Re: Fact Sheet

National Pollutant Discharge Elimination System NPDES Permit Renewal

NPDES PERMIT NUMBER: DC0000248

**FACILITY NAME:** 

The John F. Kennedy Center for the Performing Arts 2700 F Street, N.W. Washington, D.C. 20566

## FACILITY LOCATION:

Same as above

#### **RECEIVING STREAM:**

Potomac River

#### FACILITY DESCRIPTION:

The John F. Kennedy Center for the Performing Arts is a facility that uses raw water from the Potomac River to operate its air conditioning system. The water withdrawn from the River provides cooling water for the condensers located within the facility. Since biofouling has not been a problem at the facility, current practice has been not to use additives in the existing process train. After use, the water is typically returned directly to the River through a single outfall. Depending upon the time of year, the water may be recirculated prior to discharge to optimize the intake water at 80 degrees Fahrenheit (26 degrees Centigrade). The permittee has requested renewal of their previous NPDES permit to continue to discharge non contact cooling water, as defined by EPA (see definition below), from this facility.

#### DISCHARGE DESCRIPTION:

The average and maximum daily flows of the non contact cooling water discharge are approximately 1800gpm (gallons per minutes) and 4000gpm respectively. Summer water temperatures range from 76 to 85 degrees Fahrenheit (24-29 degrees Centigrade) with an average temperature of 84 degrees Fahrenheit (28 degrees Centigrade). Winter temperatures range from 68 to 83 degrees Fahrenheit (20-28 degrees Centigrade) with an average temperature of 81 degrees Fahrenheit (27 degrees Centigrade). The pH values range from 6.0 to 8.5 with an average value of 8.2. Discharges are continuous from May through October of each year and intermittent from November through April of each year due to the seasonal need for mechanical cooling at this facility.

# PROPOSED EFFLUENT LIMITATIONS:

The draft permit defines non contact cooling water as follows: 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 and no net poundage addition of any pollutant over intake water levels. Since EPA has determined that the discharge meets this definition, the draft permit, like the current permit, shall require the permittee to monitor for the following parameters of concern: flow, temperature, and pH.

The draft permit requires daily monitoring for both pH and temperature, both for the Potomac River water influent and the facility effluent. The influent monitoring (to establish ambient baseline conditions of the non contact cooling water) shall be simultaneous with the effluent measurements from the beginning of May until the end of October and at other times of the year when a discharge occurs.

The temperature and pH criteria in the District of Columbia water quality standards will provide the numerical basis for managing permit compliance. While no specific criteria for flow is specified in the water quality standards, the direct measurement and reporting of this parameter is an important factor for controlling how the system responds on a daily basis.

A review of the data presented in the application for permit renewal, as well as data reported in the discharge monitoring reports, indicates that the thermal discharge to the Potomac River is consistently below the criteria values established in the water quality standards. The available information does not suggest a need to establish a mixing zone in the draft permit for the discharge at this time.

The facility's discharge monitoring reports under the current permit have included sporadic exceedances of temperature and pH limits at different times throughout the year. The draft permit requires the permittee to commission an engineering report to evaluate the reasons for and recommend corrective actions to prevent future exceedances of pH and temperature effluent limits. The draft permit requires the permittee to submit this report within a year of permit issuance. EPA reserves the right to modify this permit based on the findings of the report.

It is noted that ambient (background) conditions of the receiving waters (the middle segment of the Potomac River, i.e., Key Bridge to Hains Point) has occasionally exceeded water quality standards criteria for pH. Indeed, this waterbody has been designated by the District of Columbia as impaired for pH. The District of Columbia is expected to develop a total maximum daily load (TMDL) document to address this pH impairment, providing a wasteload allocation for all permitted facilities that discharge to this segment of the Potomac River.

The "Special Conditions" section of the draft permit includes a requirement to develop a plan for implementing the TMDL once it has been developed and approved so the discharge will meet whatever wasteload allocations are recommended to address the impairment.

### PERMIT PROCEDURES

Under EPA's current procedures for public notice and comment of minor NPDES permits in the District of Columbia, the draft permit will be posted on the regional website and sent to those on EPA's mailing list of interested parties for a thirty (30) day review and comment period. This review period will begin on March 2, 2007 and end on March 31, 2007. Comments will also be

solicited at the same time from the Permittee, the states of Maryland and Virginia, the United States Fish and Wildlife Service, and the National Oceanic and Atmospheric Administration National Marine Fisheries Service. A copy of the draft permit will also be provided to the District of Columbia Department of the Environment to certify that the permit complies with all applicable District regulations.

During the review period, any interested persons may submit written comments or make a written request for a public hearing (stating the nature of the issues proposed to be raised). To comment on this draft permit, request additional information, or request a public hearing, please contact Mr. Garrison D. Miller, mail code 3WP41, Office of NPDES Permits and Enforcement, United States Environmental Protection Agency, Region III, 1650 Arch Street, Philadelphia, Pennsylvania 19103-2029.