

## **Record of Categorical Exclusion for**

CIGSS Manufacturing Plant

Stion Corporation

### **Description of Proposed Action:**

The Department of Energy's (DOE's) proposed action is to issue a loan guarantee to Stion Corporation to retrofit Stion's solar panel manufacturing plant at 6321 San Ignacio Avenue in San Jose, California and expand into an adjacent building at 6331 San Ignacio Avenue in order to establish a 135 megawatt (MW) nameplate capacity manufacturing plant. Stion produces monolithically integrated thin film photovoltaic modules using single-junction CuInGaSe<sub>2</sub>S<sub>2</sub> absorbers (CIGSS).

Stion leases buildings on an existing campus totaling approximately 250,000 square feet. The main buildings to be used for manufacturing are 6321 San Ignacio Avenue and 6331 San Ignacio Avenue. 6321 San Ignacio Avenue is approximately 105,000 square feet and is Stion's current headquarters. It houses the company's 10MW pilot manufacturing plant and office and laboratory space. Currently, Stion only utilizes approximately 65,000 square feet of this building. As part of this proposed action, Stion will expand into the remainder of 6321 San Ignacio Avenue and all of 6331 San Ignacio, an adjacent building that is approximately 130,000 square feet. 6331 San Ignacio will house the majority of the 135MW planned CIGSS Manufacturing Plant including all front-end (circuit fabrication) processes as well as back-end processes, including lamination. Retrofits of the existing facilities include interior layout modification, roof modification, and an updated exterior equipment pad.

Interior changes that would be necessary to accommodate the installation of manufacturing equipment include addition of walls, rooms, and corridors to define new areas inside the building. Roof modifications would accommodate process equipment such as water chillers, pipe and conduit materials that must stretch above current ceiling height. New exterior equipment pad(s)/service yard would be required primarily for 6331 San Ignacio Avenue. The exterior equipment pad(s) would be used for storage and dispensing of hazardous materials, for facilities support equipment such as scrubbers, wastewater treatment systems, deionized water production and distribution systems, and emergency generators. The equipment pad would also be used for secondary containment to prevent the release of hazardous materials to the environment if an accidental release of hazardous materials were to occur. Excavation on-site would be limited to installing shallow footings needed for the equipment pad(s). The depth of the excavation is expected to be 24 inches or less.

In August 2010, the DOE Energy Efficiency and Renewable Energy (EERE) Project Management Center (Golden Field Office) issued a National Environmental Policy Act categorical exclusion (GFO-10-599-001) for the use of \$5 million in Recovery Act funds (state block grant) for Stion Corporation to design, build, assemble and install 28 Metalorganic Chemical Vapor Deposition Tools and ancillary components and to upgrade the service yard at

6331 San Ignacio Ave. The current proposed action addressed in this determination involves further modifications of the same facilities covered in the EERE categorical exclusion.

Stion currently holds an Air Emissions Permit, Industrial Wastewater Discharge Permit, On-Site Wastewater Treatment Permit, and an Emergency Generator Permit. They have a Hazardous Waste Generator ID number, Industrial Wastewater Discharge Permit, and a Hazardous Materials Storage Permit.

The proposed loan guarantee would be made pursuant to Title XVII of the Energy Policy Act of 2005 which authorized DOE to make loan guarantees for projects that “avoid, reduce, or sequester air pollutants or anthropogenic emissions of greenhouse gases; and employ new or significantly improved technologies as compared to commercial technologies in service in the United States at the time the guarantee is issued.” The two principal goals of the Title XVII loan guarantee program are to encourage commercial use in the United States of new or significantly improved energy-related technologies and to achieve substantial environmental benefits.

**Number and Title of Categorical Exclusion:**

The actions that would be taken by Stion Corporation as a result of receiving a loan guarantee are consistent with and are covered by categorical exclusion B1.31 for the retooling and reequipping the facilities at 6321 and 6331 San Ignacio Avenue as described above. The full text of B1.31 as provided in 10 CFR § 1021, Appendix B to Subpart D is as follows:

B1.31 - Relocation of machinery and equipment, such as analytical laboratory apparatus, electronic hardware, maintenance equipment, and health and safety equipment, including minor construction necessary for removal and installation, where uses of the relocated items will be similar to their former uses and consistent with the general missions of the receiving structure.

**Regulatory Requirements defined in 10 CFR § 1021.410 (b):**

The proposed loan guarantee and related actions described above were subjected to an environmental due diligence review by DOE Loan Programs Office (LPO) staff to ensure they are consistent with the specific category of actions (categorical exclusion) contained in Appendix B of 10 CFR Part 1021 and the conditions for applying categorical exclusions specified in Section 410 of Part 1021. To ensure that the requirements of Appendix B were met, LPO staff reviewed a Comprehensive Environmental Report submitted on December 4, 2009 by Stion as part of their loan guarantee application. LPO staff met with Stion management on November 9, 2010 to discuss the proposed action and its potential for involving extraordinary circumstances. In addition, on November 11, 14, and 18, 2010, Stion provided LPO with additional documentation regarding the categorical exclusion issued by EERE for the initial phases of the same proposed project, as well as documentation from the California State Historic Preservation Officer regarding the proposed activities at the San Ignacio Avenue facilities. The results of the environmental due diligence review produced the following conclusions:

X The proposed loan guarantee project does not threaten a violation of applicable statutory, regulatory or permit requirements for environmental, safety and health, including DOE and /or Executive Orders.

X The proposed loan guarantee project does not require siting, construction, or major expansion of waste storage, disposal, recovery, or treatment facilities.

X The proposed loan guarantee project does not disturb hazardous substance, pollutants, contaminants or CERCLA-excluding petroleum and natural gas products that pre-exist in the environment such that there would be uncontrolled or unpermitted releases.

X There are no extraordinary circumstances related to the proposed project that may affect its environmental significance.

X The proposed action is not a connected action as set forth in 40 CFR § 1508.25(a)(1)).

X The proposed action is not part of a DOE proposal for which an EIS is being prepared and therefore a CE is not precluded by 40 CFR § 1506.1 or 10 CFR § 1021.211.

The proposed loan guarantee project does not adversely affect any environmentally sensitive resources, including the following:

X Property of historic, archaeological, or architectural significance designated by Federal, state, or local governments or property eligible for listing on the National Register of Historic Places\*;

X Federal-listed threatened or endangered species or their habitat (including critical habitat), Federally-proposed or candidate species or their habitat, or state-listed endangered species or their habitat;

X Wetlands regulated under the Clean Water Act (33 U.S.C. 1344) and floodplains;

X Areas having a special designation such as Federally- and state-designated wilderness areas, national parks, national natural landmarks, wild and scenic rivers, state and Federal wildlife refuges, and marine sanctuaries;

X Prime agricultural lands;

\*Stion received concurrence from the California State Historic Preservation Officer in August 2010 that the modifications to 6321, 6325, and 6331 San Ignacio Avenue would have no effect on historic properties.

Comment:

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**Corporate Validation:**

Point of Contact: Vineet Dharmadhikari

Date: 1/4/11

Title: COO

Signature: 

**Determination:**

Based on my review of information conveyed to me and in my possession, as NEPA Compliance Officer (as prescribed by DOE Order 451.1B), I have determined that the proposed loan guarantee and associated actions involve no extraordinary circumstances (10 CFR 1021.410(b)) and fit within the specified category of actions in Appendix B of 10 CFR 1021 described above, and are hereby categorically excluded from further review under the National Environmental Policy Act (42 USC 4321, as amended).



Signature

Matthew McMillen

NEPA Compliance Officer

Loan Programs Office

1-5-2011

Date