RCRA Inspection Report

1) Inspector and Author of Report

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2) Facility Information

Hubbell Power Systems, Inc.
1850 Richland Avenue, East
Aiken, South Carolina 29801

EPA ID# SCD054202080

Primary NAICS Code: 335999 - All other miscellaneous electrical equipment and component manufacturing

3) Responsible Officials

Jeff Lokken, CSP
EH&S Manager
Hubbell Power Systems, Inc.
1850 Richland Avenue, East
Aiken, South Carolina 29801

Telephone No.: (803) 502-8205 email: jrlokken@hubbell.com

4) Inspection Participants

Jeff Lokken	Hubbell Power Systems, Inc.
Gerald Shealy	S.C. Department of Health and Environmental Control (SCDHEC)
Hannah McKenna	SCDHEC
Alan Risa	SCDHEC

5) Date of Inspection

April 15, 2021

6) Applicable Regulations

South Carolina Hazardous Waste Management Act, S.C. Code Ann. § 44-56-10 et seq., [Resource Conservation and Recovery Act (RCRA) Sections 3002 (42 U.S. Code – Annotated U.S.C.A. 6925 and 6927)], and South Carolina Hazardous Waste Management Regulations

(SCHWMR), 25

S.C. Code Ann. Regs. 61-79.260-270, 61-79.273 and 61-79.279 [40 Code of Federal Regulation (C.F.R.), Parts 260 - 270, 273, 278, & 279].

As the State's authorized hazardous waste program operates in lieu of the federal RCRA program, the citations of those authorized provisions alleged herein will be to the authorized State program; however, for ease of reference, the federal citations will follow in brackets.

7) Purpose of Inspection

The purpose of this inspection was to determine Hubbell Power Systems, Inc.'s compliance with the applicable requirements of RCRA and the corresponding South Carolina regulations. This was an EPA lead inspection.

8) Previous Inspection History

On February 26, 2019, representatives of the SCDHEC inspected Hubbell Power Systems, Inc. and reported three deficiencies, which were corrected during the inspection.

9) Facility Description

Hubbell Power Systems, Inc. (Hubbell) manufacturers a wide variety of transmission, distribution, substation, and telecommunications products used by the electric utility industry. The facility has four main production lines: polymer insulators, surge arresters, and underground cable molds and bushings. Hubbell currently has 450 employees working three shifts, twenty-four hours a day, five days a week. The manufacturing facility covers approximately 400,000 square feet.

Surge arresters are electrical appliances used to protect electronic equipment against lightning overvoltage transients. The polymer insulators are supports used to insulate and attach electric power distribution or transmission lines to utility poles and transmission towers. Bushings are hollow electrical insulators that allow an electrical conductor to pass safely through a conducting barrier such as the case of a transformer or circuit breaker, without making electrical contact with the device.

In its most recent Hazardous Waste Biennial Report dated January 1, 2019, Hubbell classified its facility as a Large Quantity Generator (LQG) of hazardous waste. Routine hazardous waste streams generated at the facility are:

Waste Stream	**Waste Code(s)**
Spent alcohol/acetone from insulator cleaning activities	D001, F003
Spent blast media from cleaning cable accessories prior to adhesive application	D008
Spent acetone from parts and equipment cleaning activities in the Arresters Building Department	D001, F003

Waste Stream	Waste Code(s)
Spent alcohol/acetone from cleaning parts prior to coating with adhesive in the Direct Bond Silicone Rubber area	D001, F003
Spent acetone from cleaning of parts and equipment in the Pultrusion Department	D001, F003
Spent resin catalyst (Benzyldimethylamine) from Pultrusion Department	D001
Expired/Off Spec Resin	D001
Waste from painting activities	D001
Off Spec/ contaminated chemical products	D001

10) Opening Conference

Due to the Coronavirus (COVID-19), the EPA pre-announced the inspection via an email sent to Mr. Jeff Lokken on March 24, 2021. In the email, the EPA explained the purpose of the inspection and included a list of the documents to be reviewed during the inspection. Upon arrival to the facility on April 15, 2021, the inspectors met Mr. Lokken and presented their credentials. Once cleared to access the facility, Mr. Lokken led the inspectors to a conference room. In the conference room, the inspectors stated the purpose of the inspection and explained that because of concerns with the COVID-19, the facility tour was going to be limited to hazardous wastes handling unit and that the record review was going to be virtual. After Mr. Lokken provided a brief description of the facility's operations, he led the inspectors on a tour of the facility. The following are the observations made during the inspection.

11) Findings

Arrester Business Unit (ARBU)

Hubbell operates five arrester production lines. In the satellite accumulation area (SAA) for the ARBU, the inspectors observed one 55-gallon container that contained spent acetone (F003/D001) (Photograph 1). The container was closed and appeared to be in good condition. Although the container was labeled hazardous waste, it was neither marked nor labeled with an indication of the hazards of its contents. *(Note: On April 15, 2021, Mr. Lokken emailed to the inspectors a photograph of the container with the required labels).*

In the SAA near the resin station, the inspectors observed a 55-gallon container labeled "Hazardous Waste PVD Resin" (Photograph 2). The container had an open top yellow funnel inserted into its bunghole. In the container, the activated resin continues its curing process. The curing process of waste resin constitutes treatment of hazardous waste. At the time of the inspection, Hubbell was managing the container as if it was in a SAA. Nevertheless, generators treating their hazardous waste in containers need to do so in compliance with the requirements for 90-day storage areas in 25 S.C. Code Ann. Regs. 61-79.262.17 [40 C.F.R. § 262.17]. (Attachment 1 - Memorandum from Elizabeth Cotsworth, Director of EPA's Office of Solid Waste, to RCRA Senior Policy Advisors, August 16, 2002, RCRA Online Document 14618)

Pursuant to 25 S.C. Code Ann. Regs. 61-79.262.15(a) [40 C.F.R. § 262.15(a)], a generator may accumulate as much as 55 gallons of non-acute hazardous waste in containers at or

near the point of generation where wastes initially accumulate, which is under the control of the operator of the process generating the waste, without a permit or without having interim status, as required by Section 44-56-60(a)(2) and (b)(3) of the SCHWMA, S.C. Code Ann. § 44-56-60(a)(2) and (b) [Section 3005 of RCRA, 42 U.S.C. § 6925], and without complying with 25 S.C. Code Ann. Regs. 61-79.262.16(b) or R.61-79.262.17(a) [40 C.F.R. § 262.16(b) or §262.17(a)], except as required in 25 S.C. Code Ann. Regs. 61-79.262.15(a)(7) and (8) [40 C.F.R. § 262.15(a)(7) and (8)], provided that the generator complies with the satellite accumulation area conditions listed in 25 S.C. Code Ann. Regs. 61-79.262.15(a) [40 C.F.R. § 262.15(a)] (hereinafter referred to as the "SAA Permit Exemption").

Pursuant to 25 S.C. Code Ann. Regs. 61-79.262.15(a)(5) [40 C.F.R. § 262.15(a)(5)], which is a condition of the SAA Permit Exemption, a generator is required to mark or label its containers (i) with the words "Hazardous Waste" and (ii) with an indication of the hazards of the contents.

Pursuant to 25 S.C. Code Ann. Regs. 61-79.270 [40 C.F.R. § 262.15(a)(5)], the treatment of hazardous wastes is prohibited without a permit or without having interim status, as required by Section 44-56-60(a)(2) and (b)(3) of the SCHWMA, S.C. Code Ann. § 44-56-60(a)(2) and (b) [Section 3005 of RCRA, 42 U.S.C. § 6925], unless it is conducted in compliance with an applicable exclusion.

Molding Business Unit (MOBU):

In a SAA, the inspectors observed a 55-gallon container that contained spent alcohol (D001) from cleaning activities conducted during the manufacturing of insulators (Photograph 3). The container was closed and appeared to be in good condition. Although the container was labeled hazardous waste, it was neither marked nor labeled with an indication of the hazards of its contents. *(Note: On April 15, 2021, Mr. Lokken emailed to the inspectors a photograph of the container with the required labels).*

Pursuant to 25 S.C. Code Ann. Regs. 61-79.262.15(a)(5) [40 C.F.R. § 262.15(a)(5)], which is a condition of the SAA Permit Exemption, a generator is required to mark or label its containers (i) with the words "Hazardous Waste" and (ii) with an indication of the hazards of the contents.

Cable Accessories Production Area:

In this area, Hubbell operates three SAAs for the accumulation of spent paint spray booth filters (D001), spent alcohol (D001) from cleaning activities and spent blast media (D008) from surface preparation activities, in 55-gallon containers. At each SAA, the inspectors observed a 55-gallon container (Photographs 4 – 5). The containers were closed and appeared to be in good condition. Although the containers were labeled hazardous waste, the containers were neither marked nor labeled with an indication of the hazards of their contents. *(Note: On April 15, 2021, Mr. Lokken emailed to the inspectors a photograph of the container with the required labels).*

Pursuant to 25 S.C. Code Ann. Regs. 61-79.262.15(a)(5) [40 C.F.R. § 262.15(a)(5)], which is a condition of the SAA Permit Exemption, a generator is required to mark or label its containers (i) with the words "Hazardous Waste" and (ii) with an indication of the hazards of the contents.

Pultrusion Area

In the mixing room of this area, Hubbell operates two SAAs where it accumulates spent acetone from cleaning activities (D001/F003) and spent resin catalyst (D001) from the resin coating process. In each SAA, the inspectors observed a 55-gallon container (Photograph 6). The containers were closed and appeared to be in good condition. Although the containers were labeled hazardous waste, the containers were neither marked nor labeled with an indication of the hazards of their contents. *(Note: On April 15, 2021, Mr. Lokken emailed to the inspectors a photograph of the container with the required labels).*

Pursuant to 25 S.C. Code Ann. Regs. 61-79.262.15(a)(5) [40 C.F.R. § 262.15(a)(5)], which is a condition of the SAA Permit Exemption, a generator is required to mark or label its containers (i) with the words "Hazardous Waste" and (ii) with an indication of the hazards of the contents.

In this area, Hubbell also generates excess activated resin that it has determined to be a non-RCRA regulated waste. This waste stream is consolidated in a one cubic yard cardboard container where it is allowed to cure and solidified (Photograph 7). Hubbell disposes of the cure resin as a non-RCRA regulated waste.

Bushings Manufacturing Area

In this area, Hubbell operates a SAA for the accumulation of spent paint spray booth filters (D001). In the SAA, the inspectors observed a 55-gallon container (Photograph 8) that was closed and appeared to be in good condition. Although the container was labeled hazardous waste, the container was neither marked nor labeled with an indication of the hazards of its content. *(Note: On April 15, 2021, Mr. Lokken emailed to the inspectors a photograph of the container with the required labels).*

Pursuant to 25 S.C. Code Ann. Regs. 61-79.262.15(a)(5) [40 C.F.R. § 262.15(a)(5)], which is a condition of the SAA Permit Exemption, a generator is required to mark or label its containers (i) with the words "Hazardous Waste" and (ii) with an indication of the hazards of the contents.

Hazardous waste Central Accumulation Area (CAA):

Hubbell's hazardous waste CAA is in a building referred to as the Pole Barn. The Pole Barn is east of the production building. In the CAA, the inspectors made the following observation (Photographs 9 – 11):

- Two pallets of unused zinc oxide and one pallet with a variety of unopened and partially used products containers. These materials were collected during an inventory of chemicals at the facility. The facility was conducting the hazardous waste determinations on these materials.

- One 55-gallon container of a corrosive off-spec product (D002) in an overpack container. The container was dated 3/1/21.

- Four 55-gallon containers of waste adhesive (D001/D008), two 55-gallon containers of spent spray paint booth filters (D001), and one 55-gallon container of spent solvent (D001/F003). The oldest container was dated 3/2/21.

- Ten 55-gallon containers of non-RCRA regulated waste.

- Two undated boxes of universal waste lamps. One box was neither marked nor labeled "Universal Waste - Lamp(s)," or "Waste Lamp(s)," or "Used Lamp(s)." *(Note: On April 15, 2021, Mr. Lokken emailed to the inspectors a photograph of the containers with the required labels).*

- Four used oil tote containers.

Pursuant to 25 S.C. Code Ann. Regs. 61-79.273.9 [40 C.F.R. § 273.9], a Small Quantity Handler of Universal Waste (SQHUW) is a universal waste handler who does not accumulate 5,000 kilograms or more total of universal waste (batteries, pesticides, mercury-containing equipment, or lamps, calculated collectively) at any time.

Pursuant to 25 S.C. Code Ann. Regs. 61-79.273.14(e) [40 C.F.R. § 273.14(e)], a SQHUW must label or mark each lamp or container or package in which such lamps are contained clearly with one of the following phrases: "Universal Waste - Lamp(s)," or "Waste Lamp(s)," or "Used Lamp(s)."

Pursuant to 25 S.C. Code Ann. Regs. 61-79.273.15(c) [40 C.F.R. § 273.15(c)], a small quantity handler of universal waste who accumulates universal waste must be able to demonstrate the length of time that the universal waste has been accumulated from the date it becomes a waste or is received.

Records Review

Because of COVID-19 exposure concerns, the records review portion of the inspection was conducted onsite and virtual. The following documents were reviewed:

- Used oil and universal waste shipment documents
- Hazardous waste manifests and land disposal restriction notifications
- Hazardous waste training program records
- Facility emergency response plan
- Weekly inspection logs

11) Summary

The inspectors conducted the exit meeting with Jeff Lokken and provided the preliminary results of the inspection. Besides the labeling requirements, the inspectors expressed concern with the treatment of the excess activated resin generated in the ARBU area.

12) Signed

JAVIER GARCIA Digitally signed by JAVIER GARCIA Date: 2021.05.27 11:55:31 -04'00'

Javier E. García — Date
Inspector and Author of Report

13) Concurrence and Approval

ARACELI CHAVEZ Digitally signed by ARACELI CHAVEZ Date: 2021.05.27 11:47:24 -04'00'

Araceli B. Chavez — Date
Chief
RCRA Enforcement Section

EPA RCRA Compliance Evaluation Inspection Photographs

Hubbell Power Systems, Inc.
1850 Richland Avenue, East
Aiken, South Carolina 29801

EPA ID# SCD054202080

Photographs Taken by Javier García
With Samsung Camera (Model WB250F)
EPA Property Tag# S75951 on
April 15, 2021

Photograph 1: Spent acetone (F003/D001) 55-gallon accumulation container at a satellite accumulation area (SAA) in the Arrester Business Unit (ARBU). The container was neither marked nor labeled with an indication of the hazards of its contents.

Photograph 2: "Hazardous Waste PVD Resin" 55-gallon container near the ARBU resin station, the inspectors observed a 55-gallon container labeled (Photograph 2). The container was being used for treatment of the activated resin.

Photograph 3: Spent alcohol (D001) 55-gallon container from cleaning activities conducted in the Molding Business Unit. The container was neither marked nor labeled with an indication of the hazards of its contents.

Photograph 4: Spent paint spray booth filters (D001/D008) 55-gallon accumulation container in the Cable Accessories Production Area. The container was neither marked nor labeled with an indication of the hazards of its contents.

Photograph 5: SAAs for spent alcohol (D001) from cleaning activities and spent blast media (D008) from surface preparation activities. The containers were neither marked nor labeled with an indication of the hazards of their contents.

Photograph 6: Spent acetone from cleaning activities (D001/F003) and spent resin catalyst (D001) from the resin coating process generated in the Pultrusion Area. The containers were neither marked nor labeled with an indication of the hazards of their contents.

Photograph 7: Non-RCRA regulated excess activated resin from the Pultrusion Area

Photograph 8: Spent paint spray booth filters (D001) accumulation container observed in the Bushings Manufacturing Area. The container was neither marked nor labeled with an indication of the hazards of its content.

Photograph 9: View of the hazardous waste containers in the facility's hazardous waste central accumulation area (CAA).

Photograph 10: View of the hazardous waste containers in the facility's hazardous waste CAA.

Picture 11: Universal waste lamp containers in the facility's hazardous waste CCA. Neither box was dated. One box was neither marked nor labeled "Universal Waste - Lamp(s)," or "Waste Lamp(s)," or "Used Lamp(s)."

Attachment 1

August 16, 2002, RCRA Online Document 14618
Memorandum from Elizabeth Cotsworth, Director of EPA's Office of Solid Waste,
to RCRA Senior Policy Advisors

MEMORANDUM

SUBJECT: Hazardous Waste Generated in Laboratories

FROM: Elizabeth Cotsworth, Director
Office of Solid Waste

TO: RCRA Senior Policy Advisors, EPA Regions I-X

The purpose of this memo is to reiterate and clarify the Environmental Protection Agency's (EPA) policies under the Resource Conservation and Recovery Act (RCRA) hazardous waste management program regarding: 1) who may make a hazardous waste identification, and 2) the regulatory status of on-site treatment of hazardous waste. This memo is aimed primarily toward academic institutions that generate hazardous waste in laboratories.

Background Academic institutions across the country vary in size and complexity. Many are large quantity generators (LQGs) of hazardous waste, generating ≥1000 kg/month; or >1 kg of acute hazardous waste/month. LQGs must comply with the regulations in 40 CFR 262.34(a) for the accumulation of waste on-site. Hazardous wastes produced by LQGs may be accumulated on-site without interim status or a permit for 90 days or less. Many other academic institutions are small quantity generators (SQGs), generating >100 kg/month but <1000 kg/month of hazardous waste. SQGs must comply with 40 CFR 262.34(d) for accumulation of waste on-site. Hazardous wastes produced by SQGs may be accumulated on-site without interim status or a permit for 180 days or less.

Many of the hazardous wastes managed at academic institutions are produced and initially accumulated in research laboratories. The satellite accumulation provisions of 40 CFR 262.34(c) allow for reduced requirements for hazardous waste accumulated in containers at or near any point of generation. Both LQGs and SQGs may take advantage of the reduced requirements while hazardous waste is in satellite accumulation areas, such as laboratories, provided the waste is managed in accordance with the provisions of 40 CFR 262.34(c) (e.g., properly labeled).

Who may determine whether a waste is hazardous? 40 CFR Section 262.11 states, "A person who generates a solid waste...must determine if that waste is a hazardous waste..." A "person" is defined as "an individual, trust, firm, joint stock company, Federal Agency, corporation (including a government corporation), partnership, association, State, municipality, commission, political subdivision of a State, or any interstate body" (40 CFR Part 262.10). A "person" is not limited to a specific individual. Therefore, any individual who is part of the "person" (as defined) may make a hazardous waste determination. The hazardous waste determination is not limited to the individual who actually produces a solid waste. For example, Environmental, Health & Safety (EH&S) personnel may make a hazardous waste determination for a waste produced by an individual researcher, as long as the EH&S personnel and the researcher are part of the same "person" (e.g., academic institution).

Of course, EPA's objective is to ensure accurate hazardous waste identification. Proper waste identification is important in order to allow the generator to comply with applicable requirements such as those for labeling and marking pursuant to 40 CFR 262.34. In short, it is the "person's" responsibility to ensure that the individuals within the organization who are making the hazardous waste determination obtain all the necessary information from whichever individuals within the organization have that information. In practice, a hazardous waste determination in a laboratory setting would ideally be a collaborative effort between the individual researcher who produces the waste and EH&S personnel who may make the hazardous waste determination. That is, EH&S personnel making a hazardous waste determination should receive sufficiently accurate and detailed information about each waste from the individual researcher to ensure accurate waste identification.

We realize that having addressed the question of who may make a hazardous waste determination may also raise the question of where a hazardous waste determination is made. The issue is whether a hazardous waste determination must be made in the laboratory (typically a satellite accumulation area) or at a central accumulation area. EPA is not addressing this question in this memo, but intends to address this question in a future guidance or rulemaking.

What is the regulatory status of on-site treatment of hazardous waste? EPA has consistently interpreted its regulations to allow generators to treat hazardous waste in their accumulation tanks and containers, without obtaining a permit or having interim status. This is true for both LQGs and SQGs. Of course, all generators are allowed to treat only the hazardous waste that is generated on-site. A permit would be required to store and/or treat hazardous waste that is consolidated from off-site locations. Examples of treatment that may be conducted in accumulation tanks and containers include precipitating heavy metals from solutions, and oxidation/reduction reactions.

There are three reasons for this interpretation. First, we discussed the relationship between storage, treatment and disposal in the preamble of the January 12, 1981, Federal Register (46 FR 2806-2808). In that preamble, we noted that treatment can occur at a permitted disposal or storage facility without affecting that facility's regulatory status. We believe that treatment activities should similarly not change the regulatory status of generators. Since the regulations

do not impose additional standards for treatment when it occurs at a storage facility that requires a permit, there is no basis for regulating treatment more strictly at a storage facility which does *not* require a permit, such as a generator's accumulation area.

Second, the provisions of 40 CFR 262.34(a) for LQGs and 40 CFR 262.34(d) for SQGs require generators to comply with most of the technical standards for containers (Part 265 Subpart I) and tanks (Part 265 Subpart J) with which an interim status storage facility would have to comply. Of the provisions for treatment, storage and disposal facilities only the financial responsibility, closure/post-closure and corrective action regulations would not apply to generators that treat hazardous waste.

Third, treatment often renders waste less hazardous, or more amenable for further treatment, recycling, shipment off site, etc. A requirement for generators to obtain a permit for any on-site treatment would very likely discourage such practices.

Finally, with regard to who may treat a hazardous waste, a generator is defined as "any person, by site, whose act or process produces hazardous waste..." (40 CFR. 2601.10). Therefore, again, any individual who is part of the "person," as defined, including EH&S personnel, is allowed to conduct treatment, provided that the individual complies with the training requirements of 40 CFR 262.34(a)(4) for LQGs , or 40 CFR 262.34(d)(5) for SQGs. Additionally, nothing in 40 CFR 262.34 precludes generators from transferring waste between tanks or containers to facilitate storage or treatment.

It should be noted, however, that some forms of treatment by generators are not allowed without a permit. For example, incineration is regulated by specific standards for incinerators (Part 264/265 Subpart O), and burning waste in boilers and industrial furnaces is regulated under the specific standards for those units (Part 266 Subpart H).

If the waste is being treated on-site and the treatment residue is destined to be land disposed, the generator still has responsibilities under the land disposal restrictions (LDR) program. The LDRs require that hazardous waste must be treated by a specified method or to a specified constituent concentration level before it (or its residue) may be placed in the land. The generator must know the treatment standard applicable to his/her waste and either treat to meet the treatment standard or send it to a treater to do so. Generators who treat waste on-site to remove a hazardous characteristic must prepare a waste analysis plan if treatment occurs in units that do not require a RCRA permit (see 40 CFR 262.34(a)(4) for LQGs, and 40 CFR 262.34(d)(4) for SQGs). In addition, there are some generator paperwork requirements associated with the LDRs (40 CFR 268.7(a)). More information about the LDR program may be found in "Land Disposal Restrictions: Summary of Requirements" at http://www.epa.gov/epaoswer/hazwaste/ldr/new.htm.

Some treatment units have been and continue to be specifically excluded from permitting. For example, owners and operators of elementary neutralization units are not required to obtain a

RCRA permit (40 CFR 270.1(c)(2)(v)). Similarly, many forms of on-site recycling of hazardouswaste can be performed without a permit, since EPA generally does not regulate the recycling process itself. However, any accumulation of hazardous waste prior to placement in an exempt unit or prior to recycling would be regulated under 40 CFR 262.34, as discussed above.

On a related matter, for those LQGs that accumulate hazardous waste for longer than 90 days, or SQGs that accumulate hazardous waste for longer than 180 days, and therefore require a permit, the Agency recently proposed a rule that would streamline the permitting requirements for facilities that store and/or treat their hazardous waste on-site in tanks and containers (October 12,2001; 66 FR 52192). The Agency anticipates finalizing the rule in early 2003.

Please note that this letter discusses only the federal hazardous waste regulations. States that are authorized to implement the RCRA program may have regulations that are different than the federal regulations provided they are not less stringent than the federal program. If you have anyquestions, please contact Kristin Fitzgerald at (703) 308-8286 or fitzgerald.kristin@epa.gov.