MEMORANDUM

DATE: September 10, 2008

TO: Al Linero, P.E. - FDEP

THRU: Sterlin Woodard, P.E.

FROM: Diana Lee, P.E.

SUBJECT: EnviroFocus Technologies, LLC. PSD Construction Permit Application

On August 13, 2008, the EPC received a copy of EnviroFocus' Construction Permit Application to expand their secondary lead acid battery recycling facility. It is our opinion that the application is incomplete, and request that the following information be requested in accordance with Rules 62-4.055(1), F.A.C and Rule 62-4.070(1), F.A.C.:

1. On Page 6, Section 2.31 of the Application it is stated that, "The reverb Furnace will produce molten lead which will be conveyed through channels called launders to the Refining Kettles". Will the launders or channels be heated to maintain the lead in a molten state? If so, what type of fuel will be burned? If fuel will be burned, please provide manufacturer's design information on the burners, along with potential to emit emission estimates.

2. On Page 6, Section 2.3.2 of the Application it is stated that, "The Blast Furnace will receive the slag material from the Reverb Furnace. In addition, "other lead-bearing scrap materials" (primarily from battery production facilities) will be fed to the Blast Furnace." If the primary other lead-bearing scrap material will come from battery production facilities, please provide a comprehensive list of the different types of "other lead bearing scrap materials" that may be fed to the Blast Furnace. In addition, please provide information on the percentage of lead and other contaminants that could potentially be released into the atmosphere.

3. On Page 6, Section 2.3.3 of the Application it is stated that, "The actual emissions (of particulate matter from the furnaces) were estimated based upon stack testing at the Eagan facility. Also, the actual emissions of metal HAPs were estimated based upon Eagan stack testing, while potential metal HAP emissions were conservatively assumed to be twice these tested values (Eagan facility). However, Table 6 in Appendix B of the Application does not contain PM/PM_{10} Expected Actual emissions information for the Blast Furnace, in spite of the fact that on a table in Appendix B of the Application titled "Baseline Emissions and Comparisons with PSD Thresholds", it cites December 1999 – November 2001 PM/PM_{10} Baseline Actuals for the Blast Furnace at 1.63 tpy. This value is according to the table based upon emission factors conducted from 6/25/1998 to 7/16/2002. However, pursuant to Rules 62-210.200(36)(b) and 62-210.370(2)(d), F.A.C., Baseline Actual PM/PM_{10} emissions must be calculated over a 24-month period in which the Blast Furnace at the Tampa facility actually emitted the pollutant using site-specific emission factors based upon all stack test conducted at the Tampa facility during at least a five year period encompassing the period over which the baseline emissions are being computed. If EnviroFocus is using metal HAP stack tests conducted at the Eagan facility in order to estimate Baseline Actual metal HAP emissions from the Tampa facility because there is no site-specific metal HAP stack testing from the Tampa facility, then the Baseline Actual metal HAP emissions must be calculated in accordance with Rules 62-210.370(2)(d)1,2, F.A.C. and 62-210.200(36)(b), F.A.C. using an emission factor based upon all stack test conducted at the Eagan facility during at least a five year period encompassing the period over which the baseline emissions are being computed, provided all stack tests used shall represent the same operational and physical configuration of the Eagan Blast Furnace, and calculated over a 24-month period in

which the Blast Furnace at the Tampa facility actually emitted the pollutant using operational and production data from the Tampa facility. In addition, if EnviroFocus is using the Baseline Actual-to-Potential Applicability Test to determine PSD applicability, then the Potential metal HAP emissions must be calculated using the maximum capacity of the Tampa facility's Blast Furnace to emit based upon its physical and operational design (Rule 62-210.200((244), F.A.C.) and, if using Eagan emission factors to calculate the metal HAP Potential to Emit, then it must be calculated in accordance with Rule 62-210.370(2)(d), F.A.C. Please resubmit the calculations, and revise the Application accordingly.

4. On Page 7, Section 2.3.3 of the Application it is stated that, "The actual CO, SO_2 and VOC emission estimates (from the furnaces) were based on stack testing at Eagan. Again, as stated above, if EnviroFocus is using the Baseline Actual-to-Potential Applicability Test to determine PSD applicability, then the Baseline Actual CO, SO_2 and VOC emissions must be calculated over a 24-month period in which the Blast Furnace at the Tampa facility actually emitted the pollutant using site-specific emission factors based upon all stack test conducted at the Tampa facility during at least a five year period encompassing the period over which the baseline emissions are being computed, provided all stack tests used shall represent the same operational and physical configuration of the unit (Rules 62-210.200(36)(b) and 62-210.370(2)(d), F.A.C.). Please resubmit the calculations in accordance with 62-4.055(1), F.A.C and Rule 62-4.070(1), F.A.C., and revise the Application accordingly.

5. On Page 7, Section 2.5.1 of the Application it is stated that, "The actual particulate matter, lead, and metal HAP emission estimates (from the refining kettles) were based on stack testing at Eagan. Again, as stated above, if EnviroFocus is using the Baseline Actual-to-Potential Applicability Test to determine PSD applicability, then the Baseline Actual PM/PM_{10}, lead, and metal HAP emissions must be calculated over a 24-month period in which the Blast Furnace at the Tampa facility actually emitted the pollutant using site-specific emission factors based upon all stack test conducted at the Tampa facility during at least a five year period encompassing the period over which the baseline emissions are being computed, provided all stack tests used shall represent the same operational and physical configuration of the unit (Rules 62-210.200(36)(b), F.A.C. and 62-210.370(2)(d), F.A.C.). Please resubmit the calculations in accordance with 62-4.055(1), F.A.C and Rule 62-4.070(1), F.A.C., and revise the Application accordingly.

6. On Page 7, Section 2.5.1 of the Application it is stated that, "The potential metal HAP emission estimates (from the refining kettles) were assumed to be double these values (Eagan stack tests). As previously stated with the Blast furnace, if EnviroFocus is using the Baseline Actual-to-Potential Applicability Test to determine PSD applicability, then the Potential metal HAP emissions must be calculated using the maximum capacity of the Tampa facility's future refining kettle operation to emit based upon its physical and operational design (Rule 62-210.200((244), F.A.C.) and, if using emission factors from Eagan to calculate the metal HAP Potential to Emit, then it must be calculated in accordance with Rule 62-210.370(2)(d), F.A.C. and resubmitted.

7. On Page 8, Section 2.6 of the Application it is stated that, "In order to reduce the impact of lead emissions on the environment, and to meet the strict requirements of the Secondary Lead MACT Standard, EnviroFocus will enclose the entire facility and ventilate the air exhausted from the building through a large 195,000 acfm cartridge collector identified as the Torit Collector." It is further stated that, "The filtered gases will be admitted from a new stack identified as the Torit Stack. The pollutants emitted from the Torit Stack consist of particulate matter and lead". However, Table 10 of Appendix B of the Application lists metal HAP emission based upon Eagan stack testing. In addition, Table 10 cites Expected Actual and Limiting Levels of PM/PM_{10}, and lead, with the Limiting Levels of metal HAPs calculated at twice the Eagan stack

testing values, and PM/PM_{10} and lead set at the proposed BACT levels. Since EnviroFocus has elected to use Eagan stack testing to estimate actual PM/PM_{10}, lead, and metal HAP emissions, Current Actual PM/PM_{10}, lead, and metal HAP emissions may be calculated using the Eagan emission factors and operational information from the Tampa facility. During the issuance of Draft Permit No. 0570057-015-AC for this facility, a 95% capture efficiency was used to estimate PM/PM_{10} and lead emission that could potentially escape the furnace building enclosure. Therefore, please resubmit Current Actual emission estimates of PM/PM_{10} and lead for the Tampa facility calculated over a 24-month period in which the Blast Furnace at the Tampa facility actually emitted the pollutant, which is representative of the normal operation of the Tampa facility's Blast Furnace using the actual production rates, along with site-specific emission factors based upon all stack test conducted at the Tampa facility during at least a five year period encompassing the period over which the emissions are being computed, provided all stack tests used shall represent the same operational and physical configuration of the unit (Rules 62-210.200(11)(a), F.A.C. and 62-210.370(2)(d), F.A.C.). Current Actual metal HAP emissions may be calculated using Eagan emission factors, as long as the operational and production data is from the Tampa facility's Blast Furnace, and calculated in accordance with Rules 62-210.200(11)(a), F.A.C. and 62-210.370(2)(d), F.A.C. Future Actual PM/PM_{10} and lead emissions may be estimated using the unit specific allowable emissions pursuant to Rule 62-210.200(11)(b), while metal HAP Future Actuals shall be set equal to the potential emissions using the Eagan emission factors, and the physical and operational design of the proposed Blast/Reverb Furnace and building enclosure (Rules 62-210.200((244), F.A.C. and 62-210.200(11)(c), F.A.C.). Please resubmit the above calculations and revise the Application accordingly.

8. On Page 8, Section 2.7 of the Application it is stated that, "The soda ash handling system consists of a small Soda Ash Receiving Silo for receiving soda ash by truck and two larger Soda Ash Process Silos for distributing the soda ash to the desulfurization process and the sulfur dioxide scrubber". It is also stated that, "Emissions from these silos consist of particulate matter, which will be controlled by bin vent filter (fabric filters). Emissions were estimated using an assumed outlet concentration from the bin vent filters of 0.005 gr/dscf, which will also be proposed as the BACT limit for these devices". However, on Pages 162 and 177, Section B, Emission Unit Capacity Information of the Application, it specifies a maximum process rate for all three silos as 50 tph. Furthermore, on Pages 168 and 181, Section F1. Emission Unit Pollutant Detail Information, it specifies potential PM/PM_{10} emissions of 0.03 lb/hour and a proposed PM/PM_{10} BACT limit of 0.005 gr/dscf. Using a 0.27 lb/ton controlled PM emission factor from a similar type of bulk material, such as cement, from AP-42, Table 11.12-2, the specified loading rate, and the 650 dscfm design flow rate listed on Pages 165 and 178 of the Application, yields a controlled PM grain loading in excess of 0.005 gr/dscf. Please provide reasonable assurance pursuant to Rule 62-4.070(1), F.A.C. in the form of bin vent design information, A/C ratios, test results, emission calculations, and or manufacturer's guarantees that the emission units operating at the maximum loading rate can meet the proposed PM/PM_{10} BACT limit of 0.005 gr/dscf. In addition, please revise the application and Tables accordingly, and provide estimates of the Baseline Actual and Potential emission emissions in accordance with Rules 62-210.200(36)(b), F.A.C., 62-210.200((244), F.A.C. and 62-210.370(2)(d), F.A.C.

9. On Page 8, Section 2.8.1 of the Application it provides a description of the Plastics Plant. However, there is no explanation of how the plastic chips will be transferred from the battery breaker to the wet hammer mill to the melter and extruder, and on to the spin dryer. Please explain, and provide a process flow diagram in accordance with Rules 62-4.055(1), F.A.C and Rule 62-4.070(1), F.A.C. In addition, On Page 23, Section 4.8.1 of the Application, EnviroFocus

proposes that "no controls" be proposed as PM/PM_{10} BACT, although the potential emissions are estimated at 0.53 tpy. Rule 62-212.400(10)(c), F.A.C. requires that the owner or operator of a major modification shall apply BACT for each PSD pollutant which would result in a significant net emissions increase at the source (This requirement applies to each proposed emission unit at which a net emissions increase in the pollutant would occur as a result of a physical change or change in the method of operation in the unit). Dust collectors and Fabric filters are typically proposed as RACT and/or BACT for material handling operations. Please provide a "top-down" cost analysis of the control technologies applicable to this emission unit in accordance with Rules 62-212.400(10)(c), F.A.C. and 62-212.400(4)(c), F.A.C.

10. On Page 8, Section 2.8.2 of the Application it states, "EnviroFocus will install a total of four Plastic Pellet Silos for off-loading to truck and railcar. Two of the silos will be dedicated to truck loading and two for railcar loading. The silos will emit minor amounts of particulate matter when being filled. The particulate matter will be controlled by bin vent filters atop the silos. The emissions were estimated based upon an assumed outlet concentration of 0.005 gr/dscf. This factor will be proposed as BACT for these emission units". Please provide reasonable assurance pursuant to Rule 62-4.070(1), F.A.C. in the form of bin vent design information, A/C ratios, test results, emission calculations, and or manufacturer's guarantees that the emission units operating at the maximum loading rate (1.75 tph) can meet the proposed PM/PM_{10} BACT limit of 0.005 gr/dscf.

11. On Page 35, Section 5.4.1 of the Application, states that, "Background monitoring data was used to represent the potential impact that local area and mobile sources could have on the area of significant impact. The monitoring data was obtained from USEPA Air Quality System, and summarized in Table 5-13. Two sets of lead monitoring data were presented." These two sites are Site ID 120571075 located at 6700 Whiteway Drive in Tampa, and Site ID 120571073 located adjacent to the EnviroFocus facility. Site ID 120571073 is the Patent site located at 6811 East 14th Avenue in Tampa. It was stated further in the section that the Site ID 120571075 monitor was not for regulatory use and instructed to use another lead monitor, Site ID 120571073, located adjacent to the EnviroFocus facility, recognizing that the use of monitoring data from this location would essentially double-count the impacts from the existing operations of the EnviroFocus facility. However, there is a third lead site that has monitoring data. The Site ID is 120571066 and is the Gulf Coast Lead site located at 1700 North 66th Street in Tampa also adjacent to the EnviroFocus facility. While EPC staff recognize that there may be a some impact from the EnviroFocus facility imbedded in the data from these two adjacent lead monitors (Site ID 120571073 and Site ID 120571066) if they are used to represent background data, the EnviroFocus facility is surrounded by several other significant lead sources that are no longer in operation (Florida Steel, David Joseph's), but have left a significant amount of deposition that could potentially be impacting these monitors. In addition, Rule 62-212.400(5)(a), F.A.C. states that the owner or operator of the proposed source or modification shall demonstrate that allowable emission increases from the proposed source or modification, in conjunction with all other applicable emissions increases or reductions (including secondary emissions), would not cause or contribute to air pollution in violation of any ambient air quality standard in any air quality control region. 40 CFR 50.1(e) defines ambient air as that portion of the atmosphere, external to buildings, to which the general public has access. Since both adjacent lead monitors (Site ID 120571073 and Site ID 120571066) provide access to the public, please explain why Site ID 120571066 located at 1700 North 66th Street in Tampa should not be used to represent the current background lead levels for the purpose of modeling in order to provide reasonable assurance of compliance with Rule 62-212.400(5)(a), F.A.C.?

12. On Page 35, Section 5.4.1 of the Application, states that, "Neighboring sources in the vicinity of the proposed source, as defined under the PSD program, include any nearby sources within the area of significant impact and any sources outside this area but within 50 kilometers of the area which could have a significant impact on receptors within the area of significant impact". It is further stated that, "All facilities with emissions of lead, NO_2, PM and PM_{10} within 50 kilometers of the significant impact area were identified by FDEP and their potential emissions, annual allowable emissions, hourly potential emissions, and hourly allowable emissions were provided". The narrative states that Table 5-14 summarizes the facilities with their respective potential emissions. A review of the Table, however, reveals several significant facilities that list no lead emissions. These include Tampa Electric Company's Big Bend Facility (Facility ID 0570039), which according to our calculations, have potential lead emissions of approximately 3.5 tpy using emission factors published in AP-42, Table 1.1-17, and Gulf Coast Metals near the EnviroFocus facility, which according to our calculations, have potential lead emissions of approximately 0.2 tpy using an emission factor published by the State of Michigan's Department of Environmental Quality. Please review the table, revise the emission calculations, and update the model accordingly.