Howard University
Environmental Management System
Manual

October 2020

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1.0 INTRODUCTION AND BACKGROUND

1.1 The Value of an EMS

An Environmental Management System (EMS) provides a framework to protect the environment and respond to changing environmental conditions through consistent review, evaluation, and improvement of environmental performance. This systematic approach to environmental management will provide Howard University with information to:

- Prevent and/or mitigate adverse environmental impacts;
- Fulfill compliance obligations;
- Enhance environmental performance; and
- Communicate environmental information to relevant interested parties.

The success of an EMS depends on commitment from all levels and functions of the organization, led by senior officials. Senior officials can effectively address risks and opportunities by integrating environmental management into the organization's business processes, strategic direction, and decision making.

The approach underlying an EMS is the concept of Plan–Do–Check–Act. This model provides an iterative process to achieve continual improvement. Consisting of the following actions, it can be applied to an overall EMS, as well as to each of its individual elements:

- **Plan**: establish environmental objectives and processes necessary to deliver results in accordance with the organization's Environmental Policy;
- **Do**: implement the processes as planned;
- **Check**: monitor and measure processes against the Environmental Policy, including its commitments, environmental objectives and operating criteria, and report the results; and
- **Act**: take actions to continually improve.

Howard University has retained AKRF, Inc. (AKRF) to help Howard University establish an effective and comprehensive EMS.

1.2 Customized Approach

Howard University is located in Northwest Washington, DC on an approximately 300-acre campus. The Carnegie Foundation characterizes Howard University as a research university with colleges of medicine, law, dentistry, nursing, engineering, and pharmacy among many others. As such, Howard University has many research areas requiring adherence to environmental regulations set by the District of Columbia Department of Energy and the Environment (DOEE). Howard University requires a specialized EMS that is customized to the unique needs of a university and research facility working to maintain compliance with all applicable environmental regulations.

Howard University has recently prepared individual programs for air emissions and hazardous waste management in preparation for their inclusion in an EMS; these were undertaken in connection with the settlement of an enforcement action initiated by DOEE. Howard has also acquired and implemented several software packages to create the platform for many of these components (i.e., Velocity EHS for information tracking, Vivid Learning Systems for on-line training, Tiscor for equipment inventory and MSDSonline). The Howard University EMS will build upon these efforts and tools to develop a truly comprehensive system designed to comply with the relevant components of the ISO 14001:2015 standard.

1.3 Requirements of the EMS Manual

The primary function of this EMS manual, developed in accordance with ISO 14001: 2015, Clause 7.5.1, is to ensure continued adherence to all environmental management requirements in the event of personnel or administrative changes.

2.0 LEADERSHIP

2.1 EMS Leadership Team

The EMS Leadership Team consists of senior officials at the university with the fiscal and leadership authority to define the university's priorities. This team developed an Environmental Policy, established an Implementation Team, empowered that Implementation Team to develop an EMS, and assigned the roles, responsibilities, and resources to do so.

2.1.1 Membership

Howard University's EMS Leadership Team (ISO 14001: 2015, Clause 5) includes the following members:

- Dr. Tashni-Ann Dubroy, Executive Vice President & Chief Operating Officer
- Mr. Michael Masch, Chief Financial Officer and Treasurer
- Director of Environmental Occupational Health and Safety;
- Mr. Aaron Baltimore, Executive Director of Physical Facilities Management;
- Additional members, as deemed necessary.

2.1.2 Responsibilities

The Leadership Team is responsible for (ISO 14001: 2015, Clause 5.1):

- Taking accountability for the effectiveness of the EMS;
- Ensuring that the Environmental Policy and environmental objectives are established and are integrated with the strategic direction and the context of Howard University;
- Ensuring the integration of the EMS requirements into Howard University's business practices;
- Ensuring that the resources needed for the EMS are available (ISO 14001: 2015, Clause 7.1);
- Communicating the importance of effective environmental management and of conforming to the EMS requirements;
- Ensuring the EMS achieves its intended outcomes;
- Directing and supporting persons to contribute to the effectiveness of the EMS;
- Promoting continual improvement; and
- Communicating implementation progress to DOEE on a quarterly basis.

At their discretion, the Leadership Team may appoint one or more members to act as a representative of the larger group. This appointed representative(s) will expedite communication and critical decision making with the Implementation Team. The identified representative(s) of the Leadership Team will be available on an as-needed basis to review the Implementation Team's work product, offer guidance, and grant approval.

2.2 EMS Implementation Team

The EMS Leadership Team tasked the Implementation Team with developing an EMS pursuant to the Environmental Policy and provided with the necessary resources and authority to conduct their work (ISO 14001: 2015, Clause 5.3). The members of this team fully represent the activities and departments covered by the scope of the EMS. Regular meetings of the team are occurring during the development and implementation of the EMS. In addition to developing and implementing the EMS, this team is also responsible for communicating the requirements of the EMS to the University community, continually improving the EMS through the process of Plan–Do–Check–Act, and providing routine status reporting to the Leadership Team.

2.3 Membership

The Implementation Team includes the following members:

- Director of Environmental Occupational Health and Safety;
- Aaron Baltimore, Executive Director of Physical Facilities Management;
- Joey Henderson, Emergency Manager, Department of Public Safety;
- Anita English, Assistant Secretary for University Operations and Director of Policy Management;
- Zachary Shapiro, Esq., Associate General Counsel, Litigation and Agency Claims;
- Rawle Howard, Executive Director, Office of Procurement & Contracting;
- Derrek Niec-Williams, Executive Director of Campus Planning, Department of Real Estate Development); and
- Other members, as appropriate.

2.4 Responsibilities

The Leadership Team has given the Implementation Team the necessary responsibility and the requisite authority to implement the EMS (ISO 14001: 2015, Clause 5.3). Specifically, they have granted the responsibility and authority to:

- Ensure that the EMS conforms to ISO 14001:2015, to the extent practicable within the context of Howard University; and
- Report on the performance of the EMS and environmental performance to the Leadership Team on a regular basis.

The Implementation Team routinely updates the Leadership Team, informing them of progress, obstacles, resource requirements, and participation rates.

3.0 POLICIES AND PROCEDURES

3.1 Environmental Policy

The EMS Leadership Team established an Environmental Policy and facilitated the acceptance of that policy through the University Policy Office, which oversees the review and approval process for Howard University policy (ISO 14001: 2015, Clause 5.2). The EMS Leadership Team, in conjunction with the University Policy Council, will maintain the Environmental Policy, communicate it within the university, and make it available to interested parties.

The policy statement portion of this Environmental Policy is included below. The full policy, including responsible parties, effective date, rationale, entities affected by the policy, definitions, roles and responsibilities, sanctions, and resources, can be found at www.howard.edu/policy.

POLICY STATEMENT

Howard University (the "University") is committed to protecting the environment, preventing pollution, and creating a sustainable environment. This is reinforced in the University's strategic plan, *Howard Forward*, with a commitment to use technology to "exceed standards for sustainability and environmental stewardship."

The University takes reasonable, practical measures to integrate environmental considerations into decision-making associated with its research, educational, and facility management efforts, including:

- Identify and comply with Howard University's environmental compliance obligations, including all appropriate environmental legislation, regulations, and other requirements.
- Implement, maintain, and continually improve the University's Environmental Management System (EMS), guided by the principles of International Standards Organization (ISO) standard 14001:2015 to enhance environmental performance.
- Provide appropriate information, training and guidance to faculty, staff, students, and other University stakeholders to promote awareness of and compliance with environmental requirements and regulations.
- Maintain robust contingency plans to minimize the impact of foreseeable environmental incidents.
- Promptly report all accidents and/or incidents which could lead to pollution.
- Communicate this Environmental Policy to the University community and provide public access to the Policy.

Provide the appropriate leadership, management, and resources to implement this Environmental Policy (the "Policy").

3.2 Context of the Organization

Established in 1867, Howard University is one of the nation's Historically Black Colleges and Universities with a proud heritage of commitment to the education and advancement of underrepresented populations in the United States and across the globe. Today, the university's student body exceeds 9,000, drawn from virtually every state, the District of Columbia, and more than 60 countries. Howard students are enrolled in undergraduate, graduate, professional, and joint degree programs spanning more than 80 areas of study within 13 schools and colleges, taught by more than 1,000 faculty members.

As the only truly comprehensive predominantly Black University in the United States, Howard has long been one of the major catalysts of change in our society. Over the 150 years since its founding, Howard has awarded more than 125,000 degrees and certificates in the arts, sciences, and the humanities. The university traditionally has been home to the largest gathering of Black scholars in the world. It is a national treasure.

From a single-frame building in 1867 on a three-acre plot of land in northwest Washington, DC, the university has evolved to occupy more than 250 acres, now including the six-story, 400-bed Howard University Hospital, the School of Law West Campus, the School of Divinity East Campus, and the 1.8 million-volume library system. The University's Moorland-Spingarn Research Center (MSRC) is recognized as one of the world's largest and most comprehensive repositories for the documentation of the history and culture of people of African descent in Africa, the Americas and other parts of the world.

Howard University is led by Wayne A. I. Frederick, M.D., MBA, the 17th President of Howard University. Appointed President in 2014, Dr. Frederick's personal story embodies the mission of Howard University and he has dedicated himself to renewing his alma mater's commitment to academic excellence, thereby continuing the university's legacy as a world-class academic and research institution. As part of his commitment, Dr. Frederick led the development of a five-year strategic plan, *2019-2024 Howard Forward*. Dr. Tashni-Ann Dubroy, Executive Vice President and COO, supported this enterprise-wide strategic planning process and has a pivotal role in the execution of objectives under *Howard Forward's* five over-arching priorities. Since Dr. Dubroy's appointment in 2017, university operations have been optimized with a focus on sustainability and environmental stewardship. Most recently, key hires of the Administration have included the appointment of a Director of Environmental Occupational Health and Safety in 2018 and the appointment of the university's first Emergency Manager in 2020. The cumulative effect of these appointments under Dr. Dubroy's leadership and initiatives under *Howard Forward* demonstrates Howard University's commitment to the highest level of environmental compliance and stewardship.

3.2.1 Environmental Issues

While the strategic planning process involved in *Howard* Forward anticipates future conditions, all possible environmental issues cannot be predicted with certainty. In anticipating environmental issues that could possibly affect the achievement of the intended outcomes of the EMS, the following issues were identified:

- Personnel in leadership roles focused on regulatory compliance;
- Appropriate staffing to support the Environmental Health and Safety (EHS), Emergency Management, and Physical Facilities to ensure regulatory compliance;
- Appropriate environmental training across departments;
- Limited financial resources;
- Various groups within the organization that impact regulatory compliance require careful coordination;
- Expectations of students, alumni, faculty, and staff regarding the university's environmental responsibility;
- The dynamic nature of any university campus, with continual modification, development, and improvement to address changing needs;
- Public scrutiny of Howard University's activities;
- The complexity of navigating higher education requirements;
- Navigating the federal and local environmental regulatory systems;
- An aging physical plant affected by years of deferred maintenance; and
- The effect of extreme weather events (e.g., a polar vortex) on the university's aging buildings.

3.2.2 Stakeholders

The following entities, groups, organizations, and/or individuals both from within and external to Howard University are considered key stakeholders in the EMS:

- Office of the President;
- Office of the Chief Operating Officer;
- Office of the Chief Financial Officer;
- Board of Trustees;
- Office of the Provost;
- Office of the General Counsel;
- Department of Environmental Health and Safety (EHS);
- Physical Facilities Management Office (PFM);
- Real Estate Development & Capital Asset Management (REDCAM);

- Office of Procurement & Contracting (OPC);
- Faculty;
- Researchers;
- Staff;
- Students;
- Alumni;
- Vendors;
- University-affiliated organizations and associations;
- Adjacent land holders; and
- Regulatory Agencies
    - DOEE
    - DC Water
    - US EPA.

3.2.3 EMS Boundaries

Howard University's EMS will address applicable components of the ISO 14001:2015 standard. The boundaries, or limits, to the EMS are described below.

3.2.3.1. Physical Boundaries

The EMS will cover all activities conducted on Howard University-owned property, including the main campus, the Law School, and any additional property for which Howard University is identified as the responsible party. The EMS will not cover Howard University Hospital.

3.2.3.2. Organizational Boundaries

The EMS will be compliance-focused and cover all activities conducted by the Howard University faculty, researchers, staff, students, and volunteers. The EMS will not cover Howard University vendor, contractor activities, or adjacent landowners.

3.3 Communication Plan

Clear, effective, documented communication is essential to the success of the EMS and successful environmental compliance and stewardship. Different communication approaches to appeal to the various key stakeholder groups will be in place, depending on whether or not that communication is internal to Howard University or involves outside parties.

3.3.1 Internal Communication

Strategies are identified for communication among EMS Implementation Team members and for communication between the Implementation Team members and the larger group of EMS stakeholders.

3.3.1.1. Among Implementation Team Members

To ensure that Implementation Team members communicate all necessary information efficiently and in a timely manner, a number of strategies are identified below:

- Issues with the potential to affect environmental compliance that are identified by any EMS Implementation Team member (e.g., real estate, procurement) will be communicated directly to the EHS Team, along with any other pertinent member(s).
- The EHS Team will notify EMS Implementation Team members of compliance responsibilities, as identified in the EMS Compliance Tool. This notification will occur with sufficient time for response. In the event that a response is not received within a reasonable time frame, the issue will be elevated, first to the Office of General Counsel and then to the Chief Operating Officer.
- Whenever possible, communication of environmental issues should occur using electronic mail, to provide proper documentation. In the event that information is conveyed verbally, a confirmation email documenting the conversation will be sent to all parties.

3.3.1.2. Monthly Interdepartmental Environmental Briefing

In order to facilitate communication between those departments most likely to identify and respond to environmental issues, a monthly interdepartmental environmental briefing will be established. This meeting, which can occur in person, via video conferencing, or via phone, will include, at a minimum, representatives from:

- Department of Environmental Health and Safety (EHS);
- Physical Facilities Management Office (PFM);
- Real Estate Development & Capital Asset Management (REDCAM);
- Office of Procurement & Contracting (OPC);
- Office of the General Counsel (OGC); and
- Risk Management.

This briefing will be an open meeting; participants from departments across Howard University, including any invited vendors or contractors, will be welcome to attend; if university-sensitive information is to be discussed (e.g., confidential development plans), the meeting's attendees may be limited as appropriate. Active members of the Implementation Team will be invited to attend all briefings.

The EHS Team, or other designee of the Chief Operating Officer, will take the lead in scheduling the briefing and, as appropriate, forward any agenda in advance of the meeting and/or communicate any relevant outcomes or action items to interested parties.

3.3.1.3. Howard University General Stakeholders

It is the responsibility of all EMS Stakeholders to ensure that environmental issues, questions, and compliance issues are ultimately routed to EHS. Concerns raised throughout the university will be directed to the EMS Team in any of the following manners:

- Direct communication with a member of the EMS Implementation Team, who will then notify EHS;
- Direct communication with staff in EHS; or
- https://ehs.howard.edu/contact.

The EHS Team will be responsible for documenting communications and disseminating all relevant information to the required parties at Howard University.

3.3.2 External Communication

There are a number of key stakeholders that are external to Howard University. Strategies are identified for communication coming from outside Howard University to the EMS Implementation Team/EHS and for information going from the EMS Implementation Team/EHS to individuals and/or organizations outside of Howard University.

3.3.2.1. Communication into Howard University

An individual or organization outside of Howard University could contact the EMS Implementation Team or EHS with an environmental issue or concern through the Office of External Affairs' Community Association: (https://www2.howard.edu/external-affairs/contact).

It is the responsibility of the EHS Team to ensure that individuals monitoring this external point of contact are advised to direct all concerns about environmental issues to EHS. The EHS Team is further responsible for forwarding all concerns to the appropriate department for follow-up (e.g., real estate, facilities).

3.3.2.2. Communication from Howard University

There are a number of reasons that the EMS Implementation Team or EHS might need to communicate with individuals or organizations outside of Howard University, such as public notifications or press releases. All messaging should be coordinated with EHS for fact-checking and through the Offices of University Communication and External Affairs, as appropriate.

3.4 Compliance Obligations

Consistent with ISO 14001: 2015, Clause 6.1.3, Howard University has developed an EMS Compliance Tool. This tool, developed in Microsoft Excel, identifies and documents all Compliance Obligations, required actions, responsible parties, schedules, escalation of identified issues, and the university's current status towards meetings those obligations. General Compliance Obligations include:

- Hazardous Waste
    - 40 CFR 462.13
    - 40 CFR 462.18
    - 40 CFR 462.20
    - 40 CFR 462.40
    - 40 CFR 462.41
    - 40 CFR 262 Subpart K
    - DCMR Title 20 Chapter 20 4204.1
    - DCMR Title 20 Chapter 20 4206.1
    - DCMR Title 20 Chapter 20 4206.2
- Underground and Above Ground Storage Tanks
    - DCMR Title 20 Chapter 56 5601.2
    - DCMR Title 20 Chapter 56 5601.11
    - DCMR Title 20 Chapter 56 5602.4
    - DCMR Title 20 Chapter 56 6003.1
- Spill Prevention, Control, and Countermeasures
    - 40 CFR 112.1 (d)(2)(ii)
- Air
    - Title V Permit requirements
- Stormwater and Wastewater
    - 40 CFR § 122.26
    - 40 CFR 122.21
    - DCMR Title 21 Chapter 15 1504
    - DCMR Title 21 Chapter 15 1509

Compliance obligations change over time, either through changing regulations or through new compliance requirements in issued permits. The EHS Team will be responsible for maintaining the EMS Compliance Tool, or some similar tool, on an ongoing basis to track all current compliance

obligations at Howard University continually. The Compliance Obligations identified in the Compliance Tool will be reviewed for completeness and accuracy on a routine basis – at a minimum, annually. Updates will be made whenever necessary, either as a result of an annual review or when one or more Compliance Obligations change.

3.5 Significant Environmental Aspects

A comprehensive list of ways in which Howard University interacts with the environment is presented below. This list is prioritized such that the largest potential impacts are listed first.

- Steam generation – temporary boilers
- Power and steam generation – planned CHP under design/build by Engie
- Emergency Generators
- Fuel Storage
    - Underground storage tanks
    - Above ground storage tanks
- Stormwater
    - Construction-related
    - Operational
- Hazardous material generation
    - College of Medicine
    - Cancer Center
    - College of Dentistry
    - Research labs (IRB)
    - Chemistry Department
    - College of Engineering
    - Physical Facilities
    - Fine arts
    - Biology
    - Pharmacy
- Waste water discharge
    - Sanitary sewer
    - Combined Sewer manholes (e.g., temporary boilers)
- Construction
- Solid/universal waste disposal

- Snow/ice removal and management
- Radioactive material (research and education)

3.6 Environmental Objectives

Howard University identified measurable Environmental Objectives, associated with the university's environmental aspects and compliance obligations; they are presented in Table 1, below. The EMS Compliance Tool identifies and documents all required actions, responsible parties, schedules, escalation of identified issues, and the university's current status towards meetings those Environmental Objectives.

Table 1 – Environmental Objectives

Compliance Category	Regulatory Citation (as applicable)	Environmental Objective
Hazardous Waste Permitting	40 CFR 262.13	A generator must determine its generator category. A generator's category is based on the amount of hazardous waste generated each month and may change from month to month. This section sets forth procedures to determine whether a generator is a very small quantity generator, a small quantity generator, or a large quantity generator for a particular month.
Hazardous Waste Permitting	40 CFR 262.18	(a) A generator must not treat, store, dispose of, transport, or offer for transportation hazardous waste without having received an EPA identification number from the Administrator. (d) (2) A large quantity generator must re-notify EPA by March 1 of each even-numbered year thereafter using EPA Form 8700-12. A large quantity generator may submit this re-notification as part of its Biennial Report required under §262.41.
Hazardous Waste Permitting	40 CFR 262.20	(a)(1) A generator that transports, or offers for transport a hazardous waste for offsite treatment, storage, or disposal, or a treatment, storage, or disposal facility that offers for transport a rejected hazardous waste load, must prepare a Manifest (OMB Control number 2050-0039) on EPA Form 8700-22, and, if necessary, EPA Form 8700-22A.
Hazardous Waste Permitting	40 CFR 262.40	(a) A generator must keep a copy of each manifest signed in accordance with §262.23(a) for three years or until he receives a signed copy from the designated facility which received the waste. This signed copy must be retained as a record for at least three years from the date the waste was accepted by the initial transporter. (b) A generator must keep a copy of each Biennial Report and Exception Report for a period of at least three years from the due date of the report.
Hazardous Waste Permitting	40 CFR 262.41	(a) A generator which is a large quantity generator for at least one month of an odd-numbered year (reporting year) who ships any hazardous waste off-site to a treatment, storage or disposal facility within the United States must complete and submit EPA Form 8700-13 A/B to the Regional Administrator by March 1 of the following even-numbered year and must cover generator activities during the previous year.
Hazardous Waste Permitting	Title 20 Chapter 20 4204.1	Except as provided in § 4204.2, each person required by the Standards for the Management of Hazardous Waste and Used Oil (20 DCMR chapter 42) to comply with the notification requirements of § 3010 of RCRA, 42 USC § 6930 (notification of regulated waste activity), and to obtain an EPA identification number shall do so by submitting to the

Table 1 – Environmental Objectives

Compliance Category	Regulatory Citation (as applicable)	Environmental Objective
		Director a completed EPA Form 8700-12 (RCRA Subtitle C Identification Form).
Hazardous Waste Permitting	Title 20 Chapter 20 4206.1	Each generator of hazardous waste or used oil handler shall keep on-site all records required to be kept under the Hazardous Waste Management Regulations, 20 DCMR Chapters 42 and 43.
Hazardous Waste Permitting	Title 20 Chapter 20 4206.2	Whenever the RCRA regulations in 40 CFR Parts 124, 260 through 266, 268, 270, 273, and 279 require that a document be sent to EPA, DOT, or another federal agency, the person required to send the document to EPA, DOT, or other federal agency shall, at the same time, send a copy to the Department's Hazardous Waste Division.
Underground/ Above Ground Storage Tank Permitting	Title 20 Chapter 56 5601.2	An owner of an existing underground storage tank or tanks containing a regulated substance shall have registered each tank with the Director and shall have paid the required fee, as provided in § 5601.9.
Underground/ Above Ground Storage Tank Permitting	Title 20 Chapter 56 5601.11	A copy of the current registration certificate shall be posted in a visible location at the facility at all times.
Underground/ Above Ground Storage Tank Permitting	Title 20 Chapter 56 5602.4	Each owner or operator shall maintain the following records and information for each facility, in accordance with the provisions of this chapter: (a) Documentation of the operation of corrosion protection equipment (§ 5901); (b) Documentation of UST system repairs (§ 5902); (c) Recent record of compliance with release detection requirements (§ 6001); and (d) Results of the site investigation conducted at permanent closure (§ 6101).
Underground/ Above Ground Storage Tank Permitting	Title 20 Chapter 56 6003.1	Each owner or operator of a petroleum UST system shall provide release detection for tanks in accordance with the provisions of this section, except as provided elsewhere in Chapter 60.
Spill Prevention, Control, and Countermeasure	40 CFR 112.1 (d)(2)(ii)	SPCC required if the aggregate aboveground storage capacity of the facility is greater than 1,320 gallons
Air Permitting	Title V Operating Permit Condition A3; 20 DCMR 606.3	Stationary source fuel burning and pollution control equipment must be operated and maintained in a manner to minimize emissions.
Air Permitting	Title V Operating Permit Condition A5; 20 DCMR 801	The permittee shall not purchase, sell or store fuel oil that is to be burned at the facility that contains more than 1% sulfur by weight
Air Permitting	Title V Operating Permit Condition A8; 20 DCMR 902*	The permittee shall ensure that gasoline sold at the facility should contain no more than one gram of lead per gallon
Air Permitting	Title V Operating Permit Condition B1a; 20 DCMR 200.2	Boilers CU-1, CU-3 & CU-4 must burn only natural gas and #2 fuel oil
Air Permitting	Title V Operating Permit Condition B1b; 40 CFR 60.42b(a) & District permit #3869	The permittee shall store or use #2 fuel oil that contains no greater than 0.5% sulfur by weight and 0.05% nitrogen by weight
Air Permitting	Title V Operating Permit Condition B1c; 20 DCMR 600.1 and therefore compliant with 40 CFR	Particulate matter emission from each boiler, CU-1, CU-3 and CU-4 shall not be greater than 0.05 pound per million Btu

Table 1 – Environmental Objectives

Compliance Category	Regulatory Citation (as applicable)	Environmental Objective
	60.43b.	
Air Permitting	Title V Operating Permit Condition B1d; 40 CFR 60.44b and therefore compliant with 20 DCMR 805.5(c)	NOx emission limit must not be greater than 0.20 pound per million BTU
Air Permitting	Title V Operating Permit Condition B1e; 20 DCMR 606.1	The permittee must certify and operate a (CEMS) for opacity. No visible emissions shall be emitted into the outdoor atmosphere from boilers CU-1, CU-3 and CU-4; except that no greater than 40% opacity (unaveraged) shall be permitted for two minutes per hour and an aggregate of twelve minutes per 24-hour period during start-up, cleaning, soot blowing, adjustment of combustion controls, or malfunction of boilers CU-1, CU-3, and CU-4
Air Permitting	Title V Operating Permit Condition B1f; 20 DCMR 502	A quarterly sampling of fuel oil for sulfur content and other parameters.
Air Permitting	Title V Operating Permit Condition B2a; 20 DCMR 200.2	The permittee must fire only natural gas, #2 or #4 oil in boilers numbers CU-5 through CU-7, CU-16 & CU-17
Air Permitting	Title V Operating Permit Condition B2b; 20 DCMR 500	The permittee must keep a log of fuel usage, specifying type and amount used & Quality Assurance
Air Permitting	Title V Operating Permit Condition B3a; 20 DCMR 200.11	The permittee must fire only natural gas, #2 or #4 oil in boilers numbers CU-8 through CU-15
Air Permitting	Title V Operating Permit Condition B4c; 20 DCMR 805.1(c)(2)*	Each of the generators must operate less than 500 hours per any consecutive twelve-month period
Air Permitting	Title V Operating Permit Condition B5a; 20 DCMR 708.1	Cold Solvent Degreaser Equipment Requirements
Air Permitting	Title V Operating Permit Condition B5b; 20 DCMR 708.5	Equipment Operation Requirements
Air Permitting	Title V Operating Permit Condition B6; Plant-wide Emission Limits	The permittee must ensure that annual plant-wide emissions shall not exceed the following limits: 115.7 tons sulfur dioxide (SO2), 43.8 tons nitrogen oxides (NOx), 40.7 tons volatile organic carbon (VOC), 19.8 tons particulate matter (PM10), 30.2 tons PM and 110.9 tons carbon monoxide (CO) per District permit #3869. Emissions shall be computed on a rolling 12-month basis using data from all sources of emission including CEMS (for units CU-1, CU-3 & CU- 4), fuel, coatings and solvent use data for small boilers, emergency generators and other emission units identified in Section B of this permit
Air Permitting	Title V Operating Permit Condition D1; 20 DCMR 302.1(c)(B)	Monitoring Requirements
Air Permitting	Title V Operating Permit Condition D2	Certify and operate CEMS
Air Permitting	Title V Operating Permit Condition D3	Maintain records of plant-wide emissions
Air Permitting	Title V Operating Permit Condition E1; 20 DCMR	Semi-Annual Report

Table 1 – Environmental Objectives

Compliance Category	Regulatory Citation (as applicable)	Environmental Objective
	302.1(c)(3)(a)&(B)	
Air Permitting	Title V Operating Permit Condition E2; 20 DCMR 302.3(e)	Annual Certification Report
Air Permitting	Title V Operating Permit Condition E4; 20 DCMR 302.1(c)(3)(c)	Notifications and Supplemental Reports
Air Permitting	Title V Operating Permit Condition E4a; 20 DCMR 399.1]	Emergency Written Notice
Air Permitting	Title V Operating Permit Condition E4b; 20 DCMR 302.1 (c)(3)(C)(ii)	The permittee must immediately report any permit deviation that poses an imminent and substantial danger to public health, safety or the environment
Air Permitting	Title V Operating Permit Condition E4c; 20 DCMR 302.8 302.9(b-d)	Provide written of changes in operation.
Air Permitting	Title V Operating Permit Condition F1; 20 DCMR 302.1(c)(2)(A)(I-vi)	Record-Keeping Requirements
Air Permitting	Title V Operating Permit Condition F2; 20 DCMR 302.1(c)(2)(B)	The permittee must keep and maintain records of all testing results, monitoring information, records and reports required by this permit for a period of at least five years from the date of such test, monitoring sample, measurements or report
Air Permitting	Title V Operating Permit Condition F3; 40 CFR 60 Appendix B & F	Maintain all CEMS and Quality Assurance Data
Air Permitting	Title V Operating Permit Condition H; 20 DCMR 302.1(h)	Permitting fee payments.
Air Permitting	Title V Operating Permit Condition M; 20 DCMR 200 and 300	Construction permits are required for the installation or modification of air emission or control equipment.
Air Permitting	Title V Operating Permit Condition X; 40 CFR 82 & 20 DCMR 399.1	Protection of Stratospheric Ozone
Air Permitting	40 CFR 60, Subpart JJJJ	Standards of Performance for Stationary Spark Ignition Internal Combustion Engines
Air Permitting	40 CFR 60, Subpart Dc	NSPS for Small Industrial-Commercial-Institutional Steam Generating Units: Opacity, Operating Hours and Maintenance Records and Fuel Certification Requirements
Air Permitting	40 CFR 63, Subpart ZZZZ	Emergency generator management practices and maintenance requirement.
Air Permitting	40 CFR 63, Subpart CCCCCC	NESHAP for Gas line Dispensing Facilities
Air Permitting	40 CFR 63, Subpart JJJJJJ	NESHAP for Industrial, Commercial, and Institutional Boilers Area Sources
Stormwater and Wastewater Permitting	40 CFR § 122.26	Storm water discharges Operators shall be required to obtain an NPDES permit for storm water discharge associated with construction activities.
Stormwater and Wastewater	40 CFR 122.21	Individual Permit NPDES permits required for discharges that do not meet the conditions

Table 1 – Environmental Objectives

Compliance Category	Regulatory Citation (as applicable)	Environmental Objective
Permitting		of general permits.
Stormwater and Wastewater Permitting	DCMR Title 21 Chapter 15 1504	Non-Significant Non-Categorical Industrial User Wastewater Discharge Permit This type of permit is issued to minor industrial/commercial businesses and government agencies that have less than 25,000 gallons per day of process flow and are specifically designated by DC Water due to the type of business, characteristics of the discharge, or presence of pretreatment facilities. Businesses with the contaminated non-wastewater flow may also be issued this type of permit if discharging less than 25,000 gpd. These permits are valid for three years.
Stormwater and Wastewater Permitting	DCMR Title 21 Chapter 15 1509	Temporary Discharge Authorization Permits Businesses and government agencies that meet the following criteria may be required to have a Temporary Discharge Authorization Permit: - Users with temporary construction dewatering - Users with temporary discharges from groundwater remediation - Users with temporary discharges that are directed to a catch basin or manhole in public space - Users with temporary discharges on private property that involve high volume discharges or contain chemicals of concern

3.7 Operational Controls

Howard University established the processes (i.e., Environmental Controls) needed to meet the Environmental Objectives defined as part of the EMS. Full details of these processes, such as responsible parties, implementation dates, issue escalation, etc., are described and documented in the EMS Compliance Tool. A summary of these Environmental Controls is presented in Table 2, below.

Table 2 – Environmental Controls

Compliance Category	Regulatory Citation (as applicable)	Environmental Objective	Operational Control
Hazardous Waste Permitting	40 CFR 262.13	A generator must determine its generator category. A generator's category is based on the amount of hazardous waste generated each month and may change from month to month. This section sets forth procedures to determine whether a generator is a very small quantity generator, a small quantity generator, or a large quantity generator for a particular month.	Biennial review of generator status to determine if Howard University is a very small, small, or large quantity generator.
Hazardous Waste Permitting	40 CFR 262.18	(a) A generator must not treat, store, dispose of, transport, or offer for transportation hazardous waste without having received an EPA identification number from the Administrator. (d) (2) A large quantity generator must re-notify EPA by March 1 of each even-numbered year thereafter using EPA Form 8700-12. A large quantity generator may submit this re-notification as part of its Biennial Report required under §262.41.	Biennial reporting for hazardous waste

Table 2 – Environmental Controls

Compliance Category	Regulatory Citation (as applicable)	Environmental Objective	Operational Control
Hazardous Waste Permitting	40 CFR 262.20	(a)(1) A generator that transports, or offers for transport a hazardous waste for offsite treatment, storage, or disposal, or a treatment, storage, or disposal facility that offers for transport a rejected hazardous waste load, must prepare a Manifest (OMB Control number 2050-0039) on EPA Form 8700-22, and, if necessary, EPA Form 8700-22A.	Quarterly file review to ensure complete and accurate records of all manifests generated by contracted hazardous waste transporters.
Hazardous Waste Permitting	40 CFR 262.40	(a) A generator must keep a copy of each manifest signed in accordance with §262.23(a) for three years or until he receives a signed copy from the designated facility which received the waste. This signed copy must be retained as a record for at least three years from the date the waste was accepted by the initial transporter. (b) A generator must keep a copy of each Biennial Report and Exception Report for a period of at least three years from the due date of the report.	Quarterly file review to ensure complete and accurate records of all manifests generated by contracted hazardous waste transporters and biennial reports.
Hazardous Waste Permitting	40 CFR 262.41	(a) A generator which is a large quantity generator for at least one month of an odd-numbered year (reporting year) who ships any hazardous waste off-site to a treatment, storage, or disposal facility within the United States must complete and submit EPA Form 8700-13 A/B to the Regional Administrator by March 1 of the following even-numbered year and must cover generator activities during the previous year.	Quarterly file review to ensure complete and accurate records of required biennial reports.

Table 2 – Environmental Controls

Compliance Category	Regulatory Citation (as applicable)	Environmental Objective	Operational Control
Hazardous Waste Permitting	Title 20 Chapter 20 4204.1	Except as provided in § 4204.2, each person required by the Standards for the Management of Hazardous Waste and Used Oil (20 DCMR chapter 42) to comply with the notification requirements of § 3010 of RCRA, 42 USC § 6930 (notification of regulated waste activity), and to obtain an EPA identification number shall do so by submitting to the Director a completed EPA Form 8700-12 (RCRA Subtitle C Identification Form).	Annual file review to ensure complete and accurate records. Ensure that all required copies of EPA Form 8700-12 have been submitted and that EPA ID# DCD106341449 issued for LQG
Hazardous Waste Permitting	Title 20 Chapter 20 4206.1	Each generator of hazardous waste or used oil handler shall keep on-site all records required to be kept under the Hazardous Waste Management Regulations, 20 DCMR Chapters 42 and 43.	Annual file review to ensure complete and accurate records of all manifests generated by contracted hazardous waste transporters and biennial reports.
Hazardous Waste Permitting	Title 20 Chapter 20 4206.2	Whenever the RCRA regulations in 40 CFR Parts 124, 260 through 266, 268, 270, 273, and 279 require that a document be sent to EPA, DOT, or another federal agency, the person required to send the document to EPA, DOT, or other federal agency shall, at the same time, send a copy to the Department's Hazardous Waste Division.	Annual file review to ensure complete and accurate records of all manifests generated by contracted hazardous waste transporters and biennial reports.
Underground/ Above Ground Storage Tank Permitting	Title 20 Chapter 56 5601.2	An owner of an existing underground storage tank or tanks containing a regulated substance shall have registered each tank with the Director and shall have paid the required fee, as provided in § 5601.9.	Semi-annual record check to confirm all UST registrations are current
Underground/ Above Ground Storage Tank Permitting	Title 20 Chapter 56 5601.11	A copy of the current registration certificate shall be posted in a visible location at the facility at all times.	Semi-annual confirmation that all USTs registrations are posted and visible

Table 2 – Environmental Controls

Compliance Category	Regulatory Citation (as applicable)	Environmental Objective	Operational Control
Underground/ Above Ground Storage Tank Permitting	Title 20 Chapter 56 5602.4	Each owner or operator shall maintain the following records and information for each facility, in accordance with the provisions of this chapter: (a) Documentation of the operation of corrosion protection equipment (§ 5901); (b) Documentation of UST system repairs (§ 5902); (c) Recent record of compliance with release detection requirements (§ 6001); and (d) Results of the site investigation conducted at permanent closure (§ 6101).	Semi-annual record checks to confirm complete and accurate records of system repairs, release detection, and closures.
Underground/ Above Ground Storage Tank Permitting	Title 20 Chapter 56 6003.1	Each owner or operator of a petroleum UST system shall provide release detection for tanks in accordance with the provisions of this section, except as provided elsewhere in Chapter 60.	Conduct tank tightness testing on all heating oil USTs
Spill Prevention, Control, and Countermeasure	40 CFR 112.1 (d)(2)(ii)	SPCC required if the aggregate aboveground storage capacity of the facility is greater than 1,320 gallons	Retain consultant to prepare SPCC Conduct an annual review of SPCC to ensure accurate and complete Fuel leak visual inspections per SPCC plan, fuel tanks and fuel lines, and SPCC Plan annual training
Air Permitting	Title V Operating Permit Condition A3; 20 DCMR 606.3	Stationary source fuel burning and pollution control equipment must be operated and maintained in a manner to minimize emissions.	Quarterly file review to confirm stationary source fuel burning and pollution control equipment is operated and maintained in a manner to minimize emissions
Air Permitting	Title V Operating Permit Condition A5; 20 DCMR 801	The permittee shall not purchase, sell or store fuel oil that is to be burned at the facility that contains more than 1% sulfur by weight	One time review of all prior fuel delivery tickets Analysis of boiler plant's UST contents Obtain fuel oil certification - each shipment Annual notification to fuel vendors: specification of required fuel type
Air Permitting	Title V Operating Permit Condition A8; 20 DCMR 902*	The permittee shall ensure that gasoline sold at the facility should contain no more than one gram of lead per gallon	NA – gasoline is not currently sold at Howard University
Air Permitting	Title V Operating Permit Condition B1a; 20 DCMR 200.2	Boilers CU-1, CU-3 & CU-4 must burn only natural gas and #2 fuel oil	NA – these boilers are not currently operational
Air Permitting	Title V Operating Permit Condition B1b; 40 CFR 60.42b(a) & District permit #3869	The permittee shall store or use #2 fuel oil that contains no greater than 0.5% sulfur by weight and 0.05% nitrogen by weight	Posting requirements, Fuel Use Best Practices, Boiler Permits

Table 2 – Environmental Controls

Compliance Category	Regulatory Citation (as applicable)	Environmental Objective	Operational Control
Air Permitting	Title V Operating Permit Condition B1c; 20 DCMR 600.1 and therefore compliant with 40 CFR 60.43b.	Particulate matter emission from each boiler, CU-1, CU-3, and CU-4 shall not be greater than 0.05 pound per million Btu	NA – these boilers are not currently operational
Air Permitting	Title V Operating Permit Condition B1d; 40 CFR 60.44b and therefore compliant with 20 DCMR 805.5(c)	NOx emission limit must not be greater than 0.20 pound per million BTU	NA – these boilers are not currently operational
Air Permitting	Title V Operating Permit Condition B1e; 20 DCMR 606.1	The permittee must certify and operate a (CEMS) for opacity. No visible emissions shall be emitted into the outdoor atmosphere from boilers CU-1, CU-3 and CU-4; except that no greater than 40% opacity (unaveraged) shall be permitted for two minutes per hour and an aggregate of twelve minutes per 24-hour period during start-up, cleaning, soot blowing, adjustment of combustion controls, or malfunction of boilers CU-1, CU-3, and CU-4	NA – these boilers are not currently operational
Air Permitting	Title V Operating Permit Condition B1f; 20 DCMR 502	A quarterly sampling of fuel oil for sulfur content and other parameters.	NA – these boilers are not currently operational
Air Permitting	Title V Operating Permit Condition B2a; 20 DCMR 200.2	The permittee must fire only natural gas, #2 or #4 oil in boilers numbers CU-5 through CU-7, CU-16 & CU-17	NA – these boilers are not currently operational
Air Permitting	Title V Operating Permit Condition B2b; 20 DCMR 500	The permittee must keep a log of fuel usage, specifying type and amount used & Quality Assurance	NA – these boilers are not currently operational
Air Permitting	Title V Operating Permit Condition B3a; 20 DCMR 200.11	The permittee must fire only natural gas, #2 or #4 oil in boilers numbers CU-8 through CU-15	NA – these boilers are not currently operational

Table 2 – Environmental Controls

Compliance Category	Regulatory Citation (as applicable)	Environmental Objective	Operational Control
Air Permitting	Title V Operating Permit Condition B4c; 20 DCMR 805.1(c)(2)*	Each of the generators must operate less than 500 hours per any consecutive twelve-month period	Ensure generators are operated less than 500 hours per consecutive 12-month period
Air Permitting	Title V Operating Permit Condition B5a; 20 DCMR 708.1	Cold Solvent Degreaser Equipment Requirements	Semi-annual file review to ensure that cold solvent degreasers are used to clean air emissions equipment
Air Permitting	Title V Operating Permit Condition B5b; 20 DCMR 708.5	Equipment Operation Requirements	Semi-annual file review to ensure that air emissions equipment operations requirements are met
Air Permitting	Title V Operating Permit Condition B6; Plant-wide Emission Limits	The permittee must ensure that annual plant-wide emissions shall not exceed the following limits: 115.7 tons sulfur dioxide (SO2), 43.8 tons nitrogen oxides (NOx), 40.7 tons volatile organic carbon (VOC), 19.8 tons particulate matter (PM10), 30.2 tons PM and 110.9 tons carbon monoxide (CO) per District permit #3869. Emissions shall be computed on a rolling 12-month basis using data from all sources of emission including CEMS (for units CU-1, CU-3 & CU- 4), fuel, coatings and solvent use data for small boilers, emergency generators and other emission units identified in Section B of this permit	Calculation of university-wide emissions to ensure that limits are not exceeded on a rolling 12-month basis. For surface painting operations and degreasing, maintain records showing the name of chemical compounds in solvents, reagents, coatings, and other substances used in these activities. VOC's content and quantity of solvents used.
Air Permitting	Title V Operating Permit Condition D1; 20 DCMR 302.1(c)(B)	Monitoring Requirements	Sample and test fuel oil used in all fuel-burning equipment and emergency generators to determine: the fuel's grade, API Gravity at 60 degrees Fahrenheit, heat content in BTUs per gallon, and the weight percent sulfur and nitrogen of the oil. Alternatively, obtain the test results from the fuel oil supplier at the time of delivery. Conduct weekly observations of emissions from each emission unit that is not monitored by continuous opacity devices. If emissions are visible, report the occurrence to the District and make arrangements for opacity observations by a certified person. Conduct a minimum of one visible emissions test Method 9 for all boilers (Service Center, Law School, Temporaries, and Steam Plant)

Table 2 – Environmental Controls

Compliance Category	Regulatory Citation (as applicable)	Environmental Objective	Operational Control
			Provide the District with written notification at least ten days prior to a required annual [visible emission] test so that air quality enforcement personnel can observe on-site testing
			Log time firing and quantity of fuel used within the boiler and emergency generators
Air Permitting	Title V Operating Permit Condition D2	Certify and operate CEMS	NA – steam boilers are not currently operational
Air Permitting	Title V Operating Permit Condition D3	Maintain records of plant-wide emissions	Maintain all testing results, monitoring information, records, and reports required by permit for five years from the date of the activity/ report
Air Permitting	Title V Operating Permit Condition E1; 20 DCMR 302.1(c)(3)(a)&(B)	Semi-Annual Report	Submit a semi-annual report to DOEE outlining all Title V required testing, reports, maintenance, correspondence, fuel-burning logs, oil analysis results, and CEMS information from January through June of the current year.
Air Permitting	Title V Operating Permit Condition E2; 20 DCMR 302.3(e)	Annual Certification Report	Submit an annual report to DOEE and USEPA outlining all Title V required testing, reports, maintenance, correspondence, fuel-burning logs, oil analysis results and CEMS information from the previous year.
Air Permitting	Title V Operating Permit Condition E4; 20 DCMR 302.1(c)(3)(c)	Notifications and Supplemental Reports	As applicable
Air Permitting	Title V Operating Permit Condition E4a; 20 DCMR 399.1]	Emergency Written Notice	As applicable
Air Permitting	Title V Operating Permit Condition E4b; 20 DCMR 302.1 (c)(3)(C)(ii)	The permittee must immediately report any permit deviation that poses an imminent and substantial danger to public health, safety or the environment	As applicable
Air Permitting	Title V Operating Permit Condition E4c; 20 DCMR 302.8 302.9(b-d)	Provide written of changes in operation.	As applicable

Table 2 – Environmental Controls

Compliance Category	Regulatory Citation (as applicable)	Environmental Objective	Operational Control
Air Permitting	Title V Operating Permit Condition F1; 20 DCMR 302.1(c)(2)(A)(I-vi)	Record-Keeping Requirements	NA – steam boilers are not currently operational
Air Permitting	Title V Operating Permit Condition F2; 20 DCMR 302.1(c)(2)(B)	The permittee must keep and maintain records of all testing results, monitoring information, records and reports required by this permit for a period of at least five years from the date of such test, monitoring sample, measurements or report	NA – steam boilers are not currently operational
Air Permitting	Title V Operating Permit Condition F3; 40 CFR 60 Appendix B & F	Maintain all CEMS and Quality Assurance Data	NA – steam boilers are not currently operational
Air Permitting	Title V Operating Permit Condition H; 20 DCMR 302.1(h)	Permitting fee payments.	Ensure that Title V fees are properly calculated and paid.
Air Permitting	Title V Operating Permit Condition M; 20 DCMR 200 and 300	Construction permits are required for the installation or modification for air emission or control equipment.	Bi-annual review of planned construction projects to determine the potential need for GCP. EHG will coordinate a meeting with the office of real estate, the office of procurement and contracting, and physical facilities every six months.
Air Permitting	Title V Operating Permit Condition X; 40 CFR 82 & 20 DCMR 399.1	Protection of Stratospheric Ozone	Comply with the standard for the labeling of products using ozone-depleting substances. Comply with the standards for recycling and emission reduction. Certifications of persons opening appliances for maintenance service or repair. Maintain leak, purchasing, and maintenance records regarding commercial or industrial process refrigeration equipment and appliances normally containing greater than 50 pounds of refrigerant. Any records maintained will be provided to EHS for Air permitting compliance.
Air Permitting	40 CFR 60, Subpart JJJJ	Standards of Performance for Stationary Spark Ignition Internal Combustion Engines	Quarterly reminder - combustion adjustment of boilers
Air Permitting	40 CFR 60, Subpart Dc	NSPS for Small Industrial-Commercial-Institutional Steam Generating Units: Opacity, Operating Hours and Maintenance Records and Fuel Certification Requirements	NA – steam boilers are not currently operational

Table 2 – Environmental Controls

Compliance Category	Regulatory Citation (as applicable)	Environmental Objective	Operational Control
Air Permitting	40 CFR 63, Subpart ZZZZ	Emergency generator management practices and maintenance requirement.	Annual inspection - verify maintenance and load banking, consistent with CAA.
Air Permitting	40 CFR 63, Subpart CCCCCC	NESHAP for Gas line Dispensing Facilities	Stage 2 testing for the Gasoline Dispensing Unit
Air Permitting	40 CFR 63, Subpart JJJJJJ	NESHAP for Industrial, Commercial, and Institutional Boilers Area Sources	NA – steam boilers are not currently operational
Stormwater and Wastewater Permitting	40 CFR § 122.26	Storm water discharges Operators shall be required to obtain a NPDES permit for storm water discharge associated with construction activities.	Bi-annual review of planned construction projects to determine potential need for GCP. EHG will coordinate a meeting with the office of real estate, the office of procurement and contracting, and physical facilities every six months. Engie will ensure that the CHP currently under design will be properly permitted under both the MSP and GCP, as appropriate, before it is constructed and/or operated
Stormwater and Wastewater Permitting	40 CFR 122.21	Individual Permit NPDES permits required for discharges that do not meet the conditions of general permits.	Review of discharges will be conducted every two years to ensure that status has not changed. EHS will coordinate with the office of facilities.
Stormwater and Wastewater Permitting	DCMR Title 21 Chapter 15 1504	Non-Significant Non-Categorical Industrial User Wastewater Discharge Permit This type of permit is issued to minor industrial/commercial businesses and government agencies that have less than 25,000 gallons per day of process flow and are specifically designated by DC Water due to the type of business, characteristics of the discharge, or presence of pretreatment facilities. Businesses with contaminated non-wastewater flow may also be issued this type of permit if discharging less than 25,000 gpd. These permits are valid for three years.	Retain consultant to address wastewater permitting issues Complete and submit a Wastewater Discharge Questionnaire to DC Water (wastewater discharge) Meet with DC Water to discuss the required permits, the application process, required information needs, and calculation of the appropriate permit fees. Coordinate with Engie as they move through the design and construction phases of the CHP and backup boilers to ensure that the permit application accurately reflects the current understanding of the anticipated discharge from the CHP and backup boilers, and that Engie is aware of requirements to modify the final permit (as appropriate) once their design is final. Prepare wastewater discharge application and submit, along with any required permit fee, to DC Water
Stormwater and Wastewater Permitting	DCMR Title 21 Chapter 15 1509	Temporary Discharge Authorization Permits Businesses and government agencies that meet the following criteria may be required to have a Temporary Discharge Authorization Permit:	Retain consultant to address temporary wastewater discharge permitting issues Complete and submit a Wastewater Discharge Questionnaire to DC Water (temporary discharge)

Table 2 – Environmental Controls

Compliance Category	Regulatory Citation (as applicable)	Environmental Objective	Operational Control
		- Users with temporary construction dewatering - Users with temporary discharges from groundwater remediation - Users with temporary discharges that are directed to a catch basin or manhole in public space - Users with temporary discharges on private property that involve high volume discharges or contain chemicals of concern	Meet with DC Water to discuss the required temporary wastewater discharge permits, the application process, required information needs, and calculation of the appropriate permit fees. Prepare temporary wastewater discharge application and submit, along with any required permit fee, to DC Water

3.8 Emergency Preparedness and Response

Howard University has a robust Environmental Health and Safety (EHS) Department. EHS provides information, training, procedures, and guidance to prevent events that could lead to emergencies. Details on these efforts can be found on the EHS website (https://ehs.howard.edu/).

Howard University has also developed detailed plans that provide detailed guidance to staff on how to prepare for and respond to emergencies. These are described in the sections below.

3.8.1.1. Emergency Management Plan and Associated Annexes

Howard University has also developed and continually updates an Emergency Management Plan (HU-EMP) that establishes policies, procedures and an organizational structure to respond to emergencies that would cause a significant disruption of the functioning of all or portions of the university. This document, which is modified routinely, was last updated in July 2020.

The HU-EMP describes the roles and responsibilities of departments, schools, units, and personnel during emergencies. The basic emergency procedures are designed to protect lives and property through the effective use of university and community resources. Since an emergency may be sudden and without warning, these procedures are designed to be flexible in order to accommodate contingencies of various types and magnitudes.

Through the use of annexes, the HU-EMP addresses several specific types of emergencies on an individual basis, providing guidelines for the stabilization and recovery from those specific types of incidents. The Annexes include emergency instructions and references in a concise format for the individuals designated to manage University resources. The annexes provide responses for a wide variety of potential emergencies; those that have the potential for adverse environmental impacts include, but are not limited to:

- Hazardous Material incidents
- Natural Disasters
- Fire

The HU-EMP is tested or exercised on real-world events (i.e., after-action review) annually to ensure that Howard University is prepared for and able to prevent events that lead to emergencies.

The HU-EMP base plan is available on the Department of Public Safety's website at: https://publicsafety.howard.edu/. The annexes are distributed to the appropriate departments of Howard University on an as-needed basis; these are not considered public information.

3.8.1.2. Continuity of Operations Planning (COOP)

The Continuing Operations Plan (COOP) details Howard University's continuity and organizational policies in the event of an emergency. It contains details necessary to ensure that Howard University's essential functions continue to be performed during a wide range of emergencies, addressing items such as, but not limited to staffing requirements, alternate locations, points of contact, etc.

The COOP is reviewed annually and updated on an as-needed basis. The COOP is maintained by the Office of Emergency Management and is not a public document.

3.8.1.3. Spill Prevention, Control, and Countermeasure (SPCC)

Howard University has a Spill Prevention, Control, and Countermeasure (SPCC), a documented plan to prevent an oil spill, as well as control a spill should one occur. The SPCC includes information on oil handling operations, spill prevention practices, discharge and drainage controls, resources used to prevent spills, and details on response activities, in the event spill does occur.

Howard University is currently updating its SPCC. Once this update is complete, the SPCC will be made available on the Environmental Health and Safety's website at:
https://ehs.howard.edu/resources/health-safety-templates.

3.8.1.4. Contingency Plans for Accidental Chemical Spills

Contingency Plans for Accidental Chemical Spills are documented response plans for the accidental spill of any hazardous substances stored or used at Howard University. These plans focus on stopping the source of the spill, containing any spilled material, and cleaning up the spill in a timely manner to prevent accidental injury or other damage. Contingency Plans are established for individual buildings, based on a template contingency plan made available by EHS. Contingency plans are reviewed annually or as needed.

The Contingency Plan template is available on the Environmental Health and Safety's website at: https://ehs.howard.edu/resources/health-safety-templates.

3.9 Awareness

Once the Environmental Policy has been formally approved by the University Policy Working Group and the University Policy Council, the following information will be transferred to the Office of University Communications to develop a formal communication that can be used to notify members of the Howard community of their responsibilities to comply with and work within the Howard University EMS. This communication will be distributed widely to identified key stakeholders through communication channels established by the Office of University Communication.

Target Audience:

The target audience is made up of all EMS Stakeholders (see Section 3.2.2). The subset of stakeholders that will be most important to reach include:

- Office of the Chief Operating Officer;
- Office of the General Counsel;
- Department of Environmental Health and Safety (EHS);
- Physical Facilities Management Office (PFM);
- Real Estate Development & Capital Asset Management (REDCAM);
- Office of Procurement & Contracting (OPC);
- Department of Public Safety (DPS);
- Faculty and affiliated organizations, i.e., Faculty Senate;
- Deans and Directors;
- Researchers and Research Administrators;
- Staff and affiliated organizations, i.e., Howard University Staff Organization;
- Students and affiliated organizations, i.e., HUSA, Graduate Student Assembly; and
- Vendors, procurement (vendor onboarding process).

Key Message for Publication:

Howard University is committed to protecting the environment, preventing pollution, and creating a sustainable environment. This is reinforced in the university's strategic plan, *Howard Forward*, with a commitment to use technology to "exceed standards for sustainability and environmental stewardship." We need your help to make this happen.

- Howard University has adopted a new Environmental Policy that can be found online: http://www.howard.edu/secretary/policy/.
- Howard University has unveiled a new Environmental Management System (EMS). An EMS improves the university's environmental performance, ensures compliance with environmental laws and regulations, and supports strong environmental stewardship.
- All entities and individuals doing business with and on behalf of the university are required to comply with the policies and procedures incorporated in that EMS.
- The EMS Manual, which details EMS policies and procedures, can be found online: https://ehs.howard.edu/.

- The university's Environmental and Health Safety (EHS) staff can help. Please contact EHS (ehs@howard.edu) for assistance with determining if and how your activities interact with the new EMS.
- Your participation is critical. Full implementation of the Environmental Policy and EMS will assist Howard University to comply with environmental laws and regulations and minimize liability.

3.10 Training Procedure

Certain environmental compliance activities require certification/qualifications. The EHS Director, or other designee of the Chief Operating Officer, will be responsible for maintaining documentation of the following information for all individuals employed by Howard University conducting these activities:

- The dates for which they assumed compliance activities;
- The certifications/qualifications they maintain;
- The credentialing entity;
- The date they acquired their credentials;
- The most recent date that their credentials were renewed (if applicable);
- The date that their credentials are due to expire (if applicable); and
- A copy of any certificate, license, or diploma, as appropriate.

In the event that compliance activities are conducted by a vendor(s), the vendor(s) will be required to maintain proper credentialing as a condition of their contract, purchase order, or requisition. These credentials will not be individually tracked by EHS.

The following environmental compliance activities, as identified in the Operational Controls (see Section 3.7) have been identified as requiring credentialing:

- Air Permitting: opacity testing – visible emissions training and certification
- SPCC – developed and signed by a licensed Professional Engineer (P.E.)
- Underground Storage Tanks – Class A Operator certification
- Steam plant operator – DC Class 1 – Steam Engineer
- 30-hour OSHA certification
- CFC certification
- 40-hour HAZWOPER certification

The EHS Director, or other designee of the Chief Operating Officer, will further be responsible for reviewing the above information to determine if all necessary staff are properly credentialed and if their credentialing is up-to-date. Any identified deficiencies will be brought to the attention of the

individual and his or her direct supervisor and department head. All deficiencies must be rectified as soon as possible. Under no condition can environmental compliance work be conducted on behalf of Howard University without proper credentials. If there is any indication that this is or may be occurring, it is the responsibility of any stakeholder to alert the COO and the office of General Counsel within 48 hours of learning of the situation.

3.11 Management Review Procedure

Howard University will conduct routine management reviews to ensure that the EMS meets the needs of Howard University, is being adequately implemented, and that sufficient resources are dedicated to its maintenance and implementation. Further, the review will explore opportunities for improvement to the EMS.

The Leadership Team will assume responsibility for annual Management Reviews. Working with staff at EHS, they will review, at a minimum, the following materials, to ensure that they are reflective of the University's priorities:

- Environmental Policy (see **Section 3.1**);
- Context of the Organization (see **Section 3.2**);
- Significant Environmental Obligations (see **Section 3.5**);
- Results of current audit (see **Section 3.12**);
- Resolutions of issues identified during previous audit and management review;
- Input from EHS on
    - non-compliance rate;
    - resolutions for non-compliances, as appropriate;
    - challenges (e.g., risks and opportunities); and
    - need for additional resources; and
- Communications from interested parties, both internal and external.

A final report will be prepared that details the findings of the management review. This report will detail the Leadership Teams conclusions on the adequacy and effectiveness of the EMS. In addition, the report will detail any modifications, actions, or opportunities to improve the EMS, integrate the EMS more fully into the management of Howard University, and/or improve environmental compliance at the University.

3.12 Self-Inspection/Audit and Corrective Actions Procedure

As part of a continuous improvement process, Howard University will conduct routine audits to assess the effectiveness of the EMS and its overall performance according to the following:

- Compliance with the policies and procedures outlined in this manual;
- Compliance with the relevant components of the ISO 14001:2015 standard; and
- Effectiveness, with regards to implementation and maintenance of the EMS.

Audit responsibility will lie with the EHS department. EHS will conduct audits on an annual basis. These audits may be either conducted in-house or rely on the services of a third-party auditor.

Each audit will review and evaluate, at a minimum, the following information:

- The EMS Manual;
- The EMS Compliance Tool;
- The actions and activities of the Leadership Team and the Implementation Team; and
- Documentation of activities related to implementation of the EMS.

Audit results will be fully documented and all instances of non-compliances will be identified in the audit report. Where possible, the necessary steps to resolve instances of non-compliance will be delineated. The audit report will seek to answer the following questions:

<u>EMS Manual</u>

- Has the EMS Manual been kept current?
- Does the EMS Manual accurately reflect best-practices at Howard University?
- Are the following individual policies carried out in a routine fashion?
    - Communication Plan (see **Section 3.3**)
    - Emergency Preparedness and Response (see **Section 3.8**)
    - Awareness (see **Section 3.9**)
    - Training Procedure (see **Section 3.10**)
- For the above procedures (Sections 3.3, 3.8, 3.9, and 3.10), does sufficient documentation exist to demonstrate compliance?

<u>Environmental Compliance</u>

- Are the identified Compliance Obligations (see **Section 3.4**) complete and accurate?
- Are the Significant Environmental Aspects (see **Section 3.5**) reasonable and appropriate?
- Are the Significant Environmental Aspects (see **Section 3.5**) reflective of the University's priorities?

- Are the Operational Controls (see **Section 3.5**) sufficient to address the identified Significant Environmental Aspects?
- Does appropriate documentation exist to demonstrate implementation of the Operational Controls?

Environmental Compliance Tool

- Is the Environmental Compliance Tool reflective of the Compliance Obligations, Significant Environmental Aspects, Environmental Objectives, and Operational Controls reported in the EMS Manual? If not, how is it not reflective?
- Is the Environmental Compliance Tool current?
- Does sufficient documentation exist to indicate that the Environmental Compliance Tool is routinely reviewed and fully implemented?

Previous Audits

- When was the last audit completed?
- Were instances of non-compliance from the previous audit addressed? If not, why not?
- Were instances of non-compliance from the previous audit brought to the attention of management (e.g., the Leadership Team)?
- Did instances of non-compliance from the previous audit result in modifications to the EMS Manual, as appropriate?

Previous Management Review

- When was the last Management Review (see **Section 3.12**)?
- Were issues identified in the last management review addressed?
- Did issues identified in the last management review result in modifications to the EMS Manual, as appropriate?

The auditors (e.g., EHS or a retained third party auditor acting on behalf of Howard University) will prepare a report detailing the findings of each self-audit, any required corrective actions, and the outcome of those corrective actions. These reports will be submitted to the Leadership Team for their review within 60 days of each audit.

3.13 Improving the EMS and Environmental Performance Procedure

The EMS is a constantly evolving system that will change and improve over time under the iterative Plan-Do-Check-Act model. When opportunities for improvement occur (e.g., a nonconformity) the following steps will be taken by EHS:

- Take action to control the nonconformity;
- Mitigate any adverse environmental consequences;
- Identify action, if necessary, to eliminate the cause of the nonconformity;

- Make any necessary changes to the EMS to prevent recurrence; and
- Document the event.

EHS will maintain documentation of all nonconformities and associated corrective actions in a central location. While there are numerous, valid ways to organize this documentation, the current method will be in a spreadsheet, with references to associated emails and documents. As appropriate, this spreadsheet will be cross-referenced to entries in the Environmental Compliance Tool. This documentation will be an important source of data for evaluation in both the annual audits and management reviews.

This project was undertaken in connection with the settlement of an enforcement action initiated by the District of Columbia Department of Energy and Environment.