Purpose

This document meets the requirements outlined in OSHA Title 29 CFR 1910.268 (Telecommunications) for the application of safety and health standards at telecommunications field installations. The purpose of this policy is to provide information and guidance to designated employees and contractors of Bowdoin College regarding the potential hazards of electromagnetic radiation (EMR) generated by directional signal transmission equipment.

Scope

This policy applies to designated employees or contractors who may need to access the multiple-use field installations located atop Coles Tower, specifically the 300-watt radio frequency (RF) antenna for station WBOR and the 1500-watt Cingular Wireless directional panel cellular array, for the purposes of maintenance or repair of these antennae or related telecommunications systems.

Hazard Assessment

WBOR. The Federal Communications Commission (FCC) RF worksheet No.303-S filed for WBOR in 2006 calculated a percentage of the maximum permissible exposure (MPE) limit of only 0.435%, indicating a minimal hazard to human health in the immediate proximity of the antenna even at full power.

Cingular. An engineering study commissioned in 2006 for the installation of the Cingular array calculated a percentage of MPE of only 0.022%, also indicating a minimal hazard to human health in the immediate proximity of the antenna even at full power.

Precautions

Adjacent Structures. Due to the directional nature and low EMR emissions of the WBOR and Cingular antennae, there are no precautions necessary regarding the occupants of Coles Tower or adjacent buildings.

Access Control. The roof access to Coles Tower will remain locked, and posted as prohibited to all but authorized personnel. Only designated employees of the College and contractors under their supervision will be provided access.

Proximity to Antennae. Workers may safely access the Coles Tower roof while the antennae are operating at full power, so long as they remain out of the direct line of transmission. Tasks requiring access to areas directly in front of the antennae, or to the antennae systems themselves, will require that power to the systems first be locked out according to 1910.147 (Control of Hazardous Energy).

Policy Review

This policy will be audited at least annually by the EHS Manager and the IT Telecommunications Manager, in coordination with training of designated employees and the periodic inspection by Supervisors.

Attachments

Site Plan, Coles Tower Roof