

NPDES PERMIT NUMBER DC0000248
AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

In compliance with the provisions of the Clean Water Act ("the Act"), as amended, 33 U.S.C. §§ 1252 *et seq.*,

The John F. Kennedy Center for the Performing Arts ("the permittee")

is authorized to discharge from a facility located at

2700 F Street, N.W.
Washington, DC 20566

to receiving waters named

Potomac River

in accordance with effluent limitations, monitoring requirements and other conditions set forth in Parts I, II and III herein.

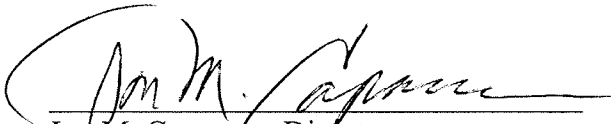
The effective issuance date of this permit is: June 6, 2013

This permit and the authorization to discharge shall expire 5 years from the date of issuance, unless the permittee has submitted a complete and timely application for a new permit, and the U.S. Environmental Protection Agency (EPA), through no fault of the permittee, does not issue a new permit before the expiration date of this permit.

This permit and the authorization to discharge shall expire at midnight, on:

June 5, 2018

Signed this 30th day of May, 2013



Jon M. Capacasa, Director
Water Protection Division
U.S. Environmental Protection Agency Region III

PART I. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning with the issuance date of this Permit and lasting through the expiration date of this Permit, the John F. Kennedy Center for the Performing Arts (“permittee”) is authorized to discharge non-contact cooling water from Outfall Number 001 of its Facility, located at 2700 F Street, N.W., Washington, DC (“the Facility”) to the Potomac River.

As specified below, the permittee shall monitor the discharge at the internal compliance sites located on the effluent side of the chillers prior to entering the discharge pipe which outfalls to the Potomac River.

Effluent Characteristic	Discharge Limitations				Monitoring Requirements	
	(Kg/day) lb/day		Other Units (mg/l)		Measurement Frequency	Sample Type
	Monthly Average	Daily Average	Monthly Average	Daily Average		
Flow (gpm)	N/A	N/A	N/A	N/A	Daily when operational	Measured
	Non-Contact Cooling Water Only					
Temperature	In accordance with DC Water Quality Standards; Not to Exceed a Maximum Daily Value of 32.2°C and 2.8° C Above Ambient Temperature at Point of Discharge.				Daily	Continuously Recorded
pH shall not be less than 6.0 standard units nor greater than 8.5 standard units.					2x per month	Grab
There shall be no discharge of substances in amounts that float as debris, scum, oil or other matter to create a nuisance.						
For the purpose of this permit, “non-contact cooling water” means the water that is contained in a leak-free system, <i>i.e.</i> , water that has had no contact with any gas, liquid, or solid other than the container for transport; additionally, the water cannot have net poundage addition of any pollutant over intake levels.						
The permittee shall take flow and temperature measurements as described above and in Section II.C.2 herein, from the May 1 through September 30 each year. At other times of the year, the permittee shall measure and record flow and temperature each time a discharge occurs.						

PART II. STANDARD CONDITIONS FOR NPDES PERMITS

SECTION A. GENERAL CONDITIONS

1. Duty to Comply

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and may result in an enforcement action; permit termination, revocation and reissuance, or modification; and/or denial of a permit renewal application.

2. Penalties for Violations of Permit Conditions

Pursuant to Section 309(g) of the Act, 33 U.S.C. § 1319(g), the EPA Administrator is authorized to assess administrative penalties against any person who violates any NPDES permit condition or limitation in an amount not to exceed \$10,000 per day for each day of violation, up to a total penalty amount of \$125,000. Further, Section 309(d) of the Act, 33 U.S.C. § 1319(d), provides for civil penalties of up to \$25,000 per day per violation.

Pursuant to the subsequent Civil Monetary Penalty Inflation Adjustment Rule, 40 C.F.R. Part 19 (effective January 12, 2009), any person who violates any NPDES permit condition or limitation after January 12, 2009 is liable for an administrative penalty not to exceed \$16,000 per day for each day of violation occurring after January 12, 2009 up to a total penalty amount of \$177,500. Further, any person who violates any NPDES permit condition or limitation after January 12, 2009 is liable for a civil penalty of up to \$37,500 per day per violation. Any person who negligently violates Section 301, 302, 305, 307, 308, 318, or 405 of the Clean Water Act, any permit condition or limitation implementation any such section, shall be punished by a fine of not less than \$5,000 nor more than \$50,000 per day of such violation, or by imprisonment for not more than 3 years, or by both.

Any person who knowingly violates any permit condition or limitation implementing Section 301, 302, 305, 307, 308, 318, or 405 of the Clean Water Act, and who knows at the time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than \$250,000, or by imprisonment of not more than 15 years, or by both.

Section 309(c) of the Clean Water Act, 33 U.S.C. § 1319(c), subjects persons violating a permit condition, providing false information in documents required to be maintained by the statute and its regulations, or tampering with monitoring equipment to criminal prosecution. Knowing violations are punishable by a prison term of up to three years, a fine between \$5,000 and per day of violation, or both. Knowing violations which place a person in imminent danger of death or serious bodily injury may be punished by a prison term of up to 15 years, a fine of up to \$250,000, or both. In the case of an organization, the maximum fine for this crime is
Negligent violations are punishable by a prison term up to one year, a fine between \$2,500 and \$25,000 per day of violation or both. Falsifying documents required to be maintained by the Clean Water Act or tampering with monitoring equipment is punishable by a prison term of up to

two years, a fine of \$10,000 or both. False statements concerning matters with the jurisdiction of a federal agency are also punishable pursuant to 18 U.S.C. § 1001 by a prison term of up to five years, a fine of up to \$10,000 or both.

3. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this permit.

4. Permit Actions

EPA may modify, revoke and reissue or terminate this permit for cause including, but not limited to, any of the following:

- a. Violation of any terms or conditions of this permit;
- b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts;
- c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge;
- d. Information newly acquired by the Agency, including but not limited to the results of the studies, planning, or monitoring described and/or required by this permit;
- e. Facility modifications, additions, and/or expansions;
- f. Any anticipated change in the Facility discharge, including any new significant industrial discharge or changes in the quantity or quality of existing industrial discharges that will result in new or increased discharges of pollutants;
- g. A determination that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by permit modification or termination; or
- h. A revision of the District of Columbia's water quality standards.

The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition. When a permit is modified, only those conditions subject to modification are reopened.

5. Toxic Pollutants

If a toxic effluent standard or prohibition (including any schedule of compliance specified in effluent standard or prohibition) is established under Section 307(a) of the Act, 33 U.S.C. § 1317(a), for a toxic pollutant which is present in the discharge and such standard or prohibition is more stringent than any limitation for such pollutant in this permit, the permittee shall comply

such standards or prohibitions within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to comply with the requirement.

6. Civil and Criminal Liability

Except as provided in permit conditions II.B.3 ("Bypass of Treatment Facilities") and II.B.4 ("Upset Conditions") herein nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance.

7. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or to relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Act, 33 U.S.C. § 1321.

8. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority preserved by Section 510 of the Act, 33 U.S.C. § 1370.

9. Property Rights

The issuance of this permit does not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

10. Severability

The provisions of this permit are severable, and if any provisions of this permit, or the application of any provision of this permit to any circumstances, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

11. Transfer of Permit

In the event of any change in ownership or control of facilities from which the authorized discharge emanates, the permit may be transferred to another person if:

- a. The current permittee notifies EPA, in writing of the proposed transfer at least 30 days in advance of the proposed transfer date; and
- b. The notice includes a written agreement between the existing and new permittee containing a specific date for transfer of permit responsibility, coverage, and liability between them.

EPA has the authority to notify the current permittee and the new permittee of its intent to modify, revoke and reissue, or terminate the permit and require that a new application be submitted upon notification by the permittee of a change in ownership or control of facilities.

12. Construction Authorizations

This permit does not authorize or approve the construction of any onshore or offshore physical structures or facilities or the undertaking of any work in any navigable waters.

13. Reopener Clause for Permits

This permit may be modified or revoked and reissued, to incorporate any applicable effluent standard or limitation issued or approved under Section 301, 304 or 307 of the Clean Water Act, including but not limited to in accordance with the Chesapeake Bay Agreement based on water quality considerations, and if the effluent standard or limitation so issued or approved:

- a. Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
- b. Controls any pollutant not limited in the permit. The permit, as modified or reissued under this paragraph, shall also contain any other requirements of the Act then applicable.

This permit may also be reopened as specified in 40 CFR § 122.44.

14. Endangered Species

Discharges, construction, or any other activity that adversely affects a Federally-listed endangered or threatened species are not authorized under the terms and conditions of this permit.

The permittee shall submit an annual summary of the monitoring data contained on its DMRs to the following addresses, no later than February 15 of each year following the year for which the summary is provided:

NOAA National Marine Fisheries Service
Protected Resource Division
One Blackburn Drive
Gloucester, Massachusetts 01930-2298
Attn: Ms. Christine Vaccaro

District Department of the Environment
Fisheries and Wildlife Division
1200 First Street, N.E. 5th Floor
Washington, DC 20002
Attention: Mr. Bryan King

SECTION B. OPERATION AND MAINTENANCE OF POLLUTION CONTROLS

1. Proper Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes: effective performance; adequate funding; adequate operator staffing and training; and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit.

2. Duty to Halt or Reduce Activity

Upon reduction, loss, or failure of the treatment Facility, the permittee shall, to the extent necessary to maintain compliance with its permit, either control production, or halt discharges, or both, until the facility is restored or an alternative method of treatment is provided. This requirement applies, for example, when the primary source of power of the treatment Facility fails or is reduced or lost. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

3. Bypass of Treatment Facilities

a. Definitions

(1) "Bypass" means the intentional diversion of waste streams from any portion of a treatment Facility.

(2) "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

b. Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs c and d of this section.

c. Notice

(1) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.

(2) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Paragraph II.D.6 (Twenty-Four Hour Reporting).

d. Prohibition of bypass.

(1) Bypass is prohibited and the Director may take enforcement action against a permittee for bypass, unless:

(a) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

(b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if the permittee could have installed adequate backup equipment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

(c) The permittee submitted notices as required under paragraph c of this section.

(2) The Director may approve an anticipated bypass, after considering its adverse effects, if the Director determines that it will meet the three conditions listed above in paragraph d(1) of this section.

4. Upset Conditions

a. Definition. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

b. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of Paragraph c of this section are met. The determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

c. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed contemporaneous operating logs, or other relevant evidence that:

- (1) An upset occurred and that the permittee can identify the specific cause(s) of the upset;
- (2) The Facility was at the time being properly operated;
- (3) The permittee submitted notice of the upset, as required in Section D, Paragraph 6; and
- (4) The permittee complied with any remedial measures as required under Section A, Paragraph 3.

d. Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

5. Removed Substances

Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in a manner such as to prevent all pollutants from such materials from entering navigable waters.

SECTION C. MONITORING PROCEDURES AND RECORDKEEPING

1. Representative Sampling

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. The permittee shall take all samples at the monitoring points specified in this permit. The permittee shall not change monitoring points without notification to and the approval of the Director.

2. Flow Measurements

The permittee shall select and use flow measurement devices and methods consistent with accepted scientific practices to ensure the accuracy and reliability of measurements of the ~~of the~~ monitored discharges. The permittee shall install, calibrate and maintain devices to ensure that the accuracy of the measurements is consistent with the accepted capability of that type of device.

3. Monitoring Procedures

The permittee shall conduct monitoring according to test procedures approved under 40 CFR Part 136 and subsequent updates, unless other test procedures have been specified in this permit.

4. Penalties for Tampering

The Clean Water Act provides that any person who falsifies, tampers with or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or be imprisoned for not more than 6 months per violation, or by both.

5. Reporting of Monitoring Results

The permittee shall report monitoring results on a Discharge Monitoring Report (DMR) form, EPA Form No. 3320-1. The permittee shall report monitoring results monthly, postmarked no later than the 28th day of the month following the month for which the results are reported. The permittee shall sign each DMR and submit it to the following addresses:

U.S. EPA Region III (3WP60)
Water Protection Division
1650 Arch Street
Philadelphia, PA 19103

District Department of the Environment
Water Quality Division
1200 First Street, N.E., 5th Floor
Washington, DC 20002
Attention: Mr. Collin R. Burrell

6. Additional Monitoring by the Permittee

If the permittee monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR 136 or as specified in this permit, the permittee shall include the result of such additional monitoring in the calculation and reporting of the data submitted in the DMR form. The permittee shall also indicate on such DMR the frequency that it performed such monitoring.

7. Retention of Records

The permittee shall retain records of the following information for a period of at least three (3) years from the date of the sample, measurement, report or application: all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation; copies of all reports required by this permit; and records of all data used to complete the application for this permit. This retention period may be extended upon notification of the Director at any time.

8. Record Contents

The permittee shall include the following information in its records of monitoring:

- a. The date, exact place, time and methods of sampling or measurement;
- b. The individual(s) who performed the sampling or measurements;
- c. The date(s) analyses were performed;
- d. The individual(s) who performed the analyses;
- e. The analytical techniques or methods used; and
- f. The results of such analyses.

9. Inspection and Entry

The permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

- a. Enter upon the permittee's premises at reasonable times where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that shall be kept under the conditions of this permit;
- c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), processes, or operations regulated or required under this permit; and
- d. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

10. Definitions

- a. The "daily discharge" means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the day.
- b. The "average monthly discharge limitation" means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all daily discharges

measured during a calendar month divided by the number of daily discharges measured during that month.

c. The “average weekly discharge limitation” means the highest allowable average of “daily discharges” over a calendar week, calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

d. “The maximum daily discharge” limitations means the highest allowable “daily discharge.”

e. Composite Sample - A combination of individual samples obtained at regular intervals over a time period. Either the volume of each individual sample is proportional to discharge flow rates or the sampling interval (for constant volume samples) is proportional to the flow rates over the time period used to produce the composite.

f. Grab Sample - An individual sample collected in less than 15 minutes.

g. The term “i-s” or “immersion stabilization” refers to a calibrated device that is immersed in the effluent stream until the reading is stabilized.

h. The “monthly average temperature” means the arithmetic mean of temperature measurements made on an hourly basis, or the mean value plot of the record of a continuous automated temperature recording instrument, either during a calendar month, or during the operating month if flows are of shorter duration.

i. The “daily maximum temperature” means the highest arithmetic mean of the temperature observed for any two (2) consecutive hours during a 24-hour day, or during the operating day if flows are of shorter duration.

j. The phrase “at outfall xxx” refers to a sample location before the effluent joins or is diluted by another waste stream, body of water, or substance or as otherwise specified.

k. The term “estimate” is to be based on a technical evaluation of the sources contributing to the discharge including, but not limited to pump capabilities, water meters and batch discharge volumes.

l. “EPA” or “the Director” means the U.S. Environmental Protection Agency.

m. “Non-contact cooling water” means the water that is contained in a leak-free system, i.e., no contact with any gas, liquid, or solid other than the container for transport; the water shall have no net poundage addition of any pollutant over intake water levels.

SECTION D. REPORTING REQUIREMENTS

1. Planned Changes

The permittee shall provide notice to the Director as soon as possible, but in any event at least three days, prior to any planned physical alterations or additions to the Facility.

2. Anticipated Noncompliance

The permittee shall give at least three days advance notice to the Director of any planned changes to the Facility or permitted activity which may result in noncompliance with permit requirements.

3. Transfers

This permit is not transferable to any person except after notice to the Director as specified in Paragraph II.A.11 herein. The Director may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Clean Water Act.

4. Monitoring Reports

The permittee shall submit monitoring results at the intervals and in the form specified in Paragraph II.C.5 herein (Reporting of Monitoring Results).

5. Compliance Schedules

The permittee shall submit reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any permit no later than 14 days following each schedule date. Any reports of noncompliance may include any remedial actions taken, and the probability of meeting the next schedule requirement.

6. Twenty-Four Hour Reporting

The permittee shall report any noncompliance which may endanger health or the environment. The permittee shall provide any information orally within 24 hours from the time the permittee becomes aware of the circumstances, and in writing, within five (5) days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

The following shall be included as information which must be reported within 24 hours:

- a. Any unanticipated bypass which exceeds any effluent limitation in the permit.
- b. Any upset which exceeds any effluent limitation in the permit.

c. Violation of a minimum daily discharge limitation for any of the pollutants listed by the Director in Part III of this permit.

The Director may waive the written report on a case-by-case basis at his sole discretion if the oral report has been received within 24 hours and the noncompliance does not endanger health or the environment.

7. Other Noncompliance

The permittee shall report all instances of noncompliance not reported under Section D, Paragraphs 1, 4, 5, and 6 at the time monitoring reports are submitted. The reports shall contain the information listed in Paragraph 6.

8. Changes in Discharges of Toxic Substances

The permittee shall notify the Director immediately when it knows or has reason to know:

a. That any activity has occurred or will occur which would result in the discharge of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

(1) One hundred micrograms per liter (100 ug/l);

(2) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;

(3) Five (5) times the maximum concentration value reported for that pollutant in the permit application;

(4) The level established in Part III of the permit by the Director.

b. That it has begun or expects to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant which was not reported in the permit application.

9. Duty to Provide Information

The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

10. Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. The application shall be submitted at least 180 days before the expiration date of this permit. The Director may grant permission to submit an application less than 180 days in advance but no later than the permit expiration date. In the event that a timely and complete reapplication has been submitted and the Director is unable, through no fault of the permittee, to issue a new permit before the expiration date of this permit, the terms and conditions of this permit are automatically continued and remain fully effective and enforceable.

11. Signatory Requirements

The permittee shall sign and certify all applications, reports or information submitted to the Director as required by 40 CFR § 122.22.

12. Availability of Reports

Unless the permittee asserts and substantiates a business confidentiality claim pursuant to 40 CFR Part 2, all reports submitted in accordance with the terms of this permit shall be available for public inspection at the offices of the District of Columbia Department of the Environment, Water Quality Division (DDOE-WQD) and the EPA Regional Administrator. If the permittee asserts and substantiates a business confidentiality claim, EPA will disclose the report only in accordance with the procedures in 40 CFR Part 2. As required by the Act, permit applications, permits and effluent data shall not be considered confidential.

13. Correction of Reports

If the permittee becomes aware that it submitted incorrect information in any report to the Director, it shall promptly submit the correct information.

PART III. SPECIAL CONDITIONS

1. Influent and Effluent Monitoring

The permittee shall monitor the Potomac River water influent at the intake point for pH and temperature, on the same days that the samples for effluent monitoring for these parameters are taken, as required by Paragraph I.A. herein. The permittee shall take the readings for influent and effluent no greater than two hours apart. The permittee shall take these measurements from May 1 through October 31 of each year during this permit term, and on any other day when a discharge occurs.

2. Thermal Plume Study

The permittee shall perform a thermal plume study to determine the areal extent (horizontal and vertical) of the thermal plume. The study shall account for the effect of the tidal influences of the ambient river including current speed, direction, salinity, density and temperature. The study shall demonstrate at what point the discharge is mixed horizontally and vertically in the water column.

In conducting the thermal plume study, the permittee shall comply with the following milestones:

- a. No later than six months after the issuance date of this permit, the permittee shall submit to EPA and DDOE-WQD a plan which describes how the study will be performed.
- b. The permittee shall conduct the study during the month of August in the year following submission of the study plan.
- c. The permittee shall submit the results of the study to EPA and DDOE-WQD no later than one year after the conclusion of the study.
- d. EPA may modify or reissue this permit to reflect any changes necessary to accommodate the heated plume.