder systems, and new ash removal systems will need to be installed on each of the Osceola boilers. An



advanced OFA system injects combustion air into the furnace at a controlled temperature and at specified locations to provide a more complete combustion process. The advanced OFA system provides more uniform mixing of fuel and air, as well as more uniform mixing of volatiles and unburned particles rising from the grate or released in suspension by the combustion process. Advanced OFA systems provide increased residence time of combustion gases in the furnace, which allows greater carbon burnout, and thereby lowers CO emissions. Advanced OFA systems on biomass-fired boilers have demonstrated that they can significantly improve boiler efficiencies and reduce CO emissions.

New bagasse feeder systems are needed on the Osceola boilers to reduce the intrusion of cold air into the furnace, as well as improve the distribution of the bagasse fuel when it is introduced into the boilers. New ash removal systems are needed to eliminate the current practice of opening up the boilers periodically for ash removal. This current practice allows cold air intrusion into the boilers. Cold air intrusion into the boilers reduces furnace temperatures and disrupts the air/fuel distribution in the boilers, both of which adversely affect CO emissions.

The additional air pollution control equipment and the most significant upgrades required for each boiler are described below.

- Boiler Nos. 2, 3, and 6 - Modern OFA systems are needed to reduce CO emissions to meet the MACT emission limit. Previous investigations and discussions with vendors have indicated that such improvements will bring the CO emissions from these boilers to levels that are below the MACT emission limit. In addition, new bagasse feeder systems will be installed, which will improve the fuel distribution within the boiler and reduce cold air intrusion. New ash removal systems also will be installed. The new OFA systems will be integrated into the existing combustion control system through the installation of necessary instrumentation and controls. New OFA, bagasse feeder, and ash removal systems for each boiler will have to be permitted, engineered, procured, and installed prior to the compliance date. Some of this work already has been completed, as described below.

- Boiler Nos. 4 and 5 – These boilers currently do not employ grates and, therefore, these boilers need to be converted to inclined, water-cooled, pinhole grate boilers. Osceola will convert the boilers by installing grates and other associated equipment in the boilers. In addition, new bagasse feeder systems will be installed, which will improve the fuel distribution within the boilers and reduce cold air intrusion. New ash removal systems also will be installed. Finally, the boilers will be converted to higher pressure boilers (350 psig and 600°F) to match Boiler Nos. 2, 3 and 6. To increase the steam pressure in the boilers, the existing boiler steam drums will be replaced, the existing superheaters will be



replaced, and the existing generating bank, rear wall, and floor steam tubes will be replaced. The new systems will be integrated into the existing combustion control system through the installation of necessary instrumentation and controls. The new systems for each boiler have to be permitted, engineered, procured, and installed prior to the compliance date. The permitting work already has been completed, as described below.

In addition, pursuant to the Boiler MACT Rule (§ 63.7500), the Osceola boilers must comply with certain work practices that require the use of one or more “clean fuels” during the startup of the boilers. According to EPA, clean fuels only include natural gas, synthetic natural gas, propane, distillate oil, syngas, ultra-low sulfur diesel, fuel oil-soaked rags, kerosene, hydrogen, paper, cardboard, refinery gas, and liquefied petroleum gas. The current startup procedure for the boilers at Osceola does not include the use of any of the above-mentioned fuels, except No. 2 fuel oil, which is used for the initial ignition of the fuel bed (i.e., No. 2 fuel oil is manually added onto a pile of biomass on the boiler bed). Currently, each of the five boilers is equipped with fuel oil burners that are only capable of burning No. 6 fuel oil. Therefore, it appears that each of the boilers will have to be equipped with new burners that will allow the use of distillate oil (No. 2 fuel oil) during startup. However, it is uncertain whether new burners will be required at Osceola because EPA is still reconsidering whether the “clean fuels” requirement in the Boiler MACT Rule should be changed.

The existing air pollution controls that the Osceola boilers have for MACT-regulated pollutants are summarized in Table 3-2. This table also identifies the additional controls anticipated to be required to meet the Boiler MACT limits.

3.4 Steps Osceola Has Already Taken Towards Boiler MACT Compliance

After the final Boiler MACT Rule was issued on January 31, 2013, Osceola began to conduct in-depth evaluations of a number of different options and alternatives for coming into compliance. The evaluations were complicated by a variety of factors. For example, given the large number of boilers at Osceola, it was difficult to determine whether it would be better to retain the existing boilers or construct new boilers. In addition, a number of other options had to be explored because Osceola is a subsidiary of a company (Florida Crystals Corporation) that also owns the Okeelanta sugar mill and the New Hope Power Company (NHPC) cogeneration facility. Florida Crystals Corporation wanted to develop a comprehensive compliance strategy that would optimize the operations of all three facilities (i.e., Osceola, Okeelanta, and New Hope). Accordingly, the alternatives evaluated by Osceola include, but are not limited to, the following:

- Retaining all five existing boilers at Osceola, and upgrading all of these boilers to meet the requirements in the Boiler MACT Rule.
- Shutting down all five existing boilers and constructing new boilers in their place at Osceola.



- Retaining only two of the existing boilers at Osceola, implementing improvements to these two boilers to meet the requirements in the Boiler MACT Rule, and adding a new natural gas-fired boiler at Osceola to replace the three shutdown boilers. Excess bagasse would be sent to the NHPC cogeneration plant.
- Retaining all five existing boilers at Osceola, implementing improvements on the boilers to meet the requirements in the Boiler MACT Rule, and modifying all of the boilers to burn up to 50% natural gas to aid in achieving compliance.

These evaluations have involved significant operational, logistical, and economic considerations and, consequently, these evaluations have taken considerable time and effort to complete. As a result of these evaluations, Osceola has decided to retain all five Osceola boilers and implement the necessary upgrades and improvements.

Even before Osceola completed its evaluation of its options, Osceola prepared an air construction permit application based on the assumption that Osceola may wish to retain and upgrade its existing boilers. Osceola submitted its application to FDEP in November 2013 and received an air construction permit from FDEP on March 12, 2014 (No. 0990019-015-AC).

Osceola has already placed orders for the equipment required to upgrade Boiler No. 6 to comply with the Boiler MACT Rule and Osceola is moving forward with completing the installation of this equipment. While most of the work on Boiler No. 6 was completed prior to the start of the 2014-2015 crop season (i.e., October 2014), some additional work will be performed during the next off-season (i.e., beginning April 2015). Osceola anticipates that Boiler No. 6 will be in compliance with the Boiler MACT Rule by the compliance deadline on January 31, 2016.

Osceola has negotiated the contract for procuring and installing the upgrades to Boiler Nos. 3 and 4. Osceola plans to upgrade these two boilers during the 2015 off-season, prior to the start of the 2015-2016 crop season (i.e., October 2015). Osceola expects Boiler Nos. 3 and 4 to be in compliance with the Boiler MACT Rule by the compliance deadline on January 31, 2016. [Please note that compliance does not have to be demonstrated until 180 days after the compliance date or within 60 days of achieving permitted capacity with the modified unit].

3.5 Need for Extension of Compliance Date

After the Boiler MACT Rule was issued on January 31, 2013, Osceola immediately started evaluating its options and alternatives for achieving compliance with the new requirements contained in the Boiler MACT Rule. Following the publication of the Boiler MACT Rule, there was not sufficient time in 2013 to formulate a specific plan to achieve compliance with EPA's new standards, obtain permits, perform engineering design, prepare bids, obtain proposals, and complete the necessary physical improvements to the boilers prior to the beginning of the 2013-14 crop. After the 2013-14 crop season began in October 2013, Osceola could not undertake the installation of any improvements to the boilers. Once the crop season begins, the boilers must operate almost continuously in order to



process the sugarcane crop; the boilers cannot be shut down for the time necessary to perform the work required under the Boiler MACT Rule.

Nonetheless, recognizing that the 3-year compliance deadline would approach quickly, Osceola promptly began preparing an air construction permit application in 2013 to address one potential compliance scenario. In this scenario, Osceola would retain all five existing boilers, but Osceola would need to make significant improvements to the boilers to comply with the CO limit in the Boiler MACT Rule. Based on the assumption that Osceola may wish to pursue this path to compliance, Osceola submitted its air permit application in November 2013. FDEP issued the air permit in March 2014 (No. 0990019-015-AC).

During the 2013-14 crop season, Osceola moved forward with its plans to upgrade Boiler No. 6 to meet the Boiler MACT CO limit. Although Osceola was still evaluating several alternative plans for achieving compliance at the sugar mill, each of the alternatives were based on the concept that Osceola would retain Boiler No. 6 in the future. Therefore, Osceola finalized the engineering design for Boiler No. 6, ordered equipment, and installed most of the necessary equipment during the 2014 off-season. The remainder of equipment needed, and some additional changes to the advanced OFA system, will be installed during the 2015 off-season.

Osceola has only recently finalized its plan for achieving overall compliance at the sugar mill. After spending a considerable amount of time, money, and energy evaluating potential options, Osceola has decided to move forward, while retaining all five Osceola boilers and implementing the necessary upgrades, based on the requirements in the previously issued FDEP permit. Osceola has negotiated a contract for the upgrades to Boiler Nos. 3 and 4, and the upgrades to the boilers are scheduled to be installed during the next idle season (2015 off-season).

As noted in Section 3.3, above, Osceola will have to install advanced OFA systems, new bagasse feeder systems, and new ash removal systems on all of its boilers, and Osceola will have to convert Boiler Nos. 4 and 5 to water cooled, inclined, pinhole grate boilers, in order to comply with the CO limits specified in the Boiler MACT Rule. Each of the boilers also may have to be equipped with No. 2 fuel oil burners. The plan for achieving compliance with the MACT CO limit is dependent on the proper installation and operation of these new control systems and improvements.

Osceola is requesting an extension of the MACT compliance date by 1 year (i.e., until January 31, 2017) for Boiler Nos. 2 and 5, in order to provide Osceola with the time needed to complete the installation of its new controls and equipment on these two boilers. Osceola's request is based on the following:

- After the final Boiler MACT rule was issued on January 31, 2013, Osceola had to conduct an extensive evaluation of its options for attaining compliance and, based on its evaluation, Osceola recently finalized a viable compliance strategy. Osceola is moving forward diligently to implement this strategy.



- The Osceola boilers operate on a seasonal basis (during the sugarcane crop season only), which generally extends from October through March. To achieve the necessary steam production to process the sugarcane crop, all of the Osceola boilers need to operate during the entire crop season. During the crop, downtime cannot be taken to implement upgrades to the boilers. Therefore, the installation of controls and other upgrades can take place only during the off-season, which extends from April through September. Any testing of the boilers, and any fine tuning of the boiler operations, must occur during the crop season, while the boilers are operating.
- Each of the Osceola boilers is different in design and operation. Changes to each boiler must be separately evaluated, designed, and engineered.
- Osceola must undertake several significant activities before Osceola can achieve compliance with the new Boiler MACT Rule. The primary activities include air permitting, engineering design for each boiler (because each boiler is configured differently), arrangement of the capital that will be expended, procurement of the necessary equipment, and installation and testing. To manage the demands of engineering, procurement and capital in the most effective way, the work needs to be spread out over time. In addition, the availability of engineering design firms and construction firms to provide the services and equipment is limited because there are many industrial boiler owner/operators competing for these services. Thousands of boilers across the country are affected by the Boiler MACT Rule and all of them have the same compliance date (January 2016).
- Osceola has selected an engineering/construction firm to perform the upgrades to Boiler No. 6. To provide consistency, as well as efficiency in the design, procurement, and installation process, Osceola desires to use the same engineering/construction firm for the work on the remaining four boilers.
- After the publication of the Boiler MACT Rule on January 31, 2013, there was not sufficient time to permit, engineer, procure, and install any upgrades to the boilers during the 2013 off-season. Nonetheless, Osceola proceeded with obtaining an air construction permit for a potential compliance scenario and Osceola obtained the air permit from FDEP in March 2014.
- During the past off-season (2014), Osceola implemented most of the physical changes needed for Boiler No. 6 to comply with the Boiler MACT Rule. However, further physical changes are necessary to complete the upgrade on Boiler No. 6, including modifications to the OFA system and replacement of the bagasse fuel feeders. There currently is only one off-season remaining prior to the compliance date of January 31, 2016 [i.e., the 2015 off-season, which will last from approximately April through September of 2015]. Therefore, it will be very difficult if not impossible to complete the engineering design, procurement, installation, and testing of all upgrades and control systems on five boilers during the one remaining off-season.
- Physical/space constraints exist at the Osceola mill which make it difficult to retrofit five boilers during a single off-season. The bagasse conveyors, feedwater piping, boilers and steam systems are installed close to each other for efficiency. The existing boilers are located very close together and little room exists for laydown areas or maneuvering to remove old equipment and erect new equipment between boilers and the associated conveyors, air headers and piping systems. These space constraints become a limiting factor in accomplishing extensive modifications along with the normal off-season repair work in an effective and safe manner.
- The Boiler MACT Rule is still under reconsideration for certain provisions of the rule. Most significantly, EPA has not yet established the final CO limit for HSG boilers such as Osceola's, and EPA has not yet decided whether such boilers need to have a No. 2 fuel oil firing system. EPA's schedule for issuing its reconsideration rule is uncertain, but



- various sources have indicated that the rule should be issued before the end of 2014. Given EPA's failure to rule on the FSI's petition for reconsideration, there is still some uncertainty regarding the actual requirements that will be imposed on Osceola under the Boiler MACT Rule. A 1-year extension of the compliance date would provide some much needed time for the final reconsideration rule to be issued and compliance issues to be clarified.
- To evaluate the adequacy of the equipment upgrades that will be used to comply with the Boiler MACT Rule, Osceola proceeded with the retrofitting of Boiler No. 6 during the 2014 off-season and Osceola will complete the retrofit during the 2015 off-season. Preliminary testing can take place during the 2014-2015 crop season. The final testing will take place during the 2015-2016 crop season, after the final retrofits have been made. Osceola hopes to obtain important engineering, installation and operating experience from its work on this boiler. Osceola plans to apply that experience when performing the work on the remaining four boilers
 - Based on preliminary successful implementation of the upgrades to Boiler No. 6 during the 2014-2015 crop season, Osceola will proceed with installing modifications to Boiler Nos. 3 and 4 during the 2015 off season, and Osceola will upgrade Boiler Nos. 2 and 5 during the 2016 off-season. Boiler Nos. 4 and 5 will require the greatest modifications. Therefore, spreading the work on these two boilers over two consecutive off-seasons will reduce the burden on Osceola and the engineering/construction firm. This approach also will reduce the risk of unanticipated problems causing major delays in the compliance schedule. Due to the space constraints, this schedule will also improve the conditions to enable employees and contractors to accomplish the off-season refurbishment work and the boiler upgrade retrofit work in a safe manner.
 - Performance testing of Boiler Nos. 3 and 4, along with quality assurance and quality control work pursuant to the manufacturer's standards, will be performed during the 2015-2016 crop season.
 - The enhancements will be completed on Boiler Nos. 2 and 5 during the 2016 off-season. Acceptance and performance testing will be completed on these two boilers by March 31, 2017.
 - It should be noted that startup, acceptance, and performance testing can only occur during the crop season, when bagasse fuel is being produced. Further, the boilers' operations are limited to 160 days per year, pursuant to the Title V permit for the Osceola facility. The actual crop season typically is less than 160 days. Thus, all of the operational testing, adjustments, tuning, and performance testing must be completed in a relatively short period of time. .

For the reasons set forth above, Osceola requests a 1-year extension of the Boiler MACT compliance date (i.e., until January 31, 2017) for Boiler Nos. 2 and 5. It is expected that the improvements to Boiler Nos. 3, 4, and 6 will be completed before January 31, 2016. These three boilers are expected to meet the MACT requirements by the compliance date on January 31, 2016.

3.6 Compliance Schedule

A tentative schedule has been developed for Boiler Nos. 2 and 5, based on a compliance date of January 31, 2017. A detailed Gantt chart is provided in Figure 3-1. This figure identifies the previous tasks that have been completed with each of the five boilers. The main tasks necessary to complete the boiler enhancements are described in the following subsections.



3.6.1 Engineering Design, Procurement and Installation

As discussed in Sections 3.3 and 3.4, to efficiently manage the demands of engineering, procurement and capital, Osceola has completed engineering design and procurement for Boiler No. 6 (except for the new bagasse feeders, which will be delivered and installed next off-season). The majority of the installation was completed during the 2014 off-season, prior to the start of the 2014-2015 crop season. However, the new bagasse feeders and final changes to the overfire air dampers and header will not be completed until the 2015 off-season.

Osceola has recently completed the contract negotiations for engineering design, procurement and installation of equipment for two additional boilers (Boiler Nos. 3 and 4). The engineering design includes preliminary evaluation of the current design, and development and finalization of the improvements to the existing design. Osceola anticipates that the engineering design will be completed by the end of 2014, and equipment procurement will be completed by April 1, 2015. Construction is expected to be completed by the start of the 2015-2016 crop season (October 2015).

Osceola will begin the engineering design for Boilers Nos. 2 and 5 prior to the 2015-2016 crop season (no later than August 15, 2015). The engineering design will be completed by January 31, 2016 and equipment procurement will be complete by April 1, 2016. Completion of physical construction will occur by the start of the 2016-2017 crop season, in October 2016.

3.6.2 Acceptance Testing and Operation

Once the installation of controls is completed for each boiler, acceptance testing along with quality assurance and quality control per the manufacturer and equipment standards will be conducted in the crop season following the installation. For example, the installation of new controls on Boiler No. 6 will be completed by September 30, 2015, and Osceola will then conduct acceptance testing between October 1, 2015 and March 31, 2016 (during 2015-16 crop season). Installation of Boiler Nos. 3 and 4 modifications will also be completed by September 30, 2015, and Osceola will then conduct acceptance testing between October 1, 2015 and March 31, 2016 (during 2015-2016 crop season). Based on the results of the testing, any additional adjustments that may need to be made will occur during the crop season in which the testing is performed. Acceptance testing and adjustments for the remaining boilers (No. 2 and 5) will be conducted in the crop-season following completion of the work on those boilers (i.e., during the 2016-2017 crop season).

3.6.3 Performance Testing

Under the Boiler MACT Rule, all compliance testing must be conducted within 180 days after the compliance date. Based on a compliance date of January 31, 2016 for Boiler Nos. 3, 4 and 6, the MACT performance testing on these boilers will be completed before the end of the 2015-2016 crop season (i.e., by March 2016).



Based on a compliance date of January 31, 2017 for Boiler Nos. 2 and 5, the MACT performance testing on these two boilers will be completed before the end of the 2016-2017 crop season (i.e., by March 2017).

3.7 Title V Permit Revision

As noted in Section 2.0 above, the conditions of an approved compliance date extension must be incorporated into the facility's Title V permit. Therefore, an application for a Title V permit revision is being submitted with this request for an extension of the compliance date for Boiler Nos. 2 and 5.

TABLES

Table 3-1: Final Boiler MACT Limits Applicable to Osceola Boilers

Pollutant	Boiler Subcategory	EPA Final MACT (January 2013)
Hydrogen chloride	All	0.022 lb/MMBtu heat input
Mercury	All	5.7E-06 lb/MMBtu heat input
Particulate matter (filterable)	Hybrid Suspension Grate	0.44 lb/MMBtu heat input
or Total Selected Metals ^a	Hybrid Suspension Grate	4.5E-04 lb/MMBtu heat input
Carbon monoxide	Hybrid Suspension Grate	2,800 ppmvd @ 3% O ₂ , 3-run average ^b
Dioxins/furans (toxic equivalency basis)	All	Work Practice Standard: Annual boiler tuneup; one-time energy assessment

^a Includes arsenic, beryllium, cadmium, chromium, lead, manganese, nickel, and selenium.

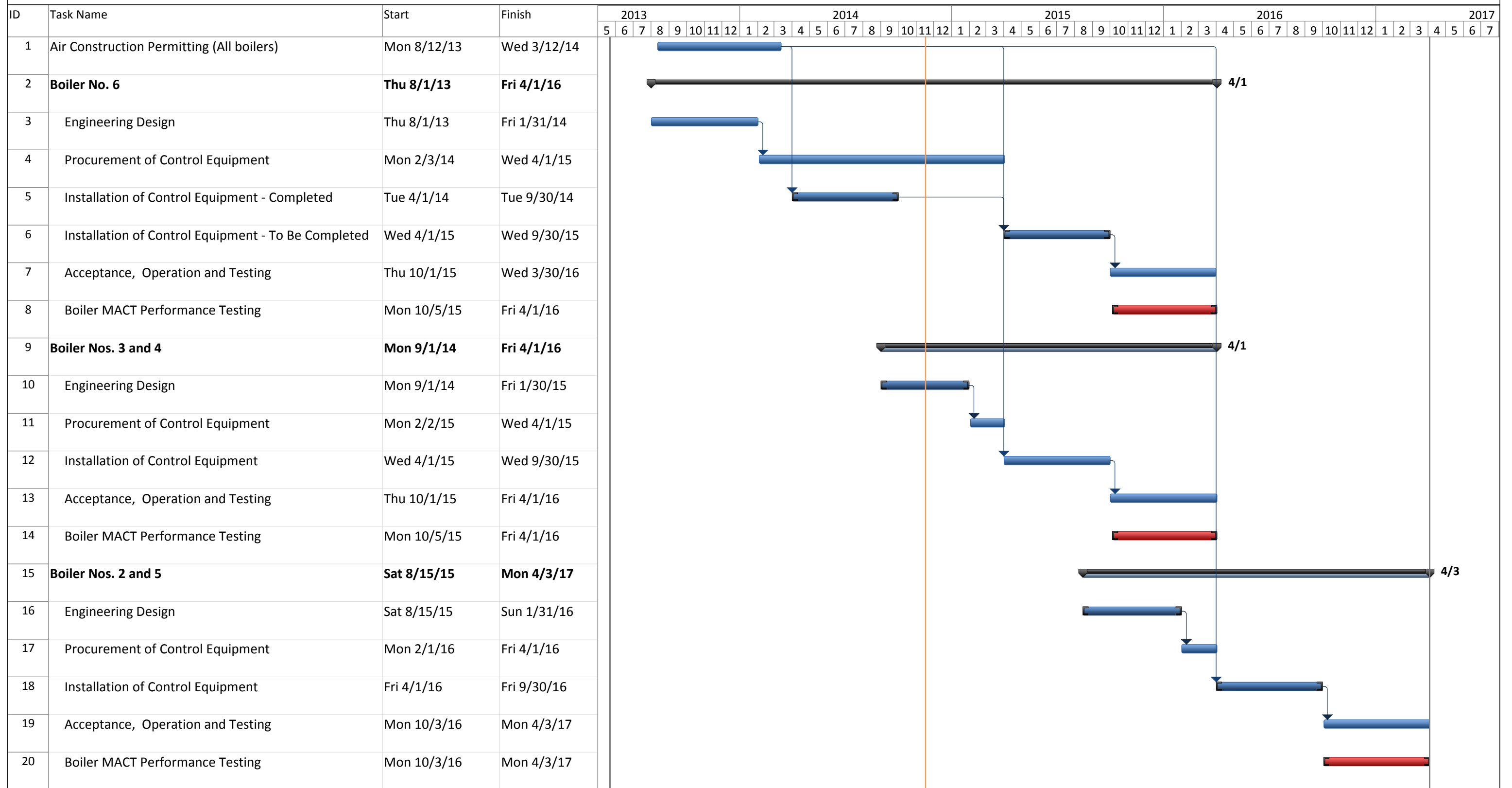
^b EPA is reconsidering the final CO limit for HSG boilers, which may increase to 3,500 ppmvd @ 3% O₂.

Table 3-2: Summary of Air Pollution Control Devices To Meet Boiler MACT Rule, Osceola Farms

Pollutant Controlled	Boiler	Air Emission Controls	
		<u>Existing Controls</u>	<u>Potential Additional Controls</u>
PM/TSM	2	Wet Impingement Scrubber	None
	3	Wet Impingement Scrubber	None
	4	Wet Impingement Scrubber	None
	5	Wet Impingement Scrubber	None
	6	Wet Impingement Scrubber	None
CO	2, 3, 6	Good Combustion Practices	- Improved Overfire Air System - New Bagasse Feeder System - New Ash Removal System
	4, 5	Good Combustion Practices	- Convert to Inclined, Water-Cooled Pinhole Grate - Improved Overfire Air System - New Bagasse Feeder System - New Ash Removal System
Hg, HCl	2	Wet Impingement Scrubber	None
	3	Wet Impingement Scrubber	None
	4	Wet Impingement Scrubber	None
	5	Wet Impingement Scrubber	None
	6	Wet Impingement Scrubber	None
HAPS	2	Wet Impingement Scrubber	Use of Clean Fuels During Startup
	3	Wet Impingement Scrubber	Use of Clean Fuels During Startup
	4	Wet Impingement Scrubber	Use of Clean Fuels During Startup
	5	Wet Impingement Scrubber	Use of Clean Fuels During Startup
	6	Wet Impingement Scrubber	Use of Clean Fuels During Startup

FIGURE

Figure 3-1: Osceola Farms Company - Boiler MACT Upgrade Project Schedule (11/17/14)



TITLE V REVISION APPLICATION FORM (6 PAGES)



Department of Environmental Protection

Division of Air Resource Management

APPLICATION FOR AIR PERMIT - LONG FORM

I. APPLICATION INFORMATION

Air Construction Permit – Use this form to apply for an air construction permit:

- For any required purpose at a facility operating under a federally enforceable state air operation permit (FESOP) or Title V air operation permit;
- For a proposed project subject to prevention of significant deterioration (PSD) review, nonattainment new source review, or maximum achievable control technology (MACT);
- To assume a restriction on the potential emissions of one or more pollutants to escape a requirement such as PSD review, nonattainment new source review, MACT, or Title V; or
- To establish, revise, or renew a plantwide applicability limit (PAL).

Air Operation Permit – Use this form to apply for:

- An initial federally enforceable state air operation permit (FESOP); or
- An initial, revised, or renewal Title V air operation permit.

To ensure accuracy, please see form instructions.

Identification of Facility

1. Facility Owner/Company Name: Osceola Farms Company	
2. Site Name: Osceola Farms Company	
3. Facility Identification Number: 0990019	
4. Facility Location... Street Address or Other Locator: U.S. 98, East of Pahokee City: Pahokee County: Palm Beach Zip Code: 33476	
5. Relocatable Facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6. Existing Title V Permitted Facility? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Application Contact

1. Application Contact Name: Matthew Capone, Director of Environmental Compliance	
2. Application Contact Mailing Address... Organization/Firm: Osceola Farms Company Street Address: 1 N. Clematis St. City: West Palm Beach State: FL Zip Code: 33401	
3. Application Contact Telephone Numbers... Telephone: (561) 366-5000 ext. Fax: (561) 992-7326	
4. Application Contact E-mail Address: Matthew.Capone@floridacrystals.com	

Application Processing Information (DEP Use)

1. Date of Receipt of Application:	3. PSD Number (if applicable):
2. Project Number(s):	4. Siting Number (if applicable):

Purpose of Application

This application for air permit is being submitted to obtain: (Check one)

Air Construction Permit

- Air construction permit.
- Air construction permit to establish, revise, or renew a plantwide applicability limit (PAL).
- Air construction permit to establish, revise, or renew a plantwide applicability limit (PAL), and separate air construction permit to authorize construction or modification of one or more emissions units covered by the PAL.

Air Operation Permit

- Initial Title V air operation permit.
- Title V air operation permit revision.
- Title V air operation permit renewal.
- Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is required.
- Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is not required.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit (Concurrent Processing)

- Air construction permit and Title V permit revision, incorporating the proposed project.
- Air construction permit and Title V permit renewal, incorporating the proposed project.

Note: By checking one of the above two boxes, you, the applicant, are requesting concurrent processing pursuant to Rule 62-213.405, F.A.C. In such case, you must also check the following box:

- I hereby request that the department waive the processing time requirements of the air construction permit to accommodate the processing time frames of the Title V air operation permit.

Application Comment

The purpose of this application is to request that the Florida Department of Environmental Protection (FDEP) incorporate in Permit No. 0990019-012-AV a grant of a one (1) year extension of the Boiler MACT compliance date until January 31, 2017, for Boiler Nos. 2 and 5 only. Osceola Farms Company will need the additional time to upgrade existing Boiler Nos. 2 and 5 in order to comply with the regulation.

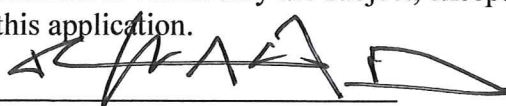
Owner/Authorized Representative Statement

Complete if applying for an air construction permit or an initial FESOP.

1. Owner/Authorized Representative Name :
2. Owner/Authorized Representative Mailing Address... Organization/Firm: Street Address: City: State: Zip Code:
3. Owner/Authorized Representative Telephone Numbers... Telephone: () ext. Fax: ()
4. Owner/Authorized Representative E-mail Address:
5. Owner/Authorized Representative Statement: <i>I, the undersigned, am the owner or authorized representative of the corporation, partnership, or other legal entity submitting this air permit application. To the best of my knowledge, the statements made in this application are true, accurate and complete, and any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department.</i> _____ Signature _____ Date

Application Responsible Official Certification

Complete if applying for an initial, revised, or renewal Title V air operation permit or concurrent processing of an air construction permit and revised or renewal Title V air operation permit. If there are multiple responsible officials, the "application responsible official" need not be the "primary responsible official."

1. Application Responsible Official Name: Jose Gonzalez, Vice President of Industrial Operations
2. Application Responsible Official Qualification (Check one or more of the following options, as applicable): <input checked="" type="checkbox"/> For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C. <input type="checkbox"/> For a partnership or sole proprietorship, a general partner or the proprietor, respectively. <input type="checkbox"/> For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official. <input type="checkbox"/> The designated representative at an Acid Rain source or CAIR source.
3. Application Responsible Official Mailing Address... Organization/Firm: Osceola Farms Company Street Address: 32298 State Road 700 City: Pahokee State: FL Zip Code: 33476
4. Application Responsible Official Telephone Numbers... Telephone: (561) 924-7156 ext. Fax: (561) 924-3246
5. Application Responsible Official E-mail Address: Jose.Gonzalez@floridacrystals.com
6. Application Responsible Official Certification: I, the undersigned, am a responsible official of the Title V source addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other applicable requirements identified in this application to which the Title V source is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit. Finally, I certify that the facility and each emissions unit are in compliance with all applicable requirements to which they are subject, except as identified in compliance plan(s) submitted with this application.  Signature _____ Date <u>12-3-14</u>

At Golder Associates we strive to be the most respected global group of companies specializing in ground engineering and environmental services. Employee owned since our formation in 1960, we have created a unique culture with pride in ownership, resulting in long-term organizational stability. Golder professionals take the time to build an understanding of client needs and of the specific environments in which they operate. We continue to expand our technical capabilities and have experienced steady growth with employees now operating from offices located throughout Africa, Asia, Australasia, Europe, North America and South America.

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