

WHITEMAN OSTERMAN & HANNA LLP

ATTORNEYS AT LAW

ONE COMMERCE PLAZA
ALBANY, NEW YORK 12260
TEL 518.487.7600
FAX 518.487.7777
WOH.COM

MICHAEL WHITEMAN
MELVIN H. OSTERMAN
1957-2005
JOHN HANNA, JR.
JOEL L. HODES
PHILIP H. GITLEN
SCOTT N. FEIN
DANIEL A. RUZOW
LESLIE M. APPLE
PHILIP H. DIXON
RICHARD E. LECKERLING
MARGARET J. GILLIS
JONATHAN P. NYE
HEATHER D. DIDDEL
NEIL L. LEVINE
TERRESA M. BAKNER
NORMA G. MEACHAM
ALAN J. GOLDBERG
BETH A. BOURASSA
MARTIN J. RICCIARDI
CHARLES R. HAVILAND, JR.
LESLIE K.L. THIELE
LORRAINE POWER THARP
DAVID R. EVERETT
MICHAEL G. STERTHOUS
JOHN J. HENRY
JAMES B. AYERS
DAMIAN M. HOVANCIK
CATHERINE S. HILL

SENIOR COUNSEL
JOHN R. DUNNE
HOWARD A. LEVINE
EUGENE M. KARP

By Federal Express

Arthur Marin
Executive Director
NESCAUM
101 Merrimac Street
Boston MA 02114

April 21, 2006

OF COUNSEL
MARGARET CANGILOS-RUIZ
HOLLY KENNEDY PASSANTINO
JEAN F. GERBINI
ELLEN M. BACH
PETER J. COSTELLO

PATENT COUNSEL
SANDER RABIN, M.D., J.D.

BRIAN J. LUCEY
ANDREW M. JOHNSON
SETH R. LEECH
KRISTIN KOEHLER GUILBAULT
ROBERT M. GACH
ROBERT T. SCHOFIELD
ROBERT S. REYNOLDS
JANIS E. FALLON
RANDALL S. BEACH
JOSEPH D. STINSON
JOHN P. CALARESO, JR.
PATRICIA A. FRANCHINI
CHRISTOPHER W. MEYER
JAMES A. BOGLIOLI
SCOTT T. DECKER
JASON M. DIMARINO
JOHN R. VERO
WILLIAM S. NOLAN
DOROTHY-JANE GOLDSACK PORPEGLIA
BRADLEY G. ALLEN
THOMAS HOFF PROL
ALANNA McKIERNAN
TAMMY L. CUMO-SMITH
LUCY KATS
PAUL F. FOLEY
SARAH K. DELANEY

Re: Assessment of Outdoor Wood-fired Boilers

Dear Mr. Marin:

This Firm represents Central Boiler, Inc., which has asked us (and our technical consultant) to review the report published by NESCAUM at the end of March, 2006 entitled "Assessment of Outdoor Wood-fired Boilers" (the "Report").

The Report was prepared to convince "policymakers" that outdoor wood boilers ("OWBs") must be either banned or severely regulated. The Report has been published by NESCAUM and is available to the general public through various means, including the NESCAUM web site (www.nescaum.org).

To support its recommendations, NESCAUM makes a number of statements of fact regarding OWBs, generally, and Central Boiler OWBs, specifically, which are completely inaccurate. In addition, in its zeal to convince regulators and the general public, NESCAUM consistently distorts and misrepresents the findings of United States Environmental Protection Agency ("EPA") studies comparing the emissions from OWBs and EPA-certified woodstoves.

A. Marin
April 21, 2006
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Below we present the most obvious and glaring factual inaccuracies and misleading statements contained in the Report. Because these inaccuracies and misleading statements may lead members of the public to choose not to purchase a Central Boiler OWB (or may lead government officials to ban or limit the use of OWBs), Central Boiler may suffer substantial economic damages for which NESCAUM and the NESCAUM employees who participated in the publication of the false and misleading statements in the Report may be held accountable.¹

Without prejudice to Central Boiler's other rights and the remedies that may be available to it, on behalf of Central Boiler we demand that within ten days from the date of this letter NESCAUM withdraw the Report and not re-issue it until the factual inaccuracies and misleading statements are corrected.

The Cover of the Report is Misleading Because it Purports to Depict Smoke Emissions from a Central Boiler OWB While What is Actually Depicted is Steam Escaping from a Relief Vent

The photograph chosen by NESCAUM for the cover of its Report certainly sets the tone for NESCAUM's misleading and inaccurate Report by depicting a Central Boiler OWB with what appears to be smoke billowing from the unit.

However, the cloud of "smoke" is steam (water vapor) being vented from the boiler's water jacket, a safety device that prevents pressure buildup and damage to the boiler under conditions of improper operation when the firebox door is left open (which it appears is the case in this photo). With the firebox door left unlatched or not properly closed, excess air is drawn in and the fire burns uncontrolled, boiling the water in the water jacket. Note that the steam originates from the waterjacket vent pipe on the top of the unit and not the exhaust stack, which is on the back of the unit and is obscured by the steam.

The photograph chosen by NESCAUM, together with the text of the Report, purports to show a Central Boiler unit emitting smoke and particulate matter, when what is shown in the photograph is steam resulting from the improper operation of the unit. This is only the first of numerous false or misleading statements and representations made by NESCAUM about OWBs, generally, and Central Boiler and its products, specifically.

¹ Restatement (Second) of Torts, Section 623A (Liability for Publication of Injurious Falsehood—General Principle) "One who publishes a false statement harmful to the interests of another is subject to liability for pecuniary loss resulting to the other if (a) he intends the publication of the statement to result in harm to the interests of the other having a pecuniary value, or either recognizes or should recognize that it is likely to do so, and (b) he knows that the statement is false or acts in reckless disregard of its truth or falsity."

NESCAUM's Statements Regarding Particulate Matter Are Misleading Because NESCAUM Ignores EPA Data Which Shows that the Rate of Particulate Emissions from OWBs is Similar to the Rate of Emissions from Certified Woodstoves

The conclusion on page vii of the Report that "OWBs emit significantly more particulate matter than other wood burning devices" is misleading because NESCAUM fails to disclose that:

- Emissions from all heating appliances are in direct proportion to fuel input and heat output
- Actual emissions from wood stoves are significantly greater than the USEPA certification values
- Emissions from a Central Boiler OWB are similar to those of EPA-certified woodstoves

NESCAUM fails to disclose that a well-designed and properly operated and installed OWB produces essentially the same particulate matter emissions per unit of consumed fuel (i.e., kilogram of wood) as an EPA-certified woodstove. If EPA-certified woodstoves are used to heat a home, therefore, the grams/hour of total particulate emitted by the woodstoves will be similar to that emitted by an OWB.²

EPA test data for 16 EPA-certified Phase 2 woodstoves (43 separate tests), as they were actually operated in people's homes, showed average particulate emissions of 9.7 g/kg (non-catalytic stoves averaged 9.2 g/kg and catalytic stoves averaged 10.8 g/kg.)³ Emissions produced by these EPA-certified Phase 2 woodstoves were as high as 40.3g/hr and 20.8 g/kg Emissions on a time basis for these stoves averaged 11.1 g/hr (which is significantly above the certification threshold for Phase 2 woodstoves of 4.1 g/hr (catalytic design) and 7.5 g/hr (non-catalytic design)). A comparison of the actual particulate emissions to each stove's certification value is provided in this same EPA study⁴ and shows that actual emissions from certified stoves are on average 3.3 times the certification value. Individual test results were as high a 5.45 times the certification rating. The reason for this discrepancy is that EPA's stove certification test (known as

² Both certified stoves and OWBs are bulk-loaded with cordwood. In both, an air damper regulates the combustion process (manual in a woodstove, automatic in an OWB), and heat transfer is through the firebox surface to either the surrounding room (in the case of a woodstove) or a surrounding water reservoir (in the case of an OWB). Since the heat load of the home ultimately determines the amount of wood fuel needed for the wood heating appliance(s), usable heat produced by one or more stoves or an OWB is related to the quantity of wood burned, thus an appropriate measure of emissions should be related to the heating load and appliance size to meet that heat load.

³ Fisher, L., Houck, J., Tiegs, P. and McGaughey, J., "Long-Term Performance of EPA-Certified Phase 2 Woodstoves, Klamath Falls and Portland, Oregon, 1998-1999," EPA-600/R-00-100, November 2000, p. 43, Table 3-9 and p. 39, Table 3-6.

⁴ Ibid, page 46, Table 3-12. p 39 table 3-6.

Method 28) substantially under-counts actual particulate emissions (discussed below) in the actual use of the product in the home.

The NESCAUM Report fails to disclose that, in 1997, EPA performed emissions tests on two OWBs simulating the actual use for heating a home. Furnace B in these tests is a Central Boiler Model CL17⁵. EPA reported “compared to a wide range of residential heating options, these furnaces’ emissions were of the same order as other stick wood burning appliances.” (Emphasis supplied.)

EPA’s own test data for the Central Boiler furnace showed an average particulate emission rate (over four tests at high and low fire-rates) of 10.7 g/kg⁶. Emissions on a time basis for the Central Boiler unit averaged 14.9 g/hr (low fire) to 37.1 g/hr (high fire), and are up to three times the rate for a woodstove because the OWB produced 2 to 3 times the amount of heat than woodstoves typically do (15,000 to 30,000 btu/h compared to the certified stoves producing 11,000 to 22,000 btu/h--and the burn rate coincides with higher BTU output, approximately 3 kg/hr for the OWB and 1kg/hr for the wood stove). Similarly, when Central Boiler tested Model CL7260, which burns three times the fuel (and produces three times the heat output) of the Model CL17 (9 kg/hr of wood) the measured particulate emissions were 10.4 g/kg⁷. Thus, actual in-use particulate emissions from Central Boiler OWBs are approximately the same as actual in-use particulate emissions for EPA-certified woodstoves, when measured on a comparable grams of particulate per kilogram of wood consumed basis.

Another way to look at the EPA test data for the Central Boiler Model CL17 is to compare the results for the low fire test (Furnace B/B-3 and B/B-4 tests) in which the firing rate was 1.6 kg/hr of wood (dry basis) with the emission limit for EPA woodstove certification. As Paul Tiegs of OMNI-Test Laboratories explained in a letter to NESCAUM⁸--which NESCAUM doesn’t mention in the Report--the average emissions rate established by EPA for the Central Boiler unit of 14.9 g/hr is well below the 18 g/hr limit EPA allows in woodstove certification testing for burn rates over 1.5 kg/hr of wood.⁹ Thus, if a Central Boiler unit is run at a low fire rate to make it roughly equivalent to a woodstove in terms of fuel input, the OWB could meet the EPA certification requirements applied to woodstoves.¹⁰

⁵ Letter from Robert McCrillis, EPA Project Manager, to Rodney Tollefson, November 23, 1998.

⁶ Valenti, J. and Clayton, R., “Emissions From Outdoor Wood-Burning Residential Hot Water Furnaces,” EPA-600/R-98-017, February 1998, p. 22, Table 4-1a, average of Furnace B/B-1 through B-4 test results.

⁷ Letter from Paul Tiegs, OMNI – Test Laboratories, Inc., to Rodney Tollefson, May 1, 2003.

⁸ Letter from Paul Tiegs, OMNI – Test Laboratories, Inc., July 30, 2004.

⁹ 40 CFR 60.532(b)(2), Standards of Performance for New Residential Wood Heaters – Standards for Particulate Matter.

¹⁰ The performance of the Central Boiler unit is even better than this comparison presents because the EPA emissions tests⁵ on the Central Boiler unit ran the OWB through a normal heat demand cycle for a home in the winter, with the OWB on for 8 minutes and then off for 30-60 minutes in each cycle and the tests included the cool-down phase of OWB operation when wood smolders. The standard EPA Method 28

NESCAUM's Statements Regarding Polycyclic Aromatic Hydrocarbons (PAHs) are Misleading Because NESCAUM Ignores EPA Data Which Shows that PAH Emissions from OWBs are Similar to PAH Emissions from Woodstoves

Although NESCAUM concludes on page vii of the Report that “There is a lack of information relating to air toxic emissions, such as polycyclic aromatic hydrocarbons (PAHs),” later in the Report NESCAUM asserts that OWB combustion create “smoldering conditions [that] can result in ... formation of particle-bound PAHs.” NESCAUM, however, has again chosen to ignore published EPA data—this time data regarding PAH emissions from OWBs.

The EPA OWB study produced test data on PAH emission rates and compared these to PAH emission rates for woodstoves, on a mg/MJ (mega joule, a measurement of energy) heat input basis. The EPA test data show the Central Boiler Model CL17 produces 16.1 mg/MJ of PAHs, which is not significantly different from (but is less than) data for certified woodstoves of 24-28 mg/MJ.¹¹

NESCAUM Misrepresents the Comparison of Emissions from EPA Certified Woodstoves and OWBs By Comparing Method 28 Results for Woodstoves with Actual Emissions from OWBs without Disclosing that Actual Emissions from Woodstoves are More than 3 Times Greater than Method 28 Results

In the Report, NESCAUM compares particulate emissions from woodstoves using the EPA Method 28 certification tests with particulate emissions from OWBs in actual use. However, NESCAUM's comparison is utterly misleading because the EPA certification test typically undercounts particulate emissions compared to the testing procedure for measuring actual emissions from heating appliances that are in normal household use. EPA certification testing of woodstoves for PM emissions is performed using the test procedure known as Method 28¹² in conjunction with the EPA particulate sampling procedure Method 5H.¹³ Method 28 substantially under-counts particulate emissions.

Particulate emissions increase dramatically when a new load of wood is added to

certification test for woodstoves, as explained below, does not represent actual woodstove operation and does not include cool-down phase emissions. If the Central Boiler unit had been tested following the EPA certification methodology, the particulate emissions from the Central Boiler unit would have been even lower.

¹¹ Valenti, J. and Clayton, R., “Emissions From Outdoor Wood-Burning Residential Hot Water Furnaces,” EPA-600/R-98-017, February 1998, p. 27, Table 4-5.

¹² 40 CFR 60, Appendix A, Method 28.

¹³ 40 CFR 60, Appendix A, Method 5H.

a stove unless the primary air control is left wide open for 5-15 minutes to bring the internal temperature back up to the high level required for secondary combustion.¹⁴ Tests by EPA of one of its “cleanest” non-catalytic woodstoves (an Aladdin Hearth Products QuadFire stove) found that the stove achieved low particulate emissions (2 to 4 g/hr) if the air supply control was left wide open for 10-15 minutes each time wood was loaded into the stove. When the air control was turned down for a slower burn rate before 5 minutes had elapsed, however, emissions soared 5 to 10 times higher into the 15-20 g/hr range.¹⁵ Because of this emissions “spiking” characteristic of woodstoves, Method 28 allows the test operator to leave the air damper wide open for the first 5 minutes of the test to artificially raise the stove temperature and then turn it down to match the test’s prescribed burn rate (see Section 8.12.1.4 in Method 28). Method 28 also allows the air control to be manipulated during the test to minimize particulate emissions (see Sections 8.12.4 and 8.10).

In a published interview with USEPA, Dennis Jaasma, Professor of Mechanical Engineering at Virginia Polytechnic Institute stated that the correlation between certification tests of woodstoves and in-home performance is “very poor”.¹⁶

Robert McCrillis, the EPA Project Officer in charge of woodstove emissions research programs for the Agency in 1998 commented on the way a stove is manipulated during a Method 28 test:

“Nobody would run a stove the way we ran it; you wouldn’t do that in your home. To me that’s just not right.”¹⁶

The air control manipulations during a Method 28 test, crucial to a woodstove passing the EPA certification, are not done routinely by homeowners. When a stove is refueled in the home, the wood is added, the air control might be adjusted, and the homeowner walks away. The homeowner does not come back 5-15 minutes later to readjust the air controls, and does not repeatedly manipulate them for low emissions performance. Thus, actual in-home use of a woodstove produces substantially higher emissions than Method 28 suggests. Note that the EPA OWB emissions study did not artificially manipulate the air damper control for low emissions. The test on the Central Boiler Model CL17 simulated actual residential use in the winter with the furnace controls automatically regulating the damper as the heat load drawn from the furnace followed the home’s heating demand load.

¹⁴ U.S. EPA, “Non-Catalytic Wood Stoves—Installation, Operation and Maintenance,” EPA-22A-4002, 1992.

¹⁵ U.S. EPA, “Enhanced Combustion Woodstove Technology,” EPA/600/A-94/124, 1994.

NESCAUM'S Attempt to Distinguish OWBs from Woodstoves by Claiming that OWBs Operate in Cycles is Misleading Because Woodstoves Also Operate in Cycles

The conclusion on page vii of the Report that “The cyclic nature of OWB operations, unlike EPA certified woodstoves, does not allow for complete combustion...” is misleading. Both wood appliances experience air-starved operations during routine residential use that can lead to incomplete combustion. For an OWB, this occurs when the thermostat-controlled air damper closes. For woodstoves, this occurs when the homeowner loads the firebox full of wood before going to bed and closes down the air damper to ensure the stove will burn the wood slowly throughout the night. Moreover, no combustion device has complete (100%) combustion. This statement is also misleading because it implies that complete combustion occurs in EPA certified woodstoves.

NESCAUM's Statements Regarding Low Stack Heights for OWBs is Incorrect

The alleged factual statement on page viii of the Report that “stacks from OWBs, as per manufacturer's installation instructions, are usually less than 12 feet from the ground...” is simply incorrect for Central Boiler products now being sold. Every Central Boiler OWB is shipped with (2) four-foot stack sections that, when installed on top of the unit, produce a minimum stack height of 12 to 13 feet above ground level. Every Central Boiler OWB also comes with installation instructions stating that “it is recommended to extend the chimney to a height above the roofs of surrounding buildings.”

NESCAUM'S Statement that OWBs are not Designed to Achieve Secondary Combustion is Also Incorrect

On page 2-1, NESCAUM states: “Most OWBs do not have any combustion controls, such as catalytic devices and secondary combustion.” Central Boiler OWBs provide secondary combustion through its ripple and baffle design. The baffle collects combustion gases in the upper portion of the ripple at the top of the fire box where secondary combustion occurs.

NESCAUM's Statement that Complaints Registered in Vermont Increased After Vermont Adopted Siting Regulations for OWBs is Incorrect

On page 2-3, NESCAUM discusses the 1997 Vermont regulation establishing standards for the siting of an OWB in relation to lot lines and neighbors and says: “This regulation has not eliminated the OWB problem; and in fact the number of complaints received by the VT DEC continues to increase.” The relatively few complaints the State of Vermont has received about OWBs relate to installations which either pre-date the

regulation or involve units with inadequate stack height. Nevertheless, the number of OWB smoke complaints registered with the Vermont DEC Air Pollution Control Division over the past three years has been declining, not increasing as NESCAUM falsely claims:

2003 = 8
2004 = 4
2005 = 3

NESCAUM's Claims Regarding Central Boiler's Manufacturing Capacity are Incorrect

Page 3-3 of the Report asserts that Central Boiler states that it manufactures at least 20,000 OWBs annually and has the capacity to manufacture more than 50,000 OWBs annually—statements that are made by NESCAUM to make it appear that OWB sales are increasing at a rate far beyond actual sales. NESCAUM's assertions are a complete fabrication, resulting from NESCAUM's distortion of two unrelated (and incorrect) statements from an unidentified source—one that Central Boiler manufactured approximately 10,000 units in 2004 and the other, a statement regarding the rate of sales in 2005 which have nothing to do with the manufacturing rate in 2005 or Central Boiler's manufacturing capacity.

NESCAUM Repeatedly Misrepresents EPA Test Data

Page 5-1 (discussing "Previous Test Data") contains several inaccurate and misleading statements regarding EPA test data reported in the previously discussed EPA studies.

The test values of 143.2 g/hr and 55.4 g/hr do not correspond to the Central Boiler OWB (Furnace B, see Table 4-1a of the EPA OWB study), and the first sentence gives the misleading impression that the Central Boiler OWB produced emissions this high.

The next statement that "This testing, under idealistic combustion conditions, demonstrated that OWBs can emit four and twenty times higher levels of fine particulate matter than certified woodstoves" is incorrect and misleading. The EPA OWB emissions study replicated actual in-use operation and emissions while woodstove certification, as discussed above, does neither:

- The EPA OWB study used real cordwood, similar to what a homeowner would use. The EPA certification test uses dried dimensional lumber (e.g., two by fours) with spacers—not the typical fuel used by a homeowner.

- The EPA OWB study operated the OWB through a realistic on-off-cycle automatically controlled by the furnace aquastat with the heat load drawn representing residential heating demand, while woodstove certification involves artificial manipulation of the air damper control uncharacteristic of in-home use.
- The EPA OWB study used an XAD-2 absorbent cartridge after the Method 5G sampling train to ensure that the “back half” of particulates, representing condensable organics, was fully captured. Woodstove certification with Methods 28 and 5H does not fully capture condensable organics.
- The EPA OWB study represents actual in-use conditions, while woodstove certification uses an unrealistic ideal condition.

The sentence in which NESCAUM claims that OWB PAH emissions are 196 times higher than EPA-certified woodstoves is simply false. The only comparison between PAH emissions for OWBs and woodstoves in the EPA OWB study is in Table 4-5, which shows OWB emissions to be lower (not 196 times higher) than those from certified woodstoves. And, the highest PAH emission rate in any one test (2.8 g/hr) occurred for the Taylor OWB unit (Furnace A/Test A-3, see Table 4-2a), not a Central Boiler unit.

The sentence in which NESCAUM asserts that a Central Boiler unit produced greater emissions than a Heatmor unit is also incorrect. NESCAUM has reversed the reported emissions from the Central Boiler OWB and the other OWB that was tested. The figure of 681 mg/MJ applies to the Central Boiler OWB, not 1,048 mg/MJ.

Table 5-1 in the NESCAUM report does not match the actual table from the New York AG’s report “Smoke Gets In Your Lungs”. NESCAUM has left out the Taylor and Central Boiler test numbers (Furnaces A and B) from their report and the fact that there were PAH emissions data reported by EPA.

NESCAUM’s Presentation of Near-Source Emission Monitoring is Misleading Because NESCAUM Fails to Disclose that Emissions From an OWB with Proper Stack Heights Comply with National Ambient Air Quality Standards

The PM_{2.5} monitoring data presented in pages 5-3 through 5-5 of the Report simply demonstrate that if one operates an OWB (in this case a Hardy H5-1-07) with a short stack and use green wood (cut only four months before the test) that you can record high 15-second concentrations as sections of the plume are down-washed to the ground by air circulation up and over the adjacent house. NESCAUM fails to disclose that if a certified woodstove were placed outside next to the same house with only a 10-foot stack and fired with green wood, the same concentration peaks could be measured. NESCAUM also fails to disclose that if the unit had a proper stack height, ground level particulate concentrations are substantially reduced.

Central Boiler has previously demonstrated at public hearings that representatives of NESCAUM have attended that a properly installed OWB should not cause violations of National Ambient Air Quality Standards (NAAQS) for PM₁₀, established to protect public health with a margin of safety. The 24-hour NAAQS for PM₁₀ is 150 µg/m³. Using data from the EPA tests on a well-designed OWB, dispersion modeling with EPA's SCREEN3 model was performed for a continuously-operating OWB installed in two potential locations: 1) close to a house (subject to building downwash effects), and 2) at a distance five times the roof height (no downwash effects). The stack height was set equal to Central Boiler's installation instruction.

The predicted maximum PM₁₀ concentrations, scaled to a 24-hour period using EPA conservative time scaling factors, were 38 µg/m³ and 3 µg/m³ for the downwash and no-downwash scenarios, respectively. When the stack height is short relative to the roof peak, however, much higher concentrations result. This analysis demonstrates that a properly designed OWB, installed in accordance with Central Boiler recommendations, produces even localized PM₁₀ concentrations that are well within the NAAQS.

NESCAUM's OWB "In Use" Stack Test Data is Misleading Because the Data was Not Collected Using EPA Test Methods for Wood Combustion Sources and the Test Methods that Were Used Produce Invalid Results

Pages 5-6 through 5-9 of the Report, with accompanying tables and figures, present emissions testing NESCAUM did on a Central Boiler CL-17 OWB. The test results are invalid because NESCAUM did not use established EPA test methods for particulate emissions from wood heaters (EPA Methods 5G or 5H). Instead, NESCAUM used: (1) a portable particulate monitor typically used for ambient monitoring, a DataRAM 4000; and (2) EPA Method 17, which cannot be used for wood combustion sources.

The Thermo Electron DataRAM 4000 uses light scattering to determine the size and number of particles in an air sample, and assuming a typical crustal dirt particle density of 2.6 g/cm³, it then estimates the particle mass in the air sample. This type of field survey instrument cannot be used for combustion particulate measurements for two reasons. First, the density of wood combustion particulate in any given test may not be the assumed 2.6 g/cm³ value and NESCAUM made no attempt to correct for this fact. Methods 5G and 5H, by contrast, are gravimetric and measure particle mass directly. Second, and this is the greater error, wood combustion particles are saturated with water vapor when the gas is cooled to "near-ambient temperatures" as NESCAUM did (page 5-6), and above 50% relative humidity solid particles swell due to accretion of water. Above 70% RH, this growth in particle size is so significant that the majority of the

particle mass is water.¹⁶ Thus, most of the “particle mass” NESCAUM measured with the DR 4000 in its test was water. NESCAUM failed to use an MIE Temperature Conditioning Heater (DR-TCH) that could have removed the excess water; Thermo Electron recommends this accessory.¹⁷

The conclusion that the DR 4000 test results are invalid due to water clogging is confirmed by NESCAUM’s own observations (page 5-6) that “...there were some problems with the continuous PM measurements. The inlet probe clogged several times and concentrations exceeded the DataRAM’s useful range.”

The second method NESCAUM employed, EPA Method 17, cannot be used for wood combustion emissions for two reasons. First, in wood combustion a majority of the fine particulate matter is condensable organics, and particulate concentrations are related to exhaust gas temperature, i.e., as the gas cools more particles form. Second, the exhaust gas contains substantial amounts of water vapor. EPA Method 17, which is a particulate stack measuring method for industrial process sources, states:

“This method is applicable for the determination of PM emissions, where PM concentrations are known to be independent of temperature over the normal range of temperatures characteristic of emissions from a specified source category. It is intended to be used only when specified by an applicable subpart of the standards, and only within the applicable temperature limits (if specified), or when otherwise approved by the Administrator. This method is not applicable to stacks that contain liquid droplets or are saturated with water vapor.”

None of the required conditions apply and Method 17 cannot be used for wood combustion testing. Thus, both test methods selected by NESCAUM are inappropriate and the presentation of these results in the Report completely misrepresents the particulate emissions from a Central Boiler OWB.¹⁸

NESCAUM Should Withdraw the Report and Not Re-Issue the Report Until NESCAUM Has Corrected the Misleading and Factually Inaccurate Statements

As demonstrated in detail above, the Report is both misleading and factually inaccurate. NESCAUM attempts to portray all OWBs—and particularly, Central Boiler

¹⁶ Thermo Electron Corporation, Model DR-4000 Instruction Manual, page 48.

¹⁷ Ibid, page 6.

¹⁸ Other problems with the NESCAUM test include: (1) a bias toward high emissions by taking measurements near the beginning of a fuel-load when PM emissions are higher, rather than emissions from an entire fuel cycle; (2) failure to record the weight of wood burned per hour, a key piece of data; and (3) the use of green wood in the test with a moisture content over 40% (see page E-3).

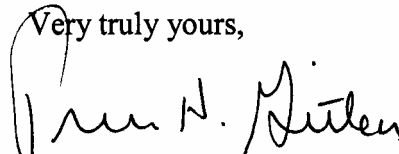
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OWBs—as the worst type of wood-fired heating devices and then uses that portrayal in support of its plea that USEPA, the States and localities either ban or severely regulate OWBs. NESCAUM repeatedly mischaracterizes or simply fails to report USEPA test data that either does not support or refutes NESCAUM’s portrayal.

The Report is written with the express purpose of reducing OWB sales and thereby harming the manufacturers and distributors of OWBs.

NESCAUM has the legal duty to make sure that all of its claims are factually correct and that none of its claims are misleading. The Report, therefore, must be withdrawn and not re-issued until the false and misleading statements and claims are corrected.

Very truly yours,



Philip H. Gitlen