



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

DEC 13 2016

Ms. Elizabeth Pentecost
RE: Arecibo Observatory
National Science Foundation
Suite 1045
4201 Wilson Blvd.
Arlington, VA 22230

Dear Ms. Pentecost:

In accordance with our responsibilities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, the U.S. Environmental Protection Agency (EPA) has reviewed the Draft Environmental Impact Statement (DEIS) prepared for the National Science Foundation (NSF) to evaluate the potential environmental effects of proposed operational changes due to funding constraints for the Arecibo Observatory in Arecibo, Puerto Rico (CEQ#20160252).

The Arecibo Observatory is located in the western portion of the Island of Puerto Rico, approximately 10 miles (16 kilometers) south of the City of Arecibo at the southern terminus of Puerto Rico Highway 625 (PR-625). A key component of the Arecibo Observatory is a 305-meter-diameter, fixed, spherical reflector. The Arecibo Observatory infrastructure includes instrumentation for radio and radar astronomy and ionospheric physics, office and laboratory buildings, a visitor and education facility, and lodging facilities for visiting scientists. The Observatory employs 128 persons, including approximately 16 scientific staff. The remainder of the employees work in support roles, including food service, software, maintenance, and as telescope operators (NAIC, 2016a; SRI International, 2016). The Angel Ramos Foundation Science and Visitor Center receives over 90,000 visitors per year. Approximately 30 percent of these visitors are schoolchildren.

The Agency-preferred Alternative includes deconstruction activities that would remove 26 buildings from the site. Most onsite housing, recreation facilities, and other buildings determined to be obsolete would be deconstructed. Paved roads serving areas that would no longer be used would be removed. Site restoration would include reestablishing landscaping in areas where buildings were deconstructed and may involve transporting soil to the site to support landscaping in areas where building foundations or excavated bedrock would prevent vegetation establishment. According to the DEIS the Agency-preferred Alternative would produce no cumulative impacts.

The DEIS addresses hazardous and solid waste management practices properly, however there is very limited discussion of any potential sustainability, recycling and re-use practices that could apply during deconstruction activities for the Agency preferred Alternative. You may wish to add or consider the following information to sections 4.5 and/or 4.6 where applicable.

- Recycling and/or reuse of construction and demolition (C&D) material can lessen the impacts of increasing disposal at solid waste facilities. The project should incorporate recycling, reuse and disposal options for C&D waste associated with deconstruction/demolition as appropriate. You may find more detailed information about recycling of C&D waste at: <http://www.epa.gov/osw/consERVE/imr/cdm/recycle.htm>.
- As there may be potential for landscaping after removal of structures on site, EPA's GreenScapes program provides cost-efficient and environmentally friendly solutions for landscaping. For additional information, please see: <http://www.epa.gov/wastes/consERVE/tools/greenscapes/index.htm>
- Use of diesel equipment will be required during project activities. Clean diesel options should be considered. For new equipment contract specifications requiring advanced pollution controls and clean fuels please see: <http://www.northeastdiesel.org/pdf/NEDC-Construction-Contract-Spec.pdf> and <http://www.epa.gov/cleandiesel/technologies/index.htm>
- Consider implementing diesel controls, cleaner fuel, and cleaner construction practices for on-road and off-road equipment used for transportation, soil movement, or other construction activities, including:
 - Strategies and technologies that reduce unnecessary idling, including auxiliary power units, the use of electric equipment, and strict enforcement of idling limits; and
 - Use of clean diesel through add-on control technologies like diesel particulate filters and diesel oxidation catalysts, repowers, or newer, cleaner equipment.

For more information on diesel emission controls in construction projects, please see: <http://www.northeastdiesel.org/pdf/NEDC-Construction-Contract-Spec.pdf>

Thank you for the opportunity to comment on the DEIS for the potential environmental effects of proposed operational changes due to funding constraints for the Arecibo Observatory in Arecibo, Puerto. EPA rates the DEIS as LO or "Lack of Objections" in accordance with EPA's national rating system. Our comments on the DEIS contained in this letter are intended to help provide useful information that will ultimately inform local, state and federal decision-making and review related to land and water resource use and impacts. Should you have any questions regarding the comments and concerns detailed in this letter, please feel free to contact Michael Poetzsch of my staff at 212-637-4147.

Sincerely,


Judy-Ann Mitchell, Chief
Sustainability and Multimedia Programs Branch