STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

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VIA ELECTRONIC MAIL

May 10, 2016

Matthew S. DeWitt, P.E.
Core States Group
58 Mount Bethel Road, Suite 301
Warren, NJ 07059

RE: **PETITION NO. 1229** – Bloom Energy Corporation, as an agent for Ikea, petition for a declaratory ruling that no Certificate of Environmental Compatibility and Public Need is required for the construction, operation and maintenance of a Customer-Side 250-Kilowatt Fuel Cell Facility to be located at the Ikea store, 450 Sargent Drive, New Haven, Connecticut.

Dear Mr. DeWitt:

The Connecticut Siting Council (Council) requests your responses to the enclosed questions no later than May 17, 2016. To help expedite the Council's review, please file individual responses as soon as they are available.

Please forward an original and 15 copies to this office, as well as send a copy via electronic mail. In accordance with the State Solid Waste Management Plan and in accordance with Section 16-50j-12 of the Regulations of Connecticut State Agencies the Council is requesting that all filings be submitted on recyclable paper, primarily regular weight white office paper. Please avoid using heavy stock paper, colored paper, and metal or plastic binders and separators. Fewer copies of bulk material may be provided as appropriate.

Yours very truly,

Melanie Bachman
Acting Executive Director

MB/MP

c: Adam Mueller, P.E., Core States Group
Erik Amrine, PMP, Bloom Energy Corporation
Council Members

Attachment: EPA Letter dated September 8, 2015

Petition No. 1229
Bloom Energy Corporation
Ikea, 450 Sargent Drive, New Haven, CT
Interrogatories

1. Please provide an Emergency Response Plan for the proposed facility in accordance with Public Act 11-101, An Act Adopting Certain Safety Recommendations of the Thomas Commission.

2. Please identify media to be used for pipe cleaning procedures at the proposed facility in accordance with Public Act 11-101, An Act Adopting Certain Safety Recommendations of the Thomas Commission.

3. On pages eight and nine of the Petition, Bloom Energy Corporation notes that property line threshold noise levels are set at 62 dBA. However, abutting the Ikea site directly to the south is a hotel. According to Section 22a-69-2.3 of the Connecticut Department of Energy and Environmental Protection (DEEP) Noise regulations, hotels are considered a Class A (residential) land use. Would the proposed fuel cell project meet DEEP noise standards at the hotel receptor directly to the south? If no, what kind of noise mitigation measures may be employed to ensure compliance?

4. Explain why there are no CH_4 emissions, as noted on page seven of the Petition. For example, is all of the methane in natural gas broken down in the reformer process?

5. Page five of the Petition notes that, "Bloom utilizes an EPA exemption that provides for the regulation of the Desulfurization Canisters at the point of removal of any waste." However, page two of a September 8, 2015 letter from the U.S. Department of Environmental Protection (EPA) states that, "Consistent with its longstanding position, EPA has determined that once the Bloom Energy Desulf Units are disconnected from the facility's fuel cell module, the MPU exemption is no longer applicable and the spent filter material within each disconnected Desulf Unit is a solid waste that is subject to DRGHW § 262.11, hazardous waste determination, and other applicable requirements (e.g., on-site management and off-site transport)." (See attached letter.) In light of the EPA letter, please submit a desulfurization plan narrative for the proposed fuel cell facility containing the following information:
   a) Chemical reaction overview concerning what substances are produced from the desulfurization process, as well as plans for their containment and transport;
   b) How much solid sulfur oxide would result from the desulfurization process, and methods and locations for containment, transport, and disposal;
   c) Plans for the containment, transport, and disposal of hazardous substances consistent with the most up to date EPA, DEEP and other requirements;
   d) Anticipated method of disposal for any other desulfurization substances; and

e) Whether any gaseous substances resulting from desulfurization can be expected to vent from the fuel cells, as well as the applicable EPA and DEEP limits regarding discharge of these gasses.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

SEP 8 2015

The Honorable David Small
Secretary, Department of Natural Resources and Environmental Control
Richardson & Robbins Building
89 Kings Highway
Dover, Delaware 19901

Dear Secretary Small: David

I am responding to your June 3, 2015 letter to Bloom Energy counsel Michele B. Corash concerning that company's desulfurization canister units (Desulf Units) and associated claims to the manufacturing process unit (MPU) exemption from hazardous waste regulations. Your letter expressed an expectation that the U.S. Environmental Protection Agency (EPA) would provide further guidance toward a nationally consistent interpretation of the MPU exemption and its appropriate application. I appreciate the information you have provided to assist EPA's understanding of this matter.

Delaware has authorization from EPA to implement its hazardous waste program in lieu of the federal program, provided the state regulations are equivalent to, consistent with, and no less stringent than the federal regulations. The MPU exemption in Delaware's *Regulations Governing Hazardous Waste* (DRGHW) § 261.4(c) is equivalent to the corresponding federal exemption in 40 C.F.R. 261.4(c) and has been authorized by EPA.

Your June 3, 2015 letter expresses a conclusion, based upon company representations and information then known to you, that Bloom Energy's Desulf Units fall within the MPU exemption because of the "robust structural integrity" of the units and "very low" risks they pose to human health and the environment.

EPA has reviewed the material provided by Bloom Energy regarding the design, use, and management of its Desulf Units and its associated MPU exemption claims. Based upon that review, EPA has determined that Bloom Energy's Desulf Units do not fall within the MPU exemption and your June 3, 2015 conclusion is based upon an interpretation that is less stringent than the federal program and inconsistent with how the exemption has been implemented nationally.

EPA has consistently determined that discarded materials removed from a manufacturing process are solid wastes upon removal and that they are then subject to hazardous waste regulatory requirements, including a hazardous waste determination. EPA has explained that the MPU exemption no longer applies to an eligible unit once the unit ceases to be operated "for the primary purpose of manufacturing or product or raw materials storage" (i.e., the unit is not being used to store a raw material or manufacture a product).[1]

EPA has also previously determined that the MPU exemption may apply to process units that are stationary during manufacturing, but that it will no longer apply once those units are disconnected from the manufacturing process. When a unit is disconnected, disassembled, and/or removed from stationary operation for off-site cleaning, the potential for leaks and unintended releases increases and the incentive for an owner or operator to maintain the unit's integrity against release decreases. A unit's integrity is not maintained solely by structural integrity, but also through ensuring continuous and controlled oversight during transport. Applying the MPU exemption to a unit after it has been disconnected has the undesirable effect of removing important safeguards for protecting human health and the environment, such as allowing a hazardous waste to be transported without a manifest to a facility without a treatment, storage, and disposal permit.

When a unit containing discarded or spent materials is removed from the manufacturing process, that removal constitutes the point of waste generation and the contents of the unit are then subject to applicable hazardous waste determination requirements. If determined to be a characteristic or listed hazardous waste pursuant to DRGHW 261, Subpart C or D, the materials may be regulated as hazardous waste from the point of generation. In this regard, EPA has previously noted that the hazardous waste management system is frequently referred to as a 'cradle-to-grave' program. Redesignation of the point at which solid waste becomes hazardous for purposes of regulation would contradict both statutory intent, and the regulatory framework under which RCRA is implemented.

Consistent with its longstanding position, EPA has determined that once the Bloom Energy Desulf Units are disconnected from the facility's fuel cell module, the MPU exemption is no longer applicable and the spent filter material within each disconnected Desulf Unit is a solid waste that is subject to DRGHW § 262.11, hazardous waste determination, and other applicable requirements (e.g., on-site management and off-site transport).

Based on the information provided, EPA is requesting that you reconsider the regulatory interpretation that the Desulf Units fall within the manufacturing process unit exemption. EPA looks forward to discussing this issue with you and your staff in order to identify steps to ensure that Bloom is in compliance with the hazardous waste regulations and that this waste is properly managed.

[1] 45 F.R. 72025

If you have any questions, please do not hesitate to contact me or have your staff contact Mr. Matthew Colip, EPA's Delaware Liaison, at 215-814-5439 or colip.matthew@epa.gov. I look forward to discussing this issue further.

Sincerely,

Shawn M. Garvin
Regional Administrator

cc: Michele B. Corash, Counsel to Bloom Energy