DEPARTMENT OF ENVIRONMENTAL PROTECTION SOUTHEAST REGIONAL OFFICE PUBLIC RESPONSE DOCUMENT

Delaware County Regional Water Quality Control Authority

City of Chester, Delaware County

The Pennsylvania Department of Environmental Protection (PA DEP) has prepared this response to the comments received on the Reasonably Available Control Technology (RACT) operating permit Delaware County Regional Water Quality Control Authority. RACT permit specifies RACT for emissions of Nitrogen Oxides (NOx) and Volatile Organic Compound (VOC) to meet the requirements of 25 PA Code Sections 129.91-129.95. Notice of Public Hearing was published in the Pennsylvania Bulletin on June 29, 1996 and in Philadelphia Inquirer on June 26, 27 and 28, 1996. The public hearing was conducted on July 30, 1996. The Department subsequently received comments from DELCORA in response to the hearing and solicitation for comments.

Comments which point out typographical errors or clarification statements were appreciated and changes to the Draft Operating Permit OP-23-0032 have be made without being listed in this document. The remaining comments are summarized in the following paragraphs.

The last page contains the list of commenters.

Comment 1: DELCORA requested to change the responsible person name from Michael B. Freedman, Plant Engineer to Nicholas F. Catania, Executive Director on Page 1 of the Operating Permit.

Response: The Department will change the responsible person's name from Michael B. Freedman, Plant Engineer to Nicholas F. Catania, Executive Director.

Comment 2: DELCORA requested to change the Condition 3 which states two (2) Final Clarifier Tanks. That should be five (5) instead of two (2). Also, "Final Tank Effluent Weirs" should be changed to "Final Clarifier Effluent Weirs".

Response: The Department has revised the number of Final Clarifier Tanks from two to five.

Also, The Department revised the name "Final Tank Effluent Weirs" to "Final Clarifier Effluent Weirs".

Comment 3: In Condition 7, DELCORA requested to incorporate a change that allows to revise the NOx rate of 13.0 pounds per hour (lb./hr) as this value was used by DELCORA's consultant Chavond-Barry Engineering Corporation, in the NOx RACT analyses based on the September 1995 Air Nova, Inc. test report. DELCORA also mentioned that NOx emission will increase, when the six additional burners will be placed into operation, which are presently approved from the Department.

Response:

The NOx emission standard of 13.0 lb./hr from each incinerator was established based on 12.5 lb. NO2/hr emission rate used by Chavond-Barry Engineering Corporation, the Consultant, in estimating cost-effectiveness for various NOx control technologies. The consultant derived this emission rate (12.5 lb./hr) from the September 1995 stack test results. Since the highest NOx emission rate was listed at 12.9 lb./hr during the first of three test runs, the Department established 13.0 lb./per NOx emission standard for each incinerator.

In the Plan Approval No. 23-301-08-1A, that authorizes the company to install six new oil burners to each existing incinerator, the NOx emission standard has been established at 13.33 lb./hr. The review engineer has established this 13.33 lb./hr NOx emission rate based on the total of emissions from the existing eight burners and estimated emissions using AP-42 emission factors from the proposed twelve burners. Due to uncertainty involved in the actual emissions from all twenty burners, the Department will revise NOx RACT emission standard from 13.0 lb. Ihr to 15.0 lb. Ihr. This is because the Department believes that using 15.0 lb./hr NOx emission rate in calculating costeffectiveness instead of 12.5 lb./hr would not alter the conclusion of NOx RACT analyses. However, the Department will include a statement to revise this emission rate and make it more stringent based on actual stack test results. The amended condition is as follows:

"Pursuant to the RACT provisions of Chapter 129 of Article III of the Rules and Regulations of the Department of Environmental Protection, each Multiple Hearth Incinerator unit shall not emit nitrogen oxides (NOx) and total hydrocarbon compounds (THC) at a rate in excess of 15.0 pounds per hour (lb./hr) and 100 parts per million (PPM) corrected at seven percent oxygen and zero percent moisture respectively.

The Department reserves the right to revise and make more stringent the emission limits established above based on actual stack test results."

Comment 4: DELCORA has requested to deleted the Condition 9, as the THC monitor was installed on the Multiple Hearth Incinerators (MHIs) in 1995 to meet Federal 40 CFR Part 503 requirement for Continuous Emissions Monitoring System (CEMS). DELCORA claimed that the Department does not have jurisdiction over the MHI THC monitor installation, operation, or maintenance which is substantiated in Pa. Code Title 25, Chapter 139, Subchapter C "Requirements for Source Monitoring for Stationary Sources", under citation §139.01 "General Requirements" which reads as follows: "this section applies to monitoring systems as defined in the manual referenced at section 139.102(3) (relating to references), installations required or approved under Chapters 122, 124, 127, and 129 or in an order issued under section 4 of the Act (35 P.S. §4004)."

Response:

In the RACT proposal, DELCORA has used 100 ppm THC (as propane) as per 40 CFR 503.44(c) emission rate in order to estimate potential and typical THC emissions from MHIs. DELCORA found no VOC control technology technically as well as economically feasible for MHIs. Therefore, the Department established the VOC RACT emission standard of 100 ppm THC corrected at seven percent oxygen and zero percent moisture. Since the facility is already installed with the CEMS for THC to meet Federal 40 CFR Part 503 requirements, on May 6, 1996, Ms. Pat Henry Unrath of JACA (applicant's VOC RACT consultant) suggested that same THC monitoring system to be allowed to verify compliance with the RACT standard in lieu of the frequent stack testing. Thus, THC standard was determined to be the RACT standard and THC monitoring was determined to allow and surrogate monitoring for VOC RACT.

25 Pa Code Section 127.411 (4)(i) requires the facility to demonstrate that the source is equipped with reasonable and adequate facilities to monitor and record the emissions of air contaminants and operating conditions which may affect the emissions of air contaminants.

Also, 25 Pa. Code Section 139.101 requires the monitoring system be approved by the Department.

Therefore, the Department has authority to require installation, certification, operation, or maintenance of MHI THC monitor to demonstrate the compliance of RACT requirements.

Comment 5: DELCORA has requested to delete the Condition 10 related to annual tune-up requirements for each incinerator. DELCORA has mentioned that Chapter 129 requirement for annual tune-up applies to combustion sources for power or heat as per §129.93(b)(2) and (3), and not for incinerators. DELCORA has also commented that there is no Pennsylvania RACT regulation that authorizes PA DEP to require annual tune-ups on the MHIs.

Response: The Department agreed on the DELCORA's analyses and will deleted the Condition Number 10 from the Operating Permit.

Comment 6: DELCORA has mentioned that the company does not understand the meaning of "Unplanned incinerator start-up" stated in Condition 14. Since all incinerator start-ups are planned in advance and have a warm-up period, Condition 14 should be removed or clarified.

Response: The wording of Condition 14 has been revised.

Comment 7: DELCORA has requested to delete the temperature maintaining requirement of at least 1400 degree Fahrenheit on at least one of the burning hearth listed in Condition 16. DELCORA has proposed to include the terminology concerning maintaining a temperature of 1200 degree Fahrenheit in the upper hearth to act as an after burner.

Response: This condition can not be changed without a plan approval or operating permit modification application which demonstrates that operation at 1200°F is the best available technology to minimize air contaminant emissions.

Comment 8: DELCORA has requested to specify the "associated parameters for each source category" or remove the phrase entirely, used at the end of the first sentence of Condition 22A, as this requirement is too open ended.

Response: The Department revised the first sentence of Condition 22A as following:

"DELCORA shall keep daily record of influent and effluent wastewater flow and associated parameters required to estimate VOC emissions from the wastewater treatment sources using EPA Method 624 analyses for each source category."

Comment 9: DELCORA has requested to delete Condition 22B as DELCORA has previously requested that Condition 10 be deleted pertaining to annual tune-up requirement for incinerators.

Response: The Department agreed and deleted Condition 22B.

Comment 10: DELCORA has requested to revise Condition 22D that should be read as "DELCORA shall maintain comprehensive, accurate records of any additional data as required in accordance with 25 PA. Code Section 129.95".

Response: The Department made the requested change and revised Condition 22D as following:

"DELCORA shall maintain comprehensive, accurate records of any additional data as required in accordance with 25 Pa. Code Section 129,95".

Comment 11: DELCORA has requested to change the reporting time limits from one hour of occurrence of malfunction to four hours. Also, submission of a written report within two working days to be revised to five days.

Response: This condition has been changed accordingly.

Commentators:

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This action of the Department may be appealable, pursuant to Section 4 of the Environmental Hearing Board Act, 35 P.S. Section 7514, and the Administrative Agency Law, 2 PA C.S. Chapter 5A, to the Environmental Hearing Board, Second Floor, Market Street State Office Building, 400 Market Street, P.O. Box 8457, Harrisburg, PA 17105-8457, 717-787-3483. TDD users may contact the Board through the Pennsylvania Relay Service, 804-654-5984.

Appeals must be filed with the environmental Hearing Board within 30 days of receipt of written notice of this action unless the appropriate statute provides a different time period. Copies of the appeal form and the Board's rules of practice and procedure may obtained from the Board. The appeal form and the Board's rules of practice and procedure are also available in braille or on audio tape from the Secretary to the Board at 717-787-3483. This paragraph does not, in and of itself, create any right of appeal beyond that permitted by applicable statutes and decisional law.