



OFFICE OF BUILDING, ZONING, PLANNING,  
ADMINISTRATION AND ENFORCEMENT  
**TOWN OF ORANGETOWN**  
20 Greenbush Road  
Orangeburg, N.Y. 10962

Jane Slavin, R.A.  
Director

(845)359-8410

Fax: (845) 359-8526

**DENIAL TO THE ZONING BOARD OF APPEALS**

Date: March 24, 2021

Applicant: Daikin

Address: 20 Olympic Dr. Orangeburg, NY

RE: Application Made at: same

Chapter 43, §4.12 Performance Standards Procedure: Uses specified in Use Table 3.11, Columns 2, 3, & 4, are subject to Performance Standards Procedure requiring Zoning Board Approval as specified in §10.334.

Section: 73.15 Block: 1 Lot: 15

Dear Daikin:

Please be advised that the Building Permit Application, which you submitted on March 22, 2021, has been denied. I have enclosed a Xerox copy of your application, where you will find at the bottom the reason for denial.

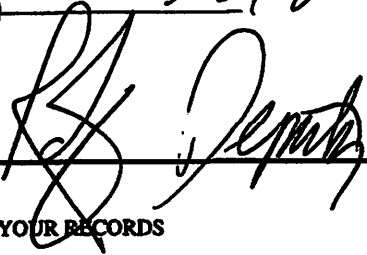
**In Accordance with Zoning, Chapter 43 Section 10.322 the time to appeal a determination of a Building Inspector or Similar administrative office is thirty (30) days from the filing of such a determination with the Town Clerk.**

The Clerk to the Zoning Board of Appeals, Debbie Arbolino, will assist you in the preparation necessary to appear before the board.

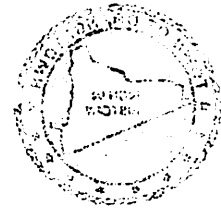
Sincerely,

  
Richard Oliver  
Deputy Building Inspector

Signature of Director  
NOTE: PLEASE KEEP FOR YOUR RECORDS  
12-31-18-CCC

  
Date  
CC: Rosanna Siraga  
Liz Decort  
Debbie Arbolino

OFFICE OF BUILDING ZONING PLANNING  
 ADMINISTRATION AND ENFORCEMENT  
 TOWN OF ORANGEBURG  
 30 Orangeburg Road  
 Orangeburg, NY 10962



Form (2-18) 320-8338

(845) 733-4410

James Davinin, R.A.  
 Director

OFFICIAL TO THE ZONING BOARD OF APPEALS

Date: March 24, 2021

Applicant:         

Address: 30 Orangeburg Rd, Orangeburg, NY

Re: Application Made for         

Chapter 24, § 4-1.1 Performance Standards Procedures: Use specified in the Table 2.1.1. Column A, 2 & 4, are subject to Performance Standards and the Procedure regarding Zoning Board Approval as specified in § 24-2.4.

Section:               Width:               Lot:         

Dear Board:

Please be advised that the Building Zoning Application which you submitted on March 22, 2021, has been denied. I have enclosed a Xerox copy of your application where you will find in the bottom the reason for denial.

In accordance with Section 24-2.4, the Board is directed to record a determination of a finding regarding the denial of such a determination with the Town Clerk.

The Clerk to the Zoning Board of Appeals, Leslie Adelman, will mail you in the preparation necessary to appear before the board.

Sincerely,

Richard O'Brien  
 Deputy Zoning Inspector

Signature of Director  
 NOT RECORDED FOR YOUR RECORDS  
 10-21-18-CC

Leslie Adelman  
 Zoning Administrator

*(Handwritten signatures and initials)*

PERMIT EXPIRES TWO (2) YEARS FROM DATE OF ISSUANCE.  
TWO SIX (6) MONTH EXTENSIONS MAY BE GRANTED PRIOR TO EXPIRATION DATE.

**APPLICATION FOR BUILDING / DEMOLITION PERMIT**

**TOWN OF ORANGETOWN**

20 Greenbush Road, Orangeburg, NY 10962 Phone: (845) 359-8410 Fax: (845) 359-8526

ZONE: <u>C10</u>	<u>(COMM)</u> OFFICIAL USE ONLY	ACREAGE: <u>8.94</u>
Inspector: <u>16 km</u>	Date App Received: <u>05-22-21</u>	Received By: <u>113</u>
Permit No. <u>51237</u>	Date Issued: _____	
CO No. _____	Date Issued: _____	
Permit Fee: <u>\$48,840</u>	Ck# <u>13545</u>	Paid By <u>Shimizu North America</u>
GIS Fee: <u>7140</u>	Ck# <u>13546</u>	Paid By _____
Stream Maintenance Fee _____	Ck # <u>13544</u>	Paid By _____
Additional Fee: _____	Ck# _____	Date Paid _____
1 <sup>st</sup> 6 mo. Ext.: _____	Ck # _____	Exp. Date: _____
2 <sup>nd</sup> 6 mo. Ext.: _____	Ck # _____	Exp. Date: _____

**APPLICANT COMPLETES:**

Note: See inside for instructions for completing this application. PAGES 2, 3 and PAGE 4 must be reviewed and PAGES 3 & 4 must be signed by the applicant.

Property Location: 20 Olympic Drive, Orangeburg NY 10262

Section: 73.15 Block: 1 Lot: 15

Property Owner: Daikin America Inc.

Mailing Address: 20 Olympic Drive, Orangeburg, NY 10262

Email: johnson11@daikin-america.com Phone #: (256) 303-8358/(800) 365-9670

Lessee (Business Name): (Not Applicable)

Mailing Address: \_\_\_\_\_

Email: \_\_\_\_\_ Phone #: \_\_\_\_\_

Type of Business /Use: Office/Warehouse

Contact Person: Bernardo Ngui Relation to Project: Project Manager

Email: ngui.bernardo@shimz.biz Phone#: (845) 527-6468

Architect/Engineer: Eid Arcari (Arcari Iovino Architects PC) NYS Lic # 020765

Address: One Katharine Street, Little Ferry NJ 07643 Phone#: (201) 641-0600

Builder/General Contractor: Shimizu North America LLC RC Lic # \_\_\_\_\_

Address: 155 E 56th St. 4th Flr. New York, NY 10022 Phone#: (845) 527-6468

Plumber: Bertussi's Contracting Inc. RC Lic # 923

Address: 60-70 Dexter Plaza, Pearl River, NY 10965 Phone#: (845) 735-5588

Electrician: Fanshawe Inc. DBA Rockland Electric RC Lic # E-319

Address: 143 Main St. Fl. 1, Nanuet NY 10954 Phone#: (845) 627-3232

Heat/Cooling: Bertussi's Contracting Inc. RC Lic#: 923

Address: 60-70 Dexter Plaza, Pearl River, NY 10965 Phone#: (845) 735-5588

Existing use of structure or land: Offices (B) & Warehouse (S-2)

Proposed Project Description: This project involves the construction of a cleanroom for business development purposes. The cleanroom will not be used for research or production but as place to show potential new product in a cleanroom setting.

Proposed Square Footage: 1,747 SF Estimated Construction Value (\$): 2.7M

**BUILDING DEPARTMENT COMPLETES BELOW**

PLANS REVIEWED: \_\_\_\_\_

PERMIT REFERRED / DENIED FOR: Chapter 43, Section 4.12 Performance Standards Required

*RF Depina*

FOR OFFICE USE ONLY SECTION BLOCK LOT NAME PERMIT#

Name of Municipality: TOWN OF ORANGETOWN Date Submitted: \_\_\_\_\_

**2021 LAND USE BOARD APPLICATION**

*Please check all that apply:*

<input checked="" type="checkbox"/> Commercial	<input type="checkbox"/> Residential
<input type="checkbox"/> Planning Board	<input type="checkbox"/> Historical Board
<input checked="" type="checkbox"/> Zoning Board of Appeals	<input type="checkbox"/> Architectural Board
<input type="checkbox"/> Subdivision	<input type="checkbox"/> Consultation
<input type="checkbox"/> Number of Lots	<input type="checkbox"/> Pre-Preliminary/Sketch
<input type="checkbox"/> Site Plan	<input type="checkbox"/> Preliminary
<input type="checkbox"/> Conditional Use	<input type="checkbox"/> Final
<input type="checkbox"/> Special Permit	<input type="checkbox"/> Interpretation
<input type="checkbox"/> Variance	
<input checked="" type="checkbox"/> Performance Standards Review	
<input type="checkbox"/> Use Variance	
<input type="checkbox"/> Other (specify): _____	

PERMIT#: \_\_\_\_\_  
 ASSIGNED \_\_\_\_\_  
 INSPECTOR: \_\_\_\_\_

Referred from Planning Board: YES / NO  
 If yes provide date of Planning Board meeting: \_\_\_\_\_

Project Name: DAIKIN AMERICA INC

Street Address: 20 Olympic Drive, Orangeburg, NY 10962

Tax Map Designation:  
Section: 73.15 Block: 1 Lot(s): 15  
Section: \_\_\_\_\_ Block: \_\_\_\_\_ Lot(s): \_\_\_\_\_

Directional Location:  
On the Western side of Olympic Drive, approximately  
0 feet South of the intersection of Olympic Drive and Hunt Road, in the  
Town of ORANGETOWN in the hamlet/village of Orangeburg.

Acreage of Parcel <u>8.97 Acres</u>	Zoning District <u>LIO</u>
School District <u>Orangetown</u>	Postal District <u>Orangetown</u>
Ambulance District <u>11</u>	Fire District <u>Orangeburg</u>
Water District <u>Suez</u>	Sewer District <u>Orangetown Sewer</u>

Project Description: (If additional space required, please attach a narrative summary.)  
This interior project involves the construction of a cleanroom for business development purposes. The cleanroom will not be used for production but as a place to show potential new product in a cleanroom setting.

The undersigned agrees to an extension of the statutory time limit for scheduling a public hearing.  
Date: 4/08/2021 Applicant's Signature: \_\_\_\_\_

# APPLICATION REVIEW FORM

**Applicant:** Bernardo Ngui Phone # (845) 527-6468

**Address:** 128 Noble St. #1 Brooklyn NY 11222  
Street Name & Number (Post Office) City State Zip Code

**Property Owner:** Daikin America Inc. Phone # (256) 303-8358

**Address:** 20 Olympic Drive Orangeburg NY 10962  
Street Name & Number (Post Office) City State Zip Code

**Engineer/Architect/Surveyor:** Ed Arcari, Arcari Iovino Architects PC Phone # (201) 641-0600

**Address:** One Katherine St. Little Ferry NJ 07643  
Street Name & Number (Post Office) City State Zip Code

**Attorney:** Stefan Kenn Phone # (845) 365-9500

**Address:** 20 Olympic Drive Orangeburg NY 10962  
Street Name & Number (Post Office) City State Zip Code

**Contact Person:** Bernardo Ngui Phone # (845) 527-6468

**Address:** 128 Noble St. Brooklyn NY 11222  
Street Name & Number (Post Office) City State Zip Code

## GENERAL MUNICIPAL LAW REVIEW:

This property is within 500 feet of:  
*(Check all that apply)*

**IF ANY ITEM IS CHECKED, A REVIEW MUST BE DONE BY THE ROCKLAND COUNTY COMMISSIONER OF PLANNING UNDER THE STATE GENERAL MUNICIPAL LAW, SECTIONS 239 L, M, N, AND NN.**

- |   |   |
|---|---|
| <input type="checkbox"/> State or County Road | <input type="checkbox"/> State or County Park |
| <input type="checkbox"/> Long Path            | <input type="checkbox"/> County Stream        |
| <input type="checkbox"/> Municipal Boundary   | <input type="checkbox"/> County Facility      |

List name(s) of facility checked above:

\_\_\_\_\_

\_\_\_\_\_

### Referral Agencies:

- |  |  |
|--|--|
| <input type="checkbox"/> RC Highway Department       | <input type="checkbox"/> RC Division of Environmental Resources  |
| <input type="checkbox"/> RC Drainage Agency          | <input type="checkbox"/> RC Dept. of Health                      |
| <input type="checkbox"/> NYS Dept. of Transportation | <input type="checkbox"/> NYS Dept. of Environmental Conservation |
| <input type="checkbox"/> NYS Thruway Authority       | <input type="checkbox"/> Palisades Interstate Park Commission    |
| <input type="checkbox"/> Adjacent Municipality _____ |  |
| <input type="checkbox"/> Other _____                 |  |

**APPLICATION REVIEW FORM**

**FILL IN WHERE APPLICABLE.**

**( IF THE FOLLOWING DOES NOT APPLY PLEASE MOVE ON TO THE NEXT PAGE )**

**If subdivision:**

- 1) Is any variance from the subdivision regulations required? \_\_\_\_\_
- 2) Is any open space being offered? \_\_\_\_ If so, what amount? \_\_\_\_\_
- 3) Is this a standard or average density subdivision? \_\_\_\_\_

**If site plan:**

- 1) Existing square footage \_\_\_\_\_
- 2) Total square footage \_\_\_\_\_
- 3) Number of dwelling units \_\_\_\_\_

**If special permit, list special permit use and what the property will be used for.**

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**Environmental Constraints:**

Are there **slopes greater than 25%**? If yes, please indicate the amount and show the gross and net area No

Are there **streams** on the site? If yes, please provide the names. No

Are there **wetlands** on the site? If yes, please provide the names and type:

No

**Project History:**

Has this project ever been reviewed before? No

If so, provide a narrative, including the list case number, name, date, and the board(s) you appeared before, and the status of any previous approvals.

N.A.

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List tax map section, block & lot numbers for all other abutting properties in the same ownership as this project.

(See attached page)

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## Project History

(continued)

Tax Map Section, Block & Lot Numbers for all abutting properties in the same ownership as this project:

- (1) #73.15-1-15  
SQ Properties LLC  
8 Olympic Drive,  
Orangeburg, NY 10962
  
- (2) #73.15-1-17  
Town of Orangetown  
26 Orangeburg Road,  
Orangeburg, NY 10962
  
- (3) #73.16-2-78  
Clarins USA Inc.  
15 Olympic Drive  
Orangeburg, NY 10962
  
- (4) #73.15-1-5  
Melody P. Fiore  
PO Box 66  
Orangeburg, NY 10962
  
- (5) #73.15-1-6  
Jacqueline M. Fiore  
28 Strawtown Road  
West Nyack, NY 10994
  
- (6) #73.16-1-1  
Town of Orangetown  
26 Orangeburg Road,  
Orangetown, NY 10962
  
- (7) #73.15-1-17  
Rockland County  
53 New Hempstead Road  
New City, NY 10956



**Surrey Environmental Consulting, LLC**

**104 Surrey Lane  
River Edge, NJ 07661  
Phone: 201-977-1814  
Fax: 201-977-1434  
www.surreyenvironmental.com**

March 10, 2021

Mr. Scott Johnson  
Project Engineer  
Daikin America, Inc.  
905 State Docks Road  
Decatur, AL 35601

Re: Air Permitting Evaluation for New Laboratory and Research & Development Equipment  
Daikin America, Inc., Orangeburg, New York  
Proposed FFKM Laboratory

Dear Mr. Johnson:

Surrey Environmental Consulting, LLC (Surrey) conducted an air permit applicability evaluation for equipment that Daikin America, Inc. (Daikin) is planning to install in a newly constructed laboratory (FFKM Laboratory) in Orangeburg, New York (Facility). This Facility is located in Rockland County. A brief discussion of the air regulatory requirements and the results of this evaluation are presented below.

## **Overview**

The new Facility will contain various types of laboratory equipment (e.g., lab hoods and ICP-Plasma unit) in addition to small-scale research and development (R&D) equipment (e.g., an extruder and 8-in roller). Construction is planned to occur in three phases. Construction for Phase 1 will begin in April 2021 and will be completed in December 2021. Phase 2 will occur sometime in 2022, and Phase 3 in 2023.

## **Air Permit Applicability Requirements**

Unless equipment that emits air contaminants is considered exempt or trivial under 6 NYCRR Subpart 201-3 (Subpart 201-3)<sup>1</sup>, a facility must obtain either a Title V permit, state facility permit, or a registration certificate under 6 NYCRR Part 201 (Part 201)<sup>1</sup>. It should be noted that revisions to Part 201 recently became effective on February 25, 2021, which directly affects air permit applicability for R&D activities. This evaluation incorporates these new regulations.

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<sup>1</sup> Title 6 of the New York Codes, Rules and Regulations (6 NYCRR), Chapter III, Subchapter A, Part 201 (6 NYCRR Part 201), Subpart 201-3 (Subpart 201-3).



Air Permit Classifications

The type of permit required is determined by the total amount of air contaminants potentially emitted (also referred to as potential to emit or PTE<sup>2</sup>) by a facility as a whole in a year. The PTE from exempt sources must be included when determining air permit applicability. A Title V permit is issued to facilities with a facility-wide PTE above the major source thresholds. The major source thresholds for a facility located in Rockland County<sup>3</sup> are as follows:

**Major Source Thresholds**

Pollutant	Tons per Year
Nitrogen Oxides (NO <sub>x</sub> )	25
Volatile Organic Compounds (VOC)	25
Carbon Monoxide (CO)	100
Sulfur Dioxide (SO <sub>2</sub> )	100
Particulate Matter (PM)	100
PM ≤ 10 microns (PM <sub>10</sub> )	100
PM ≤ 2.5 microns (PM <sub>2.5</sub> )	100
Lead (Pb)	10
Total Hazardous Air Pollutants (HAPs)	25
Any Individual HAP	10
Greenhouse Gases (CO <sub>2</sub> equivalent)	100,000

A facility can qualify for a registration certificate if the facility's PTE and/or actual annual emissions are less than 50 percent of the major source thresholds plus all persistent, bioaccumulative, or toxic compounds (also referred to as Highly Toxic Air Contaminants or HTAC) are less than thresholds specified in §201-9.1 Table 1 ([Link to 201-9.1 Table 1](#)). A state facility permit applies to facilities that fall between the Title V and registration classifications. If the Facility is required to obtain a registration or any type of permit, the New York State Department of Environmental Conservation (NYSDEC) requires the owner or operator of the facility to obtain a registration certificate/permit before commencing construction.

Exemption Criteria

Part 201, the air permitting and registration regulations, defines laboratory operations and R&D activities as follows:

**Laboratory operations** - *A workplace where small quantities of chemicals are used for research and development, analytical testing or other support services. Equipment in laboratory operations is designed such that it is easily and safely handled by one person [Section (§) 201-2.1(b)(20)].*

<sup>2</sup> PTE assumes that the facility can operate for 8,760 hours per year (24 hrs a day, 7 days a week, 52 weeks a year), unless there is some type of permit or operating restriction, and accounts for air pollution control technology.

<sup>3</sup> Rockland County is part of the New York City metropolitan area which is classified as severe nonattainment for the 1-hour ozone National Ambient Air Quality Standard (NAAQS) [Subdivision 200.1(au) & (av)].



*Research and development activities - The primary purpose of such activities is to conduct research and development into processes and products, where such activities are conducted under the close supervision of technically trained personnel. Research and development activities do not include activities whose primary purpose is to produce commercial quantities of materials [§201-2.1(b)(27)].*

In general, the equipment can be considered exempt from air permitting if:

1. The equipment falls into one of the exempt categories listed in the regulations [§201-3.2];
2. The PTE from all exempt sources or when the PTE from exempt sources is added to the facility-wide PTE total results in a facility-wide PTE that does not exceed the major source thresholds [§201-3.1(c)];
3. Physical and/or operational restrictions for the equipment is not required to maintain the PTE below the major source thresholds or new source review (NSR)<sup>4</sup> [§201-3.1(d)]; and
4. The equipment does not produce commercial quantities or products for sale [§201-3.2(c)(40) & §201-1.16(a)(1)].

The recent revisions to Part 201 expanded on the exemption requirements for R&D activities. Previously, the general criteria described above also applied to R&D activities. The expanded criteria are as follows [§201-1.16(a)&(b)]:

1. R&D activities do not produce commercial quantities or products for sale;
2. R&D activities are exhausted to an appropriate control device<sup>5</sup>;
3. Records for each R&D activity conducted at the facility are maintained at the facility for at least five years and presented to NYSDEC upon request. Records shall include:
  - i. The quantity of each material used on a monthly basis
  - ii. The material safety data sheet for each material used
  - iii. 12-month rolling total emissions calculations for each air contaminant emitted to the outdoor atmosphere
4. Total emissions from R&D activities do not exceed:
  - i. Major source thresholds
  - ii. An emission cap established in a permit or registration, or
  - iii. Part 231 significant project thresholds (for existing major sources).

If all of the above criteria are met, the proposed laboratory and R&D equipment can be considered exempt, and an air permit or registration will not be required. However, the NYSDEC reserves the right to require a facility that conducts R&D activities to obtain a permit

<sup>4</sup> In general, NSR is applicable to major sources. If a physical and/or operational restriction is necessary, a permit or registration would be required to be considered federally enforceable (to legally lower a facility's PTE).

<sup>5</sup> The term "appropriate control device" is not defined in the regulations. NYSDEC intended this definition to be somewhat nebulous for R&D allowing NYSDEC to make a determination on what is considered appropriate. Per a 2/26/2021 email (anonymous) from Mark Lanzafame of NYSDEC, a control device is appropriate if it reduces emissions to acceptable levels and may be no control in some cases. Other applicable regulation will be used by NYSDEC to determine what is appropriate, such as the HTACs thresholds in [§201-9.1 Table 1, Part 212-2.3](#) (toxicity/pollutant based) or [DAR-1](#) guidance (any non-HTAC VOCs less than 100 lbs/yr is not considered significant).





or registration if NYSDEC determines that the activities cannot meet the regulations [§201-1.16(c)].

**Air Permit Applicability Evaluation**

To determine if the laboratory operations and R&D activities can be exempt from air permitting or registration, first an analysis of the Facility's PTE must be conducted. If the resulting PTE is less than the major source thresholds, then each piece of equipment can be assessed for exemption. To perform such an evaluation, Daikin provided: 1) a list of the equipment proposed to be installed at the Facility during each of the three construction phases (see Table 1); and 2) a listing of all chemicals to be used in the proposed equipment and their anticipated annual usage rates for the three phases (see Table 2). The estimated chemical usage provided was based on a 12-hour day, five days a week, 250 days per year of operation (or 3,000 hours per year).

PTE Evaluation [§201-3.1(c), (d) & §201-1.16(a)(4)]

The chemical usage estimates were scaled up to represent full-time operation (8,760 hours per year) and used to develop the PTE for the laboratory and R&D activities. The resulting quantities were so low that for ease of future recordkeeping (as required by §201-1.16), it was conservatively assumed that 100 percent of the volatile chemicals and gases used were emitted to the atmosphere. This methodology will allow the Facility to track usage and use this data to represent air emissions. For powders and solid materials, a factor of 0.03% was used to account for losses from materials handling. The resulting air emission estimates are presented in Table 3. The facility also has three natural gas-fired space heaters, which Daikin estimates to be rated less than 300,000 British thermal units (BTU) per hour each. Air emission estimates for the space heaters are presented in Table 4. The PTE estimates from laboratory operations, R&D activities, and space heaters are summarized and compared to the major source thresholds below:

**Table 5 - PTE Summary**

Pollutant	PTE Laboratory & R&D	PTE Space Heaters	Total PTE	Major Source Thresholds	HTAC Thresholds
	Tons per Year				Lbs per Year
Nitrogen Oxides (NO <sub>x</sub> )	-	0.363	0.363	25	-
Volatile Organic Compounds (VOC)	0.03	0.021	0.051	25	-
Carbon Monoxide (CO)	-	0.155	0.155	100	-
Sulfur Dioxide (SO <sub>2</sub> )	-	0.002	0.002	100	-
Particulate Matter (PM)	0.00001	0.029	0.02901	100	-
PM ≤ 10 microns (PM <sub>10</sub> )	0.00001	0.029	0.02901	100	-
PM ≤ 2.5 microns (PM <sub>2.5</sub> )	0.00001	0.029	0.02901	100	-
Lead (Pb)	-	1.93E-6	1.93E-6	10	-
Total Hazardous Air Pollutants (HAPs)	0.005	0.0073	0.0123	25	-
Any Individual HAP	0.0003 to 0.002	4.64E-9 to 2.90E-4	4.64E-9 to 0.002	10 (each)	-
Greenhouse Gases (CO <sub>2</sub> equivalent)	-	467	467	100,000	-
Benzene (HTAC)	0.64 lbs/yr	-	-	-	100
Aniline (HTAC)	0.64 lbs/yr	-	-	-	1,000



The Facility may also have some ancillary equipment for an air conditioning system. However, this equipment will not contribute to the Facility's PTE.

Based on the above estimate, the resulting PTE is below the major source threshold, and a permit or registration is not required to impose any physical and/or operational restrictions on the equipment to maintain the PTE below the major source thresholds. Therefore, it is possible to classify the R&D, laboratory operations, and space heaters as exempt sources.

Exemption Evaluation – Laboratory Operations

In addition to the need for the PTE from the laboratory operations to be below the major source thresholds (as discussed above), the sources must be listed as one of the exempt categories in §201-3.2 to be considered exempt. Laboratory operations are one of the listed exempt source categories as long as products for sale are not produced except in a de minimis manner [§201-3.2(c)(40)].

Daikin indicated that the laboratory operations only support the R&D activities and will not produce a product for sale. Therefore, the proposed laboratory operations are considered exempt sources. To maintain this exemption, the equipment must be operated and maintained in a manner consistent with the manufacturer's specifications and good engineering practices [§201-3.2(b)].

Exemption Evaluation – R&D Activities

As mentioned above, NYSDEC recently revised the criteria to exempt R&D activities from air permitting or registration requirements. The updated criteria are presented in §201-1.16, and each segment of this new regulation is discussed below:

§201-1.16(a)(1) – Prohibits the production of commercial quantities of materials or products for sale.

- Daikin indicated that the R&D activities would not produce a product for sale.

§201-1.16(a)(2) – R&D activities must be exhausted to an appropriate control device (in some instances can be determined as no controls).

- The term "appropriate control device" is not defined in the regulations. NYSDEC intended this definition to be somewhat nebulous for R&D activities, allowing NYSDEC to make a determination on what is considered appropriate. Per an anonymous discussion with NYSDEC, the emission estimates presented in Table 5 above would not warrant add-on control technology. If any new chemicals are introduced at a later date, applicability to §201-1.16(a)(2) should be reassessed.



§201-1.16(a)(4) – The PTE from R&D activities must not exceed the threshold levels identified in the regulations.

- As shown in Table 5, the PTE from R&D and the laboratory combined are below the major source threshold. Therefore, the PTE from R&D alone will also be below the major source thresholds. An emission cap is not warranted to maintain the estimated PTE since the PTE in Table 5 is based on 8,760 hours per year. If any new chemicals are introduced at a later date, applicability to §201-1.16(a)(4) should be reassessed.

§201-1.16(a)(3) & §201-1.16(b) – Records for each R&D activity conducted at the facility must be maintained at the Facility for at least five years and presented to NYSDEC upon request in order to be considered exempt. Required records are as follows:

- i. The quantity of each material used on a monthly basis
- ii. The material safety data sheet for each material used
- iii. 12-month rolling total emissions calculations for each air contaminant emitted to the outdoor atmosphere.
- The proposed R&D activities at the Facility meet all of the exception criteria, but to be considered exempt, the records mentioned above must be maintained. As discussed in the previous section, the PTE for volatile chemicals and gases conservatively assumed that 100 percent of the amount used was emitted to the atmosphere for ease of recordkeeping. Therefore, maintaining the usage rates for these materials will also suffice as emission estimates. The classifications identified in Table 2 will assist Daikin with developing estimates for each emission category (i.e., VOC, HAP, individual HAP, HTAC, other). The total usage of powders and solid materials should be multiplied by a factor of 0.03% to estimate particulate emissions from materials handling.

As long as appropriate records are maintained, the proposed R&D activities can be considered exempt.

#### Exemption Evaluation – Space Heaters

In addition to the need for the PTE from sources that can be classified as exempt to be below the major source thresholds (as discussed above), the source must be listed as one of the exempt categories in §201-3.2. Space heaters are one of the listed exempt source categories if they are rated less than 10 million BTU per hour (MMBtu/hr) and burn a liquid or gas fuel [§201-3.2(c)(1)].

Daikin indicated that the three existing space heaters are each rated less than 300,000 Btu per hour (0.3 MMBtu/hr) and burn natural gas. Therefore, the existing space heaters are considered exempt sources. Specifications showing that the space heaters are less than 0.3 MMBtu/hr should be maintained on file at the Facility. To maintain this exemption, the equipment must be operated and maintained in a manner consistent with the manufacturer's specifications and good engineering practices [§201-3.2(b)].



Mr. Scott Johnson  
Daikin America, Inc.  
March 10, 2021  
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## Conclusion

Based on an evaluation of the information provided by Daikin and the fact that product will not be produced for sale, an air permit or registration will not be required per Subpart 201-3 for the proposed equipment (refer to Table 1) to be installed at the Orangeburg, New York Facility as long as appropriate records as outlined above are maintained for each R&D activity. The equipment must be operated and maintained in a manner consistent with the manufacturer's specifications and good engineering practices to maintain the equipment's exemption status.

In addition to maintaining the required records for R&D activities, it is also recommended to maintain records of all chemical usage, R&D and non-R&D, on an annual basis to substantiate that the Facility is indeed not a major source. Plus, a copy of the space heaters' specifications, documenting the maximum gross heat input of the units, should be maintained on file. If additional equipment or new chemicals are added, the new equipment/chemicals should be assessed to confirm the need for an air permit or registration is not triggered by the addition.

This document should be maintained on-site in the Facility's permanent files and be made readily available, if necessary, during a regulatory inspection/inquiry.

We greatly appreciate the opportunity to assist you with your air quality needs.

If you have any questions or would like to discuss, please contact me at (201) 977-1814 or (201) 320-2050.

Sincerely,

**Surrey Environmental Consulting, LLC**

A handwritten signature in blue ink that reads "Mary Daly".

Mary Daly  
Principal

**TABLE 1**  
**DAIKIN AMERICA, INC.**  
**PROPOSED FFKM LABORATORY**  
**ORANGEBURG, NY FACILITY**  
**EQUIPMENT AND FIXTURES (PHASES 1 - 3)**

No <sup>(a)</sup>	Equipment Name <sup>(a)</sup>	QTY <sup>(a)</sup>	Vents Outdoors <sup>(a)</sup>	Room <sup>(a)</sup>	Exempt?
<b>Equipment for Molding (RAD) Operations</b>					
1	8 inch Roll	1	No	B	Yes per §201-1.16 RAD
	Auxiliary equipment Temperature Control for Roll	1		?	NA
2	Vacuum Press / 150M	1	Yes	D	Yes per §201-1.16 RAD
	Auxiliary equipment Hydraulic pump for press (outdoor) Vacuum pump for press (outdoor)	1		OD OD	NA NA
3	Rheometer (MDR)RPA	1	Yes	D	Yes per §201-1.16 RAD
4	Inert Gas Cleaning Oven (electric)	3	Yes	D	Yes per §201-1.16 RAD
5	Extruder (for Preform)	1	Yes	D	Yes per §201-1.16 RAD
6	Electronic balance	3	NA	D, E, F	NA
7	Laboratory bench	1	NA	all	NA
8	Mold shelf (storage)	1	NA	all	NA
9	Vacuum packing machine	1	No	D	Yes per §201-1.16 RAD
10	Ultra low humidity desiccator (RH < 3%)	1	No	D	Yes per §201-1.16 RAD
11	Freezer	1	NA	D	NA
12	Refrigerator	1	NA	D	NA
<b>Evaluation &amp; Inspection Equipment</b>					
1	Hydrometer (specific gravity)	1	NA	F	Yes per §201-3.2(c)(40) if not used to produce products for sale except in a de minimis manner
2	Hardness tester	1	NA	F	Yes per §201-3.2(c)(40) if not used to produce products for sale except in a de minimis manner
3	Cracklin (universal testing machine)	1	Yes	E	Yes per §201-3.2(c)(40) if not used to produce products for sale except in a de minimis manner
4	Dumbbell Cutters (hand held)	1	NA	E	Yes per §201-3.2(c)(40) if not used to produce products for sale except in a de minimis manner
5	Oven (Electric - Operation Temp 300°C)	3	Yes	D, E	Yes per §201-3.2(c)(40) if not used to produce products for sale except in a de minimis manner
6	Shear	1	-	-	-
7	DISC & TGA	1	Yes	F	Yes per §201-3.2(c)(40) if not used to produce products for sale except in a de minimis manner
8	FTIR	1	No	E	Yes per §201-3.2(c)(40) if not used to produce products for sale except in a de minimis manner
9	Auxiliary equipment Dry air compressor for FT-IR=N <sub>2</sub>	1	No	OD?	NA
10	ICP-plasma (with carbon filter)	1	Yes	E	Yes per §201-3.2(c)(40) if not used to produce products for sale except in a de minimis manner
11	Auxiliary equipment Compound molecular pump for ICP-plasma	1		E	NA
12	Turbo pump for ICP-plasma	1		E	NA
13	Rotary pump for ICP-plasma	1		E	NA
14	Remote plasma inspection equipment	1	Yes	E	Yes per §201-3.2(c)(40) if not used to produce products for sale except in a de minimis manner
15	Auxiliary equipment Vacuum pump for remote plasma	1		E	Yes per §201-3.2(c)(40) if not used to produce products for sale except in a de minimis manner
16	Exhaust-gas-absorbent-vent-for-Plasma (per S. Johnson & 23 21 small does not exist)	4	No	OD	-
17	Draft chamber (fume hoods)	2	Yes	F	Yes per §201-3.2(c)(40) if not used to produce products for sale except in a de minimis manner
18	Laboratory bench	2	NA	F	NA
19	Precision balance	1	NA	F	NA
20	Microscope SEM	1	NA	F	NA
21	Hand washer	1	NA	NA	NA
22	Safety shower	1	NA	NA	NA
23	Rheometer	1	No		Yes per §201-3.2(c)(40) if not used to produce products for sale except in a de minimis manner
<b>Existing Equipment</b>					
(3) Space heaters <300,000 Btu/hr each			Yes		Yes per §201-3.2(c)(1)(X) <10 MM Btu/hr (liquid & gas)
<b>Equipment that may be required (for A/C only)</b>					
Air Cooled Chiller			-		Yes per §201-3.2(c)(7) other water containers designed to cool, store or handle water not in direct contact with gaseous or liquid process streams
Chilling Water feed pump			-		
Chilling Water Tank			-		

Notes:  
(a) Provided by Daikin America, Inc.

TABLE 2

DAIKIN AMERICA, INC.  
PROPOSED FFKM LABORATORY  
ORANGEBURG, NY FACILITY

ESTIMATED CHEMICAL USAGE (PHASES 1 - 3)

Actual Operating Hours<sup>(1)</sup> = 3,000

Potential Operating Hours = 8,760

No. <sup>(a)</sup>	Phase <sup>(a)</sup>	Equipment <sup>(a)</sup> M=Molding (R&D) E=Evaluation (Lab) O=Cleaning (100h) EX=Extraction (Lab)	Name of Substance <sup>(a)</sup>	CAS No. <sup>(a)</sup>	Form <sup>(a)</sup>	Classification				Annual Estimated Usage (kg/yr) <sup>(a)</sup>	Annual Estimated Usage (lbs/yr)	Potential Annual Usage (lbs/yr) <sup>(a)</sup>
						VOC	HAP	PM	Other			
<b>Outsourced Products</b>												
1	1	M	V-6	83558-80-9	Powder			x		0.5	1.10	3.22
2	1	M	MT-UP	1333-86-4	Solid			x		5	11.02	32.19
3	1	M	Surface Treatment Si3N4	12033-89-5	Powder			x		0.1	0.22	0.64
4	1	M	Crushed Si3N4	12033-89-5	Powder			x		0.1	0.22	0.64
5	3	M	Fluorinert FC-770 (extraction solvent)	86508-42-1	Liquid	x				1	2.20	6.44
6	3	EX	Fluorinert FC-72 (extraction solvent)	86508-42-1	Liquid	x				1	2.20	6.44
<b>Compound Material A</b>												
1	1	M	Graphite fluoride	51311-17-2	Powder			x		0.1	0.22	0.64
2	1	M	Triallyl Isocyanurate	1025-15-6	Powder			x		0.1	0.22	0.64
3	1	M	2,5-Dimethyl-2,5-di(tert-butylperoxy)hexane	78-63-7	Liquid	x				0.1	0.22	0.64
4	1	M	AFTA-ph (V-6)	83558-80-9	Powder			x		0.5	1.10	3.22
5	1	M	Poly (N, N'-p-phenylene biphenyltetracarboxylimide)	29319-22-0	Liquid	x				0.1	0.22	0.64
6	1	M	Aluminum oxide	1344-28-1	Powder			x		0.5	1.10	3.22
7	1	M	Quinacridone(5,12-Dihydroquinol(2,3-b)acridine-7,14-dione)	1047-16-1	Powder			x		0.1	0.22	0.64
8	1	M	Silicon nitride	12033-89-5	Powder			x		0.1	0.22	0.64
9	1	M	Carbon black	1333-86-4	Powder			x		5	11.02	32.19
10	1	M	Oxetane, 2,2,3,3-tetrafluoro-, homopolymer, fluorinated	113114-19-5	Liquid	x				0.1	0.22	0.64
11	3	Ex	Fluorinert FC-770 (extraction solvent)	86508-42-1	Liquid	x				1	2.20	6.44
12	3	Ex	Fluorinert FC-72 (extraction solvent)	86508-42-1	Liquid	x				1	2.20	6.44
13	1	M	Poly(tetrafluoroethylene)	9002-84-0	Powder			x		1	2.20	6.44
14	1	M	Silicon carbide	409-21-2	Nanopowder			x		1	2.20	6.44
<b>Compound Material B</b>												
1	1	M	DAI FREE GA-9750 (release agent for molding)	undisclosed	Liquid	x				1	2.20	6.44
2	1	M	DAI FREE GA-9750 M (release agent for molding)	undisclosed	Liquid	x				1	2.20	6.44
3	1	M	Carbon black	1333-86-4	Powder			x		1	2.20	6.44
4	1	M	Urea	57-13-6	Powder			x		0.01	0.02	0.06
<b>Reagent</b>												
1	3	M, E, O	Methanol	67-56-1	Liquid	x	x			0.5	1.10	3.22
2	3	M, E, O	Ethanol	64-17-5	Liquid	x				0.1	0.22	0.64
3	3	M, E, O	Acetone	67-64-1	Liquid				x	10	22.05	64.37
4	3	O	Isopropyl Alcohol	67-63-0	Liquid	x				0.1	0.22	0.64
5	3	M, E, O	Tetrahydrofuran Anhydrous	109-99-9	Liquid	x				0.1	0.22	0.64
6	3	M, E, O	2-Butanone (Methyl Ethyl Ketone)	78-93-3	Liquid	x				0.1	0.22	0.64
7	3	M, E, O	Ethylene Glycol	107-21-1	Liquid	x	x			0.1	0.22	0.64
8	3	M, E, O	1-Butanol	71-36-3	Liquid	x				0.1	0.22	0.64
9	3	E	1-Methyl-2-pyrrolidone	872-50-4	Liquid	x				0.1	0.22	0.64
10	3	E	N,N-Dimethylacetamide	127-19-5	Liquid	x				0.1	0.22	0.64
11	3	E	N-Methyl-diethanolamine	105-59-9	Liquid	x				0.1	0.22	0.64
12	3	E	2-(Methylamino)ethanol	109-83-1	Liquid	x				0.1	0.22	0.64
13	3	E	Xylene	1330-20-7	Liquid	x	x			0.1	0.22	0.64
14	3	E	Dimethyl Sulfoxide	67-68-5	Liquid	x				0.1	0.22	0.64
15	3	E	2-(2-Aminoethoxy)ethanol	929-06-6	Powder			x		0.1	0.22	0.64
16	3	M, E, O	4-Methyl-2-pentanone	108-10-1	Liquid	x	x			0.1	0.22	0.64
17	3	E	Sulfuric acid	7664-93-9	Liquid				x	0.1	0.22	0.64
18	3	E	Nitric Acid	7697-37-2	Liquid				x	0.1	0.22	0.64
19	3	E	Hydrogen Chloride	7647-01-0	Liquid			x		0.1	0.22	0.64
20	3	E	Perchloric acid	7601-90-3	Liquid				x	0.1	0.22	0.64
21	3	E	Hydrogen Peroxide	7722-84-1	Liquid				x	0.1	0.22	0.64
22	3	E	Ammonia Solution	1336-21-6	Liquid				x	0.1	0.22	0.64
23	3	E	Cyclohexylamine	108-91-8	Liquid	x				0.1	0.22	0.64
<b>Gases</b>												
1	2	E	NF3	7783-54-2	Gas				x	42	92.59	270.37
2	2	E	CF4	75-73-0	Gas	x				0.4	0.88	2.57
3	2	E	N2 (distillate of air)	7727-37-9	Gas					722	1,591.74	4,647.87
4	2	E	O2 (distillate of air)	7782-44-7	Gas					0.2	0.44	1.29
5	2	E	Ar (distillate of air)	7440-37-1	Gas					24	52.91	154.50
										Total VOC Usage = 55.36		
										Total HAPs Usage = 5.79		
										Total Powder/Solid Usage = 97.91		
										Total "Other" Usage = 337.97		

**Equations:**

Annual Estimated Usage (lbs/yr) = Annual Estimated Usage (kg/yr) x 2.20462 lbs/kg

Potential Annual Usage (lbs/yr) = Annual Estimated Usage (lbs/yr) x (Potential Operating Hours + Actual Operating Hours)

**Notes:**

(a) Provided by Daikin America, Inc.

(b) Confirmed by Daikin America, Inc.

(c) NYSDEC would be concerned with compounds emitted above 100 lbs per year that is used in the R&D activities (laboratory activities are exempt). If the usage of any chemicals used for R&D approaches 100 lbs per year, further evaluation may be required.

VOC = Volatile Organic Compound

HAP = Hazardous Air Pollutant

PM = Particulate

Other = Unclassified Compound

HTAC = high toxicity air contaminants

= HAP or HTAC

Distillates of air are not considered air pollutants.



TABLE 3

DAIKIN AMERICA, INC.  
PROPOSED FFKM LABORATORY  
ORANGEBURG, NY FACILITY

ESTIMATED AIR EMISSIONS (PHASES 1 - 3)  
Laboratory Operations and R&D Activities

Total air emissions from the laboratory operations and R&D activities are comprised of three main components: volatiles/gases; powders/solids (particulate); and volatiles emitted from curing in the vacuum press machine. The methodology for these three components and the resulting emissions are presented below.

**Volatiles/Gases**

For ease of recordkeeping it was assumed that 100% of the volatile chemicals and gases used will be emitted to atmosphere. Hence, if the use of a chemical remains below the Potential Annual Usage amounts in Table 2, the following air emission estimates will not be exceeded.

Pollutant	Potential to Emit Estimate (lb/yr)
<b>Chemical Usage Summary (Table 2)-Assumed 100% Emitted</b>	
Total VOC	55.36
Total HAPs	5.79
Methanol (HAP)	3.22
Ethylene Glycol (HAP)	0.64
Xylene (HAP)	0.64
4-Methyl-2-pentanone (HAP)	0.64
Hydrogen Chloride (HAP)	0.64
Acetone (Other)(R&D only) <sup>(c)</sup>	32.19
Acetone (Other)(Lab only) <sup>(c)</sup>	32.19
Sulfuric acid (Other)	0.64
Nitric Acid (Other)	0.64
Perchloric acid (Other)	0.64
Hydrogen Peroxide (Other)	0.64
Ammonia (Other)	0.64
NF3 (Other)(Lab only)	270.37

**Powders/Solids (PM)**

The total amount of powders/solids used is presented below. To estimate air emissions it was conservatively assumed that approximately 0.01% of the powder/solid material will be lost during each handling step (dispensing, analysis, and disposal). Therefore, the total annual usage rate was multiplied by 0.03% (0.01% x 3) to estimate total loss.

Estimated Particulate Loss = 0.03%

Pollutant	Potential Annual Usage (lb/yr)	Potential to Emit Estimate (lb/yr)
<b>Total Powder/Solid Usage (Table 2)</b>		
Total Particulates (PM = PM <sub>10</sub> = PM <sub>2.5</sub> )	97.91	0.029

**Curing Compounds**

Daikin America, Inc. proved the following estimate of air emissions resulting from the curing compounds when processed in the vacuum press machine in R&D.

No. <sup>(a)</sup>	Phase <sup>(a)</sup>	Equipment <sup>(a)</sup> M=Molding E=Evaluation O=Cleaning Ex=Extraction	Name of Substance <sup>(a)</sup>	CAS No <sup>(a)</sup>	Storage amount (Kg) <sup>(a)</sup>	Form <sup>(b)</sup>	Classification				Annual emission amount (kg/yr) <sup>(a)</sup>	Actual Annual emission amount (lb/yr)	Potential to Emit Estimate (lb/yr)
							VOC	HAP	PM	Other			
<b>Volatile matters when curing compounds by vacuum press machine (provided by Daikin)</b>													
1	1	M	Silicon Dioxide	7631-86-9		Suspension				x	0.1	0.22	0.64
2	1	M	Benzene (HTAC)	71-43-2		Liquid	x	x			0.1	0.22	0.64
3	1	M	Toluene	108-88-3		Liquid	x	x			0.1	0.22	0.64
4	1	M	Aniline (HTAC)	62-53-3		Liquid	x	x			0.1	0.22	0.64
5	1	M	2-butanone	24313-50-6		Liquid	x				0.1	0.22	0.64
6	1	M	Acetone	67-64-1		Liquid			x		10	22.05	64.37
7	1	M	tert-Amyl Alcohol	75-85-4		Liquid	x				0.1	0.22	0.64
8	1	M	tert-Butanol	75-65-0		Liquid	x				0.1	0.22	0.64
9	1	M	Methyl Iodide	74-88-4		Liquid	x	x			0.2	0.44	1.29

**TABLE 3**  
**DAIKIN AMERICA, INC.**  
**PROPOSED FFKM LABORATORY**  
**ORANGEBURG, NY FACILITY**  
**ESTIMATED AIR EMISSIONS (PHASES 1 - 3)**  
**Laboratory Operations and R&D Activities**

**Air Emission Summary**

Air emission estimates from chemical usage, powder usage, and curing compounds (representing total estimated emissions from laboratory operations and R&D activities) is presented below:

Pollutant	Potential to Emit Estimate (lb/yr)	Potential to Emit Estimate (tons/yr)	Subpart 201-9 Table 1 (HTAC) Thresholds (lb/yr)
<b>Total Estimated Air Emissions from Laboratory &amp; R&amp;D</b>			
Total VOC	60.51	0.03	-
Total HAPs	9.01	0.005	-
Methanol (HAP)	3.22	0.002	-
Ethylene Glycol (HAP)	0.64	0.0003	-
Xylene (HAP)	0.64	0.0003	-
4-Methyl-2-pentanone (HAP)	0.64	0.0003	-
Hydrogen Chloride (HAP)	0.64	0.0003	-
Benzene (HAP/HTAC)	0.64	0.0003	100
Aniline (HAP/HTAC)	0.64	0.0003	1,000
Methyl Iodide (HAP)	1.29	0.001	-
Acetone (Other)(R&D only) <sup>(c)</sup>	96.56	0.05	-
Acetone (Other)(Lab only) <sup>(c)</sup>	32.19	0.02	-
Sulfuric acid (Other)	0.64	0.0003	-
Nitric Acid (Other)	0.64	0.0003	-
Perchloric acid (Other)	0.64	0.0003	-
Hydrogen Peroxide (Other)	0.64	0.0003	-
Ammonia (Other)	0.64	0.0003	-
NF3 (Other)(Lab only)	270.37	0.135	-
Silicon Dioxide (Other)	0.64	0.0003	-
Total Particulates (PM = PM10 = PM2.5)	0.029	0.00001	-

**Notes:**

(a) Provided by Daikin America, Inc.

(b) Confirmed by Daikin America, Inc.

(c) Per Daikin, the total acetone usage was distributed across the molding (R&D), evaluation (laboratory), and cleaning operations. Acetone for cleaning was further distributed equally between R&D and the laboratory.

VOC = Volatile Organic Compound

HAP = Hazardous Air Pollutant

PM = Particulate

Other = Unclassified Compound

HTAC = high toxicity air contaminants

= HAP or HTAC

TABLE 4

DAIKIN AMERICA, INC.  
PROPOSED FFKM LABORATORY  
ORANGEBURG, NY FACILITY

ESTIMATED AIR EMISSIONS - EXISTING SPACE HEATERS

	#Units <sup>(a)</sup>	Max. Goss Heat Input (MMBtu/hr/unit) <sup>(a)</sup>
Direct Fired Space Heaters, heat input of each < 0.3 MMBtu/hr	3	0.300
<b>Total MMBtu/hr =</b>		<b>0.900</b>

Heating Value of Fuel (Btu/scf)<sup>(b)</sup> = 1,020

Potential Operating Hours/yr = 8760

Pollutant	AP-42 Emission Factor (lb/10 <sup>6</sup> scf)	Potential to Emit Estimates (tons/yr)
<i>Criteria Pollutant Emissions</i>		
Nitrogen Oxides (NOx) <0.3 MMBtu/hr <sup>(c)</sup>	94	0.363
Carbon Monoxide (CO) <0.3 MMBtu/hr <sup>(c)</sup>	40	0.155
Volatile Organic Compounds (VOCs) <sup>(d)</sup>	5.5	0.021
Sulfur Dioxide (SO <sub>2</sub> ) <sup>(d)</sup>	0.6	0.002
Total Particulate, TSP <sup>(d)</sup>	7.6	0.029
Particulate, PM <sub>10</sub> <sup>(d)</sup>	7.6	0.029
Particulate, PM <sub>2.5</sub> <sup>(d)</sup>	7.6	0.029
Lead (Pb) <sup>(d,h)</sup>	0.0005	1.93E-06
<i>Greenhouse Gases (GHGs) (CO<sub>2</sub> equivalent)<sup>(f)</sup></i>		
Carbon Dioxide (CO <sub>2</sub> ) <sup>(d)</sup>	120,000	463.76
Methane (CH <sub>4</sub> ) <sup>(d)</sup>	2.3	0.22
Nitrous Oxide (N <sub>2</sub> O) (Uncontrolled) <sup>(d)</sup>	2.2	2.53
<b>Total GHGs</b>		<b>4.67E+02</b>
<i>Hazardous Air Pollutants (HAPs)</i>		
Benzene (Group I Txs) <sup>(e)</sup>	2.1E-03	8.12E-06
Formaldehyde (HCOH) <sup>(e)</sup>	7.5E-02	2.90E-04
Arsenic (As) <sup>(f)</sup>	2.0E-04	7.73E-07
Beryllium (Be) <sup>(f)</sup>	1.2E-05	4.64E-08
Cadmium (Cd) <sup>(f)</sup>	1.1E-03	4.25E-06
Chromium (Cr) <sup>(f)</sup>	1.4E-03	5.41E-06
Manganese (Mn) <sup>(f)</sup>	3.8E-04	1.47E-06
Mercury (Hg) <sup>(f)</sup>	2.6E-04	1.00E-06
Nickel (Ni) <sup>(f)</sup>	2.1E-03	8.12E-06
2-Methylnaphthalene (POM) <sup>(e)</sup>	2.4E-05	9.28E-08
3-Methylchloranthrene (POM) <sup>(e)</sup>	1.8E-06	6.96E-09
7, 12-Dimethylbenz(a)anthracene (POM) <sup>(e)</sup>	1.6E-05	6.18E-08
Acenaphthene (PAH) <sup>(e)</sup>	1.8E-06	6.96E-09
Acenaphthylene (PAH) <sup>(e)</sup>	1.8E-06	6.96E-09
Anthracene (PAH) <sup>(e)</sup>	2.4E-06	9.28E-09
Benz(a)anthracene (PAH) <sup>(e)</sup>	1.8E-06	6.96E-09
Benzo(a)pyrene (PAH) <sup>(e)</sup>	1.2E-06	4.64E-09
Benzo(b)fluoranthene (PAH) <sup>(e)</sup>	1.8E-06	6.96E-09
Benzo(g,h,i)perylene (PAH) <sup>(e)</sup>	1.2E-06	4.64E-09
Benzo(k)fluoranthene (PAH) <sup>(e)</sup>	1.8E-06	6.96E-09
Chrysene (PAH) <sup>(e)</sup>	1.8E-06	6.96E-09
Dibenzo(a,h)anthracene (PAH) <sup>(e)</sup>	1.2E-06	4.64E-09
Fluoranthene (PAH) <sup>(e)</sup>	3.0E-06	1.16E-08
Fluorene (PAH) <sup>(e)</sup>	2.8E-06	1.08E-08
Indeno(1,2,3-cd)pyrene (PAH) <sup>(e)</sup>	1.8E-06	6.96E-09
Naphthalene (PAH) <sup>(e)</sup>	6.1E-04	2.36E-06

TABLE 4

**DAIKIN AMERICA, INC.  
PROPOSED FFKM LABORATORY  
ORANGEBURG, NY FACILITY**

**ESTIMATED AIR EMISSIONS - EXISTING SPACE HEATERS**

Pollutant	AP-42 Emission Factor (lb/10 <sup>6</sup> scf)	Potential to Emit Estimates (tons/yr)
<b>Hazardous Air Pollutants (HAPs)</b>		
Phenanthrene (PAH) <sup>(c)</sup>	1.7E-05	6.57E-08
Pyrene (PAH) <sup>(c)</sup>	5.0E-06	1.93E-08
Dichlorobenzene <sup>(c)</sup>	1.2E-03	4.64E-06
Hexane <sup>(c)</sup>	1.8E+00	6.96E-03
Toluene <sup>(c)</sup>	3.4E-03	1.31E-05
Cobalt (CO) <sup>(h)</sup>	8.4E-05	3.25E-07
Selenium (Se) <sup>(i)</sup>	2.4E-05	9.28E-08
<b>Total POM (includes PAH)</b>	-	2.7E-06
<b>Total HAPs</b>	-	7.30E-03
<b>Other Pollutants</b>		
Ammonia (NH <sub>3</sub> ) <sup>(b)</sup>	4.9E-01	0.002
Butane <sup>(c)</sup>	2.1E+00	8.12E-03
Ethane <sup>(c)</sup>	3.1E+00	1.20E-02
Pentane <sup>(c)</sup>	2.6E+00	1.00E-02
Propane <sup>(c)</sup>	1.6E+00	6.18E-03
Barium (Ba) <sup>(f)</sup>	4.4E-03	1.70E-05
Copper (Cu) <sup>(f)</sup>	8.5E-04	3.29E-06
Molybdenum (Mo) <sup>(f)</sup>	1.1E-03	4.25E-06
Vanadium (V) <sup>(f)</sup>	2.3E-03	8.89E-06
Zinc (Zn) <sup>(f)</sup>	2.9E-02	1.12E-04
<b>Total Other Pollutants</b>	-	0.038

**Notes:**

(a) Provided by Daikin America, Inc.

(b) Based on a high heating value of 1,020 Btu/scf [per AP-42 Table 1.4-1 Emission Factors for Nitrogen Oxides (NO<sub>x</sub>) and Carbon Monoxide (CO) from Natural Gas Combustion, footnote (a), July 1998].

(c) Emission factor was obtained from AP-42 Table 1.4-1 Emission Factors for Nitrogen Oxides (NO<sub>x</sub>) and Carbon Monoxide (CO) from Natural Gas Combustion, July 1998. Units < 100 MMBtu/hr but ≥ 0.3 MMBtu/hr are classified as small boilers and units < 0.3 MMBtu/hr are classified as residential furnaces. Uncontrolled factors were used.

(d) Emission factor was obtained from AP-42 Table 1.4-2 Emission Factors for Criteria Pollutants and Greenhouse Gases from Natural Gas Combustion, July 1998. The emission factor for PM assumes that all PM is PM<sub>1</sub>. The emission factor for CO<sub>2</sub> assumes all carbon in fuel is converted to CO<sub>2</sub>. The emission factor for SO<sub>2</sub> assumes all sulfur in fuel is converted to SO<sub>2</sub> and assumes the sulfur content of natural gas is 2,000 grains/10<sup>6</sup> scf.

(e) Emission factor obtained from AP-42 Table 1.4-3 Emission Factors for Speciated Organic Compounds from Natural Gas Combustion, July 1998. PAH is a subset of POM.

(f) Emission factor obtained from AP-42 Table 1.4-4 Emission Factors for Metals for Natural Gas Combustion, July 1998.

(g) Emission factor obtained from [www.https://www.epa.gov/electronic-reporting-air-emissions/webfire](https://www.epa.gov/electronic-reporting-air-emissions/webfire) for commercial/institutional boilers. Source: Development and Selection of Ammonia Emission Factors - Final Report. R. Batty, W. Batty, C. Overcash, and S. Fudge, EC/R Incorporated, Durham, NC. Report prepared for USEPA Office of Research and Development, August, 1994.

(h) Lead is classified as a criteria pollutant and hazardous air pollutant (HAP).

(i) To convert to CO<sub>2</sub> equivalent, results were multiplied by the global warming potential (GWP) for the respective pollutant. GWP obtained from 40 CFR Part 98 Subpart A Table A-1, which are as follows: CO<sub>2</sub> = 1; CH<sub>4</sub> = 25; and N<sub>2</sub>O = 298.

**Equations for PTE:**

$Emissions (tons/yr) = Emission\ Factor\ (lb/10^6\ scf) \times Max.\ Heat\ Input\ (MMBtu/hr) \times [1 + Heating\ Value\ of\ Fuel\ (Btu/scf)] \times Operating\ Hours\ (hrs/yr) \times (1\ ton/2000\ lbs)$

# Town of Orangetown Resume of Operations and Equipment

## Application Instructions

This application is to define equipment and operations for a new or existing facility or process to determine applicability to Town of Orangetown Performance Standards. The information herein is required for the Town Zoning Board to make such determination regarding the Applicant's proposed use of the land.

Do not start work before obtaining necessary permits to avoid subjecting the Applicant and contractors engaged in The Project to enforcement action, which could include: 1) civil or criminal court action, or both; 2) fines; 3) an order to remove structures or materials or perform other remedial action; or 4) both a fine and an order.

If the facility has existing and applicable local, county, state or federal permits, licenses or certifications, copies of such are to be listed below and included in this application.

**PROJECT NAME:** Daikin America Inc.

Type of Permit <small>e.g., air, water, waste, etc.</small>	Agency <small>local, county, state, federal</small>	Submitted Paper Copy? Y or N	URL or Website Information
Air	NYSDEC	Exempt	See attached report.

**The Applicant must provide information and background showing the derivation of anticipated air emissions, water discharges and waste disposal, appropriate to the Projects' applicability to Town Performance Standards.**

This PDF document is based on Microsoft's Excel format converted to PDF. Data can be entered directly into the areas designated, or the application may be printed and filled in by hand. To fill in electronically, open this document in Adobe Acrobat, click on "Typewriter" under "Tools", and begin typing. Font size is restricted. Additional pages can be included in the application.

Town of Orangetown  
Resume of Operations and Equipment

This Application is required for the Town to make a determination regarding the applicant's proposed use of the land and buildings. Attach Additional Sheets as Needed.

**Certification and Identification Information**

Type of Action/Application: Place an "X" to the left of the appropriate categories.

<input checked="" type="checkbox"/>	New	<input type="checkbox"/>	Significant Modification	Other:
<input type="checkbox"/>	Renewal	<input type="checkbox"/>	Administrative Amendment	
<input type="checkbox"/>	Minor Action	<input type="checkbox"/>	Major Action	

**PROJECT NAME:** Daikin America Inc.

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein in this application, and information in support of it, and that based on my inquiry of those individuals responsible for obtaining the information, I believe that the submitted information is true, accurate and complete.

<b>Responsible Official:</b>	
Print: <i>SCOTT JOHNSON</i>	Title: <i>Engineer</i>
Signature: <i>[Signature]</i>	Date: <i>4-12-21</i>
Phone: <i>256 303-8358</i>	Email: <i>johnson11@daikin-america.com</i>

**Facility / Owner Information**

<b>Facility Name:</b> Daikin America Inc.	
<b>Facility Address:</b> 20 Olympic Drive, Orangeburg, NY 10962	
<b>Owner Name:</b> Daikin America Inc.	<b>Business EIN#:</b> 63-1038060
<b>Street:</b> 20 Olympic Drive	<b>ZIP:</b> 10962
<b>City/Town:</b> Orangeburg	<b>State/Province:</b> NY

<b>Ownership:</b> <small>Place "X" to left of box</small>	<input checked="" type="checkbox"/>	Corporation	<input type="checkbox"/>	Individual
	<input type="checkbox"/>	Partnership	<input type="checkbox"/>	Other:

**Owner/Firm/Facility Contact**

<b>Name:</b> Bernardo Ngui	<b>Phone:</b> (845) 527-6468
<b>Street Address:</b> 128 Noble St. #1	<b>Fax:</b>
<b>City/Town:</b> Brooklyn	<b>ZIP:</b> 11222
<b>State/Province:</b> NY	<b>Country:</b> USA
<b>Affiliation:</b>	<b>Title:</b> Proj Mgr.
<b>Email:</b> ngui.bernardo@shimz.biz	



Town of Orangetown  
Resume of Operations and Equipment

**PROJECT NAME:** Daikin America Inc.

**BUILDING & PROPERTY**

Property Footprint, total sq. ft./acres	8.97 acres
Footprint, Largest structure, sq. ft.	77,858 sf
Highest 'Story' on Site	1
Total No. Structures	1

Parking sq. ft.	59,199 sf
No. Parking Spots	105
Full Time Employees	68
Part Time Employees	0

**STATE ENVIRONMENTAL QUALITY REVIEW**

This application requires completing and submitting to the Town only, the New York State Department of Environmental Conservation's Short Environmental Assessment Form, Appendix B to 6NYCRR 617.20. Some of this information may be duplicated herein. This form can be accessed at:

[http://www.dec.ny.gov/docs/permits\\_ej\\_operations\\_pdf/seafpartone.pdf](http://www.dec.ny.gov/docs/permits_ej_operations_pdf/seafpartone.pdf)

**The applicant must provide floor plans showing location of equipment, work stations, vents, exhausts, chimneys or stacks, and associated industrial processes.**

**OPERATIONS**

<b>Primary Line(s) of Business:</b>	<b>NAICS:</b>	<b>SIC:</b>
1. Fluorochemicals	1.	1.
2.	2.	2.
3.	3.	3.
Week Days Operating M-F Typically		
No. Shifts per Day 1		
Hours per Day Operating 8 hrs/day		

**Principal Products of Manufacture/Assembly/Business**

1. Fluoroelastomer compounds
2.
3.
4.
5.

Town of Orangetown  
Resume of Operations and Equipment

**PROJECT NAME:** Daikin America Inc.

**NOISE**

Based on descriptive decibel levels of Table A (following page), decibel corrections shown below as appropriate, and in accordance with the Town's Noise Performance Standard 4.181, evaluate the noise level for the processes you list below.

When appropriate, "frequency band cycles" as described in the Town's Noise Performance Standard will be evaluated by the facility in the event of non-compliance with levels proposed for this project. The Town may request this evaluation during the application process if more complex noise patterns are expected.

Type of Operation of Character of Noise	Decibel Correction
Daytime operation only	Plus 5
Noise source operates less than 20% of any one hour period	Plus 5
Noise source operates less than 5% of any one-hour period	Plus 10
Noise source operates less than 1% of any one-hour period	Plus 15
Noise of impulsive character (hammering, etc.)	Minus 5
Noise of periodic character (hum, screech, etc.)	Minus 5

Use dB categories in Table A following page	Noise Level/Range Anticipated Outdoor:			
'Loudest' Producers of Noise Include construction and process operations.	During Time of Busiest Activity	During Time of Slowest Activity	Frequency per day or Specific Time Ranges	Duration, denote hours or minutes
1. Exhaust Fan	50	50	8 am - 5 pm	9 hours
2.				
3.				
4.				
5.				

**VIBRATION**

It is understood that the applicant is familiar with, and anticipates compliance with, the Town's Vibration Performance Standard, 4.171, during project construction and ultimate project operations. Any anticipated aberrations from this expectation should be detailed below.

None



Town of Orangetown  
Resume of Operations and Equipment

**TABLE A**  
**Decibel Levels**

0	healthy hearing threshold	110	rock band; jackhammer, jet flyover @ 1000 ft.
10	a pin dropping	115	emergency vehicle siren; riveter
20	rustling leaves; quiet rural area, nighttime	120	thunderclap; oxygen torch
30	whisper, faint; quiet suburban area, nighttime	125	balloon popping
40	babbling brook, bird calls; quiet urban area, nighttime; computer	130	peak stadium crowd
50	light traffic; quiet urban area, daytime; refrigerator; residential air conditioner @ 50'	135	air raid siren, near jet engine
60	conversational speech @ 3'; air conditioner; heavy traffic @ 300'	140	jet engine at takeoff
70	shower; living room music; dishwasher	145	firecracker
75	toilet flushing; vacuum cleaner; gas lawnmower @ 100', commercial area	150	fighter jet launch
80	alarm clock; garbage disposal; noisy urban area, daytime	155	cap gun
85	passing diesel truck; snow blower	160	shotgun
90	squeeze toy; lawn mower, food blender, motorcycle @ 25'; arc welder; diesel truck @ 50' @ 50 mph.	165	.357 magnum revolver
95	inside subway car; food processor; belt sander	170	safety airbag
100	motorcycle (riding); loud auto horn @ 10'; lawn mower @ 3'; handheld drill	175	howitzer cannon
105	sporting event; table saw	180	rocket launch

Most noise levels are given in dBA, which are decibels adjusted to reflect the ear's response to different frequencies of sound. Sudden, brief impulse sounds, like many of those shown at 120 dB or greater, are often given in dB (no adjustment).

194 sound waves become shock waves

30 faint

90 very loud

50 moderate

120 deafening

70 loud

130 threshold of pain

Town of Orangetown  
Resume of Operations Equipment

**PROJECT NAME:** Daikin America Inc.

**Permits and Applicable Local, County, State & Federal Regulations**

Does the new or modified facility, process(es) or equipment require ANY additional permits, licenses, certifications or other authorizations under local, county, state or federal jurisdiction, or adherence to the regulations below? If so, list the main applicable regulatory parts for each category.

For example, NYSDEC Air State Facility Permit: Part 201-5<sub>2</sub>; industrial wastewater discharge, State Pollutant Discharge Elimination System (SPDES), Part 750; large gas burning engines, NSPS Subpart JJJJ.

Answers in the positive may cause the Town to only conditionally approve this project until these other requirements are met. Additional information and specificity of regulations may be required. It is the applicant's responsibility to provide proof of evidence of meeting all requirements.

**AIR\***

- EPA New Source Performance Standards
- NYSDEC:
  - Registration
  - Air State Facility Permit
  - Federal Title V Major Facility Permit

**PRIMARY APPLICABLE REGULATIONS**

Exempt
Exempt
Exempt
Exempt

**WASTE\*\***

- Pesticide Control
- Solid & Hazardous Waste
- Radiation
- Mineral Resources & Mined Land Reclamation
- Noise from Heavy Motor Vehicles

Exempt
Exempt
Exempt
Exempt
Exempt

**RESOURCE MANAGEMENT\*\*\***

- Land Use
- Mineral Resources
- Invasive Species
- Real Property and Land Acquisitions
- Water Regulation

Exempt
Exempt
Exempt
Exempt
Exempt

**WATER\*\*\*\***

- All other water applicable matters

Exempt
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**GENERAL**

- State Environmental Quality Review
- New York State Department of Health
- Uniform Procedures per 6NYCRR 621.1
- NYS Department of State
- Additional

Completed (Attached)
Exempt
Exempt
Exempt
Exempt

\* <http://www.dec.ny.gov/regs/2492.html>  
 \*\* <http://www.dec.ny.gov/regs/2491.html>  
 \*\*\* <http://www.dec.ny.gov/regs/2490.html>  
 \*\*\*\* <http://www.dec.ny.gov/regs/2485.html>

Town of Orangetown  
Resume of Operations and Equipment

**PROJECT NAME:** Daikin America Inc.

**Combustion Sources**

Combustion Source (engine, turbine, boiler, etc.)	No. of Units	Equipment Rating List HP, KW, MMBtu/hr, CFM with units	Fuels (e.g., natural gas, fuel oil, distillate or residual oil, waste oil, wood)
Space Heaters	3	<300,000 MMBtu/hr	Natural Gas

**Processes**

Will any process, including combustion, use or storage, disposal, discharge, emission, or release to the environment, be applicable and/or reportable to:	*
---	---

EPA Greenhouse Gas Reporting	NA
EPA Toxic Release Inventory	NA
National Emission Standards for Hazardous Air Pollutants	NA
High Toxicity Air Contaminants per NYSDEC Part 212-2.2 Table 2	NA
Emergency Planning and Community Right-to-Know Act (EPCRA)	NA
Tier II NYS Emergency Response Commission	NA
Solid Waste	NA
Hazardous Waste	NA
FHWA or NYSDOT	NA
SPDES or NPDES	NA

\* Mark with an 'X' those that are applicable.

## Chemical Characterization Codes

### Table B

Use these codes to characterize chemicals and chemical products.

**Does any operation involve the use of any of the following:**

**Y or N**

- B explosive and blasting agents
- C poison: gas,g; liquid,l; solid,s
- D irritant
- E flammable liquid
- F flammable solid
- H flammable gas: specify propane and/or butane
- H-a flammables, NOS
- I oxidizer
- J organic peroxide
- K combustible liquid
- L radioactive material
- M corrosive material
- N "dangerous when wet" material
- O etiological material
- P combustible fibers

N
N
N
Y
Y
N
N
N
Y
N
N
N
N
N
N
N

**Does any operation consist of the following:**

- Q produces dust subject to explosion or spontaneous combustion
- R product poisonous fumes or gases
- T spray operations
- U fuel dispensing
- V propane gas forklifts
- W any other operation which may present a fire, explosive, radiological or other hazard

N
N
N
N
N
N

**If none of the above, identify substances as:**

- A aerosol
- G gas
- L liquid
- S/P solid/powder
- S/L slurry



## Chemical Bulk Inventory

**PROJECT NAME:** Daikin America Inc.

<b>SINGLE, NON-MIXTURE CHEMICALS</b> Top 5 by Amounts Used/Stored	<b>CAS Identification*</b>	<b>Table B Characterization Code</b> List all that apply	<b>Yearly Use/Stored</b> (list gallons or pounds)
1. NF3	7783-54-2	?	270.4 lbs
2. Carbon Black	1333-86-4	?	64.4 lbs
3. Fluorinert	86508-42-1	?	25.76 lbs
4. Poly(tetrafluoroethylene)	9002-84-0	?	6.44 lbs
5. Silicon Carbide	409-21-2	?	6.44 lbs

Is there any mixing on-site of any combination of single, bulk substances and/or purchased mixtures? <small>Indicate YES or NO</small>	Yes	
--	-----	--

<b>Identify <u>any</u> on-site, single non-mixture chemical that is:</b>		
Known Human Carcinogen - KHC Probable Human Carcinogen - PrHC Possible Human Carcinogen - PHC Other - Indicate	Carcinogen Characteristic <sup>#</sup>	Yearly Consumption (gallons or pounds)
1. None		
2.		
3.		

CAS Identification\*

[https://ofmpub.epa.gov/sor\\_internet/registry/substreg/searchandretrieve/substancesearch/search.do?search=&substanceName=ethyl%20ketone&substanceNameScope=contains&substanceType=-1&hasComponents=both](https://ofmpub.epa.gov/sor_internet/registry/substreg/searchandretrieve/substancesearch/search.do?search=&substanceName=ethyl%20ketone&substanceNameScope=contains&substanceType=-1&hasComponents=both)

<sup>#</sup> As would be expected to be found in agreement among bodies such as the National Academy of Sciences, the U.S. Department of Health and Human Services' *Agency for Toxic Substance and Disease Registry*, the World Health Organization's *International Agency for Research on Cancer*.

**Chemical Mixtures Inventory**

**PROJECT NAME:** Daikin America Inc.

<b>PURCHASED CHEMICAL MIXTURES</b> List Top Three By Amount Used or Stored, and % of top three components of each mixture, excluding water.	<b>CAS Identification* &amp; Percentage</b>	<b>Table B Characterization Code List all that apply</b>	<b>Yearly Used/Stored</b> (include units: gallons, g, or pounds, p)
<b>M1.</b> None	---		
a.			---
b.			---
c.			---
<b>M2.</b>	---		
a.			---
b.			---
c.			---
<b>M3.</b>	---		
a.			---
b.			---
c.			---

<b>Identify <u>any</u> on-site chemicals in any mixtures that are:</b> Know Human Carcinogen - KHC Probable Human Carcinogen - PrHC Possible Human Carcinogen - PHC Other - Indicate	<b>Carcinogen Characteristic</b>	<b>Yearly Used/Stored,</b> gallons or pounds
<b>1.</b> None		
<b>2.</b>		
<b>3.</b>		

## Chemical Discharges

PROJECT NAME: Daikin America Inc.

List raw material, or products, that emit to the atmosphere or discharge to land or water.	Does this material - or products they form - emit or discharge to a pollution control device? If so, list device(s).
<b>SINGLE, NON-MIXTURE CHEMICALS</b>	
1. See attached report.	NA
2.	
3.	
4.	
5.	
6.	
7.	

<b>CHEMICAL MIXTURES</b>	
1. See attached report	NA
2.	
3.	
4.	
5.	
6.	
7.	



**Primary Process Descriptions**

**PROJECT NAME:** Daikin America Inc.

**Describe Primary Processes:**

Provide a facility blueprint, drawing or schematic showing locations of the processes described below.

**Characterization Codes from Table B**

List all that apply

PP1	Manual weighing	F, J
PP2	Preforming on roll machine	F, J
PP3	Molding	F, J
PP4	Curing	F, J
PP5		
PP6		
PP7		
PP8		
PP9		
PP10		



## Control Systems

**PROJECT NAME:** Daikin America Inc.

**Describe control methods such as pollution and odor controls, fire alarm systems, automatic fire suppression devices such as sprinklers, portable fire extinguishers, and any other safety devices.**

<b>C1</b>	Fire Alarms
-----------	-------------

<b>C2</b>	Sprinklers
-----------	------------

<b>C3</b>	Fire Extinguisher
-----------	-------------------

<b>C4</b>	
-----------	--

<b>C5</b>	
-----------	--

<b>C6</b>	
-----------	--

<b>C7</b>	
-----------	--

<b>C8</b>	
-----------	--

<b>C9</b>	
-----------	--

<b>C10</b>	
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Town of Orangetown  
Resume of Operations and Equipment

## DEFINITIONS

**Responsible official.** A president, vice president, secretary, treasurer, general partner, proprietor, principal executive officer, ranking elected official, or any other person who performs policy or decision making functions and is authorized to legally bind a corporation, partnership, sole proprietorship, or government entity which operates a facility that is subject to the provisions of this Application. Whenever the term responsible official is used in this document or in any other Town regulations, it shall be deemed to refer to the “designated representative” with regard to all matters under this application.

**Major action/project** - actions for which permit applications are to be sent to the NYSDEC under 6NYCRR621.1.

Refer to: [https://govt.westlaw.com/nycrr/Document/I4ec443aacd1711dda432a117e6e0f345?viewType=FullText&originationContext=documenttoc&transitionType=CategoryPageItem&contextData=\(sc.Default\)](https://govt.westlaw.com/nycrr/Document/I4ec443aacd1711dda432a117e6e0f345?viewType=FullText&originationContext=documenttoc&transitionType=CategoryPageItem&contextData=(sc.Default))

**Minor Project** - Projects as described under NYSDEC's Uniform Procedures, 6 CRR-NY 621.4

Refer to: [https://govt.westlaw.com/nycrr/Document/I4ec46aa7cd1711dda432a117e6e0f345?viewType=FullText&originationContext=documenttoc&transitionType=CategoryPageItem&contextData=\(sc.Default\)](https://govt.westlaw.com/nycrr/Document/I4ec46aa7cd1711dda432a117e6e0f345?viewType=FullText&originationContext=documenttoc&transitionType=CategoryPageItem&contextData=(sc.Default))

**Modification** means any change or amendment whatsoever to a permit that is currently in force, including permit transfer.

**Research and Development** activities. The primary purpose of such activities is to conduct research and development into processes and products, where such activities are conducted under the close supervision of technically trained personnel. Research and development activities do not include activities whose primary purpose is to produce commercial quantities of materials.

# RESERVED

## Additional Information or Explanations

PROJECT NAME: Daikin America Inc.

# Short Environmental Assessment Form

## Part 1 - Project Information

### Instructions for Completing

**Part 1 – Project Information.** The applicant or project sponsor is responsible for the completion of Part 1. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification. Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information.

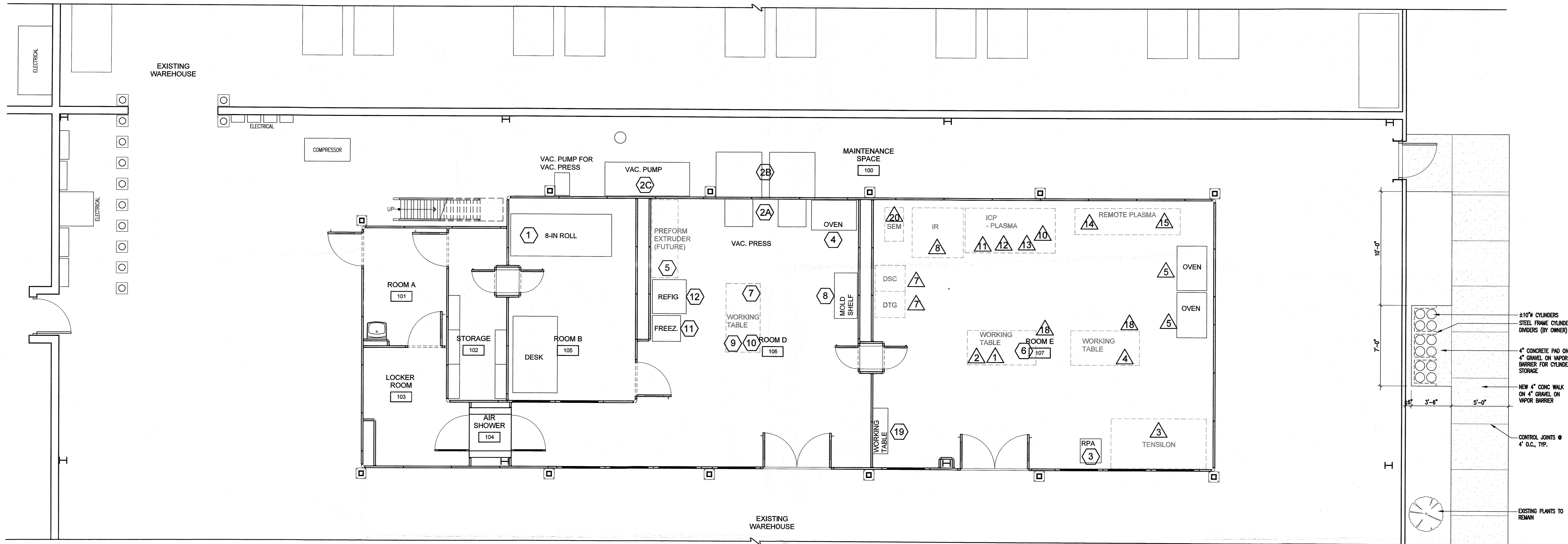
Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

<b>Part 1 – Project and Sponsor Information</b>			
Daikin America Inc.			
<b>Name of Action or Project:</b>			
Daikin America Inc.			
<b>Project Location (describe, and attach a location map):</b>			
20 Olympic Drive, Orangeburg, NY			
<b>Brief Description of Proposed Action:</b>			
The proposed action involves interior renovations within an existing building to construct a new research and development (R&D) laboratory. New equipment will be installed including lab hoods, analytical testing equipment (e.g., Inductively Coupled Plasma (ICP) Spectrophotometer, an extruder and 8-inch roller). Affected areas totals 1,747 square feet.			
<b>Name of Applicant or Sponsor:</b>		<b>Telephone:</b> (256)303-8358	
Daikin America, Inc		<b>E-Mail:</b> johnson11@daikin-america.com	
<b>Address:</b>			
20 Olympic Drive			
<b>City/PO:</b>		<b>State:</b>	<b>Zip Code:</b>
Orangeburg		NY	10962
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.			NO
			YES
			<input checked="" type="checkbox"/>
			<input type="checkbox"/>
2. Does the proposed action require a permit, approval or funding from any other government Agency? If Yes, list agency(s) name and permit or approval: Town of Orangetown building permit			NO
			YES
			<input type="checkbox"/>
			<input checked="" type="checkbox"/>
3. a. Total acreage of the site of the proposed action?		8.94 acres	
b. Total acreage to be physically disturbed?		none acres	
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor?		8.94 acres	
4. Check all land uses that occur on, are adjoining or near the proposed action:			
<input type="checkbox"/> Urban <input type="checkbox"/> Rural (non-agriculture) <input checked="" type="checkbox"/> Industrial <input checked="" type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential (suburban)			
<input type="checkbox"/> Forest <input type="checkbox"/> Agriculture <input type="checkbox"/> Aquatic <input type="checkbox"/> Other(Specify):			
<input checked="" type="checkbox"/> Parkland			

5. Is the proposed action,	NO	YES	N/A
a. A permitted use under the zoning regulations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Consistent with the adopted comprehensive plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6. Is the proposed action consistent with the predominant character of the existing built or natural landscape?	NO	YES	
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area?	NO	YES	
If Yes, identify: _____	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
8. a. Will the proposed action result in a substantial increase in traffic above present levels?	NO	YES	
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
b. Are public transportation services available at or near the site of the proposed action?			
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
c. Are any pedestrian accommodations or bicycle routes available on or near the site of the proposed action?			
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
9. Does the proposed action meet or exceed the state energy code requirements?	NO	YES	
If the proposed action will exceed requirements, describe design features and technologies: _____ _____	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
10. Will the proposed action connect to an existing public/private water supply?	NO	YES	
If No, describe method for providing potable water: _____ Public water supply pre-existing to the facility. No new connections required.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
11. Will the proposed action connect to existing wastewater utilities?	NO	YES	
If No, describe method for providing wastewater treatment: _____ Public sewer connection pre-existing to the facility. No new connections required.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
12. a. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places?	NO	YES	
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
b. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory?			
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency?	NO	YES	
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody?			
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres: _____ _____ _____			

14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply:		
<input type="checkbox"/> Shoreline <input type="checkbox"/> Forest <input type="checkbox"/> Agricultural/grasslands <input type="checkbox"/> Early mid-successional <input type="checkbox"/> Wetland <input type="checkbox"/> Urban <input checked="" type="checkbox"/> Suburban		
15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered?	NO	YES
	<input checked="" type="checkbox"/>	<input type="checkbox"/>
16. Is the project site located in the 100-year flood plan?	NO	YES
	<input checked="" type="checkbox"/>	<input type="checkbox"/>
17. Will the proposed action create storm water discharge, either from point or non-point sources?	NO	YES
If Yes,	<input checked="" type="checkbox"/>	<input type="checkbox"/>
a. Will storm water discharges flow to adjacent properties?	<input type="checkbox"/>	<input type="checkbox"/>
b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)?	<input type="checkbox"/>	<input type="checkbox"/>
If Yes, briefly describe: _____ _____		
18. Does the proposed action include construction or other activities that would result in the impoundment of water or other liquids (e.g., retention pond, waste lagoon, dam)?	NO	YES
If Yes, explain the purpose and size of the impoundment: _____ _____	<input checked="" type="checkbox"/>	<input type="checkbox"/>
19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility?	NO	YES
If Yes, describe: _____ _____	<input checked="" type="checkbox"/>	<input type="checkbox"/>
20. Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste?	NO	YES
If Yes, describe: _____ _____	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>I CERTIFY THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE</b>		
Applicant/sponsor/name: <u>Shoji Fukuda</u> Date: <u>04/13/2021</u>		
Signature: <u>Shoji Fukuda</u> Title: <u>EVP</u>		







**1 EQUIPMENT PLAN**  
1/4" = 1'-0"

EQUIPMENT SCHEDULE					
NO.	EQUIPMENT NAME	QUANTITY	INSTALL	REMARKS	NO.
EQUIPMENT FOR MOLDING					
1	8 INCH ROLL	1	YES	-	1
	TEMPERATURE CONTROL FOR ROLL	1	YES	-	
2A	VACUUM PRESS / 150 ML	1	YES	-	2A
2B	HYDRAULIC PUMP FOR PRESS (OUTDOOR)	1	YES	-	2B
2C	VACUUM PUMP FOR PRESS (OUTDOOR)	1	YES	-	2C
3	RHEOMETER (MDR) -- RPA	1	YES	-	3
4	INTER GAS CLEANING OVEN	1	YES	-	4
5	EXTRUDER (FOR PREFORM)	1	NO	FUTURE INSTALLATION	5
6	ELECTRONIC BALANCE	3	YES	-	6
7	LABORATORY BENCH	1	NO	FUTURE INSTALLATION	7
8	MOLD SHELF	1	YES	-	8
9	VACUUM PACKING MACHINE	1	YES	-	9
10	ULTRA LOW HUMIDITY DESICCATOR	1	YES	-	10
11	FREEZER	1	YES	-	11
12	REFRIGERATOR	1	YES	-	12

EQUIPMENT SCHEDULE					
NO.	EQUIPMENT NAME	QUANTITY	INSTALL	REMARKS	NO.
EVALUATION & INSPECTION EQUIPMENT					
1	HYDROMETER (SPECIFIC GRAVITY)	1	YES	-	1
2	HARDNESS TESTER	1	YES	-	2
3	TENSILON (UNIVERSAL TESTING MACH.)	1	NO	FUTURE INSTALLATION	3
4	DUMBBELL CUTTERS	1	YES	-	4
5	OVEN (OPERATION TEMP. 500°C)	2	YES	-	5
6	NOT USED			NOT USED	6
7	DSC MAIN	1	NO	FUTURE INSTALLATION	7
	DSC FLOW CONTROLLER				
	DSC INTERFACE CONTROLLER				
8	DTG	1	NO	FUTURE INSTALLATION	8
	DTG FLOW CONTROLLER				
9	7, 7" COMMON COMPUTER	1	NO	FUTURE INSTALLATION	9
10	FTIR	1	YES	-	10
11	NOT USED			NOT USED	11
12	ICP-PLASMA BODY	1	NO	FUTURE INSTALLATION	12
13	ICP-PLASMA CONTROL	1	NO	FUTURE INSTALLATION	13
14	COMPOUND MOLECULAR PUMP FOR ICP-PLASMA	1	NO	FUTURE INSTALLATION	14
15	TURBO PUMP FOR ICP-PLASMA	1	NO	FUTURE INSTALLATION	15
16	ROTARY PUMPO FOR ICP-PLASMA	1	NO	FUTURE INSTALLATION	16
17	REMOTE PLASMA INSPECTION EQUIPMENT	1	NO	FUTURE INSTALLATION	17
18	VACUUM PUMP FOR REMOTE PLASMA	1	NO	FUTURE INSTALLATION	18
19	EXHAUST GAS ABATEMENT TOWER UNIT FOR PLASMA	1	NO	FUTURE INSTALLATION - EXTERIOR	19
20	DRAFT CHAMBER (FUME HOODS)	2	NO	FUTURE INSTALLATION - FUTURE DRAFT ROOM	20
21	LABORATORY BENCH	2	NO	FUTURE INSTALLATION	21
22	PRECISION BALANCE	1	YES	-	22
23	MICROSCOPE/SEM	1	NO	FUTURE INSTALLATION	23

04.08.21 ISSUED FOR ZONING BOARD OF APPEALS  
03.19.21 ISSUED FOR PERMIT

<p>PROJECT <b>DAIKIN AMERICA INC.</b></p> <p>20 OLYMPIC DRIVE ORANGEBURG, NY 10962</p>	<p>OWNER</p> 	<p>CONSTRUCTION MANAGER</p> <p>SHIMIZU NORTH AMERICA LLC</p>  <p>155 E 56th St. 4th Fl. New York, NY 10022</p>	<p>ARCHITECT OF RECORD</p> <p><b>arcari iovino</b> + ARCHITECTS PC</p> <p>ONE KATHERINE STREET LITTLE FERRY, NJ 07643 201 641 0600, FAX 201 641 0626 WWW.AIARCHS.COM</p>  <p>EDWARD ARCARI NY#020765</p>	<p>EQUIPMENT PLAN</p> <p>SCALE: AS NOTED DATE: 03.19.2021 FILE: 2057Current\A.5 Equipment Plan.dwg</p> <p><b>A.5</b></p> <p>©2021 <b>arcari + iovino</b> ARCHITECTS PC</p>
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