UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

OCT 30 2009

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

Mr. Mark L. Kamholz
Manager – Environmental Control
Tonawanda Coke Corporation
3875 River Road
Tonawanda, New York 14150-6507

Re: Section 114 Letter Requiring Emissions Testing
Reference Number: CAA-02-2009-1470
Tonawanda Coke Corporation, Tonawanda, New York

Dear Mr. Kamholz:

On July 23, 2009, representatives of the U.S. Environmental Protection Agency (EPA) and Tonawanda Coke Corporation (TCC) met at the EPA Region 2 office to discuss TCC's concerns regarding EPA's July 6, 2009 Section 114 letter, which required, in part, that TCC submit a test protocol to measure its facility-wide benzene emissions using differential absorption light detection and ranging (DIAL) equipment. EPA agreed to provide TCC the opportunity to present its concerns regarding the DIAL testing required by the Section 114 letter. On August 28, 2009, Environmental Compliance, Inc. submitted technical, practical, and financial objections to DIAL testing on behalf of TCC. Upon review of these objections, and for the reasons described below, EPA does not believe that TCC provided a basis for excluding the use of DIAL to measure TCC's facility-wide benzene mass emission rate. Therefore, pursuant to Section 114 of the Clean Air Act (the "Act"), 42 U.S.C. § 7414, and by this letter (Section 114 DIAL Test Letter), EPA now requires that TCC conduct such DIAL testing. Accordingly, TCC must submit a DIAL test protocol within 30 days of receipt of this Section 114 DIAL Test Letter. The protocol must be submitted in accordance with Paragraphs 2 through 7 of Enclosure 1 to EPA's July 6, 2009 Section 114 letter, and with the additional requirements set forth below.

Section 114 of the Act authorizes EPA to require owners or operators of emission sources to, among other things, sample emission points and provide information, in order to determine whether any person is in violation of the Act and/or to carry out any provision of the Act. Failure to conduct the required emission testing and/or submit the requested information is a violation of Section 114 of the Act, and may result in an order to comply, an order for administrative penalties, or a civil, administrative and/or criminal action for penalties and an injunction requiring compliance pursuant to EPA's

enforcement authority under Section 113 of the Act. In accordance with Section 113(c)(2)(A) of the Act, criminal penalties may be imposed on a person who fails to file a response to this Section 114 DIAL Test Letter, who knowingly makes any false statement, representation, or certification in his/her response, or knowingly omits, alters, or conceals any material information.

TCC's Benzene Emissions. In its August 28, 2009 letter, TCC stated that the ultraviolet differential optical absorption spectroscopy (UV-DOAS) data reported in the June 2, 2009 EPA document, titled "Atmospheric Monitoring Report, Tonawanda, New York," does not differentiate between TCC's benzene emissions and other sources' such as diesel truck traffic and the landfill to the north of TCC, and therefore cannot be used to identify TCC as the primary source of benzene in Tonawanda.

There is no doubt that TCC is a significant source of benzene in Tonawanda, New York. In addition to the ambient monitoring data collected by the New York State Department of Environmental Conservation over the past two years, the monitoring data included in EPA's June 2, 2009 monitoring report clearly indicates that TCC's benzene emissions are causing or contributing to elevated benzene concentrations in the local environment. TCC's estimate of its facility-wide benzene mass emission rate using AP-42 emissions factors, which are not intended to be used for source-specific emissions estimates, does not substantiate TCC's claimed benzene emission rate of 6.038 tons per year (See AP-42, "Compilation of Air Pollutant Emission Factors," Vol. 1, Introduction at page 2: "[u]se of these factors as source-specific permit limits and/or as emission regulation compliance determinations is not recommended by EPA."). Moreover, EPA does not find credible TCC's claims that other sources, such as diesel truck traffic, are the primary sources of benzene emissions in the Tonawanda area.

DIAL is Appropriate for TCC's Benzene Sources. Contrary to the statements made by Dr. Ram Hashmonay in his August 21, 2009 letter, included as Attachment 2 to TCC's August 28, 2009 letter, EPA believes that DIAL, used in the backscatter mode, will provide a reasonable estimate of the TCC facility's overall benzene mass emission rate. EPA's Other Test Methods 10 (OTM-10) refers to the use of DIAL in the path-integrated mode, and provides a basis for using multi-path configurations and wind measurements to determine mass emissions of benzene. EPA agrees with the conclusion of TCC's consultant, Minnich and Scotto, Inc., that the height of TCC's emissions plume makes the use of the Vertical Radial Plume Mapping approach as described in OTM-10 impractical (See page 3 of Attachment 1 to August 28, 2009 letter). Therefore, EPA will approve the use of backscatter DIAL as an alternative to path-integrated DIAL for the measurement of the TCC facility's overall benzene emission rate. The use of backscatter DIAL simplifies the measurement of benzene and requires only the application of the wind measurement parameters described in OTM-10 to derive the mass emissions rate. There is no technical barrier to the use of backscatter DIAL to measure the TCC facility's overall benzene emission rate. In addition, TCC's suggested alternative test protocol using Reference Method 21 would not determine TCC's facility-wide benzene mass emission rate.

EPA notes that coke ovens operate continuously and emit air pollutants on a continuous basis. Emission peaks are associated with coke pushing and quenching operations, which at TCC occurred, on average, once every 48 minutes during EPA's April 2009 inspection. As with stack testing, for regulatory compliance purposes EPA will accept the average of three one-hour DIAL measurements of benzene emissions, which include a coke push and a quench step, as being representative of the TCC facility's annual benzene emission rate.

TCC Overestimated the Cost of DIAL. Attachment 3 of TCC's August 28, 2009 letter includes an estimate from TCC's consultant, Environmental Compliance, Inc., estimating that DIAL testing would cost $702,300. EPA believes that this estimate is significantly overstated, and requests that TCC obtain an estimate from the National Physical Laboratory (NPL), Middlesex, U.K., which is currently the only vendor of DIAL testing available in the United States. EPA notes that later this year, EPA, the City of Houston, and NPL will be conducting benzene and VOC emissions testing at a petroleum refinery and chemical facility in Texas. The NPL DIAL may be available to conduct emissions testing at the TCC facility following its use in Texas.

Scope of Emission Rate Measurement by DIAL

To assist TCC in defining the scope of DIAL testing for the purpose of submitting an approvable test protocol, TCC must prepare the protocol in accordance with the following requirements and assumptions:

1. The facility-wide benzene mass emission rate will be measured from one to three measurement locations. The average of a minimum of three one-hour integrated measurements, capturing at least three coke push and quench operations, shall represent TCC's hourly average benzene emission rate on an annual basis. The total time of measurement activity is unlikely to exceed five days.

2. The DIAL measurement plane shall be approximately 400 meters in the horizontal and vertical dimensions. The identification of individual emission sources, should the plumes converge at the measurement plane, is not necessary to determine the facility-wide benzene mass emission rate.

3. EPA presently requires an independent path-integrated measurement of benzene to be co-located with the DIAL measurement plane as an independent data quality indicator. EPA offers to assist TCC and to participate in the measurement by deploying EPA's mobile UV DOAS open-path monitor at no cost to TCC.

4. The NPL DIAL equipment will be in the United States and available for measurements at TCC following DIAL work in Texas, which is scheduled for the month of December 2009 and will be completed by mid-January 2010. TCC must contact NPL to determine available monitoring times and shall ensure that

the DIAL measurement work commences no later than March 31, 2010. In addition, TCC must complete the DIAL testing by no later than April 30, 2010.

5. The DIAL test protocol may incorporate by reference sections of the document entitled "Measurement and Analysis of Benzene and VOC Emissions in the Houston Ship Channel Area." (See enclosed CD-ROM).

The DIAL test protocol and Quality Assurance Project Plan for the DIAL test must satisfy the above-listed conditions, and must be submitted to EPA for approval within 30 days of TCC's receipt of this Section 114 DIAL Test Letter.

You may address any questions concerning this matter to Mr. Harish Patel of my staff at patel.harish@epa.gov or (212) 637-4046, or Erick Ihlenburg, Assistant Regional Counsel, at ihlenburg.erick@epa.gov or (212) 637-3250.

Sincerely,

Dore LaPosta, Director
Division of Enforcement and Compliance Assistance

(Enclosure)

cc: Larry Sitzman, Air Pollution Control Engineer
New York State Department of Environmental Conservation, Region 9
Division of Air Resources
270 Michigan Avenue
Buffalo, New York 14203 - 2999

Robert J. Stanton, P.E., Director
New York State Department of Environmental Conservation
Division of Air Resources
Bureau of Stationary Sources
625 Broadway, 2nd Floor
Albany, New York 12233 – 3254

Colleen McCarthy, Senior Counsel
New York State Department of Environmental Conservation
Bureau of Air Resources
625 Broadway, 14th Floor
Albany, New York 12233 - 5500