

STAFF RECOMMENDATION

D. Hamilton

NCPC File No. 6407



**U.S. GENERAL SERVICES ADMINISTRATION
CENTRAL HEATING AND REFRIGERATION PLANT
INSTALLATION OF FIVE SPRINT ANTENNAS
PRELIMINARY AND FINAL BUILDING PLANS
13th and C Streets, SW**

Submission by the General Services Administration

November 26, 2003

Abstract

The General Services Administration has submitted a proposal for the installation of five panel antennas (transmitting and receiving) on the roof of the Central Heating and Refrigeration Plant at 13th and C Streets, SW. The proposal is being submitted for Sprint Wireless. The antennas will be installed at four locations on the screen wall of the penthouse of the Plant. There are currently 12 Cingular panel antennas installed on the screen wall of the penthouse.

Commission Action Requested by Applicant

Approval of preliminary and final building plans pursuant to (40 U.S.C. § 8722(d)) and Section 5 of the National Capital Planning Act (40 U.S.C. § 8722(b) (1)).

Executive Director's Recommendation

The Commission:

Approve the preliminary and final building plans for the installation of five Sprint Wireless antennas on the roof of the Central Heating and Refrigeration Plant, 13th and C Streets, SW, Washington, DC, as shown on NCPC Map File No. 1.74(38.00)41260, for a period of five years.

Require GSA to commit to the implementation of a written radiofrequency safety program for the project and that the use of radiofrequency Personal Protection Monitors be mandated for workers that carry out activities on the building's exterior roof level.

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BACKGROUND AND STAFF EVALUATION

PROJECT DESCRIPTION

The General Services Administration (GSA) has submitted a proposal on behalf of Sprint Wireless for the installation of five panel antennas on the penthouse screen wall of the Central Heating and Refrigeration Plant (Plant) at 13th and C Streets, SW. The plant is a 168-foot-tall utility building with a 38-foot-high penthouse metal –panel screen wall rising above the main roof. The heating plant is a fine and fairly rare example of industrial architecture in Washington, D.C. It was designed by noted architect Paul Philippe Cret and was built in 1933 – 1934. It is a forceful example of functional design adapted to the architectural style of federal buildings in Washington.

The proposal would locate the five antennas (transmitting and receiving) into four areas around the penthouse screen wall. The associated base station equipment and cabinets would be mounted on a raised steel platform located behind the screen wall. Specifically:

- The panel antennas are of a “slim profile” design, resulting in two antennas being 4 ½ feet high by 6 inches wide by 2 ¾ inches deep; two antennas being 4 ½ feet high by 8 inches wide by 2 ¾ inches deep; and one antenna 4 feet high by 12 inches wide by 2 ¾ inches deep.
- All antennas would be mounted near the top of the penthouse screen wall and painted to match its color.
- The equipment area would occupy a 160-square-foot area behind the penthouse screen wall.

Development Program

Applicant: General Services Administration
Service Provider: Sprint Wireless
Estimated Cost: Approximately \$250,000 to \$350,000
Schedule: Installation scheduled for Spring 2004

Existing Antennas

There are a total of 14 existing antennas on the building. Twelve of the antennas belong to Cingular Wireless and two belong to the U.S. Government.

EVALUATION

Staff recommends approval of the proposal:

- The selected antennas are “slim-profile” antennas that only protrude less than three inches from the face of the screen wall.

- They will be painted to match the metal of the screen wall.
- The associated equipment shelter will be completely screened from the surrounding areas.
- The State Historic Preservation Officer has concurred with GSA's determination that the installation will have no adverse effects on the Plant.

Radiofrequency Exposure

In accordance with the Commission's submission requirements, GSA has conducted an electromagnetic energy emissions assessment for the proposed antennas. The objective of this assessment is to determine the levels of radiofrequency (RF) emissions and where these levels may exceed Federal Communication Commission (FCC) standards. The study assesses the impact that these antennas will have on the Central Heating and Refrigeration Plant personnel, visitors, and its facility operations.

The roof of the Central Heating and Refrigeration Plant is not accessible to the general public. Nearby occupied building locations (both across nearby streets and below the antenna locations) are also well within the limit of the public exposure level, with RF signals being very low at that point. Consequently, all RF exposures levels are complied with in the development and design of the project. There are no cumulative effects of the existing and proposed antennas that exceed RF standards. Staff recommends, as suggested in the report, that GSA commit to the implementation of a written RF safety program including appropriate training of building maintenance personnel that work on the Central Heating and Refrigeration Plant roof areas.

Consistent with the Commission's Antenna Guidelines, the proposal should be approved for a period of five years.

COORDINATION

Coordinating Committee

The Coordinating Committee reviewed this item at its meeting on November 12, 2003, and forwarded the proposal to the Commission with the statement that the project has been coordinated with all agencies participating. The participating agencies were NCPC; the District of Columbia Office of Planning; the Department of Housing and Community Development; the District Department of Transportation; the General Services Administration; and the Washington Metropolitan Area Transit Authority.

CONFORMANCE

Comprehensive Plan

The proposal is consistent with the Comprehensive Plan for the National Capital. The Federal Facilities Element designates the plant for utilities and the proposed installation of the antennas will not affect the functions of this facility. Additionally, the Preservation and Historic Features element contains a policy that states that the “distinguishing original quality or character of historic properties should be protected.” The proposal is consistent with this policy.

National Historic Preservation Act

The GSA has completed its Section 106 responsibilities, determining that the installation of the antennas would have no adverse effect on the historic or architectural character of the Central Heating and Refrigeration Plant. The District of Columbia State Historic Preservation Office has concurred with this determination. The building has been determined eligible for listing in the National Register of Historic Places.

National Environmental Policy Act

Pursuant to the regulations implementing the National Environmental Policy Act (NEPA), the GSA has determined that the proposed project qualifies as a Categorical Exclusion (CE). Staff reviews of the determination finds the conclusion of the exclusion review process conform to the Council on Environmental Quality's guidance on CE findings and adheres to NCPC submission requirements.

An assessment of potential RF radiation effects of the proposed antennas at the Central Heating and Refrigeration Plant Building was prepared by SiteSafe, Inc. on September 24, 2003. The assessment encompassed both field monitoring and computer modeling to observe the Occupational Safety and Health Administration conservative exposure review scenario. That assessment found that the planned antenna locations comply with standards of the American National Standards Institute (ANSI) ANSI/IEEE C95.1-1992, the "Biological Effects and Exposure Criteria for Radiofrequency Electromagnetic Fields," by the National Council on Radiation Protection and Measurements (NCRP), Report No. 86 (1986), and FCC Guidelines for Evaluating Exposure to RF Emissions, revised on August 1, 1996 and updated in October 1997.

As with other antennas used for communications, the energy from these antennas is directed toward a specific horizon point. As one moves away from the antenna, the power density decreases as the distance from the antenna location increases, and consequently, the exposure at ground or street level in the vicinity of the antennas is very low compared with the potential exposure close to the antenna itself. All of the antennas are placed on the building in areas that are inaccessible to the public and power outputs do not exceed the maximum permitted exposure limit for public contact in any areas. Occupational limits also are not exceeding in any way.

Staff recommends, as identified in the assessment report, that GSA commit to the implementation of a written RF safety program, including appropriate training of building

maintenance personnel, and that the use of RF Personal Protection Monitors be mandated for workers that carry out activities on the building exterior at the roof level.