



**Comments of the Sierra Club,
Robin Ijames, ANC Commissioner,
Wingates Tenant Association & Southwest Hill Association**

**Concerning
a Proposed Clean Air Act Title V Operating Permit for
the D.C. Water and Sewer Authority
Blue Plains Wastewater Treatment Plant**

Presented to:

**District of Columbia Environmental Health Administration
Washington, DC**

and

**U.S. Environmental Protection Agency, Region III
Philadelphia, PA**

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1 Introduction

These are the comments of the Sierra Club New Columbia Chapter and the Sierra Club Appalachian Regional Office concerning the proposed Clean Air Act Title V Operating Permit for the DC Water and Sewer Authority Blue Plains Treatment Plant, located in the District of Columbia.

These comments are also joined by Robin Ijames, ANC Commissioner, the Wingates Tenant Association and the Southwest Hill Association (all of Washington, DC), as cooperating organizations working with the Sierra Club to improve air quality in the District of Columbia.

These comments identify substantial defects in the proposed permit and permit application. The defects contained in the proposal create grounds for the commentors to challenge the legal validity of the permit issuance.

In discussions with individuals and organizations cooperating with the Sierra Club and its Environmental Justice Program, it is clear to us that this facility is presently having an adverse effect on the quality of life of residents of Southwestern Washington, DC, and other parts of the Washington, DC metropolitan area. The facility has a history of causing air pollution complaints from not only from communities in Southwestern Washington DC, but also from residents of (and the municipal government of) Alexandria, VA and from large governmental institutions directly adjacent to the facility, including the U.S. Naval Research Laboratory and Bolling Air Force Base.

In particular, the Blue Plains facility adversely and disproportionately affects communities of color and low income communities in Southwestern area of the District of Columbia and denies residents of these communities the environmental justice to which they are entitled. We call on the D.C. Environmental Health Administration and the U.S. Environmental Protection Agency, Region III to fully examine such disproportionate and adverse effects and to take measures within this Operating Permit proceeding to abate such effects within the meaning of Presidential Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," issued February 11, 1994.

2 Evaluation of the Blue Plains Facility Under the General Public Health/Welfare Duties and Clean Air Act Compliance Provisions of DC Environmental Ordinances

Pursuant to 20 DCMR 201.1, the Mayor must make the following findings (among others) before issuing an operating permit:

- i) That the applicant's proposed equipment, facilities, and procedures are adequate to minimize to [sic] danger to public health and welfare;
- ii) That the issuance of the permit will not be inimical to the public health and welfare; and
- iii) That the operation of the source will not prevent or interfere with the attainment and maintenance of any applicable national ambient air quality standard.

These requirements have been incorporated into the District of Columbia State Implementation Plan under the Clean Air Act, and are therefore applicable requirements for purposes of this permit. 40 C.F.R. §52.470(c).

At best we can determine, the District has not made the foregoing findings with respect to this permit. A review of the file indicates no ambient assessments or risk assessment to quantitatively predict the effects of Blue Plain's emissions on ambient air quality. Further, there are serious questions about whether the District can make such findings with respect to this permit. According to the Fact Sheet, the Blue Plains plant has the potential to emit nearly 15 tons per year of hazardous air pollutants, specifically methanol, naphthalene, and 1,4, Dichlorobenzene. Methanol and naphthalene are suspected (among other things) of being neurotoxicants and respiratory toxicants; 1,4 Dichlorobenzene is a recognized carcinogen.¹ The permit sets no emission limits on these pollutants. Given that a substantial number of people live and work in the immediate vicinity of the Blue Plains plant, the District cannot simply assume that these emissions are harmless. In order to comply with 20 DCMR 201.1, the District must conduct a thorough study to assure that the issuance of the permit "will not be inimical to the public health and welfare," and that any permit that is finally issued contains adequate control requirements to minimize danger to the public health and welfare. Such a study shall address not only potential health effects, but also welfare effects such as odor.

Likewise, the District must evaluate whether operation of the Blue Plains plant will prevent or interfere with attainment of the national ambient air quality standard for ozone – a pollutant for which the Washington area is currently designated nonattainment. The statutory deadline for attaining the ozone standard in the District expired on November 15, 1999, and yet the area continues to violate the standard. Given the continuing violation of the standard, the logical assumption must be that major sources of ozone-forming pollutants, such as the nitrous oxides (NOX) and volatile organic compounds (VOCs) emitted by Blue Plains, are contributing to the nonattainment problem and therefore the plant must further reduce emissions of such pollutants. Yet

¹ See <http://www.scorecard.org>

this permit does not even prevent an increase in total VOC and NOX emissions from this facility.

3 Fundamental Operating Permit Structural and 40 CFR Part 70 Compliance Issues

3.1 Certification of Compliance and Compliance Plan

Commentors searched files of the DC Environmental Health Administration and no document which could constitute a validly executed “certification of compliance” or “compliance plan” could be found, even after a search of files held by the Director of Compliance of the DC Environmental Health Administration as well as Administration permit staff. To the best of our knowledge, DC Water and Sewer Authority (DC WASA) has not submitted a validly signed compliance plan as required by 40 CFR §70.5(c)(8) / 20 DCMR 301.3(h) and a validly signed certification of compliance as required by 40 CFR §70.5(c)(9) / 20 DCMR 301.3(i), both signed by a responsible officer of DC WASA.

A unsigned certification of compliance form is contained at tab 3 in the December 20, 1996 version of the Blue Plains Title V permit Application.

Therefore, nothing in the DC WASA Operating Permit application can be considered a valid compliance plan or certification of compliance as required above. Since DC WASA has not met this required element for an operating permit application, DC Environmental Health Administration issuance of the operating permit would violate both DC and federal regulations and the Clean Air Act requirements at 42 USC §7661b(b) and (c), and the public disclosure requirements for permit application materials found at 42 USC §7661b(d).

3.2 The DC WASA Operating Permit Application Does Not Describe All Emission Sources and Emission Control Equipment at the Site

DC regulations at 20 DCMR 301.3(c) and federal regulations at 40 CFR §70.5(c)(3) require disclosure in the application of all emission sources and all emission control equipment, among other requirements. However, DC WASA’s operating permit application does not contain information about the following emission sources and emission control equipment:

Use of primary sedimentation tanks 1 and 2 for uncovered outdoor sludge storage and subsequent VOC emissions from biological degradation of sludge materials.²

Uncontrolled, untreated lime laden air flow from Blender Exhaust System, DSLF lime storage, transfer, feed and blending building³ Large amounts of lime deposits are readily apparent on this building as observable from public highways by the facility.

Nitrification alkalinity facility lime fugitive emissions⁴

Emissions and emission control system for sludge centrifuge units and sludge feed⁵

VOC emissions from biological degradation from secondary treatment process and nitrification process⁶

VOC, hydrogen sulfide and ammonia emissions from solids processing building and dewatered sludge loading facility, and future emission control system at this site⁷

VOC emissions from raw wastewater pumping stations⁸

VOC/odor emission control system, presently inoperable, on grit facilities⁹

Non-functional electronic ignition control system on flares¹⁰

² DC WASA document, Draft Facilities Plan Liquid Treatment Processes, Metcalf and Eddy, et all, June, 1999, page 4-54

³ Ibid, Facilities Plan, Table 4.15, Page 4-57

⁴ Ibid, Facilities Plan, Page 5-12

⁵ Ibid, Facilities Plan, Table 4.15, Page 4-55

⁶ Ibid, Facilities Plan, Page 6-3

⁷ Ibid, Facilities Plan, Page 6-3

⁸ Ibid, Facilities Plan, Page 6-3

⁹ Ibid, Facilities Plan, Table 4.3, Page 4-11

¹⁰ Ibid, Facilities Plan, Table 4.13, Page 4-49

Uncontrolled emissions from primary sludge gravity thickening process¹¹
Sludge blending aeration system¹²

Expected use of current floatation thickeners as sludge holding tanks during the term of the permit after installation of additional centrifugal thickeners¹³

See a subsequent section for a discussion about potential VOC emissions implicit with biological degradation processes that take place in sludge handling emission units.

3.3 Incorporation of NSPS Requirements by Reference

The DC WASA application admits to the applicability of 40 CFR §60.40(c), Subpart Dc for NSPS standards for small industrial-commercial-institutional steam generating units. However, there is no reference in the text of the permit to this NSPS standard. A specific reference to the citation of the federal standard should be incorporated into the permit text.

3.4 Annual Emission Statement in Operating Permit Application

Pursuant to 20 DCMR 500.9, sources that emit 25 tons or more per year of NOX or VOCs must submit to the Mayor a statement showing the actual emissions of NOX and VOCs in the previous calendar year. The emission statement must contain other information specified in the section 500.9. The requirement for an annual emissions statement is an applicable requirement, and the District must incorporate it into for the Blue Plains operating permit.

3.5 Future Compliance with POTW MACT Requirements

EPA's MACT rules for POTWs specify control requirements for new or reconstructed non-industrial POTWs. 40 C.F.R. §63.1586. Although Blue Plains is not a new facility, it may undergo reconstruction activity in the future. Accordingly, the permit must require the permittee to comply with EPA's MACT rule for POTWs with respect to any reconstruction activity that occurs during the permit term.

¹¹ Ibid, Facilities Plan, Page 4-44

¹² Ibid, Facilities Plan, Table 4.15, Page 4-55

¹³ Ibid, Facilities Plan, Page 6-22

3.6 Asbestos Related Issues

The permit application contains no information about construction-related asbestos demolition activities and/or other ongoing asbestos abatement and management activities. Given ongoing construction and reconstruction activities anticipated during the life of the permit, it should be possible for the facility to have disclosed a substantial amount of NESHAPS-related asbestos removal activity. Yet the applicant has not provided this disclosure and this failure make it difficult for both agency and citizen determinations on whether the facility is and will be complying with applicable asbestos NESHAPs and DC-related asbestos rules. Further, this failure makes it difficult to determine whether the permit address this issue with adequate detail.

4 Issues Related to Volatile Organic Compound Emissions

4.1 The Proposed Permit and Permit Application Does Not Properly Consider Major Source Aggregation and Complete Disclosure on All Additional and Adjacent VOC Emission Units that are Part of this Major Stationary Source and that are Implicit with DC WASA's Sewage Collection, Transfer, Pumping and Venting Systems

Although, DC WASA has shown many (but not all) of its emission units at the Blue Plains site, for purposes of VOC emissions the treatment facility alone does not constitute the full extent of all emission units associated with this major stationary source.

At a minimum, DC WASA should have conducted VOC emissions modeling, hazardous pollutant characterization and additional emissions characterization for its network of principle interceptor sewers, lift and pumping stations and any associated vents and discharges associated with these facilities. All such facilities should have been included if they were owned by, controlled by or in common control with DC WASA. The permit application should be amended and the final permit should incorporate recognition of these VOC emissions at the facility, as well as RACT control for such emissions.

We note that inclusion of sewage collection-related VOC emissions are not necessary to ensure a major VOC source designation, as noted in a subsequent section. Instead, inclusion of VOC emissions from sewage collection systems is necessary to fully characterize the total emissions and the spatial extent of this major stationary source.

The definition of “major source” in the Title V rules provides:

“Major source means any stationary source (or any group of stationary sources that are located on one of more contiguous or adjacent properties, and are under

common control of the same person (or persons under common control)) belonging to a single major industrial grouping and that are described in paragraph (1), (2), or (3) of this definition. For the purposes of defining ‘major source,’ a stationary source or group of stationary sources shall be considered part of a single industrial grouping if all of the pollutant emitting activities at such source or group of sources on contiguous or adjacent properties belong to the the same Major Group (i.e. all have the same two digit code) as describe in the Standard Industrial Classification Manual, 1987.”¹⁴

In the present case, the treatment facility itself already meets the definition of a “major source” as explained in another section of this comment. The question becomes one of the issue of whether sewage collection facilities should be aggregated with this major source into a “single major industrial grouping.” Clearly, such facilities should be aggregated in the present case because the facilities are “located on contiguous or adjacent properties,” the sewage collection facilities will have the same 2 digit SIC code grouping as the treatment facility, and the sewage collection facilities are under common control with the treatment facilities by DC WASA.

Aggregation of sewage collection facilities with treatment facilities has also been recognized by U.S. EPA in the context of EPA’s MACT regulations for publicly operated treatment facilities. In the regulation, a non-industrial POTW is defined:

“Non-industrial POTW means a treatment works, as that term is defined by section 112(e)(5) of the Clean Air Act, which is owned by a municipality (as defined by section 502(4) of the Clean Water Act), a state, a intermunicipal or interstate agency, or any department agency of instrumentality of the Federal Government. This definition includes *any intercepting sewers, outfall sewers, sewage collection systems, pumping, power, and other equipment.....*”¹⁵ (Emphasis added)

Accordingly, the Title V operating permit should not be approved until DC WASA provides emissions information on sewage collection emission units and there is agreement for emission limitations reflecting RACT controls on such emission units that are required by DC regulations and the Clean Air Act SIP requirements.

¹⁴ 40 CFR §70.2, definition of “major source”

¹⁵ 40 CFR §63.1595, List of Definitions

4.2 Segregation of VOC-Related Hazardous Air Pollutants from VOC Emission Totals May Not be Used to Allow the Blue Plains Treatment Facility to Escape Designation as a Major Source for Volatile Organic Compounds

A review of the fact sheet and application materials clearly indicates that even without inclusion of sewage collection-related VOC emissions, the treatment facility is a major source of volatile organic compound emissions. For serious non-attainment areas, a source is a major facility if its potential to emit equals or exceeds 50 tons per year of volatile organic compounds.

The fact sheet lists potential emissions of volatile organic compounds at 42.6 tons per year. The fact sheet also lists a total of 14.7 tons per year of potential emissions of the designated hazardous air pollutants 1,4-dichlorobenzene (1.8 TPY), Naphthalene (1.24 TPY) and Methanol (11.7 TPY). However, the total emission calculation for volatile organic compounds does not calculate emissions of these three VOC-related hazardous air pollutants. The total VOC potential to emit must be considered, however, to include these VOC hazardous air pollutants. As a result, the fact sheet implicitly, if not explicitly, recognizes that the applicant is a major source of volatile organic compound emissions.

4.3 The Proposed Permit Would Violate the Clean Air Act by Failing to Incorporate Requirements of the Approved DC VOC Control State Implementation Plan Concerning Reasonably Available Control Technology for Major Source VOC Emissions

DC Environmental Health Administration is under an obligation to incorporate EPA-approved DC State Implementation Plan (SIP) requirements into the provisions of Title V operating permits.

However, the proposed permit fails to incorporate enforceable emission limitations and testing requirements for volatile organic compounds into the proposed permit. On October 27, 1999, the District's VOC RACT rule, 20 DCMR 715, was approved as part of the District of Columbia State Implementation Plan under the Clean Air Act. When there are no emission limitations and testing requirements in the permit concerning volatile organic compounds, when there is no showing of VOC RACT requirements reflected by imposition of emission limitations and when there is no incorporation of 20 DCMR 715 by reference, the permit cannot be compliant with VOC SIP requirements and is thus not approvable.

Since the proposed permit, in effect, essentially authorizes unlimited, unmonitored VOC emissions and there is no RACT demonstration for the Blue Plains facility on

record at the Air Quality Division of the DC Environmental Health Administration, approval of the permit would violate 42 USC §7661c(a), which provides:

“Each permit issued under this subchapter *shall include enforceable emission limitations and standards*, a schedule of compliance, a requirement that the permittee submit to the permitting authority, no less often than every 6 months, the results of any required monitoring, and *such other conditions as are necessary to assure compliance* with applicable requirements of this chapter, *including the requirements of the applicable implementation plan.*”¹⁶ (Emphasis added)

The proposed permit must not be issued until it contains VOC emission limitations and monitoring requirement reflecting application of Reasonably Available Control Technology as required by 20 DCMR 715, including a compliance plan to attain such requirements.

4.4 The Blue Plains Facility Does Not Presently Comply with the DC Reasonably Available Control Technology Requirements for VOC Emissions

Under 20 DCMR 715, the Blue Plains facility must comply with requirements for Reasonably Available Control Technology (RACT) since the facility’s potential to emit exceeds 50 tons per year. Although enforcement of pre-treatment requirements on industrial dischargers may be part of a commitment to RACT, it alone will not be enough to make a showing of RACT. In fact, an examination of DC Environmental Health Administration permitting, title V and enforcement files in July, 2000 shows that no RACT demonstration for the facility has ever been submitted by the facility.

In fact, the facility is not employing reasonably available controls for volatile organic compound emissions. The Blue Plains facility is presently allowing uncontrolled VOC emissions from interceptor sewer vents, lift stations and pumping equipments, uncovered screen facilities, grit chambers and primary clarifiers. The facility is also operating outdoor uncovered sludge storage and uncontrolled sludge thickening facilities, and uncovered, uncontrolled primary and secondary air charged activation reactors. These are also examples of uncontrolled VOC emitting emission units which do not comply with the RACT requirement. At the same time, such uncontrolled emissions are causing adverse community odor problems.

Although some measures are presently under construction to control a few of these sources, a permit which contains no emission limitations or monitoring requirements and thus the proposed permit cannot ensure that any attempts at RACT-like controls will be

¹⁶ 42 USC §7661c(a)

adequately maintained and operated. Moreover, the proposed emission controls are not reflected in the company's Title V permit application, in violation of permitting rules.

As to monitoring requirements to verify emission limitations, such measures are technically feasible at publicly operated wastewater treatment facilities.¹⁷

4.5 The Permit Application's Reliance on VOC Emission Models Fails to Recognize VOC Emissions Implicit with Biological Breakdown of Sludges in Wastewater and Sludge Management Systems and the Effects of Chlorine Used for "Odor Control" in Initial Sewage Handling and Primary Treatment Units in Creating Potential VOC Emissions by Chemical Conversion

Although emission factors do not appear to be available for VOC emissions from sludge-related processes, biochemical degradation can be expected to generate VOC emissions in addition to hydrogen sulfide, ammonia and other gases. Indole, skatole and methyl mercaptan emissions associated with human waste are volatile organic compounds.¹⁸ Biological degradation of sludges can be expected to release several categories of compounds, based on laboratory review of manure compost-related-process VOC emissions, including dimethyl sulfide, organic acids (acetic, propionic, butyric, valeric, caproic), organic amines, aldehydes, ketones, ethers, alcohols, esters, aliphatic hydrocarbons, aromatic hydrocarbons, other sulfur and nitrogen containing organic compounds that are VOCs.¹⁹

Use of WATERS8 modeling only looks at influent aqueous concentrations of chlorinated organic compounds in wastewater. As such, this modeling can be expected to underestimate emissions of chlorinated organic compounds associated with use of chlorine for "odor control" in and around grit chambers, screens and primary clarifiers as the practice is presently carried out at this facility.

Chlorination as "odor control" can be expected to transform organic compounds and materials present at these locations into some low molecular weight chlorinated volatile organics. The WATERS8 estimation technique for VOC modeling of emissions

¹⁷ See, for example, "Evaluation of an Automatic Composite Sampler for Volatile Organic Compounds in Raw Wastewater," *Journal of the Air & Waste Management Association*, March 1998, Page 271; and "Temporal and Longitudinal Characteristics of Volatile Organic Compound Emissions from Aeration Units of Publicly Owned Treatment Works," *Journal of the Air & Waste Management Association*, April 1999, Page 434

¹⁸ <http://www.britannica.com/bcom/eb/article/3/0,5716,120233+7,00.html>

¹⁹ "An Investigation of Odors and Volatile Organic Compounds Released during Composting," *Journal of Air & Waste Management Association*, 49:804-813, July 1999

from wastewater that DC WASA used does not account for such chlorinated VOC formation if only influent VOC concentrations are considered. DC WASA never provided intermediate point chlorinated organic aqueous concentrations at the several intermediate points downstream of chlorine addition for “odor control” in the initial handling and primary treatment system. As such, it can be expected that DC WASA has underestimated its potential VOC emissions from units in and around raw waste pumping systems, screens, grit chambers and primary clarifiers.

4.6 Prior VOC Emission Estimates Indicate Larger Emissions than Indicated in the DC WASA Application

In June of 1987, the Radian Corporation issued a final report, “Air Toxics Screening Study at Blue Plains Wastewater Treatment Facility, Washington, DC.” Based on that study, Radian did a “scale up” emission estimate²⁰ for volatile organic compounds from the facility, which would have been based on lower wastewater and sludge fluxes at the facility that occurred in the late 1980s.

Radian estimated that expected VOC emissions from the facility would be 79 to 96 tons per year, which is significantly larger than the VOC emissions reported in the DC WASA application.

The Radian memo also gives credence to the notion that poorly characterized VOC emissions resulting from biological degradation that are not listed in determinations under DC WASA’s implementation of the EPA WATERS8 model may also be emitted from the facility. The memorandum discusses the potential for decane, undecane and other C10+ compounds to be emitted at the Blue Plains facility.

5 The Proposed Permit Fails to Require a NOX Emission Limitation Equivalent to Application of Reasonably Available Control Technology, NOX Monitoring and Testing Requirements, Compliance with DC NOX Requirements and a Federally Enforceable NOX Emission Limitation

There are no emission limitations or monitoring requirements in the permit for nitrogen oxides (NOX). As a result, there can be no enforcement of emission limitations reflecting application of Reasonably Available Control Technology for this pollutant. Uncontrolled and unlimited emissions are thus authorized.

²⁰ July 9, 1987 Memorandum from Michael Zapkin, Radian Corporation to Danial Ryan, EPA Region III and Joseph Nwude, DCRA, Washington, DC

DC Environmental Health Administration has issued a NOX RACT rule that is applicable to the Blue Plains facility because potential emissions exceed 50 tons per year. The requirements are found at 20 DCMR 805. NOX emitting facilities at Blue Plains are subject to the NOX rule under 20 DCMR 805.1(a)(1) and (4)

Although, the DC Environmental Health Administration rule requiring NOX RACT has not yet been approved as part of the DC State Implementation Plan, such approval can nevertheless be expected during the life of the permit. In fact, the NOX RACT requirement is presently in effect and applicable to Blue Plains as a DC-enforced requirement. However, when no NOX RACT emission control plan has been submitted to the DC Environmental Health Administration as required by 20 DCMR 805.3 and the proposed permit contains no emission limitations for NOX, it is clear that the Blue Plains facility is not presently in compliance with the DC NOX RACT requirement. This non-compliance is not reflected in the compliance portions of the permit application.

The proposed permit should not be approved without a demonstration of NOX RACT, which should necessarily include installation of low NOX burners on the larger combustion units at Blue Plains. The proposed permit should also include NOX emission limitations equivalent to application of RACT, as well as monitoring and testing requirements. These requirements are also necessary to comply with 20 DCMR 201.1(iii).

6 Issues Related to Particulate and Visible Emissions

The permit sets a limit of .13 pounds per million Btu for particulate matter (PM) emissions from each boiler, but then states that the permittee is “deemed” to have complied with this requirement by firing natural gas or fuel oil #2. The rule cited in the permit in support of this condition (20 DCMR 600.1) does not support such an approach. The rule requires that compliance with the emission limit be determined by performance tests, and makes no exception based on the type of fuel used. 20 DCMR 600.1, 600.2. Although the rule allows the conditions for testing to be modified to suit specified sampling conditions or needs based on good practice, judgment and experience, it does not allow performance tests to be waived all together. Id. 600.5. Fuel sampling is not the same as a performance test of actual emissions.

The permit also fails to require periodic emissions monitoring to assure ongoing compliance with the .13 lbs/mm btu limit, as required by 20 DCMR 302.1(c)(1)(B), 302.3(a), 302.3(e)(2), and 501.1.

With respect to the boilers, the permit requires daily observations of visible emissions from each emission unit. If emissions are visible, the permittee must make arrangements for opacity observation by a certified person. The permit does not set a deadline for this follow up observation. As a result, the permittee might argue that the

follow up observation can take place hours or even days after the initially observed visible emission. Such an approach does not assure results that are “representative of the source’s compliance” as required by 20 DCMR 302.1(c)(1)(B). To avoid this problem, the permit must require that the person making the daily observations be a certified observer. If this person sees visible emissions during a daily observation, he or she then must make a full opacity observation as required by EPA’s Reference Method 9. It is not burdensome to require the permittee to have one of its staff or contract workers certified to make such observations. To ensure the honesty and accuracy of the results, the person making these observations should be required to sign a certification as to their accuracy.

The requirements of 20 DCMR 606.3 and 606.5 are also applicable requirements relevant to the emission units covered by this permit, and therefore must be incorporated into the permit.

The permit fails to specify monitoring requirements for the visible emissions limit on the Caterpillar Generators C15 and C16. The failure to require such monitoring violates 20 DCMR 302.1(c), 302.3(a), 302.3(e)(2), and 501.1.

In addition, the permit does not set any other particulate matter emission limits for these generators. The limits in 20 DCMR 600.1 would appear to apply, and therefore must be included for these units, along with appropriate monitoring requirements.

7 Issues Association with Flaring of Digester Gases at the Facility

The permit fails to specify any limits for pollutant emissions from the flares. Further, the permit does not identify the source (e.g., rules or statutes) for the requirements that are set forth for the flares on page 9-10 of the permit.

The flares are an essential component of measures to control the release of hydrogen sulfide, volatile organic compounds and odors associated with generation of digester gases. Any lapse of flare operation caused by flame-outs will cause very large emissions from release of uncontrolled digester gases. The language of the permit suggesting that monitoring on the flare is to occur “each day” allows the facility to construe its flare monitoring responsibilities to be limited to a single daily observation and recorded event. This is unacceptable.

The permit should clearly establish that flare operation must be ensured through monitoring on a continuous basis. The present language of the permit does not ensure this result.

A continuous monitoring requirement is particularly important in view of information contained in other plant documents indicating, as to the waste gas flares, that:

“Electronic ignition system has been non-functional for 30 years and are ignited manually. Flame arrestors on waste gas flares are dirty.”²¹

To the extent that automatic ignition systems on flares are a necessary odor control measure, the permit application does not identify the facility to be in non-compliance on this issue.

The permit does not require some type of monitoring of the sulfur content of digester gases for the purposes of determining sulfur dioxide emissions. There is no analysis in the permit application which indicates worst case ambient sulfur dioxide impacts from these low emission sources. Nothing in the application or the permit indicates the maximum gas flow to one or more of the flares as an emission limitation. The provision found at page 9:

“The total daily feed rate to the digesters shall not exceed 825,000 ft³ per day.”

....is vague and non-specific and potentially in error if it is intended that this somehow be a limitation on the amount of gas fed to the flares on a daily basis.

²¹ Ibid, Facility Plan, Table 4.13, Page 4-49