UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

MAY 24 2010

REPLY TO THE ATTENTION OF:
AE-17J

Matt Klickman
Air Quality Coordinator
Citgo Petroleum Corporation
135th Street & New Avenue
Lemont, Illinois 60439

Re: Notice of Clean Air Act Inspection and Request for Information
Citgo Petroleum Corporation Lemont refinery in Lemont Illinois.

Dear Mr. Klickman:

The U.S. Environmental Protection Agency (EPA) will conduct a comprehensive Clean Air Act inspection of Citgo Petroleum Corporation's refinery in Lemont, Illinois (Citgo) commencing on June 7, 2010, to determine compliance with the Clean Air Act, its implementing regulations, approvals and permits. The inspection is authorized pursuant to EPA regulations and Section 114(a) of the Clean Air Act, 42 U.S.C. §§ 7414(a) and 7412. During the inspection, EPA will inspect equipment, take photographs and video, request and review documents, and interview refinery personnel.

In order to facilitate the inspection, we have prepared an initial list of documents (see Enclosure) required to be made available for review by the EPA inspectors during the inspection. During the inspection, EPA may request other documents, not on this list, as the need arises. We believe that the records listed in the Enclosure are, or should be, readily available at your facility. However, if additional time is necessary to complete a request, please discuss a schedule for completion and submission of the documents with the inspectors at the time of the inspection.

You may, if you desire, assert a confidentiality claim covering part of, or all of, the information requested, pursuant to 40 C.F.R. § 2.203(b), by attaching to such information, at the time of inspection, a cover sheet, stamped or typed legend, or other suitable form of notice employing language such as "trade secret" or "proprietary" or "company confidential." Information covered by such a claim will be disclosed by EPA only to the extent allowed by, and only by means of the procedures set forth in, the regulations at 40 C.F.R. Part 2, Subpart B. If no such claim accompanies the information when it is received by EPA, it may be made available to the public by EPA without further notice to you. In any event, you should read the above-cited regulations carefully before asserting a business confidentiality claim, since certain categories of information are not properly the subject of such a claim. EPA may request at a later time that further documents be sent pursuant to the authority of Section 114(a)(2) of the act, 42 U.S.C. Sec. 7414(a).

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Please contact Patrick W. Foley at (202) 564-7978 as soon as is convenient to arrange a conference call to discuss the inspection plan and this request for information. We thank you in advance for your cooperation.

Sincerely yours,

George T. Czerniak
Chief
Air Enforcement and Compliance Assurance Branch

cc: Ray Pilapil, Manager
Bureau of Air
Compliance and Enforcement Section
Illinois Environmental Protection Agency
1021 North Grand Avenue East
Springfield, IL 62702

Enclosure

EPA is requesting that the following documents be made available for review during the inspection scheduled to begin on June 7, 2010.

1. Block process flow diagrams for the refinery as a whole and each process unit at the refinery, including units under construction or planned for construction, and a detailed plot plan of the refinery.

2. A list of each CEMS installed at the refinery that describes the model type, and the emissions unit, and the pollutant monitored, with a copy of the sections of the CEMS manual that describes the principle of operation and the recommended QA/QC procedures.

3. Copies of Title V permit annual or semi-annual compliance certifications that Citgo submitted to a local agency, State, or EPA since January 26, 2005.

4. A list and copies of all engineering or feasibility studies of actual or possible changes to each delayed coking unit, alkylation unit, and flare system (including the header) from January 1, 1980, to the present whether such changes were implemented or not.

5. A list and copies of all engineering or feasibility studies of actual or possible changes for all other process units at the refinery from January 1, 2003, to the present whether such changes were implemented or not.

6. A list of all permits to construct, permits to operate, or orders issued since January 26, 2005. In the list:

   a. Specify the date of permit issuance;
   b. Provide a list of equipment that was modified or constructed pursuant to the permit;
   c. State whether the permit is minor new source review (minor NSR), prevention of significant deterioration (PSD), major non-attainment NSR permit or other type of permit; and
   d. If a permit is a PSD or major non-attainment NSR permit, specify the pollutants for which such permit was issued.

7. A list and copies of all of the following documents submitted to a local agency, State, or EPA since January 26, 2005:

   a. all air permits or orders;
   b. all air permit or order applications; and
   c. all correspondence related to such permit applications including all supporting documentation.

8. Provide a list of all documents that estimate the air pollutant emissions changes for any project undertaken since January 26, 2005.

9. A list of all authorizations for expenditure (AFE), capital appropriation requests (CAR), or any other such documents that authorize expenditures from January 1, 2003, to the present. Please provide this list in electronic format and include at least the following details:

   a. The internal number used to identify the AFE or CAR;
   b. The date that the AFE or CAR was submitted;
   c. Cost of the project proposed by the AFE or CAR; and
   d. A brief description of the project proposed by the AFE or CAR.

10. Copies of all AFEs, CARs, or any other such document that authorized expenditures on any heater, boiler, fuel gas system, sulfur recovery unit, and fluidized catalytic cracking unit since January 1, 2003.

11. List and copies of all AFEs, CARs, or any other such document that authorized expenditures on the delayed coking unit, alkylation unit, flare gas recovery system, and flare system (including the header) since January 1, 1980.

12. Copies of all turn-around reports for each flare gas recovery system, flare system (including the header), delayed coking unit and fluid catalytic cracking unit from January 26, 2005, to present.

13. Daily average data (in an Excel formatted electronic file) from January 26, 2005, to the present for the fluid catalytic cracking unit for each of the following parameters:

   a. FCCU feed rate (bpd);
   b. FCCU feed composition (source of feed stream and breakdown by type of petroleum derivative, in bpd);
   c. Percentage of FCCU feed hydrotreated (vol%);
   d. FCCU recycle rate (bpd);
   e. FCCU feed preheat temperature (degrees F);
   f. FCCU feed sulfur content (ppmw);
   g. FCCU feed total nitrogen content (ppmw);
   h. FCCU feed basic nitrogen content (ppmw);
   i. FCCU feed API gravity;
   j. FCCU catalyst circulation rate (lb/hr);
   k. FCCU catalyst to oil ratio;
   l. Reactor stripping steam (lb/hr);
   m. FCCU combustion air flow rate (scfm);
   n. Oxygen injection rate (ton/day);
   o. Regenerator coke burn rate (lb/hr);
   p. FCCU catalyst addition rate (ton/day);

q. Regenerator bed level (in. H_2O);
r. Equilibrium catalyst carbon (wt% of catalyst);
s. Equilibrium catalyst activity (MAT);
t. Average regenerator dense bed temperature (degrees F);
u. Average regenerator dilute phase temperature (degrees F);
v. Average regenerator cyclone temperature (degrees F);
w. Average reactor temperature (degrees F);
x. Firebox temperature of each FCCU CO boiler or Fired Waste Heat Boiler (degrees F);
y. Auxiliary fuel type, higher (gross) heating value of the fuel gas (Btu/scf), fuel density (lb/dscf) or specific gravity, sulfur content (% by wt. as H2S) and firing rate(s) for each CO boiler or Fired Waste Heat Boiler;
z. Regenerator flue gas CO/CO2 molar ratio, O2 concentration (vol%), flow rate (scfm), and temperature (degrees F);
aa. CO concentration in the stack gas in ppmvd @ 0% O2;
bb. NOx concentration in the stack gas in ppmvd @ 0% O2;
cc. SO2 concentration in the stack gas in ppmvd @ 0% O2;
dd. Oxygen concentration in the stack gas in vol%, dry;
ee. Stack gas flow rate (lb/hr);
ff. CO promoter catalyst additive type and addition rates (lb/day);
gg. NOx reducing catalyst additive type and addition rates (lb/day);
hh. SOx reducing catalyst additive type and addition rates (lb/day);
ii. SCR inlet NOx concentration (ppmvd @ 0% O2 or other identified reference O2);
jj. SCR inlet oxygen concentration (vol%, dry);
kk. SCR pressure drop (psig);
ll. SCR inlet temperature (degrees F); and
mm. SCR outlet temperature (degrees F).

14. A list and copies of all documents that Citgo prepared and/or submitted to local agency, state, and EPA to demonstrate compliance with 40 C.F.R. Part 63, Subparts CC and UUU.

15. A diagram of each fuel gas system at the refinery that shows:

a. The origin of each process or waste stream contributing to the fuel gas system;
b. All points of collection and mixing of fuel gas;
c. The location of all analyzers measuring sulfur content whether installed as continuous emissions monitoring systems ("CEMS") or for process purposes;
d. The location of all "fuel gas" treatment processes (including amine treatment and the other methods);
e. The location of all devices, including but not limited to boilers, process heaters, and flares in which fuel gas is and/or can be combusted; and
f. The location of all flare gas recovery compressors.

16. A list of all refinery fuel gas streams that are subject to the NSPS Subpart J or Ja H_2S standard, but are not continuously monitored for H_2S concentration using a CEMS. Citgo shall explain how these streams are monitored to demonstrate compliance with the H_2S standard.

17. A diagram of each flare system that shows the locations of each pressure or flow measurement, knockout drum and water seal.

18. Copies of all performance tests that Citgo conducted for each flare at the refinery. For each such test, state whether the test was conducted to comply with a federal, state, or local testing requirements and provide a reference to such testing requirement.

19. Daily average data (in an Excel formatted electronic file) for the flow of gas to each flare in scfm from January 26, 2005, to the present. Describe how such flow was measured or calculated.

20. Daily average data (in an Excel formatted electronic file) for the net heating value (Btu/scf) of gas to each flare from January 26, 2005, to the present. Describe how the net heating value was measured or calculated.

21. Daily average data (in an Excel formatted electronic file) for the average molecular weight of gas to each flare from January 26, 2005, to the present. Describe how the average molecular weight was measured or calculated.

22. Copies of all Refinery Flaring Reports and Flare Pilot Light Outage Reports that Citgo submitted to a local agency, State, or EPA since January 26, 2005.

23. Copies of all Standard Operating Procedures, flare operating manual, and any other documents that prescribe or recommend the amount of steam that flows to each flare during a flaring event.

24. Daily average data (in an Excel formatted electronic file) for the mass flow rate of steam (lb/hr) to each flare since January 26, 2005. Provide a narrative description of how the flow rates were derived.

25. Design specifications, vendor specifications, and calculations or other information that characterizes flow, thermal and/or mass limitations or other properties that define the capacity of each flare.

26. A description of the operational monitoring for each flare. State whether the steam, purge gas, auxiliary fuel, and vent gas are measured, and how they are controlled.

27. A list of all flaring events in excess of 500 pounds of SO2 since January 26, 2005, that includes:

   a. the time, date, and duration of each flaring event;
   b. whether the flaring event occurred during startup, shutdown, or malfunction (if applicable, include a brief description of the startup, shutdown, or malfunction);
   c. whether the flaring event is due to process upset gases or fuel gas released to the flare as a result of relief valve leakage or other emergency malfunction (if applicable, include a description of the emergency malfunction);
   d. the quantity of SO2 emissions released into the atmosphere during the flaring event;
   e. for each fuel gas stream routed and combusted at the flare during the flaring event, the quantity of fuel gas and concentration of H2S in the gas stream;
   f. the compliance status with the requirements in 40 C.F.R §§ 60.18 and 63.11 during the event (explain how the compliance was determined);
   g. if possible, the root cause of each flaring event and any corrective actions taken post the flaring event; the mass flow rate of steam (lb/hr) to the flare; and
   h. for steam or air assisted flares, the ratio of steam or air to organic mass flow rate (lb of steam or air per lb of organic mass).

28. Copies of all audits to determine Subpart Ja applicability to flares at the refinery conducted by the company or by an outside party since April 30, 2007.

29. Copies of all documents that Citgo prepared and/or submitted to local agency, state, and EPA to demonstrate compliance with the requirements in 40 C.F.R. §§ 60.18 and 63.11 for all flares at the refinery since the flare(s) became subject to the NSPS and NESHAP requirements.

30. Copies of all flare capacity studies conducted at the refinery for any reason since January 1, 1980.

31. Provide a list of each instance where a new line or larger line was tied in to a flare gas header since January 1, 1980 that includes the following:

   a. Identify the header and the flares that are fed by the header;
   b. State the maximum and average flows of gas added to the header in scfm;
   c. State whether the gas supplied by the new or larger line contains any sulfur and provide the expected average and maximum H2S, COS and CS2 concentrations in the gas;
   d. State the expected average VOC content of the gas supplied by the new or larger line; and
   e. State the date that the new or larger line was tied in to the flare.

32. A list and copies of all tests conducted for any reason measuring emissions of air pollutants to the atmosphere at the refinery since January 26, 2005. This list should include at least the following details;

a. The emitting unit tested;
b. The date the test was conducted;
c. The pollutant(s) tested; and
d. The test methods used.

33. Copies of all tests that measure emissions to the atmosphere of any pollutant conducted for any reason from any step of catalytic reforming unit regeneration conducted since 1980.

34. Copies of all Quarterly or Semi-annual Excess Emissions Reports that Citgo submitted to a local agency, State, or EPA under 40 C.F.R. Part 60, Subparts A, J, VV, GGG, and QQQ since January 26, 2005.

35. For Subpart J, a list that identifies separately for each pollutant and emissions unit monitored, for each Quarterly or Semi-Annual Excess Emissions Report:

a. The reporting period;
b. The total duration of excess emissions; and
c. The total CEMS downtime.

36. Daily average data (in an Excel formatted electronic file) from January 26, 2005 to the present for each drum of each delayed coking unit for each of the following parameters:

a. Coker feed rate in barrels per day (bpd);
b. Coke produced in tons per day from each drum (tpd);
c. Number of batches per day;
d. Coke produced per batch from each drum in tons per batch;
e. Duration of steam out to fractionator per batch for each drum in hours;
f. Duration of blowdown to flare or flare gas recovery system in hours;
g. Duration of quench water fill time per batch for each drum in hours;
h. Duration of quench water drain time per batch for each drum in hours;
i. Duration of total quench time per batch for each drum in hours;
j. Duration of venting per batch for each drum in hours;
k. Duration of coke cutting for each drum in hours;
l. Duration of drum cycle time for each drum in hours;
m. Number of cycles per day for each drum;
n. Volume of quench water used per quench cycle (gallons);
o. Drum vapor space temperature for each drum at moment drum venting begins in degrees Fahrenheit (F);
p. Drum pressure for each drum at moment drum venting begins in pounds per

square inch (psi);

q. Overhead condenser pressure at the moment drum venting begins in pounds per square inch (psi);
r. Volatile matter content for the coke produced; and
s. Coke drum outage (fill distance from the top) for each drum in feet.

37. For each coke drum within each delayed coking unit provide:

a. The total inner volume of the coke drum in cubic feet with supporting calculations;
b. The total interior vapor space for a typical batch size in cubic feet with supporting calculations;
c. The inner length of the coke drum in feet;
d. The inner diameter of the coke drum in feet;
e. Diagrams showing the current configuration and dimensions of the interior of each coke drum; and
f. Locations of each pressure and temperature measurement within the coke drum and blowdown system.

38. For each delayed coking unit, provide description of whether any wastes are injected into the coking cycle. For each such waste, identify the type of waste, the chemical and physical makeup of the waste, the volume of waste injected, the exact physical location within the coking unit at which it is injected, the point in time in the coking cycle that it is injected, and a description of the ultimate fate of the waste and components of the waste in liquid, solid and gaseous products and wastes leaving the delayed coking unit.

39. For each delayed coking unit, describe how blowdown condenser water is handled (i.e. recycled to quench water or sent to treatment). If any fraction of the blowdown condenser water is recycled to the quench water system, describe the amount of water recycled, and the amount sent for treatment. Provide any test results for organic or sulfur content of the water.

40. Provide a narrative description of the coking cycle for each delayed coking unit that describes what is done during each step with the duration of each step.

41. Provide a table that lists any changes to the coking cycle for each delayed coking unit that have occurred since January 1, 1980. In the table list:

a. A description of the change;
b. The date of the change; and
c. The duration of each step in the coking cycle before and after the change.

42. Provide copies of the last five annual emission inventories submitted to a local or state agency, and/or EPA and all documents that are or were used to prepare the refinery's annual emissions inventory. Provide a detailed description of how the annual emissions inventory is prepared.

CERTIFICATE OF MAILING

I, Betty Williams, certify that I sent a Notice of Inspection Letter Certified Mail, Return Receipt Requested, to:

Matt Klickman
Air Quality Coordinator
Citgo Petroleum Corporation
135th Street & New Avenue
Lemont, Illinois 60439

I also certify that I sent a copy of the Notice of Inspection Letter by first class mail to:

Ray Pilapil, Manager
Bureau of Air
Compliance and Enforcement Section
Illinois Environmental Protection Agency
1021 North Grand Avenue East
Springfield, Illinois 62702

On the 24th day of May, 2010

Betty Williams

Betty Williams
Administrative Program Assistant
AECAS IL/IN

Certified Mail Receipt Number: 7009 1680 0000 7666 5896