

**Preliminary Review of Prevention of Significant Deterioration  
Permit Application for CF Industries, Inc.  
Plant City, Hillsborough County, Florida  
PSD-FL-283**

by

**Air Quality Branch, U. S. Fish and Wildlife Service – Denver  
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**Background**

CF Industries (CF) is proposing to increase production at two of its phosphoric acid plants in Plant City, Florida, by twenty percent. The facility is located 90 km southeast of Chassahowitzka Wilderness, a Class I air quality area administered by the U.S. Fish and Wildlife Service.

**Prevention of Significant Deterioration (PSD) Applicability**

CF Industries has quantified the increases in fluoride emissions as 2.801 tons per year (tpy). This increase is very close to the significance level for Prevention of Significant Deterioration (PSD) applicability for fluoride of 3 tpy. CF's proposed emissions should be verified to ensure that PSD is not triggered. We understand that the Florida Department of Environmental Protection believes that the proposed increase, when compared to actual existing emissions, does exceed the significance level and that the project is significant for PSD and best available control technology (BACT) review. This issue should be clarified. Also, the relationship of the proposed project to other emission units at this source should be clarified. If increases occur at other emission units as a result of the proposed action, PSD and BACT review may apply to those units.

**Best Available Control Technology (BACT) Review**

CF Industries proposes to meet the maximum achievable control technology (MACT) limit for new phosphoric acid plants of 0.0135 lb F/ton P<sub>2</sub>O<sub>5</sub>. We agree that this limit would constitute BACT for fluoride. Because particulate matter was not addressed in the application, we would also propose a limit of 0.18 lb PM/ton P<sub>2</sub>O<sub>5</sub>. This particulate limit was implemented for Cargill Fertilizer in Florida.

**Conclusions & Recommendations**

CF Industries has proposed an appropriate BACT level emission limit for fluoride. We would propose the addition of a particulate matter emission limit of 0.18 lb/ton P<sub>2</sub>O<sub>5</sub>. We also suggest that CF Industries verify the increase in fluoride emissions to ensure that PSD is not triggered by this increase.

In addition, if the increase in phosphoric acid production has the potential to cause increases in emissions in other parts of the facility, PSD applicability for these increases should be investigated.

**Air Quality Related Values Analysis**

If CF's proposed project requires PSD review, CF should evaluate potential impacts to the AQRVs of Chassahowitzka Wilderness.

Our comments are preliminary and will be followed by a more detailed review of the proposed project.

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