

**STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS  
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT**

**OFFICE OF COMPLIANCE & INSPECTION**

**IN RE: Aspen Aerogels Rhode Island, LLC**

**FILE Nos.: AIR 15 - 10  
and OCI-AIR-15-257**

NOTICE OF VIOLATION

A. Introduction

Pursuant to Sections 42-17.1-2(21) and 42-17.6-3 of the Rhode Island General Laws, as amended, ("R.I. Gen. Laws") you are hereby notified that the Director of the Department of Environmental Management (the "Director" of "DEM") has reasonable grounds to believe that the above-named party ("Respondent") has violated certain statutes and/or administrative regulations under the DEM's jurisdiction.

B. Facts

- (1) The facility is located at 3 Dexter Road in the city of East Providence, Rhode Island (the "Facility") and is operated by the Respondent.
- (2) The Facility is (and has been) a stationary source of air pollutants subject to the DEM's Air Pollution Control ("APC") Regulations, including but not limited to, DEM's APC Regulation No. 9 entitled *Air Pollution Control Permits* ("APC Regulation No. 9").
- (3) On 18 February 2014, the DEM issued revised Approval Nos. 1890, 1893 and 2111-2113 to the Respondent (the "2014 Permit") that authorized the Respondent to emit pollutants to the atmosphere from the Facility.
- (4) The 2014 Permit limited the nitrogen oxide ("NO<sub>x</sub>") emitted to the atmosphere to no more than 5.44 pounds per hour (the "NO<sub>x</sub> Limit").
- (5) On 20 February 2015, the DEM issued revised Approval Nos. 1890, 1893, 2111-2113, 2149, 2277 and 2278 to the Respondent (the "2015 Permit") that authorized the Respondent to emit pollutants to the atmosphere from the Facility.
- (6) The 2015 Permit requires the Respondent to maintain a minimum operating temperature of 1500°F (the "Minimum Operating Temperature") for the thermal oxidizer combustion chamber (the "Oxidizer") whenever volatile organic compounds ("VOCs") and/or ammonia are being discharged to the Oxidizer.

- (7) On 22 January 2015 and 9 April 2015, the DEM received letters from the Respondent regarding an exceedance of the NO<sub>x</sub> Limit on 23 December 2014. The letters included the following information:
- (a) The exceedance of the NO<sub>x</sub> Limit was caused by a malfunction of pumps associated with the wet scrubber;
  - (b) 26 pounds of NO<sub>x</sub> per hour for 7.1 hours (or about 145.98 pounds of NO<sub>x</sub>) was released to the atmosphere in excess of the NO<sub>x</sub> Limit; and
  - (c) On 13 January 2015, a software alarm system was installed to alert staff of any malfunction of the wet scrubber.
- (8) On 17 March 2015 and 9 June 2015, the DEM received letters from the Respondent regarding a violation of the Minimum Operating Temperature from 21 February 2015 to 24 February 2015 (the "February Violations") and from 10 May 2015 to 13 May 2015 (the "May Violations"). The letters included the following information:
- (a) The operating temperature of the Oxidizer fell below the Minimum Operating Temperature during 6 different time intervals for the February Violations and 3 different time intervals for the May Violations;
  - (b) The February Violations were caused by a malfunction of the temperature interlock and the May Violations were caused by sporadic reduced natural gas flow to the Oxidizer and the failure of software associated with the temperature interlock;
  - (c) The emissions during these time intervals were all below permitted emission limits;
  - (d) Production of aerogel blankets continued during these time intervals while VOCs and ammonia were being discharged to the Oxidizer; and
  - (e) Corrective measures were taken to repair the temperature interlock.

C. Violation

Based on the foregoing facts, the Director has reasonable grounds to believe that you have violated the following statutes and/or regulations:

- (1) **DEM's APC Regulation No. 9.6.8** – requiring any person who receives a permit to comply with all conditions in the permit.
- (2) **DEM's APC Regulation No. 9.6.9** – stating that the failure to comply with all conditions in the permit is a violation of the regulations.

D. Penalty

- (1) Pursuant to R.I. Gen. Laws Section 42-17.6-2, the following administrative penalty, as more specifically described in the attached penalty summary and worksheets, is hereby ASSESSED, jointly and severally, against each named respondent:

**\$5,500**

- (2) The proposed administrative penalty is calculated pursuant to the DEM's *Rules and Regulations for Assessment of Administrative Penalties*, as amended, and must be paid to the DEM within 30 days of your receipt of this Notice of Violation ("NOV"). Payment shall be in the form of a certified check or money order made payable to the "General Treasury - Water & Air Protection Program Account" and shall be forwarded to the DEM's Office of Compliance and Inspection, 235 Promenade Street, Suite 220, Providence, Rhode Island 02908-5767.
- (3) Penalties assessed against the Respondent in the NOV are penalties payable to and for the benefit of the State of Rhode Island and are not compensation for actual pecuniary loss.

E. Right to Administrative Hearing

- (1) Pursuant to R.I. Gen. Laws Chapters 42-17.1, 42-17.6, 42-17.7 and 42-35, each named respondent is entitled to request a hearing before the DEM's Administrative Adjudication Division regarding the allegations, orders and/or penalties set forth in Sections B through D above. All requests for hearing MUST:
- (a) Be in writing. See R.I. Gen. Laws Sections 42-17.1-2(21)(i) and 42-17.6-4(b);
- (b) Be **RECEIVED** by the DEM's Administrative Adjudication Division, at the following address, within 20 days of your receipt of this NOV. See R.I. Gen. Laws Sections 42-17.1-2(21)(i) and 42-17.7-9:
- Administrative Clerk  
DEM - Administrative Adjudication Division  
One Capitol Hill, 2<sup>ND</sup> Floor  
Providence, RI 02903
- (c) Indicate whether you deny the alleged violations and/or whether you believe that the administrative penalty is excessive. See R.I. Gen. Laws Section 42-17.6-4(b); **AND**
- (d) State clearly and concisely the specific issues which are in dispute, the facts in support thereof and the relief sought or involved, if any. See Rule 7.00(b) of the DEM's *Administrative Rules of Practice and Procedure for the Administrative Adjudication Division for Environmental Matters*.

- (2) A copy of each request for hearing must also be forwarded to:

Joseph J. LoBianco, Esquire  
DEM - Office of Legal Services  
235 Promenade Street, 4<sup>TH</sup> Floor  
Providence, RI 02908-5767

- (3) Each named respondent has the right to be represented by legal counsel at all administrative proceedings relating to this matter.
- (4) Each respondent must file a separate and timely request for an administrative hearing before the DEM's Administrative Adjudication Division as to each violation alleged in the written NOV. If any respondent fails to request a hearing in the above-described time or manner with regard to any violation set forth herein, then the NOV shall automatically become a Final Compliance Order enforceable in Superior Court as to that respondent and/or violation and any associated administrative penalty proposed in the NOV shall be final as to that respondent. See R.I. Gen. Laws Sections 42-17.1-2(21)(i) and (vi) and 42-17.6-4(b) and (c).
- (5) Failure to comply with the NOV may subject each respondent to additional civil and/or criminal penalties.
- (6) The NOV does not preclude the Director from taking any additional enforcement action nor does it preclude any other local, state, or federal governmental entities from initiating enforcement actions based on the acts or omissions described herein.

If you have any legal questions, you may contact (or if you are represented by an attorney, please have your attorney contact) Joseph J. LoBianco at the DEM's Office of Legal Services at (401) 222-6607. All other inquiries should be directed to Martha Mulcahey of the DEM's Office of Compliance and Inspection at (401) 222-1360 ext. 7032.

Please be advised that any such inquiries do not postpone, eliminate, or otherwise extend the need for a timely submittal of a written request for a hearing, as described in Section E above.

FOR THE DIRECTOR

By: \_\_\_\_\_  
David E. Chopy, Chief  
DEM Office of Compliance and Inspection

Date: \_\_\_\_\_

CERTIFICATION

I hereby certify that on the \_\_\_\_\_ day of \_\_\_\_\_  
the within Notice of Violation was forwarded to:

Aspen Aerogels Rhode Island, LLC  
c/o Corporation Service Company, Registered Agent  
222 Jefferson Boulevard, Suite 200  
Warwick, RI 02888

by Certified Mail.

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# ADMINISTRATIVE PENALTY SUMMARY

Program: OFFICE OF COMPLIANCE AND INSPECTION, AIR SECTION

File Nos.: AIR 15 - 10 and OCI-AIR-15-257

Respondent: Aspen Aerogels Rhode Island, LLC

GRAVITY OF VIOLATION					
SEE ATTACHED "PENALTY MATRIX WORKSHEETS."					
VIOLATION No. & CITATION	APPLICATION OF MATRIX		PENALTY CALCULATION		AMOUNT
	Type	Deviation	Penalty from Matrix	Number or Duration of Violations	
C(1) and C(2) – Failure to Comply with Permit	Type I (\$10,000 Max. Penalty)*	Moderate	\$2,500	1 violation (Scrubber)	\$2,500
C(1) and C(2) – Failure to Comply with Permit	Type I (\$10,000 Max. Penalty)*	Minor	\$1,500	2 violations (Oxidizer)	\$3,000
<b>SUB-TOTAL</b>					<b>\$5,500</b>

\*Maximum Penalties represent the maximum penalty amounts per day, per violation.

## ECONOMIC BENEFIT FROM NONCOMPLIANCE

COSTS OF COMPLIANCE, EQUIPMENT, O&M, STUDIES OR OTHER DELAYED OR AVOIDED COSTS, INCLUDING INTEREST AND/OR ANY COMPETITIVE ADVANTAGE DERIVED OVER ENTITIES THAT ARE IN COMPLIANCE. NOTE: ECONOMIC BENEFIT MUST BE INCLUDED IN THE PENALTY UNLESS:

- THERE IS NO IDENTIFIABLE BENEFIT FROM NONCOMPLIANCE; OR
- THE AMOUNT OF ECONOMIC BENEFIT CAN NOT BE QUANTIFIED.

A review of the record in this matter has revealed that the Respondent has either enjoyed no identifiable benefit from the noncompliance alleged in this enforcement action or that the amount of economic benefit that may have resulted cannot be quantified.

## COST RECOVERY

ADDITIONAL OR EXTRAORDINARY COSTS INCURRED BY THE DIRECTOR DURING THE INVESTIGATION, ENFORCEMENT AND RESOLUTION OF AN ENFORCEMENT ACTION (EXCLUDING NON-OVERTIME PERSONNEL COSTS), FOR WHICH THE STATE IS NOT OTHERWISE REIMBURSED.

A review of the record in this matter has revealed that the DEM has not incurred any additional or extraordinary costs during the investigation, enforcement and resolution of this enforcement action (excluding non-overtime personnel costs), for which the State is not otherwise reimbursed.

**TOTAL PENALTY PROPOSED UNDER PENALTY REGULATIONS= \$5,500**

## PENALTY MATRIX WORKSHEET

CITATION: Failure to Comply with Permit

VIOLATION NO.: C (1) and C(2)

<b>TYPE</b>		
<u>  X  </u> <b>TYPE I</b> <u>DIRECTLY</u> related to protecting health, safety, welfare or environment.	<u>      </u> <b>TYPE II</b> <u>INDIRECTLY</u> related to protecting health, safety, welfare or environment.	<u>      </u> <b>TYPE III</b> <u>INCIDENTAL</u> to protecting health, safety, welfare or environment.
<b>DEVIATION FROM THE STANDARD</b>		
THE DEGREE TO WHICH A PARTICULAR VIOLATION IS OUT OF COMPLIANCE WITH THE REQUIREMENT VIOLATED.		
<p><b><u>FACTORS CONSIDERED:</u></b></p> <p>Taken from Section 10 (a) (2) of the DEM's <i>Rules and Regulations for Assessment of Administrative Penalties</i></p> <p>(A) <b>The extent to which the act or failure to act was out of compliance:</b> The Respondent failed to comply with its NO<sub>x</sub> emissions limit as required by its permit. The Respondent is a stationary source of air pollutants subject to federal and state air pollution control regulations. Compliance with terms of a permit is of major importance to the regulatory program.</p> <p>(B) <b>Environmental conditions:</b> Considered, but not utilized for this calculation.</p> <p>(C) <b>Amount of the pollutant:</b> The amount of NO<sub>x</sub> released on 23 December 2014 while the facility's equipment was operating but the wet scrubber was malfunctioning was 145.98 pounds above that which was allowed by the permit.</p> <p>(D) <b>Toxicity or nature of the pollutant:</b> NO<sub>x</sub>, after their release during certain atmospheric conditions in the presence of sunlight and other pollutants, contribute to the formation of ozone.</p> <p>(E) <b>Duration of the violation:</b> The malfunction of wet scrubber to control NO<sub>x</sub> on 23 December 2014 lasted less than 1 day.</p> <p>(F) <b>Areal extent of the violation:</b> Considered, but not utilized for this calculation.</p>		
(continued)		

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- (G) **Whether the person took reasonable and appropriate steps to prevent and/or mitigate the noncompliance:** The Respondent failed to cease production during the malfunction that continued more than 7 hours. The Respondent mitigated the noncompliance by installing an alarm to alert staff to a malfunction of the scrubber on 13 January 2015.
- (H) **Whether the person has previously failed to comply with any regulations, order, statute, license, permit or approval issued or adopted by the Department, or any law which the Department has the authority or responsibility to enforce:** The Respondent was issued notices of violation in 2013 and in 2014 and was assessed an administrative penalty in each notice for violations related to the equipment that is the subject of this NOV. The Respondent paid an administrative penalty to resolve both notices of violation.
- (I) **The degree of willfulness or negligence, including but not limited to, how much control the violator had over the occurrence of the violation and whether the violation was foreseeable:** The Respondent had complete control over the violation since the Respondent is the operator of the facility.
- (J) **Any other factor(s) that may be relevant in determining the amount of a penalty:** The Respondent self-reported the violation.

<b>MAJOR</b>	<u>  X  </u> <b>MODERATE</b>	<b>MINOR</b>
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Penalty Matrix where the applicable statute provides for a civil penalty up to \$ 10,000		<b>TYPE I</b>	TYPE II	TYPE III
DEVIATION FROM STANDARD	MAJOR	\$5,000 to \$10,000	\$2,500 to \$5,000	\$1,000 to \$2,500
	<b>MODERATE</b>	\$2,500 to \$5,000 <b>\$2,500</b>	\$1,000 to \$2,500	\$500 to \$1,000
	MINOR	\$1,000 to \$2,500	\$500 to \$1,000	\$100 to \$500

**PENALTY MATRIX WORKSHEET**

CITATION: Failure to Comply with Permit - Oxidizer

VIOLATION NO.: C (1) and C(2)

<b>TYPE</b>		
<p style="text-align: center;"><b><u>  X  </u> TYPE I</b></p> <p style="text-align: center;"><u>DIRECTLY</u> related to protecting health, safety, welfare or environment.</p>	<p style="text-align: center;"><b><u>      </u> TYPE II</b></p> <p style="text-align: center;"><u>INDIRECTLY</u> related to protecting health, safety, welfare or environment.</p>	<p style="text-align: center;"><b><u>      </u> TYPE III</b></p> <p style="text-align: center;"><u>INCIDENTAL</u> to protecting health, safety, welfare or environment.</p>
<b>DEVIATION FROM THE STANDARD</b>		
<p style="font-size: small;">THE DEGREE TO WHICH A PARTICULAR VIOLATION IS OUT OF COMPLIANCE WITH THE REQUIREMENT VIOLATED.</p>		
<p><b><u>FACTORS CONSIDERED:</u></b></p> <p>Taken from Section 10 (a) (2) of the DEM's <i>Rules and Regulations for Assessment of Administrative Penalties</i></p> <p>(A) <b>The extent to which the act or failure to act was out of compliance:</b> The Respondent failed to comply with its permit by continuing to process its aerogel insulation after the oxidizer malfunctioned. The Respondent failed to fully control all VOCs and/or ammonia emissions as required by its permit. The Respondent is a stationary source of air pollutants subject to federal and state air pollution control regulations. Compliance with terms of a permit is of major importance to the regulatory program.</p> <p>(B) <b>Environmental conditions:</b> Considered, but not utilized for this calculation.</p> <p>(C) <b>Amount of the pollutant:</b> Unknown. The Respondent reported no excess emissions compared to that which is allowed by the permit.</p> <p>(D) <b>Toxicity or nature of the pollutant:</b> VOCs, after their release during certain atmospheric conditions in the presence of sunlight and other pollutants, contribute to the formation of ozone. Ammonia is listed as a toxic air contaminant.</p> <p>(E) <b>Duration of the violation:</b> 4 days in February 2015 (6 intervals of noncompliance of varying duration) and 3 days in May 2015 (3 intervals of noncompliance of varying duration).</p> <p>(F) <b>Areal extent of the violation:</b> Considered, but not utilized for this calculation.</p>		
<p>(continued)</p>		

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- (G) **Whether the person took reasonable and appropriate steps to prevent and/or mitigate the noncompliance:** The Respondent failed to comply with its permit and failed to cease operation. The Respondent mitigated the noncompliance by implementing corrective measures of the temperature interlock system.
- (H) **Whether the person has previously failed to comply with any regulations, order, statute, license, permit or approval issued or adopted by the Department, or any law which the Department has the authority or responsibility to enforce:** The Respondent was issued notices of violation in 2013 and in 2014 and was assessed an administrative penalty in each notice for violations related to the equipment that is the subject of this NOV. The Respondent paid an administrative penalty to resolve both notices of violation.
- (I) **The degree of willfulness or negligence, including but not limited to, how much control the violator had over the occurrence of the violation and whether the violation was foreseeable:** Facility employees and/or manager(s) should have determined that the minimum required temperature for the oxidizer was not achieved. Negligence is attributable to the Respondent for its failure to take adequate measures to prevent further occurrences of incompletely-controlled emissions from being released from its process. Respondent continued production without having implemented fail-safe interlock for permit compliance. The Respondent had complete control over the violations since the Respondent is the operator of the facility.
- (J) **Any other factor(s) that may be relevant in determining the amount of a penalty:** The Respondent self-reported the violations.

<b>MAJOR</b>	<b>MODERATE</b>	<u>  <b>X</b>  </u> <b>MINOR</b>
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Penalty Matrix where the applicable statute provides for a civil penalty up to \$10,000		<b>TYPE I</b>	TYPE II	TYPE III
DEVIATION FROM STANDARD	<b>MAJOR</b>	\$5,000 to \$10,000	\$2,500 to \$5,000	\$1,000 to \$2,500
	<b>MODERATE</b>	\$2,500 to \$5,000	\$1,000 to \$2,500	\$500 to \$1,000
	<b>MINOR</b>	\$1,000 to \$2,500 <b>\$1,500</b>	\$500 to \$1,000	\$100 to \$500