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.

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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.

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[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