



Commonwealth of Massachusetts  
Executive Office of Energy & Environmental Affairs

## Department of Environmental Protection

Northeast Regional Office • 205B Lowell Street, Wilmington MA 01887 • 978-694-3200

DEVAL L. PATRICK  
Governor

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Lieutenant Governor

RICHARD K. SULLIVAN JR.  
Secretary

KENNETH L. KIMMELL  
Commissioner

Mr. Alan Litchman  
SJB Bagel Makers of Boston, Inc.  
77 Rowe Street  
Newton, Massachusetts 02466

Re: Final Approval of LPA for  
Non-Fuel Emissions  
at SJB Bagel Makers of Boston, Inc.  
77 Rowe Street  
Newton, Massachusetts 02466  
Transmittal No: X236647  
**Application No. MBR-11-IND-008**

Dear Mr. Litchman:

The Metropolitan Boston/Northeast Regional Office of the Massachusetts Department of Environmental Protection (“MassDEP”), Bureau of Waste Prevention, has determined that the referenced Limited Plan Application (“LPA”) is administratively complete and in conformance with current air pollution control engineering practices. MassDEP approves this LPA to specify federally enforceable volatile organic compounds (VOC) and carbon dioxide (CO<sub>2</sub>) emission limitations resulting from bagel baking operations conducted using seven existing ovens, having a total heat input rating of 2.7 million British thermal units (Btu) per hour and one proposed new Reed Rotary oven with a maximum heat input rating of 540,000 Btu per hour at SJB Bagel Makers of Boston, Inc. (SJB) located at 77 Rowe Street in Newton, Massachusetts (“the Facility”).

The LPA was submitted as required by the Notice of Noncompliance No. NON-NE-10-9062-7. This LPA Approval is in accordance with 310 CMR 7.02(1), (3) and (4) of the Air Pollution Control Regulations (“Regulations”), 310 CMR 7.00, as adopted pursuant to M.G.L. c. 111, Sections 142A-142K.

Included as part of the LPA Approval are the following:

Stamped Approved **BWP AQ 01-B** Application Form;  
General Conditions for Non-Fuel Emissions LPAs;  
Special Conditions; and  
Appeal Rights.

Please review the entire LPA Approval carefully as it stipulates the conditions with which the Facility owner/operator must adhere for the Facility to be constructed/reconstructed/alterd and operated in compliance with the Regulations.

MassDEP has determined that the filing of an Environmental Notification Form ("ENF") with the Secretary of Energy & Environmental Affairs, for air quality purposes, was not required prior to this action by the MassDEP. Notwithstanding this determination, the Massachusetts Environmental Policy Act and Regulation 301 CMR 11.00, section 11.04, provide certain "Fail-Safe Provisions" which allow the Secretary to require the filing of an ENF and/or Environmental Impact Report at a later time.

Should you have any questions concerning this Approval, please contact Marc Altobelli at (978) 694-3284 or at MassDEP, 205B Lowell Street, Wilmington, MA 01887.

Very truly yours,

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Marc Altobelli  
Environmental Engineer  
Bureau of Waste Prevention

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James E. Belsky  
Permit Chief  
Bureau of Waste Prevention

Copy: Board of Health, 1294 Center Street, Newton, MA 02158  
Fire Headquarters, 1164 Centre Street, Newton, MA 02158  
DEP-NERO: M. Persky, M. Altobelli

Electronic copy: DEP: M. Altobelli, Y. Tian

Attachment: BWP AQ 01-B LPA

## **GENERAL CONDITIONS FOR NON-FUEL EMISSION LPAs**

1. Operation - No person shall operate a facility constructed, substantially reconstructed, or altered pursuant to 310 CMR 7.02(1), (3) and (4) except in conformance with the requirements established therein and in conformance with the specific written plan approval requirements.
2. Record keeping – A recordkeeping system shall be established and continued on site. All records shall be maintained up-to-date such that year-to-date information is readily available for MassDEP examination. Recordkeeping shall, at a minimum, include:
  - a) The initiation and completion dates for the proposed construction/reconstruction/alteration.
  - b) Maintenance. A record of routine maintenance activities including, at a minimum, a description of the maintenance performed and the date and time the work was completed.
  - c) Malfunctions. A record of all malfunctions including, at a minimum: the date and time the malfunction occurred; a description of the malfunction and the corrective action taken; the date and time corrective actions were initiated; and the date and time corrective actions were completed and the facility returned to compliance.
  - d) Records shall be maintained documenting the air contaminant emission analysis supporting the response to BWP AQ 01-B Section-C.
  - e) All records shall be kept on site for five (5) years from date of record and shall be made available to the MassDEP upon request.
3. Reporting - Any construction, substantial reconstruction or alteration, as described in 310 CMR 7.02(1), (3) and (4), at a facility subject to the reporting requirements of 310 CMR 7.12, shall be reported to MassDEP on the next required source registration.
4. MassDEP may revoke, in accordance with 310 CMR 7.02(3)(k), any plan approval if the actual construction has not begun within two years from the date of issuance or if, during the construction, the construction is suspended for the period of one year or more.
5. Noise from the Facility during construction, initial startup and routine operation, including startups and shutdowns, shall not exceed the MassDEP noise guidelines and shall not cause a condition of air pollution as defined in 310 CMR 7.01 and 7.10.
6. The Regional Bureau of Waste Prevention office must be notified by telephone or fax as soon as possible after the occurrence of any upsets or malfunctions to the facility equipment, air pollution control equipment, or monitoring equipment which result in an excess emission to the air and a condition of air pollution.
7. The Facility shall be constructed and operated in a manner to prevent the occurrence of dust or odor conditions which may cause or contribute to a condition of air pollution as defined in 310 CMR 7.01 and 7.09.
8. This Final Approval does not negate the responsibility of owner/operator of the referenced facility to comply with this or any other applicable federal, state, or local regulations now or in the future. Nor does this Approval imply compliance with any other applicable federal, state, or local regulations now or in the future.

9. This Approval may be suspended, modified, or revoked by MassDEP if, at any time, MassDEP determines that the facility is violating any condition or part of this LPA Approval. MassDEP shall be notified in writing prior to any modification of the facility such as a change in raw materials or an increase in production capacity, which may increase emissions.
10. Should asbestos remediation/removal be required as a result of the approved construction/reconstruction/or alteration of this facility, such asbestos remediation/removal shall be done in accordance with Regulation 310 CMR 7.15 in its entirety and 310 CMR 4.00.
11. MassDEP must be notified in writing, when the subject equipment has been installed and has been deemed ready for continuous operation, within fourteen (14) days thereof.
12. Emission Testing – The MassDEP may, in accordance with Regulation 310 CMR 7.13, require source emission testing (“stack testing”). All emission testing shall be conducted in accordance with the MassDEP’s Guidelines for Source Emission Testing and with 310 CMR 7.13.
13. The Facility shall be constructed and operated in strict accordance with the application approved herein. Should there be any differences between the aforementioned application and this approval letter, this approval letter shall govern.

### **SPECIAL CONDITIONS**

The primary air emissions from the bakery operations are VOC which are emitted by the bakery ovens. The primary VOC emitted is ethanol. In yeast-leavened breads, yeast metabolizes sugars in an anaerobic fermentation, producing carbon dioxide (CO<sub>2</sub>) that is largely responsible for the bread rising. Besides the CO<sub>2</sub>, equimolar amounts of ethanol and small amounts of other VOC are produced. The ovens are the predominant emissions sources since ethanol is emitted when the dough is exposed to high temperatures in the oven, with yeast concentration, total fermentation time, and amount of product produced being the critical factors in determining VOC emissions. VOC emissions are proportional to the amount of bread baked.

SJB shall incorporate the initial yeast content, total yeast action time, spike yeast content and final spike time such that the equation used to determine VOC emission factors for each type of bagel product produced is:

$$\text{VOC E.F.} = 0.95*Y_i + 0.195*T_i - 0.51*S - 0.86*T_s + 1.9^1$$

Where: VOC E.F. = Pounds of VOC emitted per ton of bread type baked  
Y<sub>i</sub> = initial yeast, in bakers percent of yeast to the nearest tenth of a percent  
T<sub>i</sub> = Total yeast action time, in hours to the nearest tenth of an hour  
S = Spike yeast, in bakers percent of yeast to the nearest tenth of a percent  
T<sub>s</sub> = final spike time, in hours to the nearest tenth of an hour

*Note:*

*1: From United States Environmental Protection Agency's "Alternative Control Technology Document for Bakery Oven Emissions" (Report Number: EPA 453/R-92-017) and "AP-42, Compilation of Air Pollutant Emission Factors", Section 9.9.6 "Bread Baking."*

1. SJB shall ensure that total VOC and CO<sub>2</sub> emissions from the bagel baking operations and those from associated combustion operations, shall not exceed the following emissions limits:
  - a. 2.0 ton VOC per month; and
  - b. 9.0 tons VOC per any consecutive 12 month time period; and
  - c. 300 tons CO<sub>2</sub> per month; and
  - d. 1660 tons CO<sub>2</sub> per any consecutive twelve month time period.
2. SJB shall limit bagel production on a monthly and consecutive twelve month time period such that total VOC and CO<sub>2</sub> emissions do not exceed any of the emissions limits established in Special Condition No.1 above.
3. SJB shall install and maintain all exhaust stacks on the subject equipment consistent with good air pollution control engineering practice. All stacks shall discharge vertically so as to not cause or contribute to a condition of air pollution. No exhaust stack shall be equipped with any part or device that restricts the vertical exhaust flow of the emitted gases. All stacks which exhaust from the subject equipment shall be a minimum of ten (10) feet above the height of the Facility roof.
4. SJB shall comply with all conditions contained in this Final Approval. Should there be any differences between conditions contained in the "General Conditions" and the conditions contained in the "Special Conditions" of this Final Approval, then the "Special Conditions" shall govern.
5. SJB shall take immediate steps to abate any nuisance condition(s), including but not limited to visible emissions, noise, and odor, that maybe generated by the operation of the subject facility.
6. SJB shall submit, in writing, an Exceedance Report to MassDEP should the Facility exceed any limitation/restriction limit specified in the Special Conditions of this Approval. Said Exceedance Report shall be submitted within seven (7) days of determination of the exceedance of the limitation/restriction. The Exceedance Report shall include identification, duration, and reason for the exceedance, and the remedial action plan to prevent future exceedances.
7. SJB shall maintain adequate on-site records to document compliance with the requirements and emission limitations as stated in the Special Conditions of this Approval. Said records shall include but shall not be limited to tons of bagels baked per month (tabulated weekly) and tons of bagels baked per consecutive twelve month time period. Said records shall be made available to MassDEP personnel upon request, and shall be kept on site for a minimum

of five (5) years. An electronic Microsoft Excel version of the format required to be used by MassDEP can be obtained at <http://www.mass.gov/dep/air/approvals/aqforms.htm#report>.

8. The visible emissions from this Facility shall not exceed 10 percent opacity.
9. This Approval consists of the application materials and this Approval letter. If conflicting information is found between these two documents, then the requirements of this Approval letter shall take precedence over the documentation in the application materials.

### **APPEAL OF APPROVAL**

This Approval is an action of MassDEP. If you are aggrieved by this action, you may request an adjudicatory hearing. A request for a hearing must be made in writing and postmarked within twenty-one (21) days of the date of issuance of this Approval.

Under 310 CMR 1.01(6) (b), the request must state clearly and concisely the facts that are the grounds for the request, and the relief sought. Additionally, the request must state why the Approval is not consistent with applicable laws and regulations.

The hearing request along with a valid check payable to Commonwealth of Massachusetts in the amount of one hundred dollars (\$100.00) must be mailed to:

Commonwealth of Massachusetts  
Department of Environmental Protection  
P.O. Box 4062  
Boston, MA 02211

The request will be dismissed if the filing fee is not paid, unless the appellant is exempt or granted a waiver as described below.

The filing fee is not required if the appellant is a city or town (or municipal agency), county, or district of the Commonwealth of Massachusetts, or a municipal housing authority.

MassDEP may waive the adjudicatory hearing filing fee for a person who shows that paying the fee will create an undue financial hardship. A person seeking a waiver must file, together with the hearing request as provided above, an affidavit setting forth the facts believed to support the claim of undue financial hardship.