



Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2021-AEA-11311-OE

Issued Date: 06/15/2022

Jeffrey Eisenhower
Siemens Smart Infrastructure
50 Methodist Hill Drive
Suite 1500
Rochester, NY 14623

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Solar Panel Southeast
Location:	Albany, NY
Latitude:	42-44-24.47N NAD 83
Longitude:	73-49-11.69W
Heights:	337 feet site elevation (SE) 15 feet above ground level (AGL) 352 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

☐ At least 10 days prior to start of construction (7460-2, Part 1)
☒ Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

See attachment for additional condition(s) or information.

To coordinate frequency activation and verify that no interference is caused to FAA facilities, prior to beginning any transmission from the site you must contact Albany System Control Center, Manager Frank Tracey @ 336-404-4965].

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/lighting are accomplished on a voluntary basis, we recommend it be installed in accordance with FAA Advisory circular 70/7460-1 M.

This determination expires on 12/15/2023 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.

- (b) extended, revised, or terminated by the issuing office.
- (c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination does not constitute authority to transmit on the frequency(ies) identified in this study. The proponent is required to obtain a formal frequency transmit license from the Federal Communications Commission (FCC) or National Telecommunications and Information Administration (NTIA), prior to on-air operations of these frequency(ies).

This determination of No Hazard is granted provided the following conditional statement is included in the proponent's construction permit or license to radiate:

Upon receipt of notification from the Federal Communications Commission that harmful interference is being caused by the licensee's (permittee's) transmitter, the licensee (permittee) shall either immediately reduce the power to the point of no interference, cease operation, or take such immediate corrective action as is necessary to eliminate the harmful interference. This condition expires after 1 year of interference-free operation.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, effective 21 Nov 2007, will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA. This determination includes all previously filed frequencies and power for this structure.

If construction or alteration is dismantled or destroyed, you must submit notice to the FAA within 5 days after the construction or alteration is dismantled or destroyed.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (202) 267-4525, or david.maddox@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2021-AEA-11311-OE.

Signature Control No: 492651366-537478720

(DNE)

David Maddox

Specialist

Attachment(s)

Additional Information

Case Description

Map(s)

FAA SPECIAL PROVISIONS:

Communications: The reduced footprint reduces overall risk for out-of-phase ground reflection off the solar panel array in addition to other multi-path cumulative effects. Sponsor design must employ maximum electrical noise reduction methods.

No power poles should be within 1000' of the Radio Communication Facility (RCF) Siting Process per FAA Order 6580.6A. Relocate all power poles and lines in alternate location OR buried underground.

Any future development and/or expansion from as filed data would require further aeronautical study due to possible cumulative effects.

General Information: The solar panel manufacturer chosen or used must employ a standard anti-reflective material coating to minimize any panel structure reflectivity to radar. The sponsor must use manufacturer of class A industrial environment devices and discrete components compliant with FCC Part15B devices.

FCC Part15B devices minimize the likelihood of background electromagnetic (EM) noise levels that could interfere with the radar signal; however does not eliminate the possibility due to the cumulative nature of electromagnetic noise impact(s). It is possible for these devices to fully comply with Part15B FCC Rules and Regulations Title 47 and still cause harmful electromagnetic (EM) interference.

It is the responsibility of the equipment owner/sponsor to ensure that planned equipment, design and configuration does not cause harmful electromagnetic (EM) interference. In the event any subsequent noise adversely impact(s) radar system service operation occur - it is the responsibility of the sponsor to mitigate. The offending equipment must be immediately de-energized and must remain de-energized until a resolution is identified/implemented by the sponsor and approved in advance by the appropriate FAA office.

Frequencies: Solar Electronic Systems (SES) discrete devices must fully comply with Part15B FCC Rules and Regulations Title 47. However, it is possible for Solar Electronic Systems (SES) devices to fully comply with Part15B FCC Rules and Regulations Title 47 requirement AND still cause harmful interference to licensed radio systems.

It is the responsibility of the owner of that SES equipment, to ensure that planned equipment, design and configuration does not cause harmful interference.

To avoid impacts to FAA communications equipment, contact the local System Control Center [ALB, Manager Frank Tracey @ 336-404-4965] for advance coordination and assessment of cumulative RFI impacts due to SES equipment.

This will be accomplished through required coordinated testing of FAA equipment parameters - both prior to and after energizing any and all portion(s) of the SES equipment.

In the event of interference to communications or other aviation related services (through testing or operational use) with the identified source as SES, the offending equipment must be de-energized immediately to remove harmful interference. That SES equipment must remain de-energized until a resolution is identified, implemented and approved by the appropriate FAA office.

Case Description for ASN 2021-AEA-11311-OE

Development of a proposed 3.54 MWdc ground-mounted solar array installation, adjacent to an existing FAA radar tower on the county-owned property.

