Connecticut
Department of Energy &
Environmental Protection

STATE OF CONNECTICUT
DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION
OFFICE OF ADJUDICATIONS

IN THE MATTER OF	**:**	**APPLICATION NOS. 202103504, 202107639, 202305513, 202303932, 202303933**
REWORLD BRISTOL, INC.	**:**	**MARCH 6, 2025**

PROPOSED FINAL DECISION

Reworld Bristol, Inc. ("Reworld" or "Applicant") filed five applications with the Department of Energy and Environmental Protection ("DEEP" or "Department") seeking permits to modify the existing resource recovery facility at 170 Enterprise Drive, Bristol, Connecticut (the "Facility") to accept and process Biomedical Waste ("BMW"). The applications are as follows: (1) solid waste permitting application no. 202103504 for modification of a resource recovery facility, (2) application no. 202107639 for a new biomedical waste treatment facility, (3) application no. 202305513 to renew a permit to operate a resource recovery facility, and (4)-(5) air permitting application nos. 202303932 and 202303933 for Minor Modifications to New Source Review permits (collectively, the "Applications").

The Applications were reviewed under the applicable governing statutes and regulations, namely Connecticut General Statutes (Conn. Gen. Stat.) §§ 22a-208a, 22a-209b, and 22a-209c; Regs., Conn. State Agencies (RCSA) § 22a-209-15; and the relevant implementing regulations at RCSA §§ 22a-209-1, *et seq.*, Conn. Gen. Stat. § 22a-174, the Clean Air Act Amendments of 1990, and the relevant implementing regulations at RCSA §§ 22a-174-2a(e) and 22a-174-38. The Department determined that the Applications were complete and, following its sufficiency and technical review, that the proposed project complied with the relevant statutes and regulations.

Following the evidentiary hearing, the Applicant and DEEP staff filed post-hearing briefs. I have reviewed the entire administrative record in this proceeding, including the documents and testimony in the record as evidence. To determine this matter, the record's evidence is compared to relevant statutory and regulatory criteria. The evaluation of the relevant evidence and statutory and regulatory criteria it requires is the only question before me in this matter. I have considered public comments made throughout this hearing process and the responses of the Applicant and DEEP staff to the public input. The purpose of public comment is to guide the hearing officer's inquiry into a matter, but it is not evidence in the record and, therefore, is not a basis for a decision.

Through the evidence and testimony in the record, the Applicant satisfied its burden of proof and demonstrated the legal issues of this matter, which are as follows:

1. Whether the amendments to the Applicant's New Source Review Permit to Construct and Operate a Stationary Source, as captured in the draft of Permit No. 026-0026, were applied for by the Applicant and approved by the Department, in accordance with Title 22a of the Connecticut General Statutes and applicable implementing regulations, as those amendments relate to the Applicant's

request to treat biomedical waste in accordance with the Applicant's request for modifications to its Bureau of Waste Management's permits.

2. Whether the amendments to the Applicant's New Source Review Permit to Construct and Operate a Stationary Source, as captured in the draft of Permit No. 026-0027, were applied for by the Applicant and approved by the Department, in accordance with Title 22a of the Connecticut General Statutes and applicable implementing regulations, as those amendments relate to the Applicant's request to treat biomedical waste in accordance with the Applicant's request for modifications to its Bureau of Waste Management's permits.
3. Whether the amendments to the Applicant's Permit to Construct and Operate a Stationary Source, as captured in the draft of Permit No. 0170, were applied for by the Applicant and approved by the Department, in accordance with Title 22a of the Connecticut General Statutes and applicable implementing regulations, as those amendments relate to the Applicant's request to treat biomedical waste as articulated in Application Nos. 202103504, 202107639, and 202305513.

Based on my review of the entirety of the record, I conclude that, if conducted in accord with all terms and conditions of the Draft Permits, the Applicant's proposed regulated activities will be consistent with all applicable statutory standards. Accordingly, as set forth in greater detail in my Findings of Fact and Conclusions of Law, *infra*, I recommend that the Commissioner finalize and issue the Draft Permits.[1]

II. PROCEDURAL HISTORY

The Parties to this proceeding are the Applicant and Department staff ("the Parties"). On July 10, 2024, a petition for a public hearing was submitted by a member of the public, triggering this adjudication. An initial Status Conference among the Parties was convened on August 7, 2024, when the schedule and procedures for this matter were established. A second Status Conference was held on September 23, 2024, at the request of DEEP staff to reschedule hearing dates to ensure proper notice was provided. Following receipt of the Parties' Pre-Hearing Exchange of Information, a Pre-Hearing Conference was convened on October 1, 2024. A site visit occurred on October 9, 2024, attended by the Hearing Officer, the parties, and interested members of the public. On November 7, 2024, the Hearing Officer presided over a Public Comment Hearing at which comments concerning the application were received from the Petitioner and members of the public. Additional written comments were accepted through November 18, 2024. A full evidentiary hearing on the Applications was held before the Hearing Officer on November 21, 2024, at which time witnesses for both Parties provided oral and written testimony. Upon the conclusion of the evidentiary hearing, the record was closed. The Parties thereafter filed Post-Hearing Briefs, including Joint Proposed Findings of Facts and Separate Conclusions of Law, by January 17, 2025.

III. FINDINGS OF FACT

[1] The Parties submitted Separate Conclusions of Law. Although I have not fully adopted either the Department's or Applicant's Conclusions of Law as part of my Proposed Final Decision, I have extensively relied upon them and considered them in the issuance of this Proposed Final Decision.

I have adopted the Parties' Joint Findings of Fact, which are incorporated herein by reference (Attachment I). The below are supplemental Findings of Fact.[2]

1. The Applicant submitted application No. 202103504 to modify the Resources Recovery Facility ("RRF"), Permit to Operate No. 01701072-PO to receive and treat biomedical waste through the RRF, and Application No. 202107639 was submitted to establish and operate a Biomedical Waste Treatment Facility. During the processing of applications, the Applicant submitted Application No. 202305513 to renew Permit No. 01701072-PO, which had an expiration date of November 23, 2023. Permit to Operate No. 01701072-PO was continued until the Department made a final disposition of application No. 202305513. Ex. DEEP-SW-17. The Solid Waste Draft Permit resolves the three applications. Exs. DEEP-SW-17, 20.
2. The Solid Waste Draft Permit includes several conditions and definitions, including:
    a. "Biomedical waste" or "BMW" means untreated solid waste, any disposable container thereof and any reusable container thereof which has not been decontaminated, generated during the administration of medical care or the performance of medical research involving humans or animals, including infectious waste, pathological waste and chemotherapy waste, but excluding (1) any solid waste which is a hazardous waste pursuant to Section 22a-115 of the General Statutes or a radioactive material regulated pursuant to Conn. Gen. Stat. Section 22a-148; (2) untreated solid waste generated during the administration of medical care in a single or multiple family residences by a resident thereof; (3) discarded materials used for personal hygiene, such as diapers, facial tissues, and sanitary napkins, unless such materials are isolation waste; (4) syringes, hypodermic needles and other medical equipment used by farmers for the treatment of their livestock in the course of conducting farming provided that such equipment is not excluded when used by a veterinarian or at the direction of a veterinarian; (5) samples of biomedical waste collected and transported by Department personnel for enforcement purposes; and (6) human fetal tissue, human remains, bulk pathological wastes, bulk chemotherapeutic wastes, formaldehyde, iodine, other preservatives, and free flowing Biomedical liquid wastes. Ex. DEEP-SW-20.
    b. The Solid Waste Draft Permit authorizes the receipt of up to 114 tons per day of Special Wastes, including Biomedical Waste. However, the facility will be limited in processing and treating no more than 57 tons per day of biomedical waste. Exs. DEEP-SW-17, DEEP-SW-20.
    c. Biomedical waste accepted at the Facility shall be properly packaged in accordance with RCSA § 22a-209-15(f)(1). Properly packaged BMW shall be clearly labeled with the biohazard symbol, waste classification labels, and relevant information, such as waste type, generator name, and any other relevant information. Tracking form documentation must accompany all BMW shipments received at the Facility as required by RCSA § 22a-209-15(f)(2). Ex. DEEP-SW-20.
    d. BMW shall only be received in the designated BMW receiving and staging area. BMW shall be immediately processed or transferred to the Waste Feed System Tipping Floor,

[2] All citations to testimony provided at the evidentiary hearing refer to the Zoom recording of the hearing, a copy of which remains on file with the Office of Adjudications. Additionally, documents not listed as an exhibit in these findings are part of the docket file for this proceeding, which is part of the administrative record of this matter.

Biomedical Waste Annex, or stored in trailers in accordance with the storage conditions outlined in the Draft Permit. Ex. DEEP-SW-20.

e. The Permittee shall: (a) control all traffic related to the operation of the Facility in such a way as to mitigate queuing of vehicles off-site and excessive or unsafe traffic impact in the area where the Facility is located; (b) unless otherwise exempted, ensure that trucks are not left idling for more than three (3) consecutive minutes pursuant to RCSA § 22a-174-18(b)(3) and make best efforts to ensure that trucks are off-loaded on a first-in/first-out basis; and (c) prominently post and maintain signs limiting such truck idling time within the Facility (e.g., at the scale; unloading areas). Ex. DEEP-SW-20.

f. The Permittee shall maintain daily records as required by RCSA § 22a-209-10(13) and §22a-209-15(i) and Conn. Gen. Stat. §§ 22a-208e and 22a-220. Based on such records, the Permittee shall prepare monthly summaries, which shall be submitted to DEEP staff quarterly. Ex. DEEP-SW-20.

g. No later than sixty days from the issuance of the Solid Waste Permit, the Applicant must perform quarterly compliance audits for the life of the permit. The compliance audits required by this condition shall consist of a thorough and complete assessment of the Applicant's compliance with RCSA §§ 22a-209-1 through 22a-209-17 and with the terms and conditions of the permit. Ex. DEEP-SW-20.

3. As a part of the Solid Waste application review, the Applicant's compliance history was reviewed, and it was determined that the permit could be issued based on the internal compliance checks. Ex. DEEP-SW-17.
4. On May 11, 2023, the Applicant submitted applications for NSR minor modifications to existing Permit Nos. 026-0026 and 026-0027 for two municipal waste combustors (MWC). The proposed minor modifications are to allow the processing of biomedical waste at the facility in accordance with the Applicant's applicable Bureau of Materials Management & Compliance Assurance permit. Minor modification applications for the air permit were required pursuant to RCSA §22a-174-2a(e)(1). Ex. DEEP-AR-39.
5. The proposed NSR minor modifications do not trigger any new Federal regulatory requirements. Ex. DEEP-AR-39.
6. A BACT ambient impact analysis was not required with these Applications because the Applicant did not propose increasing emission rates from the existing permit. The existing permit went through a BACT review and ambient impact analysis for the permanent emission rates in the current permit, and given no changes since this review, no statute requires a new analysis of this type. DEEP staff determined they had all the required information to review the Applications and make an appropriate determination. Test. LaRiviere, November 21, 2024; 35:00-38:12.
7. Based on the air applications submitted by the Applicant, the Engineering Evaluation, and the Applicant's compliance history, the Department issued Tentative Determinations to approve NSR permit minor modifications to existing Permit Nos. 026-0026 and 026-0027 pursuant to RCSA § 22a-174-2a(e)(1). Exs. DEEP-AR-27, 30, 39.

IV. CONCLUSIONS OF LAW

This matter concerns the Department's issuance of permits to conduct regulated activities. It was convened and conducted as a contested case pursuant to the parameters of the Connecticut Uniform Administrative Procedure Act, Conn. Gen. Stat. §§ 4-166(8), 4-177, and with the Department's Rules of Practice, see RCSA §§ 22a-3a-2 through 22a-3a-6. As this proceeding concerns applications, the burden of proof rests with the Applicant. RCSA § 22a-3a-6(f).

Both parties offered the testimony of expert witnesses. As a general matter, the finder of fact "is not required to believe unrebutted expert testimony, but may believe all, part or none of such unrebutted expert evidence." *Bancroft v. Commissioner of Motor Vehicles*, 48 Conn. App. 391, 405, 710 A.2d 807 (1998). The Applicant offered expert testimony from George Drew, Gary Pierce, Patrick Walsh, Charles Ash, and Jessica Kruczek. DEEP staff provided expert testimony from Brent Madho, Frank Gagliardo, David LaRiviere, and Jaimeson Sinclair.[3] The expert testimonies were credible, convincing, and uncontradicted in the evidentiary record. Accordingly, I have relied upon the testimony of these expert witnesses in arriving at my decision in this matter. *See id.; Bain v. Inland Wetlands Commission*, 78 Conn. App. 808, 817, 829 A.2d 18 (2003); *see also Tanner v. Conservation Commission*, 15 Conn. App. 336, 340-41, 544 A.2d 258 (1988).

The central legal question in this matter is whether the Applications comply with the state statutes, namely Conn. Gen. Stat. §§ 22a-208a, 22a-209b, and 22a-209c; RCSA § 22a-209-15; and the relevant implementing regulations at RCSA §§ 22a-209-1, *et seq.* and Conn. Gen. Stat. § 22a-174 and the Clean Air Act Amendments of 1990, and the relevant implementing regulations at RCSA §§ 22a-174-2a(e) and 22a-174-38.

A. **SOLID WASTE PERMIT**

The amendments to the Applicant's New Source Review Permit to Construct and Operate a Stationary Source, as captured in the draft of Permit No. 026-0026, were applied for by the Applicant and approved by the Department, and were in accordance with Title 22a of the Connecticut General Statutes and applicable implementing regulations, as those amendments relate to the Applicant's request to treat biomedical waste in accordance with the Applicant's request for modifications to its Bureau of Waste Management's permits. Further, the evidence in the record demonstrates that the amendments to the Applicant's New Source Review Permit to Construct and Operate a Stationary Source, as captured in the draft of Permit No. 026-0027, were applied for by the Applicant and approved by the Department, and were in accordance with Title 22a of the Connecticut General Statutes and applicable implementing regulations, as those amendments relate to the Applicant's request to treat biomedical waste in accordance with the Applicant's request for modifications to its Bureau of Waste Management's permits.

[3] Dr. Mark Mitchell requested to provide sworn testimony during the public hearing. He appeared at the evidentiary hearing to be sworn in and was subject to cross-examination. While his testimony was found to be credible based on his experience in his field, his testimony did not demonstrate that the subject Applications and Draft Permits were in violation of the relevant statutes and regulations.

As fully addressed in DEEP staff's Conclusions of Law, under Conn. Gen. Stat. § 22a-208a(a), the Commissioner may issue or modify a permit for the operation of solid waste facilities according to the applicable provisions of Title 22a and regulations adopted. *See DEEP Staff's Conclusions of Law, January 17, 2025.* In this matter, the modification was sought only to receive and process untreated biomedical waste, a type of special waste to be included within this facility's existing special waste processing limit. *See* Conn. Gen. Stat. § 22a-208y; RCSA § 22a-209-1. For the Department to issue a modification, the Applicant needed to demonstrate consistency with Conn. Gen. Stat. §§ 22a-209b and 22a-209c, and RCSA § 22a-209-15, the applicable provisions for biomedical waste. In this case, it did so demonstrate. Pursuant to the required statutes and regulations, the Draft Permit contains several conditions. Notably, Conn. Gen. Stat. § 22a-209c(a) provides that biomedical waste that has been treated in accordance with the provisions of that section and which has been rendered unrecognizable may be disposed of as municipal solid waste and that waste facilities shall not accept biomedical waste that is not packaged, labeled and marked as required by regulations or accompanied by a tracking form which complies with all applicable law. The Draft Permit contains conditions to address these requirements. See Ex. DEEP-SW-20. Additionally, RCSA § 22a-209-15(h) then provides requirements for tracking biomedical waste, and § 22a-209-15(i) provides recordkeeping and reporting requirements for solid waste facilities. General Statutes § 22a-209c(b) provides that biomedical waste, including chemotherapy waste, pathological waste, and infectious waste, shall be disposed of by incineration. The Draft Permit sufficiently addresses these requirements through the permit conditions. Ex. DEEP-SW-20.

The Applicant currently operates a resource recovery facility authorized to combust up to 358 tons per day of municipal solid waste, which includes up to 57 tons per day of special waste defined by RCSA 22a-209-1. The acceptance of BMW does not change these allowances. DEEP staff completed a thorough sufficiency and technical review. Ex. DEEP-SW-25.[4] As part of the sufficiency review, DEEP staff confirmed the information provided by the Applicant, including confirmation that an Environmental Justice Public Participation Plan approval was included in the applications. Exs. DEEP-SW-25, DEEP-SW-6K. Following the issuance of DEEP's Notice of Sufficiency, DEEP conducted its technical review to determine compliance with the Solid Waste Management Regulations and consistency with the Statewide Solid Waste and Materials Management Plan, and to the extent of any potential adverse environmental impacts. Ex. DEEP-SW-25. During its review, DEEP staff requested additional information, which the Applicant supplied. Exs. DEEP-SW-11 through 11i. The additional information was deemed sufficient by DEEP staff. The Draft Permit includes numerous conditions for the operations of the resource recovery facility, including a condition that Biomedical Waste is received, managed, and processed in a manner that is protective of human health and the environment. Exs. DEEP-SW-20, 25.

B. AIR PERMITS

[4] "Special wastes" means the following wastes, so long as they are not hazardous waste pursuant to section 22a-115 of the General Statutes or radioactive material subject to section 22a-148 of the General Statutes: (1) water treatment, sewage treatment or industrial sludges, liquid, solids and contained gases; fly-ash and casting sands or slag; and contaminated dredge spoils; (2) scrap tires; (3) bulky waste, as defined in this section; (4)asbestos; (5) residue; and (6) biomedical waste. Ex. DEEP-SW-25.

The amendments to the Applicant's Permit to Construct and Operate a Stationary Source, as captured in the draft of Permit No. 0170, were applied for by the Applicant and approved by the Department, in accordance with Title 22a of the Connecticut General Statutes and applicable implementing regulations, as those amendments relate to the Applicant's request to treat biomedical waste as articulated in Application Nos. 202103504, 202107639, and 202305513.

Reworld applied for a minor permit modification of major emitting equipment. The proposed minor modifications are to allow the processing of biomedical waste at the facility in accordance with the Applicant's applicable Bureau of Materials Management & Compliance Assurance permit. Ex. DEEP-AR-39. DEEP staff conducted a sufficiency and technical review upon receipt of the Applications. Ex. DEEP-AR-39. As part of the technical review, DEEP staff reviewed the material according to RCSA § 22a-174-2a(e)(50), which incorporates 40 CF4 70.5 (c) and 40 CFR 72-78. The substantive standards list the emission limits for such a facility. *See* RCSA § 22a-174-38. The proposed emissions limits in the Draft Air Permits are identical to the 2020 permitted emissions limits. Ex. DEEP-AR-30. While the Applications do not change any permitted emission rates of any pollutant, the NSR minor modification applications were required because the addition of biomedical waste as an allowable fuel is considered a change in the method of operation. This alternation does not qualify as a revision to the permits pursuant to RCSA 22a-174-2a(f).

Pollutant	**Existing Permit (tpy)**	**Modified Permit (tpy)**	**Change in Emissions (tpy)**
PM	24.5	24.5	0
SO2	75.6	75.6	0
NOx	256	256	0
VOC	46.3	46.3	0
CO	114	114	0
Pb	0.40	0.40	0

As with the 2020 permits, the Reworld units are subject to annual emissions testing for pollutants (PM, Cd, Pb, Hg, HC1, Dioxins/Furans) and continuous emissions monitoring requirements for SO2, NOx, and CO. The Applicant will accept BMW at a rate of 8%, which is below the 10 percent maximum, to be classified as a co-fired combustor under Subpart Ec of Federal regulatory requirements. In summary, while the materials charged in the current permit were amended to include biomedical waste, there are no emission rate or stack parameter changes. Ex. DEEP-AR-39. Substantial evidence in the records demonstrates that the Draft Permits comply with the relevant statutes and regulations.

V. PUBLIC COMMENTS

Public comments on a pending draft permit are vital for the hearing process. Public comments were received throughout the hearing on the Draft Permits. All comments were thoroughly and thoughtfully considered. While public comments are not evidence on which a decision can be based, the public comments received do not demonstrate that the subject applications are inconsistent with governing Connecticut law applicable to this matter. The only legal questions presented are whether the Applications comply with the relevant statutory and regulatory requirements, as fully addressed above. The below

addresses the main concerns raised by members of the public and the parties' responses to public comments.

First, members of the public raised concerns regarding potential noise violations at the facility. The Solid Waste Draft Permit includes a condition to address noise, specifically stating the Applicant must "Operate the Facility in a safe manner to control fire, odor, noise, spills, vectors, litter and dust emission levels in continuous compliance with all applicable requirements, including OSHA." Ex. DEEP-SW-20. The Air Draft Permits contain the following condition: "The Permittee shall operate this facility at all times in a manner so as not to violate or contribute significantly to the violation of any applicable state noise control regulations, as set forth in RCSA § 22a-69-1 through 22a-69-7.4." Ex. DEEP-AR-33, 34. It further contains a condition stating, "This permit does not relieve the Permittee of the responsibility to conduct, maintain and operate the regulated activity in compliance with all applicable requirements of any federal, municipal or other state agency. Nothing in this permit shall relieve the Permittee of other obligations under applicable federal, state, and local law." *Id*. As part of DEEP staff's review of the Air Applications, a compliance check was conducted, and no noise violations within DEEP's jurisdiction were noted pursuant to the existing permits. Test. Sinclair, November 21, 2024; 48:52, Ex. DEEP-AR-39. Local authorities have primary jurisdiction over the noise in the town, and the record reflects that the noise concerns raised during the public comment hearing are being investigated and addressed by local authorities. Test. Sinclair, November 21, 2024, 48:15, Ex. APP-19.

Next, members of the public expressed concerns regarding air emissions. They claimed the Draft Permits do not address the risks associated with chemicals such as dioxins, furans, heavy metals, and PFAS. The proposed emissions limits in the Air Permits are identical to the 2020 permitted emissions limits. Ex. DEEP-AR-30. After reviewing the material submitted by the Applicant, DEEP determined that the project is not expected to exceed the currently permitted emission limits. As with the 2020 permits, Reworld units are subject to annual emissions testing for the pollutants listed in the permits and are subject to continuous emissions monitoring requirements for SO_2, NO_x, and CO. Mr. LaRiviere testified there is no regulatory basis for DEEP to require further continuous emission monitors for any pollutants this facility will emit. Test. LaRiviere, November 21, 2024; 39:19. As there were no emission rate changes or stack parameter changes, the previously approved BACT and ambient impact analyses did not have to be revisited pursuant to RCSA § 22a-174-3a(j) or –(k). Ex. DEEP-AR-39. DEEP determined that the application and subsequent Draft Permits comply with all relevant statutory and regulatory criteria. *Id*. Members of the public wish for the Applicant and DEEP staff to include additional requirements in the Draft Permits above the statutory and regulatory requirements for these Applications, but this adjudication process cannot award such relief.

Members of the public also raised concerns that the Draft Permits are not in compliance with Connecticut's environmental justice law. The Department verified the Applicant's compliance with environmental justice requirements. The Applicant was required to file a meaningful public participation plan because the facility is located in an environmental justice community and is one of the covered types of facilities. See Conn. Gen. Stat. § 22a-20a. The Department issued a letter of Approval of the Covanta Bristol Resource Recovery Facility Environmental Justice Public Participation Plan. Ex. DEEP-SW-6k. The Applicant filed an Addendum to their Environmental Justice Public Participation Plan Final Report,

dated May 19, 2022. Ex. DEEP-SW-12. The initial public meeting was held on February 19, 2019, at the Bristol City Hall, and the final report documents additional public engagement activities from 2019 to 2022, including follow-up meetings with Bristol residents and environmental advocacy groups to respond to public health and environmental concerns. On June 24, 2024, the Department approved the Applicant's Environmental Justice Public Participation Plan Final Report. Ex. DEEP-SW-15. The Applicant satisfied the meaningful public participation requirements as outlined in Conn. Gen. Stat. § 22a-20a.

Members of the public raised concerns with the Applicant's compliance operational history. This Proposed Final Decision can only be based on information in the evidentiary record. As part of the application review process, DEEP staff reviewed the compliance history of the current permits, and compliance violations related to the current permits were not noted. Exs. DEEP-SW-17, DEEP-SW-39, DEEP-AR-39.

Lastly, members of the public expressed questions and concerns as to why the transportation of the material is not addressed in the Draft Permits. While DEEP has permitting authority over the regulated operations of the facility, transporting such material to the facility is not within DEEP's jurisdiction. Test. Madho, November 21, 2024, 46:28. The Solid Waste Draft Permit regulates the transportation of waste on the facility footprint, and the Facility plan will include updated traffic patterns for BMW deliveries and clear signage that will direct BMW trucks to the designated areas on site. Ex. DEEP-SW-25, Test. Madho, November 21, 2024, 46:58. Additionally, the Solid Waste Draft Permit has conditions regarding both fire and spills at the facility. Ex. DEEP-SW-20.

Members of the public understandably have questions and comments regarding this project, and their dedication to the local community is appreciated. This administrative hearing can only evaluate the project through the relevant statutes and regulations and the jurisdiction DEEP holds. Based on the extensive record and evidence provided by the parties, the Draft Permits met the relevant statutory and regulatory requirements.

VI. CONCLUSION AND RECOMMENDATION

If conducted as proposed and in accordance with the terms and conditions of the Draft Permits, the proposed operations to be regulated will be consistent with the relevant statutes and regulations raised in this proceeding. I recommend that the Commissioner finalize and issue the requested permits.

Kathleen W. Reiser, Esq.
Hearing Officer

Dated: March 6, 2025

cc: Service List

Attachment I

STATE OF CONNECTICUT
DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION
OFFICE OF ADJUDICATIONS

IN THE MATTER OF	:	**APPLICATION NOS. 202103504, 202107639, 202305513, 202303932, 202303933**
REWORLD BRISTOL, INC.	:	**JANUARY 16, 2025**

REWORLD BRISTOL, INC.
PROPOSED FINDINGS OF FACT

Reworld Bristol, Inc.
170 Enterprise Drive, Bristol, CT 06010

JOINT PROPOSED FINDINGS OF FACT OF APPLICANT REWORLD BRISTOL, INC.

Reworld Bristol, Inc. ("Reworld" or the "Applicant") and the Department of Energy and Environmental Protection Staff jointly submit these proposed findings of fact in support of the above-referenced Applications.

Background

1. The Applicant is the owner of property located at 170 Enterprise Drive in Bristol, Connecticut. Bristol, Connecticut is an Environmental Justice Community, as defined by General Statutes § 22a-20a.

2. At that location, the Applicant currently owns and operates the Bristol Resource Recovery Facility (the "Facility"). The Facility began commercial operation in 1988 and currently processes municipal solid waste and special waste and/or processed construction and demolition wood, operating under Solid Waste Permit to Operate No. 01701072-PO and Solid Waste Disposal Authorization No. 01701245-SWDA. DEEP-SW-1 and DEEP-SW-2.

3. Permit to Operate No. 01701072-PO, allows the Applicant to operate twenty-four hours per day, seven days per week; allows a maximum daily tonnage not to exceed an average determined quarterly of 716 tons per day; allows the applicant to receive and process both municipal solid waste and special waste; and contains a condition that the applicant operate the Facility "in a safe manner so as to control fire, odor, noise, spills, vectors, litter and dust emission levels in continuous compliance with all applicable requirements, including OSHA." DEEP-SW-1. Solid Waste Disposal Authorization No. 01701245-SWDA authorizes the receipt of special waste at the Facility at a rate of no more than 57 tons per day, averaged over one week, with a combustion feed rate of 8% special waste to 92% municipal solid waste. DEEP-SW-2.

4. During meetings in 2020 and 2021, the Applicant described to Department of Energy and Environmental Protection ("DEEP" or the "Department") Staff the need to obtain authorization to also process biomedical waste. DEEP Staff recommended that Reworld file a Modification to the Resource Recovery Facility, in addition to a New Application for a Biomedical Waste Treatment Facility as a single application (together, the "Solid Waste Permits"). DEEP Staff also subsequently recommended that the Applicant file a Modification Application of the Facility's existing New Source Review Permits (together, the "Air Permits").

Applications

5. On February 25, 2021, the Applicant filed a Modification to the Resource Recovery Facility and New Application for a Biomedical Waste Treatment Facility (Application Nos. 202107639 and 202103504) (the Solid Waste Permits), which were received by the Department on March 3, 2021. The applications were submitted on the prescribed forms and consist of Exhibit DEEP-SW-6 and accompanying attachments. The Applicant published a Notice of Permit Application in the Bristol Press on March 4, 2021 in accordance with Connecticut General Statutes ("C.G.S.") § 22a-6g.

6. The applications are for Affecting Facilities, as defined by General Statues § 22a-20a.

7. DEEP Staff conducted a sufficiency review in accordance with Department policy and practice and issued two separate Notices of Sufficiency on June 11, 2021 (related to Application No. 202103504) and July 11, 2021 (related to Application No. 202107639). DEEP-SW-8 and DEEP-SW-9.

8. On February 24, 2022, DEEP Staff issued a Request for Additional Information. DEEP-SW-10. The Applicant responded on April 22, 2022, August 30, 2022, and January 27, 2023. These responses included a Final Engineering Schedule, Supplemental Approval Requirements for BMW, Example Covanta Process Maps BMW/Special Waste QAQC Inspection E-form, Biomedical Waste (BMW) Spill Response SOP, Biomedical Waste (BMW), Customer Audit Questionnaire/Checklist, Biomedical Waste (BMW) Packaging Compliance, Biomedical Waste (BMW) Unacceptable Waste Customer Outreach Flyer, Letters of Interest, Biomedical Waste Addendum to the Operations and Management Plan, and detailed engineering drawings. DEEP-SW-11, DEEP-SW-13, DEEP-SW-14 and accompanying attachments.

9. The Biomedical Waste Addendum to the Operations and Management Plan, provided as part of the January 27, 2023 submission, included information on the proposed operations, such as: waste types and quantities; types and sources of BMW; daily operations and waste handling; provision of personal protective equipment; waste feed system and processing flow; quality assurance/quality control inspection program; provisions for handling unacceptable BMW; waste management and storage; processing capacity; operational details; recordkeeping; maintenance procedures; environmental controls; equipment; safety protocols;

and emergency preparedness. According to this plan, the Facility would accept non-hazardous waste biomedical waste such as untreated chemotherapy waste, pathological waste, and infectious waste from medical care or research, but would not be accepting hazardous waste such as hazardous pharmaceutical waste, radioactive materials, human remains, large amounts of free-flowing liquids, bulk pathological and chemotherapeutic waste, and materials preserved with formaldehyde or iodine. DEEP-SW-14c.

10. Because the applications are for Affecting Facilities in an Environmental Justice Community, the applicant engaged in the meaningful public participation procedure, as defined and required by General Statues § 22a-20a. As part of the filing for Application Nos. 202107639 and 202103504, the Applicant submitted a copy of the Department's letter of Approval of the Covanta Bristol Resource Recovery Facility Environmental Justice Public Participation Plan, along with the Final Report for the Environmental Justice Public Participation Plan. DEEP-SW-6k. The Final Report detailed the Applicant's public outreach, including a public meeting held on February 19, 2019, at the Bristol City Hall. DEEP-SW-6k.

11. On May 19, 2022, the Applicant submitted an Addendum to the 2019 Final Report for the Environmental Justice Public Participation Plan for the Facility, including information on additional efforts and public meetings from 2019 to 2022. DEEP-SW-12. The Department approved the Environmental Justice Public Participation Plan Final Report on June 24, 2024. DEEP-SW-15.

12. On July 25, 2023, the Applicant filed a Renewal Application for a Permit to Construct and Operate a Solid Waste Facility (Application No. 202305513) ("the Solid Waste Renewal Permit"). DEEP-SW-16.

13. On April 26, 2023, the Applicant filed Minor Modification Applications for Existing New Source Review Permits (Application Nos. 202303932 and 202303933) (the Air Permit Applications). The Air Permit Applications were submitted on the prescribed forms and consist of Exhibit DEEP-AR-26 and accompanying attachments.

14. The Applicant has had air permits for this location since 1989; minor modifications were most recently approved in 2020. The 2020 permits have the following criteria pollutant emissions limits:

Criteria Pollutant	**lb/hr**
PM	2.8
SO_2	8.6
NO_x	25.6 (Permit No. 026-0026) 32.8 (Permit No. 026-0027)
VOC	5.3
CO	13.0
Pb	0.05

DEEP-AR-26e

15. The non-criteria pollutant emission limits in the 2020 permits are:

Non-Criteria Pollutant	lb/hr	other emission limit
Sulfuric Acid (H_2SO_4	2.48	0.02 lb/MMBtu (million British thermal units)
HCl	4.92	
Total fluorides	0.01	
Polynuclear Aromatic Hydrocarbons (PAH)	6.0e-5	
Dioxin emissions	2.16e-7	1.95 ng/Nm^3 @ 12% CO_2
Arsenic	3.42e-4	
Cadmium (Cd)	1.43e-4	
Chromium	2.00e-4	
Copper	5.87e-4	
Manganese	5.33e-4	
Mercury (Hg)	1.57e-4	
Nickel	5.17e-5	
Zinc	1.14e-2	
Ammonia		20 ppmvd @ 7% 0_2

Id.

16. The Air Permit Applications included information about stack test data from a similar facility operated by Reworld in Florida. The Reworld Florida facility burns biomedical waste at a higher rate than the permit application: 9-10% and as high as 18% at Lake County versus a proposed maximum of 8% at the Reworld Bristol facility. Even burning biomedical waste at this higher rate, testing at the Reworld Florida facility did not exceed Connecticut emissions limits. DEEP-AR-26b.

17. As with the 2020 permits, the Reworld units are subject to annual emissions testing for the pollutants listed in the previous chart. The units are also subject to continuous emissions monitoring requirements for SO_2, NO_x and CO. DEEP-AR-30.

18. DEEP Staff conducted a sufficiency review in accordance with Department policy and practice, and on June 13, 2023, issued a Notice of Sufficiency related to the Air Permits. DEEP-AR-27.

19. On July 2, 2024, the Department issued a Notice of Tentative Determination for the Air Permits. DEEP-AR-31 and DEEP-AR-32. On the same day, the Department also issued two proposed New Source Review Permits to Construct and Operate a Stationary Source. DEEP-AR-33 and DEEP-AR-34.

20. On July 5, 2024, the Department issued a Notice of Tentative Determination for the Solid Waste Permits. DEEP-SW-18 and DEEP-SW-19. On the same day, the Department also issued a proposed Permit to Operate a Resources Recovery

Facility and to Construct and Operate a Biomedical Waste Treatment Facility. DEEP-SW-20.

21. DEEP Staff conducted a sufficiency review for Application No. 202305513 in accordance Department policy and practice and on August 25, 2023 issued a Notice of Sufficiency for the Solid Waste Renewal Permit. DEEP-SW-44.

Pre-Hearing and Hearing Procedures

22. On July 10, 2024, DEEP's Office of Adjudications received a petition from Francis R. Pickering of Southington, Connecticut signed by 25 or more persons requesting a public hearing on the Applications (the "Petition"). DEEP-42.

23. As a result of the Petition, on August 7, 2024, a status conference was held, during which the Applicant and the Department (the Applicant and the Department shall collectively be referred to as "the Parties") agreed, among other things, to prehearing procedures and dates for a prehearing conference, a site visit, a hearing to receive public comment, and an evidentiary hearing.

24. The Applicant and DEEP each submitted prehearing information, which contained the legal issues to be resolved, proposed witnesses and a list of proposed exhibits, as well as copies of the proposed exhibits. On October 1, 2024, a pre-hearing conference was held to address outstanding issues, identify and consent to the Parties' proposed expert witnesses, and admit exhibits to facilitate an orderly and expeditious hearing process.

25. On October 9, 2024, a site visit was held, and attended by the Hearing Officer, the Parties, the petitioner (Mr. Pickering), and interested members of the public.

26. On November 7, 2024, a public hearing was held via remote video conference and written public comments were accepted until November 18, 2024.

27. On November 21, 2024, an evidentiary hearing was held via remote video conference. At the evidentiary hearing, testimony from various expert witnesses was accepted into the record on behalf of the Applicant and DEEP Staff.

28. George Drew, Gary Pierce, Patrick Walsh, Charles Ash and Jessica Kruczek testified on behalf of the Applicant. APP-6, APP-8, APP-10, APP-14 and APP-16. The testimony of Paul Colon, initially accepted as an exhibit, was withdrawn. APP-12.

29. Frank Gagliardo, a Supervising Environmental Analyst and Brent Madho, an Assistant Division Director, testified on behalf of the Department related to the Solid Waste Permits. They testified about DEEP's review of the applications, the development of the draft permits, and their professional opinion that the applications are technically complete and comply with the applicable statutory and regulatory standards. DEEP-SW-23 and DEEP-SW-25.

30. David LaRiviere, an Air Pollution Control Engineer, testified on behalf of the Department related to the Air Permits. DEEP-AR-39. He testified about DEEP's review of the applications, the development of the draft permits, and their

professional opinion that the applications are technically complete and comply with the applicable statutory and regulatory standards.

Reworld, Inc.

By: _____

Lee D. Hoffman
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90 State House Square
Hartford, CT 06103
LHoffman@PULLCOM.COM

Bureau of Air Management
Waste Engineering and
Enforcement Division

By: _____

Brendan Schain
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CERTIFICATION

I hereby certify that a copy of the forgoing was sent electronically this 16th day of January 2025, to:

Attorney Brendan Schain
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BY: 

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Attachment II

PERMIT TO CONSTRUCT AND OPERATE

PERMITTEE:	**Covanta Bristol, Inc.**
FACILITY ADDRESS:	**170 Enterprise Drive, Bristol, CT 06010**
PERMIT No.	**Permit No. 0170----**

Pursuant to Section 22a-208a of the Connecticut General Statutes ("CGS") and Section 22a-209-4 and 22a-209-15 of the Regulations of Connecticut State Agencies ("RCSA"), a MODIFIED PERMIT TO OPERATE IS HEREBY ISSUED by the Commissioner of Energy and Environmental Protection ("Commissioner") to Covanta Bristol, Inc. ("Permittee") to OPERATE the Resources Recovery Facility and ("Facility") and to CONSTRUCT AND OPERATE a Biomedical Waste Treatment Facility ("Permit") located 170 Enterprise Drive Bristol, Connecticut. Subsequently, Permit to Construct No. 017-3WP issued on September 12, 1985, Minor Amendment No. 0170314 issued on August 17, 1998 , the Permit to Operate No. 01701072-PO issued on November 20, 2013, and letter approvals dated December 27, 2012, March 20, 2015,and May 15, 2017 are no longer in effect and are replaced by this Permit.

A. GENERAL TERMS AND CONDITIONS

1. a. This Permit is based on and incorporates by reference pertinent and appropriate sections of documents and specifications submitted as part of Application No. 202103504 to modify the Resources Recovery Facility Permit to Operate No. 01701072-PO, Application No. 202107639 to establish and operate a Biomedical Waste Treatment Facility, and Application No. 202305513 to renew Permit No. 0170172-PO including:
   - i. Application form received on March 3, 2021 to modify Permit to Operate No. 01701072-PO and to Construct a Biomedical Waste Facility;
   - ii. Application form received on July 25, 2023 to renew Permit to Operate No. 01701072-PO updated on June 12, 2024.
   - ii. Operations and Management Plan (O&MP) dated February 2021, and updated on January 25, 2023, June 11, 2024.
   - iii. A Site Plan prepared by CHA Consultants dated January 2021, and revised April 2022("Site Plan"); and
   - iv. Engineering Drawings prepared by CHA Consultants, including but not limited to drawings labeled C-100, S-100, S-104, S-200, S-201, A-101, A-102 and REF-100.. which were included in Covanta's January 27, 2023, correspondence to the Department.

   b. The Permittee shall maintain at the Facility and have available for reference by Facility staff and inspection by the Commissioner:
      - i. All documents or copies of such documents submitted as Application Nos. 202103504 and 202107639 and any document submitted in support of said applications for the life of this Permit; and

ii. A copy of this Permit and the Facility's Facility Plan which consists of the Operation and Management Plan and the engineered drawings which describe the Facility and its operations; and

c. The Permittee shall for the life of this Permit, provide to the Department notification within thirty (30) Days of any changes in the information provided as part or in support of the application on which this Permit was based. Any inaccuracies found in the information submitted by the Permittee may result in revocation, reissuance, or modification of this Permit and civil or criminal enforcement actions.

2. As used in this Permit, the following definitions apply:

"Ash Residue" means bottom ash, air pollution control residue, or other residues from the combustion control process.

"Biomedical waste" or "BMW" means untreated solid waste, any disposable container thereof and any reusable container thereof which has not been decontaminated, generated during the administration of medical care or the performance of medical research involving humans or animals, including infectious waste, pathological waste and chemotherapy waste, but excluding (1) any solid waste which is a hazardous waste pursuant to Section 22a-115 of the General Statutes or a radioactive material regulated pursuant to Section 22a-148 of the General Statutes; (2) untreated solid waste generated during the administration of medical care in a single or multiple family residence by a resident thereof; (3) discarded materials used for personal hygiene, such as diapers, facial tissues, and sanitary napkins, unless such materials are isolation waste; (4) syringes, hypodermic needles and other medical equipment used by farmers for the treatment of their livestock in the course of conducting farming, provided that such equipment is not excluded when used by a veterinarian or at the direction of a veterinarian; (5) samples of biomedical waste collected and transported by Department personnel for enforcement purposes; and (6) human fetal tissue, human remains, bulk pathological wastes, bulk chemotherapeutic wastes, formaldehyde, iodine, other preservatives and free flowing Biomedical liquid wastes.

''Biomedical waste transporter'' or ''transporter'' as defined in Section 22a-209-15(a) of the RCSA means a person engaged in the transportation of biomedical waste by air, rail, highway, or water.

"Biomedical waste treatment facility" as defined in Section 22a-207(21) of the CGS means a solid waste facility capable of storing, treating or disposing of any amount of biomedical waste, excluding any facility where the only biomedical waste treated, stored or disposed of is biomedical waste generated at the site and any licensed acute care facility or licensed regional household hazardous waste collection facility accepting untreated solid waste generated during the

administration of medical care in a single or multiple family household by a resident of such household.

"Bypass Waste" means any solid waste, contractually defined as Acceptable Waste destined for, or received at the Facility, but not processed at the Facility for any reason and which must be disposed of by other means.

"Certified Operator" means the solid waste facility operator or an employee of such operator who is present at the facility and oversees or carries out the daily operations authorized through this Permit, and whose qualifications are currently certified in accordance with Sections 22a-209-6 and 22a-231-1 of the RCSA.

"CFR" means the Code of Federal Regulations in effect the date this Permit is issued.

"Chemotherapy waste" as defined in Section 22a-209b(6) of the CGS means waste that has come in contact with an antineoplastic agent during the preparation, handling or administration of such an agent. A container which is or has been used to contain such an agent shall be deemed chemotherapy waste even if such container is empty;

"Commissioner" means the Commissioner of Energy and Environmental Protection.

"Day" means calendar Day.

"Decontaminate" as defined in Section 22a-209b(7) of the CGS means to substantially reduce or eliminate, by disinfection or other means, any biological hazard that is or may be associated with biomedical waste.

"Department" means the Department of Energy and Environmental Protection.

"Designated Recyclable Item" means an item designated for recycling by the Commissioner in regulations adopted pursuant to subsection (a) of Section 22a-241b or designated for recycling pursuant to Section 22a-256 or 22a-208v of the CGS.

"Generator of biomedical waste" as defined in Section 22a-207(20) of the CGS means any person who owns or operates a facility that produces biomedical waste in any quantity, including, but not limited to the following: General hospitals, skilled nursing facilities or convalescent hospitals, intermediate care facilities, chronic dialysis clinics, free clinics, health maintenance organizations, surgical clinics, acute psychiatric hospitals, laboratories, medical buildings, physicians' offices, veterinarians, dental offices and funeral homes. Where more than one generator is located in the same building, each individual business entity shall be considered a separate generator.

"Infectious waste" means waste which is capable of causing an infectious disease, is one of the wastes listed below, or is waste identified as infectious by a licensed health care provider. Waste shall be deemed capable of causing an infectious disease if there is reason to believe that it has been contaminated by an organism that is known or suspected to be pathogenic to humans and if such organism may be present in sufficient quantities and with sufficient virulence to transmit disease. The following are listed as infectious waste:

(1) Any discarded culture or stock of infectious agents and associated biologicals, including human and animal cell cultures from clinical, hospital, public health, research and industrial laboratories; any waste from the production of biologicals; any discarded etiologic agent; any discarded live or attenuated vaccine or serum; and any discarded culture dish or device used to transfer, inoculate, or mix cell cultures.
(2) Any body fluid, waste human blood, or waste blood product, any container of any of the foregoing, and any disposable item that is saturated or dripping with a body fluid or that was saturated or dripping with a body fluid and has since caked with dried body fluid.
(3) Any discarded used sharp and any residual substance therein.
(4) Any discarded unused hypodermic needle, scalpel blade, suture needle or syringe.
(5) Any discarded animal carcass, animal body part or animal bedding, when such carcass, part or bedding is known to be contaminated with or to have been exposed to an infectious agent.
(6) Isolation waste.
(7) Any material collected during or resulting from the cleanup of a spill of infectious or chemotherapy waste.
(8) Any waste which is neither a hazardous waste pursuant to Section 22a-115 of the General Statutes nor a radioactive material subject to Section 22a-148 of the General Statutes and which is mixed with infectious waste.

"Isolation waste" means discarded material contaminated with body fluids from (A) humans who are isolated to protect others from a highly communicable disease, and (B) animals which are isolated because they are known to be infected with an infectious agent capable of causing a highly communicable disease. A highly communicable disease is one listed in Biosafety Level 4 of the Centers for Disease Control/National Institutes of Health Guidelines entitled Biosafety in Microbiological and Biomedical Laboratories and dated May, 1988

"Municipal Solid Waste" or "MSW" means Municipal Solid Waste as defined in Section 22a-207 of the CGS.

"Non-ash residue" means any solid waste including but not limited to, bulky items too large for processing, ferrous material and/or other materials which does not constitute resource derived fuel and must be disposed of or marketed delivered to the Facility but determined by the Permittee to be unsuitable for burning and must be disposed of.

"Non-Processible Waste" means non-processible waste as defined in the Operations and Management Plan, which is incorporated herein by reference.

"Pathological waste" as defined in Section 22a-209b(12) of the CGS means any human tissue, organ or body part, except teeth and the contiguous structures of bone and gum, removed during surgery, autopsy or other medical procedure. Pathological waste does not include formaldehyde or other preservative agent, or a human corpse or part thereof regulated pursuant to section 7-64 or chapter 368i, 368j or 368k.

"Professional Engineer" or "P.E." means an engineer licensed to practice in the state of Connecticut.

"Processing" or "Processed" means the reduction in volume of municipal solid waste (MSW) through the Conversion thereof into resource derived fuel through combustion.

"Recyclable Items" are materials which are designated for recycling pursuant to Section 22a-241b of the CGS or Sections 22a-241b-1 to 22a-241b-4 of the RCSA or which may be recovered from the solid waste stream and for which there is a demonstrated market for reuse or that may be beneficially used in the production of other products.

"Residue" means bottom ash, air pollution residue or other residues resulting from the combustion control process.

"Sharps" as defined in Section 22a-209b(13) of the CGS means discarded sharps that have been used in animal or human patient care or treatment or in medical, research or industrial laboratories, including hypodermic needles; syringes, with or without attached needle; scalpel blades; glass blood vials; suture needles; needles with attached tubing; glass culture dishes and pasteur pipettes, provided such glassware is known to have been in contact with an infectious agent; anaesthetic carpules used in dental offices; and unused, discarded hypodermic needles, suture needles, syringes and scalpel blades.

"Tracking form" as defined in Section 22a-209-15(a) of the RCSA means the tracking form as described pursuant to described Section 22a-209-15(h) of the RCSA.

"Transport vehicle" or "vehicle" as defined in Section 22a-209-15(a) of the RCSA means any conveyance used for the transportation of biomedical waste. Each cargo-carrying compartment of a vehicle, such as a truck trailer or railroad freight car, is a separate vehicle.

"Special Waste" means the following wastes, so long as they are not hazardous waste pursuant to Section 22a-115 of the CGS or radioactive material subject to Section 22a-148 of the CGS: (1)

water treatment, sewage treatment or industrial sludges, liquid, solids and contained gases, fly ash and casting sands or slag, and contaminated dredge spoils; (2) scrap tires; (3) bulky waste, as defined in RCSA Section 22a-209-1; (4) asbestos; (5) residue; and (6) treated biomedical waste.

3. The Permittee shall comply with all terms and conditions of this Permit. This Permit consists of the conditions contained herein and the specifications contained in the application documents, except where such specifications are superseded by the more stringent conditions contained herein. Violation of any provision of this Permit may be subject to enforcement action pursuant, but not limited, to Sections 22a-6, 22a-208, 22a-225 and 22a-226 of the CGS.

4. The Permittee shall make no changes to the specifications and requirements of this Permit, except in accordance with law.

5. To the extent that any term or condition of this Permit is deemed to be inconsistent or in conflict, with any term or condition of any Permit previously issued for this Facility, including any modifications thereto, or with any data or information contained in the application, or any other documents incorporated by reference in this Permit, the term or condition of this Permit shall control and remain enforceable against the Permittee.

6. The Permittee shall submit for the Commissioner's review and written approval all necessary documentation supporting any proposed physical/operational upgrades, improvements and/or minor changes in the Facility design, practices or equipment. The Commissioner may issue a written approval only if, in the Commissioner's judgment, the proposed physical/operational upgrades, improvements and/or minor changes: (a) are deemed necessary for a better and more efficient operation of the Facility; (b) are not significantly changing the nature of the Facility, or its impact on the environment; and (c) does not warrant the issuance of a permit or authorization pursuant to Section 22a-208 of the CGS.

B. AUTHORIZATION TO CONSTRUCT AND MAINTAIN

1. Permit to Construct No. 017-3WP issued on September 12, 1985 authorized the construction of a solid waste resources recovery facility for the receipt and Processing of municipal solid wastes. Permit No. 017-3WP authorized the construction of a process/main building housing a receiving area storage pit, refuse crane, stokers, boilers and other ancillary equipment, control room, maintenance shop, employee facility, lunch room and a first aid room; Heated and Ventilation turbine generator building housing the turbine generator and ancillary equipment; residue building; scalper building; scale house; guard house and; cooling tower and stack.

2. A minor amendment of Permit to Construct No. 017-3WP and modification to the Permit to Operate No. 017-RR-5 issued on August 17, 1998 as Minor Amendment No. 0170314 authorized the construction of a dolomitic lime silo and two (2) lime delivery systems.

3. A December 27, 2012 letter authorizing the installation of a mobile eddy current system to recover non-ferrous metal in the ash building.

4. A March 20, 2015 letter authorizing the installation of an enclosed pneumatic fly ash conveyance piping system running parallel to the outdoor conveyor to the ash building and the installation of a dustmizer in the ash building for treatment of fly ash.

5. A May 15, 2017 letter authorizing the installation of equipment to recover ferrous metals from ash.

6. Facility consists of the following: two (2) incinerator/boiler systems, including various ancillary equipment; a turbine generator; an ash residue handling building equipped with a dustmizer; a lime silo; two (2) lime delivery and ash conditioning systems; a mobile eddy current system to recover non-ferrous metal in the ash building; ferrous metal recovery system, an enclosed pneumatic fly ash conveyance piping system; and a receiving building incorporating a storage pit and a tipping floor (TF) consisting of various areas for unloading, storage and re-loading activities.

7. In addition to the facility description contained in Condition No. B.6. the Permittee is authorized to construct the Facility in accordance with all applicable law, including this Permit. Authorized construction activities shall result in:

    a. A BMW Storage Annex Building located on the eastern side of the building;
    b. Three 10 foot overhead doors;
    c. Unloading dock on the west side of the building;
    d. BMW Truck staging area;
    e. Construction of an Automated Feed System consisting of:
        i. Three sided Waste Feed System Bins for management of palletized BMW;
        ii. Four sided Waste Feed System Bins
        iii. Waste Feed System Bin Tipping floor supply conveyor;
        iv. Waste Feed System Bin Vertical lift;
        v. Two Waste Feed System Charging Deck Transfer Conveyors;
        vi. Waste Feed System Bin Dumper Mechanism; and
        vii. Waste Feed System Bin Tipping Floor Return Conveyor.

8. The Permittee is authorized to maintain the Facility as described in Conditions No. B.6 and B.7. of this Permit.

9. The Permittee shall control dust, odors, water discharges and noise resulting from the construction and maintenance of the Facility at all times to assure compliance with applicable requirements of the RCSA, and any other applicable laws, including OSHA.

10. The Permittee shall, within thirty (30) Days from the completion of the construction as described in Condition(s) No B.7. of this Permit, or any maintenance undertaken pursuant to Condition No. B.8., of this Permit, submit a written notification for the Commissioner's review and written approval. Such notification shall include at a minimum:

    a. P.E. certified statement that the construction of the Facility improvements has been completed as approved;
    b. P.E. certified as-built drawings; and
    c. A request for written authorization from the Commissioner to operate in accordance with Section C of this Permit.

C. AUTHORIZATION TO OPERATE

1. The Permittee is authorized to operate the Facility as described in Condition No. B.6. of this Permit in accordance with all applicable laws. Unless otherwise approved in writing by the Commissioner or limited by local authorities, the Permittee is authorized to operate as follows: twenty-four (24) hours per day seven (7) days a week.

2. The Permittee shall receive and process at the Facility the following types of solid waste: (a) municipal solid waste (MSW); and (b) Special Waste including BMW and/or Processed Construction and Demolition Wood in accordance with a plan approved by the Commissioner pursuant to Section 22a-208y of the CGS. The Permittee shall not exceed the processing and storage limits established by this Permit. Solid waste, other than those listed herein, shall not be received, Processed, treated, stored, transported or disposed off-site, or otherwise managed at the Facility without prior written approval of the Commissioner. Any solid waste determined to be unsuitable for incineration shall be segregated for proper disposal.

3. The Permittee shall limit the Facility's processing capacity as described below, based on the combusted waste having a design higher heating value ("HHV") indexed at 4,500 BTU/lb:

    a. The maximum daily tonnage of solid waste combusted at the Facility shall not exceed an average, determined quarterly, of 716 tons per day ("TPD") (358 TPD per

incinerator/boiler unit), based on a twenty (24) hour day. As necessary, and/or to demonstrate operational compliance, such amount can be further adjusted based on other related operational parameters (e.g. steam flow rate; etc.) specified in the permits issued by the Bureau of Air Management.

b. In accordance with Section 22a-213(a) of the CGS and RCSA Section 22a-209-5, all contracts made between the Permittee and any city, town, borough or regional authority to provide for processing, storage and disposal outside of their boundaries of solid waste generated within its boundaries shall be submitted for the Commissioner's review pursuant to Section 22a-213(b) of the CGS. The Permittee shall ensure that the cumulative volume of such contracts does not exceed the annual combusted throughput specified in Condition No. C.3.c.

c. The maximum annual tonnage of solid waste combusted at the Facility shall not exceed a total of 261,340 tons per year of solid waste accounted as received over the scale, subsequently adjusted for pit and tipping floor storage inventories and other solid waste amounts not combusted (waste unsuitable for combustion; waste transferred off-site, pre and post combustion metals recovered for recycling; etc.), and measured on a calendar year basis.

d. The processing capacities specified in Condition No. C.3.a. may be adjusted upward or downward based on the ratio of design higher heating value of 4,500 BTU/lb of solid waste to the measured heating value (BTU/lb) of the incinerated solid waste or as may be specified in selected sections of the Service Agreement between the Permittee and the serviced towns.

e. The Permittee shall process the Ash residue generated at the Facility in order to reclaim both ferrous and non-ferrous metals that cannot be combusted through the waste to energy activities authorized by this Permit. The Permittee shall process Ash Residue by magnetic separation to reclaim ferrous metals. Ash residue shall be processed by a fixed Eddy Current System to reclaim non-ferrous metals and a mobile Eddy Current System to reprocess Ash residue to reclaim additional non-ferrous metal. The Permittee shall transfer both ferrous and non-ferrous metals to markets or recycling facilities authorized to accept and process such metals.

4. On-site handling and storage activities for specific waste streams shall be conducted in the authorized areas as identified in the storage table. BMW handling and storage activities shall be confined to the BMW Annex, BMW Trailers and in the BMW Annex Tipping floor and shall comply with the following limits and specifications:

STORAGE TABLE

Waste Type	Storage Specifications	Cubic Yards	Estimated Tons
Municipal Solid Waste	In piles in pit and piles on the tipping floor in two (2) dedicated areas	16,900	3,380
Municipal Solid Waste	In piles on tipping floor; and containers on the tipping floor loaded for off-site transfer	2,330	466
Non-Ash residue	Sorted and stored in containers on tipping floor	60	20
Incinerated Scrap Metal	Piles and containers in Ash building	500	165
Incinerated Scrap Metal (non-ferrous)	Two (2), 30 cubic yard containers along exterior wall of Ash building	60	20
Ash Residue	Piles in the Ash building	1,600	1,200
Ash Residue	Containers in the tipping Floor	240	180
Ash Residue	Containers in the Ash Building	80	60
Biomedical Waste	Tipping Floor in Containers	267	22.2
Biomedical Waste	Annex	56	4.6
Biomedical Waste	Trailers	1040	86.3
TOTAL ON-SITE STORAGE:		**23,133**	**5,604**

a. **Management of MSW** On-site MSW handling & storage activities on the tipping floor shall comply with the specifications noted in Storage Table above, including the following:

(i) MSW shall be stored: in the pit; in piles on two (2) dedicated areas of the tipping floor (max. height:14 ft. height; 270 square yard area); and in containers (designed to prevent leakage and spillage) loaded for off-site transfer;

(ii) All MSW unloading and loading and storage activities shall be confined to the tipping floor area;

(iii) All containers loaded with MSW shall be staged within the tipping floor area and shall be covered before transfer from the Facility;

(iv) MSW transfer shall only occur in the event of: scheduled shutdowns for maintenance of equipment or Facility cleaning; unscheduled shutdowns of the Facility; or lack of capacity at the Facility. MSW loading and off-site transfer activities shall occur before, during or after the receiving hours, provided that they will not have any impact on the regular tipping floor operation and safety;

(v) The amount of MSW transferred from the Facility shall be limited to 325 TPD during scheduled shutdowns of the Facility and 716 TPD during unscheduled shutdowns of Facility operations;

(vi) All tipping floor areas, not dedicated for MSW loading and storage activities, shall be maintained clean and be used for unloading, truck maneuvering , non-ferrous metal reprocessing and for other related activities (i.e.: temporary parking of heavy equipment;

storage of miscellaneous items and equipment utilized for the operation of the Facility; temporary storage in containers of unacceptable solid waste inadvertently delivered, sorted and managed in accordance with Condition No. C.9.c. of this Permit); and

(vii) No MSW shall be stored at the Facility for longer than one hundred and twenty (120) hours.

b. **BMW Management**

RECEIPT

(i) The Facility shall only accept BMW as authorized by this permit.

(ii) The Permittee shall ensure no more than 114 TPD of Special Waste, including BMW, are received at the Facility unless otherwise approved in writing by the Commissioner.

(iii) Biomedical waste accepted at the Facility shall be properly packaged in accordance with Section 22a-209-15(f)(1) of the RCSA. Properly packaged BMW shall be clearly labeled with the biohazard symbol, waste classification labels, relevant information, such as waste type, generator name, and any other relevant information.

(iv) Tracking form documentation must accompany all shipments of BMW received at the Facility as required by Section 22a-209-15(f)(2) of the RCSA.

(v) BMW shall only be received in the designated BMW receiving and staging area. BMW shall be immediately processed or transferred to the Waste Feed System Tipping Floor, Biomedical Waste Annex, or stored in trailers in accordance with the storage conditions below.

STORAGE

(vi) BMW storage shall be conducted in accordance with the requirements of Section 22a-209-15(c) of the RCSA.

(vii) BMW waste shall be stored only in a non-putrescent state. To maintain a non-putrescent state BMW may be refrigerated during storage at a temperature of no greater than 45°F (7°C). BMW storage shall be limited to no more than forty-eight (48) hours from when such BMW first entered the Facility, with the exception of legal holiday weekends, unless authorized in writing by the Commissioner.

(viii) The Permittee shall store at the Facility no more than 1,363 cubic yards of Special Waste, including BMW, at any one time, unless otherwise approved in writing by the Commissioner.

(ix) BMW shall be segregated from MSW received at the Facility.

PROCESSING

(x) Personnel handling BMW shall receive appropriate training on safety procedures, waste handling protocols, and emergency response measures.

(xi) Personal protective equipment (PPE) shall be provided and used as necessary to minimize the risk of exposure to BMW or its constituents.

(xii) The Permittee shall ensure that a feed ratio of 8% Special Waste, including BMW, to 92% other authorized MSW is maintained when Special Waste is processed through the boiler(s). In no event shall the Permittee process greater than 57 TPD through the boilers.

(xiii) The Permittee shall clean and sanitize the Waste Feed System Bins on a monthly basis or more frequently as needed.

c. Management and storage activities related to residues generated at the Facility (i.e., ash residue; non-ash residue; incinerated scrap metal fragments), shall comply with the specifications noted in the storage table above, including the following:

(i) All ash management and loading activities shall be confined to the ash residue building with the exception of non-ferrous metal reprocessing;

(ii) Ash residue shall be stored and consolidated in piles in the ash building and/or in watertight, sealed containers in the ash building and on the tipping floor;

(iii) All loaded watertight, sealed containers shall be staged in dedicated areas located within the Facility in the ash residue building and on the tipping floor and shall be covered with impervious covers before and during transfer from the Facility;

(iv) No Ash Residue shall be stored at the Facility for longer than seventy two (72) hours;

(v) Reprocessing of Ash residue to reclaim non-ferrous metal shall be conducted on the tipping floor and shall be limited to Saturdays and Sundays between the hours of 6:00 PM and 5:00 AM;

(vi) No solid waste deliveries shall be scheduled for the hours of operation of the mobile Eddy Current System non-ferrous metal recovery equipment; and

(vii) The reprocessing of Ash residue to reclaim non-ferrous metals shall cease and the mobile Eddy Current System non-ferrous recovery equipment shall be removed from the tipping floor in the event that a delivery of solid waste to the Facility must be accepted and deposited on to the tipping floor.

5. Within thirty (30) days from the issuance date of this Permit, the Permittee shall submit to the Commissioner for review either:

a. A contract for the disposal or recycling of all recovered metals, ash residue, non ash residue, and bypass solid waste estimated to be generated at the Facility during the September 2024 through September 2029 period; or

b. A plan which demonstrates to the satisfaction of the Commissioner that all ash residue, non-ash residue, and bypass waste generated at the Facility during the September 2024

through September 2029 period will be disposed of at a solid waste disposal area which the Permittee owns or operates or exclusively controls for purposes of access and allocation of disposal capacity and which has all authorizations required by law to accept such ash residue, non-ash residue and bypass waste.

6. The Permittee shall at all times dispose of or recycle all recovered metals, residue, non-ash residue, and bypass waste generated by the Facility in accordance with the most recent contract or plan approved by the Commissioner under Condition No. C.5 or Condition No. C.6, as applicable. If at any time the Permittee is unable to dispose of or recycle recovered metals, residue, non-ash residue, and/or bypass waste in accordance with said contract or plan, the Permittee shall store such recovered metals, residue, non-ash residue, and bypass waste in accordance with an alternate management plan submitted for the Commissioner's review and written approval within sixty (60) days prior to such storage taking place.

7. If at any time during the operation of the Facility, the available capacity for the disposal of ash residue, non-ash residue, and/or bypass waste at a designated permitted solid waste facility is less than three (3) years, the Permittee within forty-five (45) days of this determination, shall submit for the Commissioner's review and written approval a plan for uninterrupted disposal of such ash residue, non-ash residue and bypass waste, including a schedule for the implementation of such plan.

8. The Permittee shall:
   a. Store solid waste on-site in conformance with proper fire control measures. Routine maintenance and inspections of all fire control equipment shall be conducted in accordance with manufacturer's specifications.

   b. Ensure that all solid waste accepted at the Facility is properly managed on-site, processed, stored and transported to markets or other solid waste processing or disposal facilities authorized to receive such solid waste.

   c. Ensure that any unacceptable solid waste inadvertently received, or solid waste which is unsuitable for processing at the Facility is: (i) immediately sorted, separated, isolated and temporarily stored in a safe manner prior to off-site transport; (ii) recorded and reported in the quarterly report required by Condition No. C.15. of this Permit; and (iii) disposed at a facility lawfully authorized to accept such solid waste. The Permittee shall ensure provisions are in place to have a spare container delivered to the Facility within four (4) hours of any storage emergency.

   d. Provide expeditious notification regarding any emergency incident (explosion, accident, fire, release, or other significant disruptive occurrence) which: (i) significantly damaged

equipment or structures; (ii) interrupts the operation of the Facility for greater than twenty-four (24) hours; (iii) results in an unscheduled Facility shutdown or forced diversion of solid waste to other solid waste facilities; (iv) could reasonably create a source of pollution to the waters of the state; or (v) otherwise threatens public health.

Such notification shall be: (i) immediately provided to the Commissioner using the 24-hour emergency response number (860) 424-3338 or the alternate number (860) 424-3333 and, in no event later than twenty-four (24) hours after the emergency incident, provided to the Solid Waste Program in the Waste Engineering and Enforcement Division of the Bureau of Materials Management and Compliance Assurance by phone at (860) 424-3366, or at DEEP.WEEDNotification@ct.gov ; (ii) followed by a written report no later than the fifth business day after the emergency incident detailing the cause and effect of the incident, remedial steps taken and emergency backup used or proposed to be implemented; and (iii) recorded in a log of emergency incidents. In addition to the notification requirements above, the Permittee shall comply with all other applicable reporting or notification requirements regarding the emergency incident including but not limited to, reporting required by Section 22a-450 of the CGS;

e. Prevent the spillage of solid waste from transfer containers during solid waste management and storage activities at the Facility and transfer of solid waste from the Facility. Each loaded container shall be covered before transfer from the Facility and the haulers shall be instructed to keep the containers covered during transportation.

f. Operate the Facility in a safe manner so as to control fire, odor, noise, spills, vectors, litter and dust emission levels in continuous compliance with all applicable requirements, including OSHA. The Facility's premises shall be maintained in accordance with the following requirements:
   (i) Any litter and debris shall be removed from the Facility premises on a daily basis in which MSW is received;
   (ii) All storm drains shall be inspected and all debris removed twice a day when MSW is received;
   (iii) Any leachate from truck loads and run-off from the Facility is contained and cleaned up on days in which MSW is received; and
   (iv) All solid waste is removed from the waste storage pit on a monthly basis;

g. Have available for review by the Commissioner, the manufacturer's operation and maintenance manuals for each major piece of fixed processing equipment, (which may include, but not be limited to, balers, conveyors, compactors, and storage tanks) installed at the Facility.

h. Manage recyclable solid wastes in such a manner that will not cause contamination or degradation of the recyclable product, or result in any negative impact on the recyclability of such material;

i. Determine through observation that incoming loads do not contain greater than ten percent (10%) by volume of designated recyclable items.

j. Conduct periodic unannounced inspections of truck loads delivered to the Facility, pursuant to Section 22a-220c(b) of the CGS. The inspections shall be performed for a minimum of five percent (5%) of the directly hauled (i.e., trucks of wastes having already been processed at a Connecticut permitted facility may be excluded from this requirement) monthly truck loads received and shall be representative of the types of solid waste loads received at the Facility. The inspections and supporting documentation shall consist of at a minimum:
   (i) Photographs of each load inspected;
   (ii) Origin of each load (municipality; regional facility and whether commercial or residential); waste transporter company name;
   (iii) Estimated percentage of designated recyclable items by volume (cardboard, plastic Nos. 1 and 2, glass and metal food containers, leaves, newspaper, office paper, boxboard, magazines, residential high-grade white paper, colored ledger, scrap metal, storage batteries and used oil) and identification of each type; and
   (iv) Immediate written notifications to the hauler, monthly notification to municipality in which the waste was generated and/or regional facility for each load that contains greater than ten percent (10%) designated recyclable items; and
   (v) Maintain records of inspections for the life of the Permit or such other timeframe specified in writing by the Commissioner.

k. Ensure compliance with the following ash residue related issues:
   (i) Best management practices are continuously used for on-site handling of ash residue generated at the Facility.
   (ii) Ash residue characterization tests are done annually for the term of this Permit in accordance with the Environmental Protection Agency (EPA) protocol.
   (iii) The annual ash characterization test results are kept on site available for review by the Commissioner.
   (iv) Within thirty (30) days of receiving any annual ash characterization test results that exceed limits established by the EPA, the Permittee shall submit for the Commissioner's review and written approval a plan to address such exceedances. The Permittee shall ensure that any such plan is developed by a professional engineer licensed in the State of Connecticut. The Permittee shall implement the plan as approved by the Commissioner. In approving

any such plan, the Commissioner may approve the plan with such conditions or modifications as the Commissioner deems necessary.

9. The Permittee shall prominently post and maintain a sign at the Facility entrance pursuant to Section 22a-209-10(3) of the RCSA that includes the Facility's name and the Department Permit number (Permit to Operate No. 0170xxxxx- PCO) issuance date and expiration date. Such sign shall also include a phone number that provides the general public the ability to register questions or complaints twenty-four (24) hours per day. The Permittee shall maintain a log of all calls received and how such calls were addressed or resolved.

10. The Permittee shall: (a) control all traffic related to the operation of the Facility in such a way as to mitigate queuing of vehicles off-site and excessive or unsafe traffic impact in the area where the Facility is located; (b) unless otherwise exempted, ensure that trucks are not left idling for more than three (3) consecutive minutes pursuant to Section 22a-174-18(b)(3) of the RCSA and make best efforts to ensure that trucks are off-loaded on a first-in/ first-out basis; and (c) prominently post and maintain signs limiting such truck idling time within the Facility (e.g. at the scale; unloading areas).

11. The Permittee shall have an operator, certified pursuant to Section 22a-209-6 of the RCSA, present at all times during Facility operation. All individuals under the supervision of such Certified Operator shall have sufficient training to identify solid waste received at the Facility which is not permitted to be received, or is unsuitable for processing, and take proper action in handling such solid waste.

12. The Permittee shall:

    a. Obtain a Connecticut Compliance Agreement with the Connecticut Agricultural Experiment Station ("CAES") before receiving for disposal any loads of clean wood generated within the state of Connecticut that are infested or are suspected of being infested with the Emerald Ash Borer and/or Asian Longhorn Beetle;

    b. Obtain a Compliance Agreement with the Animal Plant Health Inspection Service before receiving any loads of clean wood for disposal that have been generated outside of the State of Connecticut and are infested or are suspected of being infested with the Emerald Ash Borer and/or Asian Longhorn Beetle;

    c. Ensure that any loads of clean wood accepted for disposal as a result of being infested or suspected of being infested with the Emerald Ash Borer and/or Asian Longhorn Beetle are accompanied with a Certificate of Transport from the generator; and

d. Ensure that any loads of clean wood received at the Facility for disposal that are infested or suspected of being infested with the Emerald Ash Borer and/or Asian Longhorn Beetle are immediately processed upon receipt during the active emergent months of June, July, and August

13. The Permittee shall maintain daily records as required by Section 22a-209-10(13) and Section 22a-209-15(i) of the RCSA and Sections 22a 208e and 22a 220 of the CGS. Based on such records, the Permittee shall prepare monthly summaries including, but not limited to, the following information as it pertains to solid waste:
    a. Type and quantity of solid waste and BMW received at the Facility;
    b. Origin of received solid waste : (i) CT municipality (direct delivery); (ii) CT regional facility (consolidating solid waste from more than one municipality); (iii) CT spot-market waste; (iv) out-of-state regional facility (where out-of-state spot-market solid waste was consolidated); (v) state (for out-of-state spot-market solid waste directly delivered without passing through a CT facility); (vi) any source of Special Waste as defined in Section 22a-209-1of the RCSA authorized to be received;
    c. Origin of BMW received at the Facility, including all tracking documents required by Condition No. C.4.b.iv. of this Permit.
    d. Destination, type and quantities of Facility generated solid waste: (i) ash residue; (ii) pre-combustion sorted solid waste materials (scrap metal; etc.); and (iii) post-combustion recovered solid waste material (scrap metal); (iv) bypass MSW (transferred from the Facility daily, or during emergencies);
    e. All daily logs (including documentation related to the unannounced inspections of truck loads) shall be maintained for the life of this Permit or such other timeframe specified in writing by the Commissioner; and
    f. Gross and net amount of steam and electrical energy produced and sold.

The monthly summaries required pursuant this condition shall be submitted on a quarterly basis, no later than January 31, April 30, July 31, October 31, of each year on forms prescribed by the Commissioner (as may be amended from time to time) directly to the Solid Waste Program, Waste Engineering and Enforcement Division, Bureau of Materials Management and Compliance Assurance, Department of Energy and Environmental Protection, 79 Elm Street, Hartford, CT 06106-5127.

14. Nothing herein authorizes any person, municipality or authority to hinder municipal or regional solid waste recycling efforts. All activities conducted by the Permittee at the Facility shall be in accordance with this Permit and consistent with the state-wide Solid Waste Management Plan, a.k.a. Connecticut's 2016 *Comprehensive Materials Management Strategy* pursuant to Sections 22a-228 and 229 of the CGS.

15. The Permittee shall, no later than sixty (60) days after the effective date of this Permit establish for the Commissioner's benefit an acceptable initial financial assurance instrument and post the financial assurance with the Department in the amount of five hundred and eighty thousand dollars ($580,000), as required by Section 22a-6(a)(7) of the CGS in conjunction with the general requirements of Section 22a-209-4(i) of the RCSA.

16. The Permittee shall acknowledge and accept the following:
    a. The purpose of the financial assurance is to cover the third party costs for handling, removing, transporting and disposing the maximum Permitted amount of unprocessed and processed solid waste at the Facility, and any additional cost(s) to ensure the proper closure of storage areas including, but not limited to, equipment rental, site clean-up, the decontamination and disposal of all equipment and processing and storage areas, and a fifteen percent (15%) contingency to cover unforeseen events or activities that may increase the overall cost to close the Facility.

    b. The financial assurance instruments shall follow the requirements of Section 22a-209-4(i) of the RCSA, and 40 CFR 264.141 to 264.143 inclusive and 40 CFR 264.151, as referenced therein. The Permittee shall ensure that the financial assurance instrument is established in a format specified by the Commissioner for closure or post-closure maintenance and care, as appropriate.

    c. The Department accepts five (5) types of financial assurance instruments. They are: (a) Trust Fund; (b) Irrevocable Standby Letter of Credit; (c) Financial Guarantee "Payment" Bond; (d) Performance Bond; and (e) Certificate of Insurance. In addition, the following documents are also required to be submitted with the instrument:
        (i) A cover letter signed by the Permittee shall be submitted along with an Irrevocable Standby Letter of Credit, in accordance with Section 40 CFR 264.143(d)(4).
        (ii) A "Standby Trust Agreement" shall be submitted along with either an Irrevocable Standby Letter of Credit, Financial Guarantee "Payment" Bond, or Performance Bond.
        (iii) A "Certification of Acknowledgement" shall be submitted along with a Trust Fund.

    d. The financial assurance shall:
        (i) Be valid for and appropriately maintained during the term of this Permit;
        (ii) Specify the Permittee's name, the Facility's address, the number and issuance date of this Permit; and
        (iii) Be established in one or more of, the instrument formats found on the Department website [www.ct.gov/DEEP/financialassurance].

    e. The financial assurance instrument shall be adjusted annually for inflation within the sixty (60) days prior to the anniversary date of the instrument as well as whenever there is a

change in operations that affects the cost of closing the facility in accordance with the requirements of 40 CFR 264.142(b) as incorporated in the Section 22a-449(c)-104 of the RCSA.

17. The Permittee shall, no later than sixty (60) days from the issuance date of this Permit perform quarterly compliance audits for the life of this Permit.

a. The compliance audits required by this condition shall consist of a thorough and complete assessment of the Permittee's compliance with Sections 22a-209-1 through 22a-209-17 of the RCSA and with the terms and conditions of this Permit.

b. Compliance Auditor
The compliance audits required by this condition shall be performed by an engineer licensed to practice in Connecticut ("P.E") or consultant. Such P.E. or consultant shall be approved in writing by the Commissioner and shall be required to prepare and submit to the Commissioner the compliance audit reports.

The Permittee shall, prior to the Commissioner's approval of the P.E. or consultant: (a) submit for the Commissioner's evaluation a detailed description of the P.E. or consultant's credentials (education; experience; training) which are relevant to the work required under this condition; and (b) certify to the Commissioner that such P.E. or consultant:

(i) Is not a subsidiary of or affiliated corporation to the Permittee or Permitted Facility;
(ii) Does not own stock in the Permittee or any parent, subsidiary, or affiliated corporation;
(iii) Has no other direct financial stake in the outcome of the compliance audit(s) outlined in this Permit;
(iv) Has expertise and competence in environmental auditing and the regulatory programs being addressed through this Permit, including evaluation of compliance with requirements specified in Sections 22a-209-1 through 22a-209-17 of the RCSA and with the terms and conditions of this Permit; and
(v) Within ten (10) days after retaining any P.E. or consultant other than the one originally identified pursuant to this condition, notify the Commissioner in writing of the identity of such other P.E. or consultant by submitting the information and documentation specified in this condition. Nothing in this condition shall preclude the Commissioner from finding a previously acceptable P.E. or consultant unacceptable.

c. Scope of Compliance Audits
Compliance audits shall:
(i) Detail the Permittee's compliance with the requirements of this Permit and all applicable provisions of Sections 22a-209-1 through 22a-209-17 of the RCSA;
(ii) Describe any outreach efforts conducted by the Permittee to initiate pay as you throw (PAYT) programs also known as unit based pricing or variable-rate pricing

and shall include names of waste haulers and municipalities that are participating in such programs; and

(iii) Describe the Compliance Auditor's participation in and the results of inspections conducted at the Facility on the loads of solid waste received at the Facility during the compliance audit. The purpose of such inspections is to determine whether such loads are being received that contain greater than ten percent (10%) by volume Designated Recyclable Items; whether loads of source separated Recyclable Items contain greater than two percent (2%) by volume of non-recyclable wastes; and to detect patterns associated with such loads. Unless otherwise approved by the Commissioner, the compliance auditor shall inspect solid wastes unloaded from a minimum of ten (10) trucks received during the day of the compliance audit. The Compliance Auditor shall document the actual number of truck loads inspected and the findings of such inspections.

d. Compliance Audit Report

The results of each compliance audit shall be summarized in a Compliance Audit report. At a minimum such report shall include:

(i) (The names of those individuals who conducted the compliance audit;
(ii) The areas of the Facility inspected;
(iii) The records reviewed to determine compliance;
(iv) An evaluation and detailed description of the Permittee's compliance with this Permit and applicable regulations;
(v) The identification of all violations of this Permit and applicable regulations;
(vi) A description of the actions taken by the Permittee to correct patterns of loads received that exceed the threshold contaminant percentages specified in Condition No. C.7.j. of this Permit for loads that are representative of the waste types authorized for receipt at the Facility;
(vii) The findings of the compliance auditor regarding the audits conducted in accordance with Condition No. C.17. of this Permit during the day of the compliance audit;
(viii) A detailed description of all actions taken by the Permittee to correct the violation(s) identified in each compliance audit; and
(ix) The Permittee's certification of compliance with the regulations and documentation demonstrating such compliance pursuant to this Permit. In cases where multiple counts of the same violation are discovered, the report shall include a listing of each count.

e. Permittee's Reponses to Compliance Audit

The Permittee and the P.E. or consultant shall comply with the following:

(i) The auding frequency shall be quarterly for the remaining life of the Permit;

(ii) All violations shall immediately be brought to the attention of the Permittee by the compliance auditor. The Permittee shall notify the Department within five (5) Days of the compliance audit of all violations noted during the compliance audit;

(iii) The Permittee shall correct all violations immediately. Should the Permittee be unable to immediately correct the violation, within seven (7) Days of the date the Permittee became aware of the violation(s), the Permittee shall submit for the review and written approval of the Commissioner, a detailed plan to correct all violations noted. Such plan shall also include a schedule for implementation of the corrective actions required or recommended; and

(iv) The Permittee shall ensure that no later than fifteen (15) Days after a compliance audit, a compliance audit report that meets the requirements of Condition No. C.17.d. of this Permit, is submitted to the Commissioner. A copy of the compliance audit report, shall be maintained at the Facility for the life of the Permit or for such other timeframe specified by the Commissioner.

f. In addition to any other sanction authorized by law, the Permittee shall cease accepting solid waste at the Facility in the event that the Permittee fails to submit in a timely manner the plan and schedule required by Condition No. C.16.[verify number].e. of this Permit or fails to correct the violations noted by the compliance audit(s) in accordance with the approved plan and schedule. The Commissioner may seek similar sanction for any violation of this Permit.

g. **Documentation Submittal Deadlines**
The documents required to be submitted pursuant to this condition shall be submitted quarterly no later than January 31, April 30, July 31, October 31, directly to the Solid Waste Enforcement Program, in accordance with Condition No. C.18. of this Permit

18. Unless otherwise specified in writing by the Commissioner, any reports required to be submitted under this Permit shall be directed to:

Solid Waste Program
Waste Engineering and Enforcement Division
Bureau of Materials Management and Compliance Assurance
Department of Energy and Environmental Protection
79 Elm Street, Hartford, CT 06106-5127
Or via email to DEEP.Solid&HazWasteReports@ct.gov

19. Any document, including, but not limited to any notice, which is required to be submitted to the Commissioner under this Permit shall be signed by a duly authorized representative of the Permittee, as defined in Section 22a-430-3(b)(2) of the RCSA, and by the individual or individuals

responsible for actually preparing such documents, each of whom shall certify in writing as follows:

> "I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief, and I understand that any false statement in the submitted information may be punishable as a criminal offense."

Any false statement in any document submitted pursuant to this Permit may be punishable as a criminal offense in accordance with Section 22a-6 of the CGS, pursuant to Section 53a-157 of the CGS, and in accordance with any other applicable statute.

20. The date of submission to the Commissioner of any document required by this Permit shall be the date such document is received by the Commissioner. The date of any notice by the Commissioner under this Permit, including but not limited to, notice of approval or disapproval of any document or other action shall be the date such notice is personally delivered or the date three (3) days after it is mailed by the Commissioner, whichever is earlier. Any document or action which is due or required on a Saturday, Sunday or a legal state or federal holiday shall be submitted or performed by the next business day thereafter.

21. This Permit is subject to, and in no way derogates from any present or future property rights or other rights or powers of the State of Connecticut and conveys no property rights in real estate or material, nor any exclusive privileges, and is further subject to, any and all public and private rights and to any federal, state or local laws or regulations pertinent to the Facility or activity affected thereby.

22. Nothing in this Permit shall affect the Commissioner's authority to institute any proceeding or to take any actions to prevent violations of law, prevent or abate pollution, recover costs and natural resource damages, and to impose penalties for violations of law.

23. Nothing in this Permit shall relieve the Permittee of other obligations under applicable federal, state and local laws.

24. Permit to Operate No. 01701072-PO issued on November 20, 2013, Permit to Construct No. 017-3WP issued on September 12, 1985, Minor Amendment No. 0170314 issued on August 17, 1998 and Letter approvals dated December 27, 2012, March 20, 2015,and May 15, 2017 are no longer in effect and replaced by this Permit.

25. This Permit shall expire five (5) years from the date of issuance and may be revoked, suspended, modified, renewed, or transferred in accordance with applicable laws.

Issued on this day of , 2024.

_____

Emma Cimino
Deputy Commissioner

Application Nos. 202103504, 202107639, 202305513
Permit to Construct and Operate No.
Permittee - Certified Mail #

DEEP-AR-34

Connecticut
Department of Energy &
Environmental Protection

BUREAU OF AIR MANAGEMENT
NEW SOURCE REVIEW PERMIT
TO CONSTRUCT AND OPERATE A STATIONARY SOURCE

Issued pursuant to Title 22a of the Connecticut General Statutes (CGS) and Section 22a-174-3a of the Regulations of Connecticut State Agencies (RCSA).

Owner/Operator	Reworld Bristol, Inc.
Address	170 Enterprise Drive, Bristol, CT 06010
Equipment Location	170 Enterprise Drive, Bristol, CT 06010
Equipment Description	MWC Unit #2: One 358 TPD Ogden Martin Systems, Martin Reverse Acting Stoker Grate, Waterwall Furnace, Water-Tube Boiler System (Nominally Rated at 122 MMBtu/hr) with an Auxiliary Burner System (Rated at 50 MMBtu/hr)
Town-Permit Numbers	026-0027
Premises Number	202
Stack Number	02
Modification Issue Date	
Prior Permit Issue Dates	April 20, 2020 October 11, 2006 May 26, 1989
Expiration Date	None

Katherine S. Dykes
Commissioner

Date

This permit specifies necessary terms and conditions for the operation of this equipment to comply with state and federal air quality standards. The Permittee shall at all times comply with the terms and conditions stated herein.

PART I. GENERAL DESCRIPTION

A. Municipal Waste Combustor (MWC)

Major components include a Martin Reverse Acting Stoker Grate, a Waterwall Furnace and a Water-tube Boiler System with Natural Gas-fired Auxiliary Burner System designed to combust Municipal Solid Waste (MSW).

B. FLAKT Dry Gas Scrubber/Baghouse System

Major components and sub-systems include lime additive preparation, storage and feed system; spray dryer scrubber (SDS) for acid gas control; baghouse and solids handling system. The SDS includes an atomizer to finely atomize and mix the lime additive with the flue gas.

C. Selective Non-catalytic Reduction (SNCR) System

The principal components of the SNCR system include a 10,000 gallon aqueous ammonia storage tank, ammonia pump skid, carrier water pump skid, a purge air system and injection nozzles. There are ammonia detectors that alarm both locally and in the control room as well as eyewash stations.

D. Mercury Emissions Control (MEC) System

The MEC System includes a pneumatic feed system that injects dry activated carbon into the existing flue gas ductwork downstream of the economizer of each Municipal Waste Combustor (MWC). The system consists of two independent carbon injection trains, each dedicated to one of the MWCs. The carbon injection trains are fed from a common carbon storage silo. Each carbon injection train includes a surge bin, gravimetric feeder, blower, eductor, piping, wiring and other process controls.

The common storage silo has two outlet hoppers to ensure each carbon injection train is independently fed and controlled.

PART II. OPERATIONAL CONDITIONS

A. Operational Parameters

1. MWC
   a. Materials Charged:
      i. Municipal Solid Waste (MSW) as defined and restricted in CGS §22a-207 et seq. and any applicable Bureau of Waste Management permit.
      ii. Special waste as defined in RCSA §22a-209-1 and in accordance with the Permittee's most current approved Special Waste Disposal Authorization(s) issued pursuant to CGS §22a-208y.
      iii. Biomedical waste in accordance with the Permittee's applicable Bureau of Waste Management permit.
   b. Maximum Facility-wide MSW Processing Rate (tons per year): 261,340 [1]
   c. Maximum Facility-wide Annual Average Steam Production (lb/hr): 83,000
   d. Maximum demonstrated MWC steam production shall be 110% of the maximum MWC steam production (highest 4-hour arithmetic average) measured during the most recent annual performance test for dioxin/furan emissions for which compliance with the dioxin/furan

emission limit was achieved.

2. Auxiliary Burner System Fuel Type: Natural Gas

3. Particulate Control Device Inlet Temperature: The Permittee shall not cause or allow such unit to operate at a temperature, measured at each particulate control device inlet, more than 17 degrees centigrade, based on a 4-hour arithmetic average, above the maximum demonstrated particulate control device temperature measured during the most recent performance test for dioxin/furan emissions for which compliance with the dioxin/furan emissions limit was achieved. [RCSA §22a-174-38(g)(1)]

4. Unit Load: The Permittee shall not cause or allow such unit to operate at a municipal waste combustor unit load greater than 110% of the maximum demonstrated 4-hour average municipal waste combustor unit load, based on a 4-hour arithmetic average, measured during the most recent performance test for dioxin/furan emissions for which compliance with the dioxin/furan emissions limit was achieved. Municipal waste combustor unit load shall be measured by a steam flow meter. [RCSA §22a-174-38(g)(2)]

5. Notwithstanding Parts II.A.3 and 4 of this permit, the Permittee may, during the annual dioxin/furan emissions performance test and for two weeks prior to such test, allow temperatures and unit load in excess of the limits, found in Parts II.A.3 & 4 of this permit. Should the unit be operated at such excess temperatures and load, the owner or operator shall not again be allowed to operate at such excess temperatures and load during that test period without the approval of the commissioner should the annual dioxin/furan emission performance test be postponed. [RCSA §22a-174-38(g)(3)]

6. Carbon Injection: During operation of the MWC unit, the carbon injection system operating parameter(s) that is the primary indicator(s) of the carbon mass fee rate (e.g., screw feeder setting) shall be averaged over a block 8-hour period, and the 8-hour block average shall equal or exceed the level(s) documented during the performance tests specified in RCSA §22a-174-38(i).

7. Notwithstanding RCSA §22a-174-38(g)(5), during the annual dioxin/furan or mercury performance test and the two weeks preceding the annual dioxin/furan or mercury performance test, no limit is applicable for the average mass carbon feed rate if the provision of RCSA §22a-174-38(g)(4) are met.

[1]- Adjusted for pit inventory and other waste not processed through the MWC

B. Equipment Design Specifications

1. MWC
   a. Design MSW Charge Rate: 14.89 tons/hr, 358 tons/day [1]
   b. Maximum Design Heat Input Heat (MMBtu/hr): 134.2
   c. Nominal Design Heat Input Rate (MMBtu/hr): 122
   d. Grate Dimensions (ft): 26.43L x 13.65W
   e. Nominal Unit Steam Production (lb/hr): 75,500
   f. Steam Temperature at Super-Heater Outlet (°F): 800-845
   g. Steam Pressure at Super-Heater Outlet (psig): 835-880
   h. Feedwater Temperature (°F): 250
   i. Gas Temperature Leaving Economizer (°F): 415-450

2. Auxiliary Burner System
   a. Fuel Type: Natural Gas
   b. Maximum Design Fuel Firing Rate (cf/hr): 50,000
   c. Maximum Design Heat Capacity of Chamber (MMBtu/hr): 50

[1]- (Based on original Reference Fuel Heating Value of 4500 Btu/lb, current estimate is 5174 Btu/lb)

C. Control Equipment Design Specifications

1. SDS
   a. Inlet Gas Flow Rate (10^3 acfm): 75.0 [1]
   b. Inlet Gas Temperature (°F): 425-450 [1]
   c. Pressure Drop (in H_2O): 4 [1]

2. Baghouse
   a. Exit Gas Flow Rate (10^3 acfm): 67.1 [1]
   b. Exit Gas Temperature (°F): 270-280 [1]
   c. Pressure Drop (in H_2O): 10 [1]
   d. Bag Area per Compartment (ft^2): 7150
   e. Pressure Drop Across Each Compartment (in H_2O): 6 [1]
   f. Total Pressure Drop Across the Baghouse (in H_2O): 5.0-10.0 [1]
   g. Minimum Number of Compartments in Service at Any Time: 3
   h. Air to Cloth Ratio: 3.7:1

3. SNCR System
   a. Design Control Efficiency (%): 50 [1]
   b. Maximum Reagent Injection Rate (gal/hr): 60
   c. Typical Reagent Injection Rate Range (gal/hr): 10-13 [1]

4. MEC System
   a. Minimum Design Control Efficiency (%): 85
   b. Maximum Carbon Injection Rate (lb/hr): 40
   c. Typical Carbon Injection Rate Range (lb/hr): 12-15 [1]
   d. Carbon Characteristics: 95% @ 325 mesh, 8% moisture
   e. Silo Size (ft^3): 3300
   f. Surge Bin Vent Filter Area (ft^2): 216
   g. Surge Bin Vent Filter Flow Rate (acfm): 675 [1]

[1]- This is a typical value or range, which is subject to change during the course of normal operation.

D. Stack Parameters

1. Minimum Stack Height (ft): 292

2. Minimum Stack Exit Diameter (inches): 56

3. Minimum Distance from Stack to Nearest Property Line (ft): 95

PART III. OPERATION AND MAINTENANCE REQUIREMENTS

A. The Permittee shall not cause or allow the plant to be operated at any time unless a certified chief

operator or shift operator is physically present at the plant. [RCSA §22a-174-38(h)(1)]

B. Operators shall be certified by the commissioner under section 22a-231-1 of the Regulations. [RCSA §22a-174-38(h)(2)]

C. All chief operators and shift operators must satisfactorily complete an operator training course conducted by the commissioner pursuant to RCSA §22a-174-38(h)(3). The operators shall be trained in the operation and maintenance of both the fuel burning and pollution control equipment.

D. The Permittee shall maintain an Operating and Maintenance (O&M) Manual that shall be updated on a yearly basis. [RCSA §22a-174-38(h)(4)]

E. The Permittee shall establish a training program to review the O&M Manual with each person who has responsibilities affecting the operation of the plant. The training program shall be repeated on an annual basis for each person. [RCSA §22a-174-38(h)(5)]

F. Operation of this facility shall comply with all applicable state and federal air pollution control regulations. Except as explicitly altered elsewhere in this permit, all the requirements of the New Source Performance Standards (40 CFR Part 60) shall be applicable to the MWC to the extent that they would be applicable to any other unit subject to the Standards of Performance for Incinerators (40 CFR Part 60, Subpart Cb). Specifically, the various notification, testing, monitoring, and record keeping provisions of 40 CFR Part 60, Subpart A are applicable to the MWC.

G. Operation on MSW during any start-up period is not allowed without the air pollution control systems working.

H. Additional tests may be required if any pollutant emission rate or operational parameter is identified as not being in compliance with any permit condition.

PART IV. ALLOWABLE EMISSION LIMITS

The Permittee shall not cause or allow this equipment to exceed the emission limits stated herein at any time.

A. Table 1 - Mass Emission Limits

Compliance with the mass emission limits (lb/hr, TPY) shall be based on compliance with the corresponding concentration permit limits (ppmvd, mg/dscm, etc.). The mass emission rates (lb/hr, TPY) are considered representative of actual operating conditions and are based on the average stack gas volumetric flow rates from stack tests performed from 1996 to 2000. The actual mass emission rates will vary depending on actual exhaust flow.

Criteria Pollutants	lb/hr [1, 4]	TPY [2]
PM	2.8	24.5
SO_2 [3]	8.6	75.6
NO_x	32.8	256
VOC	5.3	46.3
CO	13.0	114
Pb	0.05	0.40

Non-Criteria Pollutants [5]	lb/hr [1]	Other Emission Limit
Sulfuric Acid (H_2SO_4)	2.48	0.02 lb/MMBtu
HCl [3]	4.92 [4]	
Total Fluorides	0.01	
Polynuclear Aromatic Hydrocarbons (PAH)	6.0e-5	
Dioxin Emissions [6]	2.16e-7	1.95 ng/Nm^3 @ 12% CO_2 [7]
Arsenic	3.42e-4	
Cadmium (Cd)	1.43e-4	
Chromium	2.00e-4	
Copper	5.87e-4	
Manganese	5.33e-4	
Mercury (Hg) [3]	1.57e-4	
Nickel	5.17e-5	
Zinc	1.14e-2	
Ammonia		20 ppmvd @ 7% O_2

[1] – Hourly limits for MWC Unit #2

[2] – Total annual emissions for MWC Units #1 and 2 (Permit Nos. 026-0026 and 026-0027) combined

[3]- These pollutants allow for a percent reduction in emissions as an alternative to the emission limit (the least stringent applies). The percent reductions for each pollutant are given in Part IV.B of this permit.

[4]- Based on 29,900 dscfm (68°F) and the corresponding pollutant concentration, except for VOC, which is based on 30,231 dscfm @ 12% CO_2. These flow rates are the average values from the dioxin and metals stack tests of this unit from 1996-2000. These values are considered representative of actual operation, subject to change during the course of normal operation.

[5]- The non-criteria pollutant emission rates are considered representative of typical operating conditions and may vary up to, but not exceed the more stringent of the MASC value or RCSA §22a-174-38 concentration limits, where applicable. The lb/hr emission rates for dioxin[6] and metals are actual emissions from the 11/00 stack test. The lb/hr emission rates for H_2SO_4, total fluorides and PAHs are from the original stack test.

[6]- As defined in RCSA §22a-174-1.

[7]- Original permit's BACT limit.

B. Table 2 - RCSA §22a-174-38 Limits

Compliance with the following emission limits shall be verified in accordance with RCSA §22a-174-38.

Pollutant	mg/dscm @ 7% O_2	ppmvd @ 7% O_2
PM	25	
SO_2		29 [1]
NO_x		150 [2]
CO		100 [3]
Pb	0.400	
Cd	0.035	
Hg	0.028 [4]	
HCl		29 [5]
Dioxin/Furan [6]	0.00003	

[1] - Based on a 24-hour daily geometric average or 75% reduction by weight or volume, whichever is less stringent
[2] - Based on a 24-hour daily average.
[3] - Based on a 4-hour block arithmetic average
[4] - Or 85% reduction by weight, whichever is less stringent
[5] - Or 95% reduction by weight or volume, whichever is less stringent
[6]- As defined in RCSA §22a-174-38

1. Concentration emission limits shall be corrected to 7% O_2 unless the Permittee submits information to the Department, in accordance with RCSA §22a-174-38(c), justifying correction to an equivalent % CO_2 and receives the commissioner's written approval.

2. Dioxin/furan emissions shall be corrected to both 7% O_2 and 12% CO_2. This is required as the BACT limit of the original permit was corrected to 12% CO_2 and the limit contained in RCSA §22a-174-38 corrects to 7% O_2.

3. In the event that particulate matter, cadmium, lead, mercury, dioxin/furan or hydrogen chloride emissions from this MWC exceed the respective emission limits, as determined through stack testing compliance data, the Permittee shall immediately initiate corrective action to re-attain compliance with this limit.

C. Hazardous Air Pollutants

This equipment shall not cause an exceedance of the Maximum Allowable Stack Concentration (MASC) for any hazardous air pollutant (HAP) emitted and listed in RCSA §22a-174-29. [STATE ONLY REQUIREMENT]

D. Opacity

Maximum opacity, 10 percent, 6-minute arithmetic average, as determined by continuous opacity monitoring.

E. Beryllium

If municipal solid waste consisting, in part, of beryllium containing waste from a foundry, extraction plant or propellant plant, is burned in this MSW incinerator, at any time, the provisions of 40 CFR Part 61, Subpart C shall apply.

PART V. MONITORING, REPORTING AND RECORD KEEPING REQUIREMENTS

A. Monitoring

1. The Permittee shall comply with the CEM requirements as set forth in RCSA §22a-174-4a. CEM shall be required for the following pollutant/operational parameters and enforced on the following basis:

Pollutant/Operational Parameter	Averaging Times	Emission Limit	Units
Opacity	six minute block	10%	
SO_2	24 hour geometric mean	29 [1]	ppmvd @ 7% O_2
NO_x	24 hour daily average	150	ppmvd @ 7% O_2
CO	4 hour block	100	ppmvd @ 7% O_2
O_2	1 hour block		
Steam Load	4 hour block		

Particulate Control Device Inlet Temperature	4 hour block		
Furnace Temperature	4 hour block		
Overfire and Underfire Air Flowrate	4 hour block		
Activated Carbon Injection Rate	8 hour block		

[1] - Or a 75% reduction by weight or volume, whichever is less stringent.

2. The Permittee shall install and operate continuous emission monitoring systems to monitor opacity, sulfur dioxide (SO_2), nitrogen oxides (NO_x), carbon monoxide (CO) and oxygen and record the output of each system in accordance with RCSA §22a-174-38(k).

3. The Permittee shall install and operate continuous monitoring systems for measuring and recording steam load (i.e., steam flow meter), total combined overfire and underfire air, furnace temperature, pressure drop across air pollution control devices, particulate control device inlet temperature, SDS reagent application pressures/flowrates and the powdered activated carbon injection rate, as estimated from the screw feeder speed indicator.

4. CEM equipment may not be available for one or more of the following: H_2SO_4, VOC and SDS reagent specific gravity. Installation of this equipment will not be required at this time. At the commissioner's discretion, this CEM equipment will be installed and operated when and if acceptable CEM equipment become available within six months of receipt of notification from the commissioner.

5. All CEM equipment and recorders shall be installed, operated, calibrated, tested and maintained in a manner that demonstrates compliance with siting, performance and quality assurance specifications stated in 40 CFR Part 60, Appendices B and F and RCSA §22a-174-38(j).

B. Record Keeping

1. The Permittee shall make and keep records of all CEM data required in Part V.A of this permit.

2. The Permittee shall keep records of the monthly and consecutive 12 month quantity of the MSW combusted. The consecutive 12 month quantity of materials combusted shall be determined by adding the current month's quantity to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of each month.

3. The Permittee shall calculate and record the monthly and consecutive 12 month PM, SO_2, NO_x, VOC, CO and Pb emissions in units of tons. The consecutive 12 month emissions shall be determined by adding (for each pollutant) the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation for each pollutant. The Permittee shall make these calculations within 30 days of the end of the previous month.

4. The Permittee shall make and keep records of all performance tests conducted to determine compliance with the dioxin/furan, particulate matter, hydrogen chloride, cadmium, lead, mercury, ammonia, H_2SO_4, fluorides and PAH emission limits.

5. The Permittee shall make and keep records of all performance tests conducted to determine compliance with any pollutant emission rate or operational parameter, if such tests are required by the commissioner.

6. The Permittee shall make and keep records for operator training in accordance with RCSA §22a-174-38(k)(2).

7. The Permittee shall monitor the carbon mass feed rate for the carbon injection system and manual feed. The Permittee shall make and keep records for the carbon injection system in accordance with RCSA §22a-174-38(k)(11)].

8. The Permittee shall keep records of the daily hours of operation, in which periods of startup, shutdown and malfunction are distinguished.

9. The Permittee shall keep all records required by this permit for a period of no less than five years and shall submit such records to the commissioner upon request.

C. Reporting

1. The Permittee shall submit reports to the commissioner of all required performance tests.

2. The Permittee shall submit a quarterly report to the commissioner within 30 days following the end of the each calendar quarter. Each quarterly report shall include the information required in RCSA §22a-174-38(l)(2).

3. The Permittee shall report all CEM data to the commissioner on a quarterly basis in accordance with RCSA §22a-174-38(l).

4. The Permittee shall provide written notification to the commissioner within 72 hours of the time at which the Permittee receives information regarding performance test results indicating that any particulate matter, opacity, cadmium, lead, mercury, dioxin/furan, hydrogen chloride or fugitive ash emission levels exceed the applicable pollutant emission limits or standards defined in RCSA §22a-174-38.

PART VI. STACK EMISSION TEST REQUIREMENTS

A. Stack emission testing shall be performed in accordance with the Emission Test Guidelines available on the DEEP website at www.ct.gov/deep/stacktesting.

B. The Permittee shall conduct an annual performance test for dioxin/furan, particulate matter, hydrogen chloride, cadmium, lead, mercury, and ammonia at least once per calendar year. Such annual test shall be conducted no less than nine calendar months and no more than 15 calendar months following the previous performance test in accordance with RCSA §22a-174-38(i)(2).

C. The Permittee shall conduct periodic performance testing for H_2SO_4, Total Fluorides, PAH and NH_4 every five years from the date of the previous such performance test.

D. The commissioner may require the Permittee to conduct additional performance tests if any pollutant emission rate or operational parameter is identified as not being in compliance with any permit condition.

PART. VII. EQUIPMENT STARTUP, SHUTDOWN AND MALFUNCTION

A The emission limits from RCSA §22a-174-38(c), as specified in Part IV.B Table 2 above, shall apply at all times except during periods of startup, shutdown, or malfunction as specified in RCSA §22a-174-38(c)(11):

1. For determining compliance with an applicable carbon monoxide emissions limit, if a loss of boiler water level control or a loss of combustion air control is determined to be a malfunction, the

duration of the malfunction period shall be limited to 15 hours per occurrence. Otherwise, the duration of each startup, shutdown or malfunction period shall be limited to three hours per occurrence;

2. For the purpose of compliance with the opacity emission limits, during each period of startup, shutdown or malfunction, the opacity limits shall not be exceeded during more than five 6-minute arithmetic average measurements;

3. During periods of startup, shutdown, or malfunction, monitoring data shall be excluded from calculations of compliance with the Part IV.B Table 2 emission limits but shall be recorded and reported in accordance with subsections (k) and (*l*) of RCSA §22a-174-38; and

4. During a loss of boiler water level control or a loss of combustion air control malfunction period, a diluent cap of fourteen percent for oxygen or five percent for carbon dioxide may be used in the emissions calculations for sulfur dioxide and nitrogen oxides as specified in RCSA §22a-174-38(j)(3).

B. In addition to complying with the requirements of RCSA §22a-174-7, the Permittee shall also comply with the following conditions:

1. Except as otherwise provided in this permit or in RCSA §22a-174-38, the Permittee shall only be allowed to operate this MWC during shutdown of air pollution control equipment when there is a malfunction of such air pollution control equipment and as allowed under RCSA §22a-174-7(b). The period for which the facility will be allowed to operate during shutdown of the air pollution control equipment shall not exceed the burnout of the MWC's charge at the time of the shutdown of the air pollution control equipment.

2. No MSW may be charged into the hopper following a shutdown of the air pollution control equipment until after the air pollution control equipment has been put back on-line.

3. In the event of a malfunction of this unit's SDS system, the baghouse must function properly and be adequately protected from the MWC's combustion gases.

4. None of the conditions in this part shall exempt the Permittee from compliance with any other condition of this permit, with any emission limit established in this permit, or with any applicable state or federal regulation.

PART. VIII. PREMISES REQUIREMENTS

A. The Permittee shall not cause or permit the emission of any substance or combination of substances which creates or contributes to an odor beyond the property boundary of the premises that constitutes a nuisance as set forth in RCSA §22a-174-23. [STATE ONLY REQUIREMENT]

B. The Permittee shall operate this facility at all times in a manner so as not to violate or contribute significantly to the violation of any applicable state noise control regulations, as set forth in RCSA §22a-69-1 through 22a-69-7.4. [STATE ONLY REQUIREMENT]

C. The Permittee shall institute and comply with the following conditions at all times:

1. Sufficient wind-sheltered storage capacity for refuse, residual particulates and bottom ash on site and provision for landfill disposal of same shall be maintained for operation of refuse handling systems, in the event of a strike, malfunction of air pollution control equipment or other

interruption.

2. Paved vehicular traffic areas of the plant site.

3. Transfer, storage and transportation at and from the plant site, of materials collected from the boiler grates and the air pollution control equipment must be done in a covered container or other method equally effective in preventing the material from becoming airborne during storage and transfer.

4. A clean up program on the plant site, whereby, at least once per day, any refuse or other materials which may become airborne, will be collected.

5. Positive measures must be taken and maintained to assure that the public does not have uncontrolled access to any portion of this premises. On site modeling of this source has not been performed. Public access to the site must be restricted on the chance that there may be non-compliant on site emission impacts.

6. The Permittee shall be in compliance with the requirements of RCSA §22a-174-18(c), requirements which pertain to the control of fugitive dust emissions.

PART IX. ENFORCEMENT CONSIDERATIONS

A. An enforcement protocol will be updated and maintained by the Permittee. The protocol shall address the relationship between CEM equipment, the limitations imposed by this permit, including, but not limited to, averaging times, emission rates and operating parameters and the actions to be undertaken by Permittee and the Department in the event that exceedances occur or are anticipated to occur.

B. Pursuant to RCSA §22a-6b-602(f)(1), the Permittee is hereby advised of its liability for assessment of civil penalties for any violation of the terms of this permit.

C. Notwithstanding any other provision of this permit, for the purpose of determining compliance or establishing whether a Permittee has violated or is in violation of any permit condition, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information.

PART X. SPECIAL REQUIREMENTS

The Permittee shall comply with all applicable sections of the following New Source Performance Standard(s) at all times. (Applicable if checked)

40 CFR Part 60, Subpart ☒ A ☒ Cb

Copies of the Code of Federal Regulations (CFR) are available online at the U.S. Government Printing Office website.

PART XI. ADDITIONAL TERMS AND CONDITIONS

A. This permit does not relieve the Permittee of the responsibility to conduct, maintain and operate the regulated activity in compliance with all applicable requirements of any federal, municipal or other state agency. Nothing in this permit shall relieve the Permittee of other obligations under applicable federal, state and local law.

B. Any representative of the DEP may enter the Permittee's site in accordance with constitutional

limitations at all reasonable times without prior notice, for the purposes of inspecting, monitoring and enforcing the terms and conditions of this permit and applicable state law.

C. This permit may be revoked, suspended, modified or transferred in accordance with applicable law.

D. This permit is subject to and in no way derogates from any present or future property rights or other rights or powers of the State of Connecticut and conveys no property rights in real estate or material, nor any exclusive privileges, and is further subject to any and all public and private rights and to any federal, state or local laws or regulations pertinent to the facility or regulated activity affected thereby. This permit shall neither create nor affect any rights of persons or municipalities who are not parties to this permit.

E. Any document, including any notice, which is required to be submitted to the commissioner under this permit shall be signed by a duly authorized representative of the Permittee and by the person who is responsible for actually preparing such document, each of whom shall certify in writing as follows: "I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement made in the submitted information may be punishable as a criminal offense under section 22a-175 of the Connecticut General Statutes, under section 53a-157b of the Connecticut General Statutes, and in accordance with any applicable statute."

F. Nothing in this permit shall affect the commissioner's authority to institute any proceeding or take any other action to prevent or abate violations of law, prevent or abate pollution, recover costs and natural resource damages, and to impose penalties for violations of law, including but not limited to violations of this or any other permit issued to the Permittee by the commissioner.

G. Within 15 days of the date the Permittee becomes aware of a change in any information submitted to the commissioner under this permit, or that any such information was inaccurate or misleading or that any relevant information was omitted, the Permittee shall submit the correct or omitted information to the commissioner.

H. The date of submission to the commissioner of any document required by this permit shall be the date such document is received by the commissioner. The date of any notice by the commissioner under this permit, including but not limited to notice of approval or disapproval of any document or other action, shall be the date such notice is personally delivered or the date three days after it is mailed by the commissioner, whichever is earlier. Except as otherwise specified in this permit, the word "day" means calendar day. Any document or action which is required by this permit to be submitted or performed by a date which falls on a Saturday, Sunday or legal holiday shall be submitted or performed by the next business day thereafter.

I. Any document required to be submitted to the commissioner under this permit shall, unless otherwise specified in writing by the commissioner, be directed to: Office of Director; Enforcement Division; Bureau of Air Management; Department of Environmental Protection; 79 Elm Street, 5th Floor; Hartford, Connecticut 06106-5127.

DEEP-AR-33

Connecticut
Department of Energy &
Environmental Protection

BUREAU OF AIR MANAGEMENT
NEW SOURCE REVIEW PERMIT
TO CONSTRUCT AND OPERATE A STATIONARY SOURCE

Issued pursuant to Title 22a of the Connecticut General Statutes (CGS) and Section 22a-174-3a of the Regulations of Connecticut State Agencies (RCSA).

Owner/Operator	Reworld Bristol, Inc.
Address	170 Enterprise Drive, Bristol, CT 06010
Equipment Location	170 Enterprise Drive, Bristol, CT 06010
Equipment Description	MWC Unit #1:One 358 TPD Ogden Martin Systems, Martin Reverse Acting Stoker Grate, Waterwall Furnace, Water-Tube Boiler System (Nominally Rated at 122 MMBtu/hr) with an Auxiliary Burner System (Rated at 50 MMBtu/hr)
Town-Permit Numbers	026-0026
Premises Number	202
Stack Number	01
Modification Issue Date	
Prior Permit Issue Dates	April 20, 2020 August 29, 2010 October 11, 2006 May 26, 1989
Expiration Date	None

Katherine S. Dykes
Commissioner

Date

This permit specifies necessary terms and conditions for the operation of this equipment to comply with state and federal air quality standards. The Permittee shall at all times comply with the terms and conditions stated herein.

PART I. GENERAL DESCRIPTION

A. Municipal Waste Combustor (MWC)

Major components include a Martin Reverse Acting Stoker Grate, a Waterwall Furnace and a Water-tube Boiler System with Natural Gas-fired Auxiliary Burner System designed to combust Municipal Solid Waste (MSW).

B. FLAKT Dry Gas Scrubber/Baghouse System

Major components and sub-systems include lime additive preparation, storage and feed system; spray dryer scrubber (SDS) for acid gas control; baghouse and solids handling system. The SDS includes an atomizer to finely atomize and mix the lime additive with the flue gas.

C. Selective Non-catalytic Reduction (SNCR) System

The principal components of the SNCR system include a 10,000 gallon aqueous ammonia storage tank, ammonia pump skid, carrier water pump skid, a purge air system and injection nozzles. There are ammonia detectors that alarm both locally and in the control room as well as eyewash stations.

D. Mercury Emissions Control (MEC) System

The MEC System includes a pneumatic feed system that injects dry activated carbon into the existing flue gas ductwork downstream of the economizer of each Municipal Waste Combustor (MWC). The system consists of two independent carbon injection trains, each dedicated to one of the MWCs. The carbon injection trains are fed from a common carbon storage silo. Each carbon injection train includes a surge bin, gravimetric feeder, blower, eductor, piping, wiring and other process controls.

The common storage silo has two outlet hoppers to ensure each carbon injection train is independently fed and controlled.

PART II. OPERATIONAL CONDITIONS

A. Operational Parameters

1. MWC
   a. Materials Charged:
      i. Municipal Solid Waste (MSW) as defined and restricted in CGS §22a-207 et seq. and any applicable Bureau of Waste Management permit.
      ii. Special waste as defined in RCSA §22a-209-1 and in accordance with the Permittee's most current approved Special Waste Disposal Authorization(s) issued pursuant to CGS §22a-208y.
      iii. Biomedical waste in accordance with the Permittee's applicable Bureau of Waste Management permit.
   b. Maximum Facility-wide MSW Processing Rate (tons per year): 261,340 [1]
   c. Maximum Facility-wide Annual Average Steam Production (lb/hr): 83,000

d. Maximum demonstrated MWC steam production shall be 110% of the maximum MWC steam production (highest 4-hour arithmetic average) measured during the most recent annual performance test for dioxin/furan emissions for which compliance with the dioxin/furan emission limit was achieved.

2. Auxiliary Burner System Fuel Type: Natural Gas

3. Particulate Control Device Inlet Temperature: The Permittee shall not cause or allow such unit to operate at a temperature, measured at each particulate control device inlet, more than 17 degrees centigrade, based on a 4-hour arithmetic average, above the maximum demonstrated particulate control device temperature measured during the most recent performance test for dioxin/furan emissions for which compliance with the dioxin/furan emissions limit was achieved. [RCSA §22a-174-38(g)(1)]

4. Unit Load: The Permittee shall not cause or allow such unit to operate at a municipal waste combustor unit load greater than 110% of the maximum demonstrated 4-hour average municipal waste combustor unit load, based on a 4-hour arithmetic average, measured during the most recent performance test for dioxin/furan emissions for which compliance with the dioxin/furan emissions limit was achieved. Municipal waste combustor unit load shall be measured by a steam flow meter. [RCSA §22a-174-38(g)(2)]

5. Notwithstanding Parts II.A.3 and 4 of this permit, the Permittee may, during the annual dioxin/furan emissions performance test and for two weeks prior to such test, allow temperatures and unit load in excess of the limits, found in Parts II.A.3 & 4 of this permit. Should the unit be operated at such excess temperatures and load, the owner or operator shall not again be allowed to operate at such excess temperatures and load during that test period without the approval of the commissioner should the annual dioxin/furan emission performance test be postponed. [RCSA §22a-174-38(g)(3)]

6. Carbon Injection: During operation of the MWC unit, the carbon injection system operating parameter(s) that is the primary indicator(s) of the carbon mass fee rate (e.g., screw feeder setting) shall be averaged over a block 8-hour period, and the 8-hour block average shall equal or exceed the level(s) documented during the performance tests specified in RCSA §22a-174-38(i).

7. Notwithstanding RCSA §22a-174-38(g)(5), during the annual dioxin/furan or mercury performance test and the two weeks preceding the annual dioxin/furan or mercury performance test, no limit is applicable for the average mass carbon feed rate if the provision of RCSA §22a-174-38(g)(4) are met.

[1]- Adjusted for pit inventory and other waste not processed through the MWC

B. Equipment Design Specifications

1. MWC
   a. Design MSW Charge Rate: 14.89 tons/hr, 358 tons/day [1]
   b. Maximum Design Heat Input Heat (MMBtu/hr): 134.2
   c. Nominal Design Heat Input Rate (MMBtu/hr): 122
   d. Grate Dimensions (ft): 26.43L x 13.65W
   e. Nominal Unit Steam Production (lb/hr): 75,500

f. Steam Temperature at Super-Heater Outlet (°F): 800-845
g. Steam Pressure at Super-Heater Outlet (psig): 835-880
h. Feedwater Temperature (°F): 250
i. Gas Temperature Leaving Economizer (°F): 415-450

2. Auxiliary Burner System
   a. Fuel Type: Natural Gas
   b. Maximum Design Fuel Firing Rate (cf/hr): 50,000
   c. Maximum Design Heat Capacity of Chamber (MMBtu/hr): 50

[1]- (Based on original Reference Fuel Heating Value of 4500 Btu/lb, current estimate is 5174 Btu/lb)

C. Control Equipment Design Specifications

1. SDS
   a. Inlet Gas Flow Rate (10^3 acfm): 75.0 [1]
   b. Inlet Gas Temperature (°F): 425-450 [1]
   c. Pressure Drop (in H_2O): 4 [1]

2. Baghouse
   a. Exit Gas Flow Rate (10^3 acfm): 67.1 [1]
   b. Exit Gas Temperature (°F): 270-280 [1]
   c. Pressure Drop (in H_2O): 10 [1]
   d. Bag Area per Compartment (ft^2): 7150
   e. Pressure Drop Across Each Compartment (in H_2O): 6 [1]
   f. Total Pressure Drop Across the Baghouse (in H_2O): 5.0-10.0 [1]
   g. Minimum Number of Compartments in Service at Any Time: 3
   h. Air to Cloth Ratio: 3.7:1

3. SNCR System
   a. Design Control Efficiency (%): 50 [1]
   b. Maximum Reagent Injection Rate (gal/hr): 60
   c. Typical Reagent Injection Rate Range (gal/hr): 10-13 [1]

4. MEC System
   a. Minimum Design Control Efficiency (%): 85
   b. Maximum Carbon Injection Rate (lb/hr): 40
   c. Typical Carbon Injection Rate Range (lb/hr): 12-15 [1]
   d. Carbon Characteristics: 95% @ 325 mesh, 8% moisture
   e. Silo Size (ft^3): 3300
   f. Surge Bin Vent Filter Area (ft^2): 216
   g. Surge Bin Vent Filter Flow Rate (acfm): 675 [1]

[1]- This is a typical value or range, which is subject to change during the course of normal operation.

D. Stack Parameters

1. Minimum Stack Height (ft): 292

2. Minimum Stack Exit Diameter (inches): 56

3. Minimum Distance from Stack to Nearest Property Line (ft): 95

PART III. OPERATION AND MAINTENANCE REQUIREMENTS

A. The Permittee shall not cause or allow the plant to be operated at any time unless a certified chief operator or shift operator is physically present at the plant. [RCSA §22a-174-38(h)(1)]

B. Operators shall be certified by the commissioner under section 22a-231-1 of the Regulations. [RCSA §22a-174-38(h)(2)]

C. All chief operators and shift operators must satisfactorily complete an operator training course conducted by the commissioner pursuant to RCSA §22a-174-38(h)(3). The operators shall be trained in the operation and maintenance of both the fuel burning and pollution control equipment.

D. The Permittee shall maintain an Operating and Maintenance (O&M) Manual that shall be updated on a yearly basis. [RCSA §22a-174-38(h)(4)]

E. The Permittee shall establish a training program to review the O&M Manual with each person who has responsibilities affecting the operation of the plant. The training program shall be repeated on an annual basis for each person. [RCSA §22a-174-38(h)(5)]

F. Operation of this facility shall comply with all applicable state and federal air pollution control regulations. Except as explicitly altered elsewhere in this permit, all the requirements of the New Source Performance Standards (40 CFR Part 60) shall be applicable to the MWC to the extent that they would be applicable to any other unit subject to the Standards of Performance for Incinerators (40 CFR Part 60, Subpart Cb). Specifically, the various notification, testing, monitoring, and record keeping provisions of 40 CFR Part 60, Subpart A are applicable to the MWC.

G. Operation on MSW during any start-up period is not allowed without the air pollution control systems working.

H. Additional tests may be required if any pollutant emission rate or operational parameter is identified as not being in compliance with any permit condition.

PART IV. ALLOWABLE EMISSION LIMITS

The Permittee shall not cause or allow this equipment to exceed the emission limits stated herein at any time.

A. Table 1 - Mass Emission Limits

Compliance with the mass emission limits (lb/hr, TPY) shall be based on compliance with the corresponding concentration permit limits (ppmvd, mg/dscm, etc.). The mass emission rates (lb/hr, TPY) are considered representative of actual operating conditions and are based on the average stack gas volumetric flow rates from stack tests performed from 1996 to 2000. The actual mass emission rates will vary depending on actual exhaust flow.

Criteria Pollutants	lb/hr [1, 4]	TPY [2]

PM	2.8	24.5
SO_2 [3]	8.6	75.6
NO_x	25.6	256
VOC	5.3	46.3
CO	13.0	114
Pb	0.05	0.40

Non-Criteria Pollutants [5]	lb/hr [1]	Other Emission Limit
Sulfuric Acid (H_2SO_4)	2.48	0.02 lb/MMBtu
HCl [3]	4.92 [4]	
Total Fluorides	0.01	
Polynuclear Aromatic Hydrocarbons (PAH)	6.0e-5	
Dioxin Emissions [6]	2.16e-7	1.95 ng/Nm^3 @ 12% CO_2 [7]
Arsenic	3.42e-4	
Cadmium (Cd)	1.43e-4	
Chromium	2.00e-4	
Copper	5.87e-4	
Manganese	5.33e-4	
Mercury (Hg) [3]	1.57e-4	
Nickel	5.17e-5	
Zinc	1.14e-2	
Ammonia		20 ppmvd @ 7% O_2

[1] – Hourly limits for MWC Unit #1

[2] – Total annual emissions for MWC Units #1 and 2 (Permit Nos. 026-0026 and 026-0027) combined

[3]- These pollutants allow for a percent reduction in emissions as an alternative to the emission limit (the least stringent applies). The percent reductions for each pollutant are given in Part IV.B of this permit.

[4]- Based on 29,900 dscfm (68°F) and the corresponding pollutant concentration, except for VOC, which is based on 30,231 dscfm @ 12% CO_2. These flow rates are the average values from the dioxin and metals stack tests of this unit from 1996-2000. These values are considered representative of actual operation, subject to change during the course of normal operation.

[5]- The non-criteria pollutant emission rates are considered representative of typical operating conditions and may vary up to, but not exceed the more stringent of the MASC value or RCSA §22a-174-38 concentration limits, where applicable. The lb/hr emission rates for dioxin[6] and metals are actual emissions from the 11/00 stack test. The lb/hr emission rates for H_2SO_4, total fluorides and PAHs are from the original stack test.

[6]- As defined in RCSA §22a-174-1.

[7]- Original permit's BACT limit.

B. Table 2 - RCSA §22a-174-38 Limits

Compliance with the following emission limits shall be verified in accordance with RCSA §22a-174-38.

Pollutant	mg/dscm @ 7% O_2	ppmvd @ 7% O_2
PM	25	

SO_2		29 [1]
NO_x		120 [2]
CO		100 [3]
Pb	0.400	
Cd	0.035	
Hg	0.028 [4]	
HCl		29 [5]
Dioxin/Furan [6]	0.00003	

[1] - Based on a 24-hour daily geometric average or 75% reduction by weight or volume, whichever is less stringent
[2] - Based on a 24-hour daily average. Lower limit than required by RCSA §22a-174-38 (150 ppmvd @ 7% O_2) per August 29, 2010 permit modification.
[3] - Based on a 4-hour block arithmetic average
[4] - Or 85% reduction by weight, whichever is less stringent
[5] - Or 95% reduction by weight or volume, whichever is less stringent
[6]- As defined in RCSA §22a-174-38

1. Concentration emission limits shall be corrected to 7% O_2 unless the Permittee submits information to the Department, in accordance with RCSA §22a-174-38(c), justifying correction to an equivalent % CO_2 and receives the commissioner's written approval.

2. Dioxin/furan emissions shall be corrected to both 7% O_2 and 12% CO_2. This is required as the BACT limit of the original permit was corrected to 12% CO_2 and the limit contained in RCSA §22a-174-38 corrects to 7% O_2.

3. In the event that particulate matter, cadmium, lead, mercury, dioxin/furan or hydrogen chloride emissions from this MWC exceed the respective emission limits, as determined through stack testing compliance data, the Permittee shall immediately initiate corrective action to re-attain compliance with this limit.

C. Hazardous Air Pollutants

This equipment shall not cause an exceedance of the Maximum Allowable Stack Concentration (MASC) for any hazardous air pollutant (HAP) emitted and listed in RCSA §22a-174-29. [STATE ONLY REQUIREMENT]

D. Opacity

Maximum opacity, 10 percent, 6-minute arithmetic average, as determined by continuous opacity monitoring.

E. Beryllium

If municipal solid waste consisting, in part, of beryllium containing waste from a foundry, extraction plant or propellant plant, is burned in this MSW incinerator, at any time, the provisions of 40 CFR Part 61, Subpart C shall apply.

PART V. MONITORING, REPORTING AND RECORD KEEPING REQUIREMENTS

A. Monitoring

1. The Permittee shall comply with the CEM requirements as set forth in RCSA §22a-174-4a. CEM shall be required for the following pollutant/operational parameters and enforced on the following basis:

Pollutant/Operational Parameter	Averaging Times	Emission Limit	Units
Opacity	six minute block	10%	
SO_2	24 hour geometric mean	29 [1]	ppmvd @ 7% O_2
NO_x	24 hour daily average	120	ppmvd @ 7% O_2
CO	4 hour block	100	ppmvd @ 7% O_2
O_2	1 hour block		
Steam Load	4 hour block		
Particulate Control Device Inlet Temperature	4 hour block		
Furnace Temperature	4 hour block		
Overfire and Underfire Air Flowrate	4 hour block		
Activated Carbon Injection Rate	8 hour block		

[1] - Or a 75% reduction by weight or volume, whichever is less stringent.

2. The Permittee shall install and operate continuous emission monitoring systems to monitor opacity, sulfur dioxide (SO_2), nitrogen oxides (NO_x), carbon monoxide (CO) and oxygen and record the output of each system in accordance with RCSA §22a-174-38(k).

3. The Permittee shall install and operate continuous monitoring systems for measuring and recording steam load (i.e., steam flow meter), total combined overfire and underfire air, furnace temperature, pressure drop across air pollution control devices, particulate control device inlet temperature, SDS reagent application pressures/flowrates and the powdered activated carbon injection rate, as estimated from the screw feeder speed indicator.

4. CEM equipment may not be available for one or more of the following: H_2SO_4, VOC and SDS reagent specific gravity. Installation of this equipment will not be required at this time. At the commissioner's discretion, this CEM equipment will be installed and operated when and if acceptable CEM equipment become available within six months of receipt of notification from the commissioner.

5. All CEM equipment and recorders shall be installed, operated, calibrated, tested and maintained in a manner that demonstrates compliance with siting, performance and quality assurance specifications stated in 40 CFR Part 60, Appendices B and F and RCSA §22a-174-38(j).

B. Record Keeping

1. The Permittee shall make and keep records of all CEM data required in Part V.A of this permit.

2. The Permittee shall keep records of the monthly and consecutive 12 month quantity of the MSW combusted. The consecutive 12 month quantity of materials combusted shall be determined by adding the current month's quantity to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of each month.

3. The Permittee shall calculate and record the monthly and consecutive 12 month PM, SO_2, NO_x,

VOC, CO and Pb emissions in units of tons. The consecutive 12 month emissions shall be determined by adding (for each pollutant) the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation for each pollutant. The Permittee shall make these calculations within 30 days of the end of the previous month.

4. The Permittee shall make and keep records of all performance tests conducted to determine compliance with the dioxin/furan, particulate matter, hydrogen chloride, cadmium, lead, mercury, ammonia, H_2SO_4, fluorides and PAH emission limits.

5. The Permittee shall make and keep records of all performance tests conducted to determine compliance with any pollutant emission rate or operational parameter, if such tests are required by the commissioner.

6. The Permittee shall make and keep records for operator training in accordance with RCSA §22a-174-38(k)(2).

7. The Permittee shall monitor the carbon mass feed rate for the carbon injection system and manual feed. The Permittee shall make and keep records for the carbon injection system in accordance with RCSA §22a-174-38(k)(11)].

8. The Permittee shall keep records of the daily hours of operation, in which periods of startup, shutdown and malfunction are distinguished.

9. The Permittee shall keep all records required by this permit for a period of no less than five years and shall submit such records to the commissioner upon request.

C. Reporting

1. The Permittee shall submit reports to the commissioner of all required performance tests.

2. The Permittee shall submit a quarterly report to the commissioner within 30 days following the end of the each calendar quarter. Each quarterly report shall include the information required in RCSA §22a-174-38(l)(2).

3. The Permittee shall report all CEM data to the commissioner on a quarterly basis in accordance with RCSA §22a-174-38(l).

4. The Permittee shall provide written notification to the commissioner within 72 hours of the time at which the Permittee receives information regarding performance test results indicating that any particulate matter, opacity, cadmium, lead, mercury, dioxin/furan, hydrogen chloride or fugitive ash emission levels exceed the applicable pollutant emission limits or standards defined in RCSA §22a-174-38.

PART VI. STACK EMISSION TEST REQUIREMENTS

A. Stack emission testing shall be performed in accordance with the Emission Test Guidelines available on the DEEP website at www.ct.gov/deep/stacktesting.

B. The Permittee shall conduct an annual performance test for dioxin/furan, particulate matter, hydrogen chloride, cadmium, lead, mercury, and ammonia at least once per calendar year. Such

annual test shall be conducted no less than nine calendar months and no more than 15 calendar months following the previous performance test in accordance with RCSA §22a-174-38(i)(2).

C. The Permittee shall conduct periodic performance testing for H_2SO_4, Total Fluorides, PAH and NH_4 every five years from the date of the previous such performance test.

D. The commissioner may require the Permittee to conduct additional performance tests if any pollutant emission rate or operational parameter is identified as not being in compliance with any permit condition.

PART. VII. EQUIPMENT STARTUP, SHUTDOWN AND MALFUNCTION

A The emission limits from RCSA §22a-174-38(c), as specified in Part IV.B Table 2 above, shall apply at all times except during periods of startup, shutdown, or malfunction as specified in RCSA §22a-174-38(c)(11):

1. For determining compliance with an applicable carbon monoxide emissions limit, if a loss of boiler water level control or a loss of combustion air control is determined to be a malfunction, the duration of the malfunction period shall be limited to 15 hours per occurrence. Otherwise, the duration of each startup, shutdown or malfunction period shall be limited to three hours per occurrence;

2. For the purpose of compliance with the opacity emission limits, during each period of startup, shutdown or malfunction, the opacity limits shall not be exceeded during more than five 6-minute arithmetic average measurements;

3. During periods of startup, shutdown, or malfunction, monitoring data shall be excluded from calculations of compliance with the Part IV.B Table 2 emission limits but shall be recorded and reported in accordance with subsections (k) and (*l*) of RCSA §22a-174-38; and

4. During a loss of boiler water level control or a loss of combustion air control malfunction period, a diluent cap of fourteen percent for oxygen or five percent for carbon dioxide may be used in the emissions calculations for sulfur dioxide and nitrogen oxides as specified in RCSA §22a-174-38(j)(3).

B. In addition to complying with the requirements of RCSA §22a-174-7, the Permittee shall also comply with the following conditions:

1. Except as otherwise provided in this permit or in RCSA §22a-174-38, the Permittee shall only be allowed to operate this MWC during shutdown of air pollution control equipment when there is a malfunction of such air pollution control equipment and as allowed under RCSA §22a-174-7(b). The period for which the facility will be allowed to operate during shutdown of the air pollution control equipment shall not exceed the burnout of the MWC's charge at the time of the shutdown of the air pollution control equipment.

2. No MSW may be charged into the hopper following a shutdown of the air pollution control equipment until after the air pollution control equipment has been put back on-line.

3. In the event of a malfunction of this unit's SDS system, the baghouse must function properly and be

adequately protected from the MWC's combustion gases.

4. None of the conditions in this part shall exempt the Permittee from compliance with any other condition of this permit, with any emission limit established in this permit, or with any applicable state or federal regulation.

PART. VIII. PREMISES REQUIREMENTS

A. The Permittee shall not cause or permit the emission of any substance or combination of substances which creates or contributes to an odor beyond the property boundary of the premises that constitutes a nuisance as set forth in RCSA §22a-174-23. [STATE ONLY REQUIREMENT]

B. The Permittee shall operate this facility at all times in a manner so as not to violate or contribute significantly to the violation of any applicable state noise control regulations, as set forth in RCSA §22a-69-1 through 22a-69-7.4. [STATE ONLY REQUIREMENT]

C. The Permittee shall institute and comply with the following conditions at all times:

1. Sufficient wind-sheltered storage capacity for refuse, residual particulates and bottom ash on site and provision for landfill disposal of same shall be maintained for operation of refuse handling systems, in the event of a strike, malfunction of air pollution control equipment or other interruption.

2. Paved vehicular traffic areas of the plant site.

3. Transfer, storage and transportation at and from the plant site, of materials collected from the boiler grates and the air pollution control equipment must be done in a covered container or other method equally effective in preventing the material from becoming airborne during storage and transfer.

4. A clean up program on the plant site, whereby, at least once per day, any refuse or other materials which may become airborne, will be collected.

5. Positive measures must be taken and maintained to assure that the public does not have uncontrolled access to any portion of this premises. On site modeling of this source has not been performed. Public access to the site must be restricted on the chance that there may be non-compliant on site emission impacts.

6. The Permittee shall be in compliance with the requirements of RCSA §22a-174-18(c), requirements which pertain to the control of fugitive dust emissions.

PART IX. ENFORCEMENT CONSIDERATIONS

A. An enforcement protocol will be updated and maintained by the Permittee. The protocol shall address the relationship between CEM equipment, the limitations imposed by this permit, including, but not limited to, averaging times, emission rates and operating parameters and the actions to be undertaken by Permittee and the Department in the event that exceedances occur or are anticipated to occur.

B. Pursuant to RCSA §22a-6b-602(f)(1), the Permittee is hereby advised of its liability for assessment of civil penalties for any violation of the terms of this permit.

C. Notwithstanding any other provision of this permit, for the purpose of determining compliance or establishing whether a Permittee has violated or is in violation of any permit condition, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information.

PART X. SPECIAL REQUIREMENTS

The Permittee shall comply with all applicable sections of the following New Source Performance Standard(s) at all times. (Applicable if checked)

40 CFR Part 60, Subpart ☒ A ☒ Cb

Copies of the Code of Federal Regulations (CFR) are available online at the U.S. Government Printing Office website.

PART XI. ADDITIONAL TERMS AND CONDITIONS

A. This permit does not relieve the Permittee of the responsibility to conduct, maintain and operate the regulated activity in compliance with all applicable requirements of any federal, municipal or other state agency. Nothing in this permit shall relieve the Permittee of other obligations under applicable federal, state and local law.

B. Any representative of the DEP may enter the Permittee's site in accordance with constitutional limitations at all reasonable times without prior notice, for the purposes of inspecting, monitoring and enforcing the terms and conditions of this permit and applicable state law.

C. This permit may be revoked, suspended, modified or transferred in accordance with applicable law.

D. This permit is subject to and in no way derogates from any present or future property rights or other rights or powers of the State of Connecticut and conveys no property rights in real estate or material, nor any exclusive privileges, and is further subject to any and all public and private rights and to any federal, state or local laws or regulations pertinent to the facility or regulated activity affected thereby. This permit shall neither create nor affect any rights of persons or municipalities who are not parties to this permit.

E. Any document, including any notice, which is required to be submitted to the commissioner under this permit shall be signed by a duly authorized representative of the Permittee and by the person who is responsible for actually preparing such document, each of whom shall certify in writing as follows: "I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement made in the submitted information may be punishable as a criminal offense under section 22a-175 of the Connecticut General Statutes, under section 53a-157b of the Connecticut General Statutes, and in accordance with any applicable statute."

F. Nothing in this permit shall affect the commissioner's authority to institute any proceeding or take any other action to prevent or abate violations of law, prevent or abate pollution, recover costs and

natural resource damages, and to impose penalties for violations of law, including but not limited to violations of this or any other permit issued to the Permittee by the commissioner.

G. Within 15 days of the date the Permittee becomes aware of a change in any information submitted to the commissioner under this permit, or that any such information was inaccurate or misleading or that any relevant information was omitted, the Permittee shall submit the correct or omitted information to the commissioner.

H. The date of submission to the commissioner of any document required by this permit shall be the date such document is received by the commissioner. The date of any notice by the commissioner under this permit, including but not limited to notice of approval or disapproval of any document or other action, shall be the date such notice is personally delivered or the date three days after it is mailed by the commissioner, whichever is earlier. Except as otherwise specified in this permit, the word "day" means calendar day. Any document or action which is required by this permit to be submitted or performed by a date which falls on a Saturday, Sunday or legal holiday shall be submitted or performed by the next business day thereafter.

I. Any document required to be submitted to the commissioner under this permit shall, unless otherwise specified in writing by the commissioner, be directed to: Office of Director; Enforcement Division; Bureau of Air Management; Department of Environmental Protection; 79 Elm Street, 5th Floor; Hartford, Connecticut 06106-5127.

Connecticut
Department of Energy &
Environmental Protection

STATE OF CONNECTICUT
DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION
OFFICE OF ADJUDICATIONS

IN THE MATTER OF	**:**	**APPLICATION NO. 202103504, 202107639, 202305513, 202303932, 202303933**
REWORLD BRISTOL, INC.	**:**	**MARCH 6, 2025**

SERVICE LIST

DEEP - Waste Engineering and Enforcement Division, Bureau of Materials Management and Compliance Assurance and Bureau of Air Management

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