

U.S. Department of Labor

Occupational Safety and Health Administration
53 Pleasant Street Room 3901, J.C. Cleveland Federal Bldg.
Concord, NH 03301
Phone: 603-225-1629 Fax: 603-225-1580



Citation and Notification of Penalty

To:

New England Wood Pellet, LLC
and its successors
141 Old Sharon Road
Jaffrey, NH 03452

Inspection Number: 108074

Inspection Date(s): 10/21/2011 - 03/28/2012

Issuance Date: 04/17/2012

Inspection Site:

141 Old Sharon Road
Jaffrey, NH 03452

The violation(s) described in this Citation and Notification of Penalty is (are) alleged to have occurred on or about the day(s) the inspection was made unless otherwise indicated within the description given below.

This Citation and Notification of Penalty (this Citation) describes violations of the Occupational Safety and Health Act of 1970. The penalty(ies) listed herein is (are) based on these violations. You must abate the violations referred to in this Citation by the dates listed and pay the penalties proposed, unless within 15 working days (excluding weekends and Federal holidays) from your receipt of this Citation and Notification of Penalty you mail a notice of contest to the U.S. Department of Labor Area Office at the address shown above. Please refer to the enclosed booklet (OSHA 3000) which outlines your rights and responsibilities and which should be read in conjunction with this form. Issuance of this Citation does not constitute a finding that a violation of the Act has occurred unless there is a failure to contest as provided for in the Act or, if contested, unless this Citation is affirmed by the Review Commission or a court.

Posting - The law requires that a copy of this Citation and Notification of Penalty be posted immediately in a prominent place at or near the location of the violation(s) cited herein, or, if it is not practicable because of the nature of the employer's operations, where it will be readily observable by all affected employees. This Citation must remain posted until the violation(s) cited herein has (have) been abated, or for 3 working days (excluding weekends and Federal holidays), whichever is longer.

Informal Conference - An informal conference is not required. However, if you wish to have such a conference you may request one with the Area Director during the 15 working day contest period. During such an informal conference you may present any evidence or views which you believe would support an adjustment to the citation(s) and/or penalty(ies).

If you are considering a request for an informal conference to discuss any issues related to this Citation and Notification of Penalty, you must take care to schedule it early enough to allow time to contest after the informal conference, should you decide to do so. Please keep in mind that a written letter of intent to contest must be submitted to the Area Director within 15 working days of your receipt of this Citation. The running of this contest period is not interrupted by an informal conference.

If you decide to request an informal conference, please complete, remove and post the Notice to Employees next to this Citation and Notification of Penalty as soon as the time, date, and place of the informal conference have been determined. Be sure to bring to the conference any and all supporting documentation of existing conditions as well as any abatement steps taken thus far. If conditions warrant, we can enter into an informal settlement agreement which amicably resolves this matter without litigation or contest.

Right to Contest – You have the right to contest this Citation and Notification of Penalty. You may contest all citation items or only individual items. You may also contest proposed penalties and/or abatement dates without contesting the underlying violations. Unless you inform the Area Director in writing that you intend to contest the citation(s) and/or proposed penalty(ies) within 15 working days after receipt, the citation(s) and the proposed penalty(ies) will become a final order of the Occupational Safety and Health Review Commission and may not be reviewed by any court or agency.

Penalty Payment – Penalties are due within 15 working days of receipt of this notification unless contested. (See the enclosed booklet and the additional information provided related to the Debt Collection Act of 1982.) Make your check or money order payable to “DOL-OSHA”. Please indicate the Inspection Number on the remittance.

OSHA does not agree to any restrictions or conditions or endorsements put on any check or money order for less than the full amount due, and will cash the check or money order as if these restrictions, conditions, or endorsements do not exist.

Notification of Corrective Action – For each violation which you do not contest, you are required by 29 CFR 1903.19 to submit an *abatement certification* to the Area Director of the OSHA office issuing the citation as identified above. The certification must be sent by you within 10 calendar days of the abatement date indicated on the citation. For **Willful** and **Repeat** violations, documents (examples: photos, copies of receipts, training records, etc.) demonstrating that abatement is complete must accompany the certification. Where the citation is classified as **Serious** and the citation states that abatement documentation is required, documents such as those described above are required to be submitted along with the abatement certificate. If the citation indicates that the violation was corrected during the inspection, no abatement certification is required for that item.

All abatement verification documents must contain the following information: 1) Your name and address; 2) the inspection number (found on the front page); 3) the citation and citation item number(s) to which the submission relates; 4) a statement that the information is accurate; 5) the signature of the employer or employer’s authorized representative; 6) the date the hazard was corrected; 7) a brief statement of how the hazard was corrected; and 8) a statement that affected employees and their representatives have been informed of the abatement.

Also, the law requires a copy of all abatement verification documents which are required by 29 CFR 1903.19 be posted at the location where the violation appeared and the corrective action took place.

Employer Discrimination Unlawful – The law prohibits discrimination by an employer against an employee for filing a complaint or for exercising any rights under this Act. An employee who believes that he/she has been discriminated against may file a complaint no later than 30 days after the discrimination occurred with the U.S. Department of Labor Area Office at the address shown above.

Employer Rights and Responsibilities – The enclosed booklet (OSHA 3000) outlines additional employer rights and responsibilities and should be read in conjunction with this notification.

Notice to Employees – The law gives an employee or his/her representative the opportunity to object to any abatement date set for a violation if he/she believes the date to be unreasonable. The contest must be mailed to the U.S. Department of Labor Area Office at the address shown above and postmarked within 15 working days (excluding weekends and Federal holidays) of the receipt by the employer of this Citation and Notification of Penalty.

Inspection Activity Data – You should be aware that OSHA publishes information on its inspection and citation activity on the Internet under the provisions of the Electronic Freedom of Information Act. The information related to these alleged violations will be posted when our system indicates that you have received this citation. You are encouraged to review the information concerning your establishment at www.osha.gov. If you have any dispute with the accuracy of the information displayed, please contact this office.



NOTICE TO EMPLOYEES OF INFORMAL CONFERENCE

An informal conference has been scheduled with OSHA to discuss the citation(s) issued on 04/18/2012. The conference will be held at the OSHA office located at 53 Pleasant Street, Concord, NH 03301 on _____ at _____. Employees and/or representatives of employees have a right to attend an informal conference.

CERTIFICATION OF CORRECTIVE ACTION WORKSHEET

Inspection Number: 108074

Company Name: New England Wood Pellet, LLC
Inspection Site: 141 Old Sharon Road, Jaffrey, NH 03452
Issuance Date: 04/17/2012

List the specific method of correction for each item on this citation in this package that does not read "Corrected During Inspection" and return to: **U.S. Department of Labor – Occupational Safety and Health Administration, 53 Pleasant Street, Room 3901, J.C. Cleveland Federal Bldg. Concord, NH 03301**

Citation Number _____ and Item Number _____ was corrected on _____
By (Method of Abatement): _____

Citation Number _____ and Item Number _____ was corrected on _____
By (Method of Abatement): _____

Citation Number _____ and Item Number _____ was corrected on _____
By (Method of Abatement): _____

Citation Number _____ and Item Number _____ was corrected on _____
By (Method of Abatement): _____

Citation Number _____ and Item Number _____ was corrected on _____
By (Method of Abatement): _____

Citation Number _____ and Item Number _____ was corrected on _____
By (Method of Abatement): _____

I certify that the information contained in this document is accurate and that the affected employees and their representatives have been informed of the abatement.

Signature

Date

Typed or Printed Name

Title

NOTE: 29 USC 666.(g) whoever knowingly makes any false statements, representation or certification in any application, record, plan or other documents filed or required to be maintained pursuant to the Act shall, upon conviction, be punished by a fine of not more than \$10,000 or by imprisonment of not more than 6 months or both.

POSTING: A copy of completed Corrective Action Worksheet should be posted for employee review



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Company Name: New England Wood Pellet, LLC
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Citation 1 Item 1 Type of Violation: **Serious**

29 CFR 1910.22(a)(1) Places of employment were not kept clean and orderly:

Instance A - Layers of combustible wood dust were allowed to accumulate to depths and over surface areas in quantities that exposed workers to fire &/or explosion hazards.

1. Hammer Mill Room [which also contains other process equipment]; excessive amounts of combustible wood dust had accumulated:

- on top of overhead I-beams, which resulted in dust fires in 2 I-beam locations on October 20, 2011
- inside the troughs of horizontal steel girts running along the building wall
- inside the troughs of the ceiling joists
- on the floor
- on top of belt conveyor transporting combustible wood dust into the KD Hammer Mill.

2. Dryer Room [which also contains other process equipment]; excessive amounts of combustible wood dust had accumulated:

- on the process equipment
- on overhead horizontal surfaces

3. Production Room [which also contains other process equipment]: excessive amounts of combustible wood dust had accumulated:

- on the process equipment, such as the exterior surface of the pellet cooler where the dust ignited
- on overhead and wall horizontal surfaces, where in one location it ignited in a fireball



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Instance B - When combustible wood dust was cleared from surfaces, the employer used cleaning methods that increased the potential for a combustible dust deflagration and/or explosion:

- the employer used 30 psi compressed air to blowdown and clear combustible wood dust

Note: See NFPA 664 (2012) Prevention of Fires and Explosions in Wood Processing and Woodworking Facilities, 11.2.1.1, regarding Removal of Dust states in part: Surfaces shall be cleaned in a manner that minimizes the generation of dust clouds. Blowing down with steam or compressed air or even vigorous sweeping shall be permitted only if the following requirements are met: and (3) Only a low gauge pressure of 103kPa (15psi) steam or compressed air shall be used.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date by which Violation must be Abated:
Proposed Penalty:

04/19/2012
\$7000.00



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Company Name: New England Wood Pellet, LLC
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Citation 2 Item 1 Type of Violation: **Repeat - Serious**

Section 5(a)(1) of the Occupational Safety and Health Act of 1970: The employer did not furnish employment and a place of employment which were free from recognized hazards that were causing or likely to cause death or serious physical harm in that employees were exposed to wood dust explosions, deflagrations, and fire hazards due to deficient design and/or implementation of preventive and/or protective measures in its wood pellet processing system and related equipment, such as the following:

Instance A - Pellet Mills to the Pellet Cooler: The transport system that carried newly-made, still-hot wood pellets (and residual dust) from each of the 4 Pellet Mills over to the Pellet Cooler had no spark detection, fire suppression, and fire isolation devices, and no other effective methods, to prevent any sparks, embers or fires in the wood pellets (or their residual dust) from spreading to the Pellet Cooler and endangering workers.

On October 20, 2011, these deficiencies initiated a series of fires and explosions when a problem in Pellet Mill #3 caused a spark or ember to travel from Pellet Mill #3 along a collection conveyor, up a bucket elevator, then along a second conveyor and into the Pellet Cooler, where wood pellets ignited and caused a major fire.

Among other methods, one feasible and acceptable abatement method to correct this hazard is to comply with relevant provisions in NFPA 664 (2012) Prevention of Fires and Explosions in Wood Processing and Woodworking Facilities, such as:

Performance of a hazard determination as set forth in 8.2.1 and implementation of the resulting recommendations, and

8.2.4.1 which provides that conveying systems with fire hazards shall be isolated to prevent propagation of fire both upstream and downstream. [OSHA Note: Isolation in this context means both effective spark detection and suppression], and

(Instance/abatement note continued on next page)



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"5.2.5.1 Prevention of Fire Extension. When limitation of fire spread is to be achieved, the following criteria shall be demonstrated....

(4) Particulate processing systems shall be designed, constructed, equipped, and maintained to prevent fire or deflagration from propagating from one process system to an adjacent process system."

Instance B - Pellet Cooler to Silo #5 (pellet storage silo): The conveyor and bucket elevator transport system that carried wood pellets from the Pellet Cooler into the storage silo (Silo #5) had no spark detection, fire suppression, and fire isolation devices, and no other effective methods, to prevent any sparks, embers or fires in the wood pellets (or their residual dust) from spreading to Silo #5 and exposing workers to fire/explosion hazards.

Among other methods, one feasible and acceptable abatement method to correct this hazard is to comply with relevant provisions in NFPA 664 (2012) Prevention of Fires and Explosions in Wood Processing and Woodworking Facilities, such as:

Performance of a hazard determination as set forth in 8.2.1 and implementation of the resulting recommendations; and

8.2.4.1 which provides that conveying systems with fire hazards shall be isolated to prevent propagation of fire both upstream and downstream. [OSHA Note: Isolation in this context means both effective spark detection and suppression]; and

"5.2.5.1 Prevention of Fire Extension. When limitation of fire spread is to be achieved, the following criteria shall be demonstrated...

(4) Particulate processing systems shall be designed, constructed, equipped, and maintained to prevent fire or deflagration from propagating from one process system to an adjacent process system."



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Instance C - Pellet Cooler to Pellet Cooler Dust Collector: The dust collection duct that carried wood pellet dust from the Pellet Cooler to the Pellet Cooler Dust Collector (which received combustible wood pellet dust and recycled it back into the process as material for new pellets) had no spark detection and no fire suppression devices, and no other effective methods to prevent any sparks, embers or fires in the combustible wood pellet dust from spreading to the indoor Pellet Cooler Dust Collector, where a fire or explosion would endanger workers.

On October 20, 2011, the absence of any spark detection or fire suppression etc. devices in the duct enabled a fire in the Pellet Cooler to travel and spread through the ductwork to the indoor Pellet Cooler Dust Collector, which exploded.

Among other methods, one feasible and acceptable abatement method to correct this hazard is to comply with relevant provisions in NFPA 664 (2012) Prevention of Fires and Explosions in Wood Processing and Woodworking Facilities, such as:

Performance of a hazard determination as set forth in 8.2.1 and implementation of the resulting recommendations; and

"8.2.2.2.2 - Ducts with a Fire Hazard. Ducts conveying dry material released by equipment having a high frequency of generated sparks [or embers etc.] shall be designed and constructed in accordance with one of the following:

- (1) Equipped with a listed spark detection and extinguishing system installed downstream from the last material entry point and upstream of any collection equipment.*
- (2) Equipped with a listed spark detection system actuating a high-speed abort gate, provided the abort gate can operate fast enough to intercept and divert burning embers to atmosphere before they can enter any collection or storage equipment."*



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Instance D - Pellet Cooler to Pellet Cooler Dust Collector: On the dust collection duct that carried wood pellet dust from the Pellet Cooler to the Pellet Cooler Dust Collector, the portion of ductwork running between the Rembe explosion isolation device and the Pellet Cooler Dust Collector was not constructed with sufficient strength to maintain its integrity in the event of an explosion of the combustible wood pellet dust it was designed to transport; and it had no other effective means (such as explosion suppression or explosion relief vents) to protect workers from fire/explosion hazards in the event that an explosion occurred.

On October 20, 2011, when an explosion of wood pellet dust in the Pellet Cooler Dust Collector blew back into the ductwork, the duct burst open and released the pressure of the explosion/deflagration inside the building, near the firefighters who were responding to the multi-alarm fire call at the establishment.

Among other methods, one feasible and acceptable abatement method to correct this hazard is to comply with relevant provisions in NFPA 664 (2012) Prevention of Fires and Explosions in Wood Processing and Woodworking Facilities, such as:

Performance of a hazard determination as set forth in 8.2.1 and implementation of the resulting recommendations; and

8.2.2.2.3, which sets forth alternative safety criteria for ducts with a deflagration (i.e. explosion) hazard, to ensure that the ducts are built with sufficient strength and with appropriately sized/placed protective devices (e.g. explosion pressure relief vents, listed explosion suppression systems, flame-quenching devices) to handle the maximum expected pressure generated by a dust explosion.



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Instance E - Pellet Cooler Dust Collector: The Pellet Cooler Dust Collector, which was located indoors and was designed to collect combustible wood pellet dust, was constructed without effective protection for workers from the risks of fire, explosion, and fireball temperature and pressure, in that it was constructed:

1. without sufficient strength to maintain withstand the maximum unvented pressure of a combustible wood pellet dust explosion;
2. without an explosion suppression system; and
3. with an explosion relief vent that was improperly designed, inadequately sized, and located so as to vent onto and involve adjacent structures (Silo # 4, containing combustible wood pellet dust, and Silo #5, containing wood pellets).

On October 20, 2011, when fire traveled through ductwork from the Pellet Cooler and initiated a wood pellet dust fire/explosion in the indoor-located Pellet Cooler Dust Collector:

- The explosion blew the Dust Collector's door off its hinges, making it a missile hazard.
- The explosion blew backwards into the duct, which burst open.
- The explosion blew out to the adjacent muffler and roof stack, causing the muffler to burst open and release the pressure of the explosion/deflagration inside the building, near responding firefighters.
- The explosion also blew out through the Dust Collector's undersized, unsafely positioned explosion relief vent and onto Silo #4 (containing combustible wood pellet dust) and Silo #5 (containing wood pellets), igniting fires in both of these Silos.

Among other methods, one feasible and acceptable abatement method to correct this hazard is to comply with relevant provisions in NFPA 664 (2012) Prevention of Fires and Explosions in Wood Processing and Woodworking Facilities and in NFPA 69 (2008) Explosion Prevention Systems, such as:

(Instance/abatement note continued on next page)



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Performance of a hazard determination as set forth in NFPA 664, 8.2.1 and implementation of the resulting recommendations; and

NFPA 664, 8.2.2.5.1.4, which requires an outdoor location for dust collectors with fire or deflagration hazards, unless they are equipped with e.g. one of the following:

- (4) listed deflagration suppression system*
- (5) deflagration relief vents with relief pipes extending to safe areas outside the building and the collector meets the strength requirement of this standard [i.e. built with sufficient strength to withstand the maximum expected explosion pressure]*
- (6) deflagration relief vents exhausting through listed flamed-quenching devices and the collector meets the strength requirement of this standard [i.e. built with sufficient strength to maintain withstand the maximum expected explosion pressure]"; and*

NFPA 664, 8.2.2.5.3, which requires that dust collectors with deflagration (explosion) hazards be equipped with an appropriate-sized explosion suppression system &/or explosion relief vent system designed as per NFPA 68 (Explosion Protection by Deflagration Venting) and NFPA 69 (Explosion Prevention Systems), and also that the such dust collectors be built to a design strength that exceeds the maximum expected explosion pressure of the material being collected (with appropriate adjustments for the effects of explosion suppression or relief vent systems); and

NFPA 69, 12.1.2, which requires that "Piping, ducts and enclosures protected by an isolation system shall be designed to withstand estimated pressures as provided by the isolation system manufacturer;" and

NFPA 69, 12.2.2.2, "Float Design Criteria", which sets forth the design criteria for float valves in devices to control deflagration by passive isolation means; and

NFPA 69, 12.2.2.3, "System Verification", which requires that "The float valve system shall be of a design that has been verified by appropriate testing under deflagration conditions to demonstrate performance."



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Instance F - Hammer Mills: In the Hammer Mill Room, Hammer Mills with deflagration (explosion) hazards were not equipped with either explosion suppression or explosion venting, were not constructed to withstand expected explosion pressure, and they were located indoors in a room with other equipment and an office, exposing workers to fire and explosion hazards:

1. The KD (kiln dried wood) Hammer Mill
2. The Dried Green Material Hammer Mill
3. The Burner Fuel Hammer Mill

Among other methods, one feasible and acceptable abatement method to correct this hazard is to comply with relevant provisions in NFPA 664 (2012) Prevention of Fires and Explosions in Wood Processing and Woodworking Facilities, such as:

"8.4.2.1 Hazard Analysis. The fire and deflagration potential of each piece of particulate size reduction machinery shall be determined by a hazard analysis as outlined in 8.4.1", which details the physical properties to be included in the hazard analysis and design criteria; and

"8.4.2.4.1 Size reduction equipment shall be located outdoors. Exception: Size reduction equipment shall be permitted indoors if located in a detached building or separated from other production areas by damage-limiting construction" and

"8.4.2.4.2 Size reduction equipment shall be constructed in accordance with one of the following:

(1) An enclosure shall be constructed of welded steel or other noncombustible material of sufficient strength to withstand the maximum unvented explosion pressure of the processed material.

(2) An enclosure shall be constructed of noncombustible material, protected by a listed explosion suppression system with a design strength exceeding the maximum reduced explosion pressure of the processed material.

(3) An enclosure constructed of noncombustible material, equipped with adequate deflagration relief vents having relief pipes extending outdoors or discharged through listed flame-quenching devices, shall have a design strength exceeding the maximum reduced explosion pressure of the processed material."



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Instance G - Dust collectors with explosion hazards were located indoors, had no explosion suppression systems and were equipped with improperly designed, inadequately sized and/or unsafely located explosion relief vents.

1. KD (kiln dried wood) Dust Collector located in Covered Green Area Building, and the ductwork associated with it
2. KD (kiln dried wood) Dust Collector located in Hammer Mill Room
3. Cyclone #1 located in Dryer Room
4. Cyclone #2 located in Dryer Room
5. Cyclone #3 located in Dryer Room
6. Cyclone #4 located in Dryer Room
7. Cyclone #5 located in Dryer Room
8. Cyclone #6 located in Dryer Room
9. Dried Green Dust Collector located in Hammer Mill Room

[Instance E already notes these deficiencies as to the Pellet Cooler Dust Collector]

Among other methods, one feasible and acceptable abatement method to correct this hazard is to comply with relevant provisions in NFPA 664 (2012) Prevention of Fires and Explosions in Wood Processing and Woodworking Facilities, such as:

Performance of a hazard determination as set forth in 8.2.1 and implementation of the resulting recommendations, and

8.2.2.5.1.4, which requires an outdoor location for these dust collectors with fire or deflagration hazards, unless they are equipped with one of the following:

- "(4)... listed deflagration suppression system;*
- (5)... deflagration relief vents with relief pipes extending to safe areas outside the building and the collector meets the strength requirement of this standard*
- (6) deflagration relief vents exhausting through listed flamed-quenching devices and the collector meets the strength requirement of this standard [i.e. built with sufficient strength to maintain withstand the maximum expected explosion pressure] " and*

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8.2.2.5.3, which requires that dust collectors with deflagration (explosion) hazards be equipped with an appropriate-sized explosion suppression system &/or explosion relief vent system designed as per NFPA 68 (Explosion Protection by Deflagration Venting) and NFPA 69 (Explosion Prevention Systems).

Instance H - Conveyor Systems: Conveyor systems with fire and deflagration hazards had no effective isolation methods to prevent the spread of fire and explosion to other equipment and occupied areas, where employees would be exposed to serious injury or death:

1. Covered Green Area Building- Conveyor to the KD Storage Bin, which holds kiln-dried wood chips and dust
2. Covered Green Area Building and Hammer Mill Room - Conveyor from KD (kiln dried wood) Storage Bin carrying wood chips and dust to the KD (kiln dried wood) Hammer Mill and KD (kiln dried wood) Dust Collector (located in the Hammer Mill Room)
3. Hammer Mill Room to the outside Conveyor from KD (kiln dried wood) Hammer Mill and its Dust Collector carrying reduced wood particles and dust to Silos # 1, 2 and 3 (for storage and transit to Production Room)
4. Hammer Mill Room to the outside Conveyor from Dried Green Hammer Mill and its Dust Collector to the Burner Fuel Bin (for fuel to heat the Rotary Dryer that dries wet green wood chips) and to Silo #4 (for storage and transit to Production Room).
5. Covered Green Area Building - Cyclones to KD (kiln dried wood) storage bin and/or dried green hammermill/dust collector Conveyor

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Among other methods, one feasible and acceptable abatement method to correct this hazard is to comply with relevant provisions in NFPA 664 (2012) Prevention of Fires and Explosions in Wood Processing and Woodworking Facilities, such as:

Performance of a hazard determination as set forth in 8.2.1 and implementation of the resulting recommendations and

8.2.4.1 which provides that conveying systems with fire hazards shall be isolated to prevent propagation of fire both upstream and downstream. [OSHA Note: Isolation in this context means effective spark detection and suppression]

Instance I - Rotary Dryer Ineffective Inspections: The employer provided no means to make effective inspections on a regular basis of its three-pass rotary dryer, which inspections would show whether cleaning was necessary to keep combustible dust and resin deposits to a minimum, in order to prevent potential fire and explosion.

Among other methods, one feasible and acceptable abatement method to correct this hazard is to comply with relevant provisions in NFPA 664 (2012) Prevention of Fires and Explosions in Wood Processing and Woodworking Facilities, such as:

"8.6.2.3. The interior of the dryer shall be regularly inspected and cleaned, if necessary, to keep combustible deposits to a minimum."

Instance J - Rotary Dryer Location: The Rotary Dryer which had deflagration hazards was located in the Dryer Room where there were no effective methods to prevent employees from being exposed to serious injury or death from explosion and fire.

Among other methods, one feasible and acceptable abatement method to correct this hazard is to comply with relevant provisions in NFPA 664 (2012) Prevention of Fires and Explosions in Wood Processing and Woodworking Facilities, such as:

"8.6.2.1 Rotary dryers having a deflagration hazard shall be located in one of the following places:

- (1) Outdoors*
- (2) In a separate detached building*
- (3) In a separate cutoff room with damage-limiting construction."*



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Instance K - Covered Green Area Building, vicinity of Kiln Dried Wood Hopper Bin and Dust Collector: The diesel-powered New Holland Construction Skid Steer Loader Model L180 was used near the Kiln Dried Hopper Bin, Belt Conveyor, and Dust Collector, presenting a potential fire/deflagration/explosion ignition or initiating source

Among other methods, one feasible and acceptable abatement method to correct this hazard is to comply with relevant provisions in NFPA 664 (2012) Prevention of Fires and Explosions in Wood Processing and Woodworking Facilities, such as:

"7.5 Industrial Trucks.

In areas with a deflagration hazard, only trucks listed or approved for the electrical classification of the area, where commercially available, shall be used in accordance with NFPA 505, "Fire Safety Standard for Powered Industrial Trucks Including Type Designations, Areas of Use, Conversions, Maintenance, and Operations."

"8.10.4 Indoor Dry, Fine Particulate Storage."

"8.10.4.5 Powered front-end loaders used for material reclaim shall comply with Section 7.5."

Additional Abatement Note as to all of the instances outlined above:

Another feasible and acceptable abatement method is to comply with NFPA 664 (2012) Prevention of Fires and Explosions in Wood Processing and Woodworking Facilities, including without limitation Chapters 4, 6, 7, 8 and 10 ["General Requirements", "Processes, Operations, and Special Systems," "Building Construction", "Prevention of Ignition and Control of Ignition Sources" and "Human Element"], some portions of which are recited and/or quoted below:

- 4.3 Process Analysis;*
- 4.4 Management of Change;*
- 4.5 Designer & Installer Qualifications;*
- 8.2.1 Hazard Determination for Particulate Conveying and Dust Collection Systems;*
- 8.2.4 Conveying System Isolation;*
- 8.4.1 and 8.4.2.1 Hazard Analysis for Particulate Size Reduction Equipment;*
- 10.2 Inspection and Maintenance;*
- 10.3 Record Retention; and*
- 10.7 Management of Change*



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and implement the measures that follow from the steps set forth therein.

"4.3 Process Analysis

4.3.1 The design of the fire and deflagration safety provisions of the facility shall be based upon an analysis of the facility, the process, and the fire or deflagration hazards encompassed by the facility and process.

4.3.2 The design of systems and facilities that handle combustible particulate solids shall address the physical and, chemical properties and hazardous characteristics of the materials in the hazard area,

4.3.3 The results of the facility and process analysis shall be permanently documented.

4.3.4 The facility and process analysis shall be reviewed and the documented results revised when the process is changed in accordance with the management-of-change criteria in Section 4.4 of this standard.

4.3.5 The results of the process analysis shall be maintained for the life of the facility and process.

4.4 Management of Change. Written procedures to manage change to process materials, technology, equipment, procedures, and facilities shall be established and implemented. The requirements of 4.4.1 and 4.4.2 shall be applied retroactively.

4.4.1 The management-of-change procedures shall ensure that the following issues are addressed prior to any change:

- (1) Technical basis for the proposed change*
- (2) Safety and health implications*
- (3) Whether the change is permanent or temporary*
- (4) Modifications to operating and maintenance procedures*
- (5) Employee training requirements*
- (6) Authorization requirements for the proposed change*



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Company Name: New England Wood Pellet, LLC
Inspection Site: 141 Old Sharon Road, Jaffrey, NH 03452

4.4.2 Implementation of the management-of-change procedures shall not be required for replacements-in-kind.

4.4.3 Design documentation, as required by Section 4.3, shall be updated to incorporate the change.

4.5 Designer and Installer Qualifications. Systems that handle combustible wood particulates shall be designed by and installed under the supervision of qualified engineers who are knowledgeable of these systems and their associated hazards."

"7.15 Spontaneous Ignition"

"7.15.2 Wood or wood substitute particulates that are determined to have a spontaneous ignition potential shall be stored in one of the following locations:

- (1) Outside*
- (2) Inside in accordance with Section 8.10*
- (3) In separate buildings*
- (4) In bins designed such that the particulate flow occurs in a first-in/first-out basis. "*

"8.2 Particulate Conveying and Dust Collection Systems"

"8.2.1 Hazard Determination. The hazard associated with the particulate conveying system shall be determined through a hazard analysis.

8.2.1.1 The analysis of the fire and deflagration hazard shall address the moisture content and particle size distribution of the particulate comprising the process stream downstream of each point of material entry to determine whether the material is green, dry nondeflagrable, or deflagrable.

8.2.1.2 The analysis of the fire and deflagration hazard shall identify the minimum explosible concentration (MEC) for all deflagrable material.

8.2.1.3 Fire and deflagration hazards shall be deemed nonexistent where only green material is collected or conveyed and construction of the equipment handling and storing the material is all noncombustible.



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8.2.1.4 A fire hazard shall be deemed to exist in the system wherever dry wood particulate is collected or conveyed or wherever components of the conveying system are constructed of combustible materials.

8.2.1.5 In addition to the fire hazard, a deflagration hazard shall also be deemed to exist where deflagrable wood dust is, or could be, suspended in air during operation at a maximum concentration above 25 percent of the MEC. "

"8.2.4 Conveying System Isolation.

8.2.4.1 Conveying systems with fire and deflagration hazards shall be isolated to prevent propagation of fire and deflagration both upstream and downstream into occupied areas or other critical process equipment....

8.2.4.2 Isolation devices shall be listed for the use intended....

8.2.4.3 Ducts shall be isolated to prevent propagation of deflagration to other vessels.

8.2.4.4 Where provided, explosion isolation devices shall be installed, inspected, and maintained in accordance with Chapter 15 of NFPA 69, Standard on Explosion Prevention Systems. "

"8.4 Particulate Size Reduction Equipment. "

"8.4.1 Hazard Analysis and Design Criteria.

8.4.1.1 Unless the particulate size reduction equipment is strictly dedicated to handling green material or is pressurized with steam, it shall be considered a high-frequency ignition source.

8.4.1.2 The hazard associated with the particle size reduction equipment shall be based on the physical properties of particulate, including the following:

- (1) Minimum explosible concentration*
- (2) Minimum ignition energy (MIE)*



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- (3) *Particle size distribution*
- (4) *Moisture content as received and as tested*
- (5) *Maximum explosion pressure at optimum concentration*
- (6) *Maximum rate of pressure rise at optimum concentration*
- (7) *K_{St} (normalized rate of pressure rise) as defined in ASTM E 1226, Standard Test Method for Pressure and Rate of Pressure Rise for Combustible Dusts*
- (8) *Layer ignition temperature*
- (9) *Dust cloud ignition temperature*
- (10) *Limiting oxidant concentration (LOC) to prevent ignition*
- (11) *Electrical resistivity*
- (12) *Charge relaxation time*
- (13) *Chargeability"*

"10.2 Inspection and Maintenance. "

"10.2.1 An inspection, testing, and maintenance program shall be developed to ensure that fire and explosion protection systems are in accordance with Chapter 9.

10.2.2 The inspection, testing, and maintenance program shall be a documented program detailing the equipment inspected, testing performed, test results formulated, and maintenance or repair requirements.

10.2.3 Process controls, equipment, and machinery shall be inspected, tested, and maintained in accordance with the manufacturer's recommended guidelines and safe practices."

"10.3 Record Retention."

"10.3.1 Records requiring retention shall include, but are not limited to, drawings and supporting documents relating to initial installation/purchase of equipment, routine equipment inspections, testing and repair history, fire and safety inspection or audit reports, service records, and manufacturer's data sheets.

10.3.2 Records of inspections, tests, and maintenance of fire protection equipment and components shall be retained and made available to the authority having jurisdiction upon



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request.

10.3.3 All records required to be kept shall be retained until their usefulness has been served or until no longer required by the applicable standard or authority having jurisdiction.

10.3.4 Records shall be maintained on-site by the owner.

10.3.5 Retained records shall indicate the procedure performed (e.g., installation, inspection, testing, training, or maintenance), the organization that performed the work, the results, and the date the work was performed. "

"10.7 Management of Change. Management shall implement and maintain a system to evaluate proposed changes to the facility and processes, both physical and human, for the impact on safety, loss prevention, and control. "

"10.7.1 Management of change shall include review by all relevant authorities having jurisdiction.

10.7.2 Management of change shall include review of all projects involving the following:

- (1) Occupancy and process changes involving storage configurations and heights, process equipment and materials, or rates of production*
- (2) Changes to all fire protection and alarm systems*
- (3) Exposure changes*
- (4) Human element changes involving key members of loss prevention programs*
- (5) New construction or modification to an existing structure"*

NEW ENGLAND WOOD PELLET, LLC. WAS PREVIOUSLY CITED FOR A VIOLATION OF THIS OCCUPATIONAL SAFETY AND HEALTH STANDARD, SECTION 5(a)(1) WHICH WAS CONTAINED IN OSHA INSPECTION NUMBER 311584213, CITATION NUMBER 2, ITEM NUMBER 1, ISSUED ON JULY 22, 2008, WITH RESPECT TO A WORKPLACE LOCATED AT 141 OLD SHARON ROAD, JAFFREY, NEW HAMPSHIRE, 03452. THE FINAL ORDER DATE FOR THE CITATION WAS ON AUGUST 5, 2008 UPON SIGNING AN INFORMAL SETTLEMENT AGREEMENT.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM



Citation and Notification of Penalty

Company Name: New England Wood Pellet, LLC
Inspection Site: 141 Old Sharon Road, Jaffrey, NH 03452

Date by which Violation must be Abated: 05/31/2012
Proposed Penalty: \$70000.00

Citation 2 Item 2 Type of Violation: **Repeat - Serious**

29 CFR 1910.307(c): Equipment, wiring methods, and installations of equipment in hazardous (classified) locations were not intrinsically safe, approved for the hazardous (classified) location, or safe for the hazardous (classified) location:

Instance A - Employees used 3 ordinary shop-vac vacuums to collect fugitive combustible dust from the floor and machinery. These machines were not rated for use with combustible dust.

NEW ENGLAND WOOD PELLET, LLC. WAS PREVIOUSLY CITED FOR A VIOLATION OF THIS OCCUPATIONAL SAFETY AND HEALTH STANDARD, 29 CFR 1910.307(c) WHICH WAS CONTAINED IN OSHA INSPECTION NUMBER 311584213, CITATION NUMBER 3, ITEM NUMBER 1, ISSUED ON JULY 22, 2008, WITH RESPECT TO A WORKPLACE LOCATED AT 141 OLD SHARON ROAD, JAFFREY, NEW HAMPSHIRE, 03452. THE FINAL ORDER DATE FOR THE CITATION WAS ON OR ABOUT AUGUST 5, 2008.

NEW ENGLAND WOOD PELLET, LLC. WAS PREVIOUSLY CITED FOR A VIOLATION OF THIS OCCUPATIONAL SAFETY AND HEALTH STANDARD, 29 CFR 1910.307(b) WHICH WAS CONTAINED IN OSHA INSPECTION NUMBER 306947094, CITATION NUMBER 1, ITEM NUMBER 5, ISSUED ON DECEMBER 20, 2004, WITH RESPECT TO A WORKPLACE LOCATED AT 141 OLD SHARON ROAD, JAFFREY, NEW HAMPSHIRE, 03452. THE FINAL ORDER DATE FOR THE CITATION WAS ON OR ABOUT FEBRUARY 24, 2005.

U.S. Department of Labor
Occupational Safety and Health Administration

Inspection Number: 108074
Inspection Date(s): 10/21/2011 - 03/28/2012
Issuance Date: 04/17/2012



Citation and Notification of Penalty

Company Name: New England Wood Pellet, LLC
Inspection Site: 141 Old Sharon Road, Jaffrey, NH 03452

(Item continued on next page)

U.S. Department of Labor
Occupational Safety and Health Administration

Inspection Number: 108074
Inspection Date(s): 10/21/2011 - 03/28/2012
Issuance Date: 04/17/2012



Citation and Notification of Penalty

Company Name: New England Wood Pellet, LLC
Inspection Site: 141 Old Sharon Road, Jaffrey, NH 03452

NEW ENGLAND WOOD PELLET, LLC. WAS PREVIOUSLY CITED FOR A VIOLATION OF THIS OCCUPATIONAL SAFETY AND HEALTH STANDARD, 29 CFR 1910.307(b) WHICH WAS CONTAINED IN OSHA INSPECTION NUMBER 108774506, CITATION NUMBER 1, ITEM NUMBER 6, ISSUED ON FEBRUARY 9, 1996, WITH RESPECT TO A WORKPLACE LOCATED AT 141 OLD SHARON ROAD, JAFFREY, NEW HAMPSHIRE, 03452. THE FINAL ORDER DATE FOR THE CITATION WAS ON OR BEFORE MARCH 10, 1996.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date by which Violation must be Abated:	04/19/2012
Proposed Penalty:	\$70000.00

A handwritten signature in cursive script, appearing to read "Rosemarie Ohar", written over a horizontal line.

Rosemarie Ohar
Area Director

U.S. Department of Labor
Occupational Safety and Health Administration
53 Pleasant Street Room 3901, J.C. Cleveland Federal Bldg.
Concord, NH 03301
Phone: 603-225-1629 Fax: 603-225-1580



INVOICE / DEBT COLLECTION NOTICE

Company Name: New England Wood Pellet, LLC
Inspection Site: 141 Old Sharon Road, Jaffrey, NH 03452
Issuance Date: 04/17/2012

Summary of Penalties for Inspection Number	108074
Citation 1, Serious	\$7000.00
Citation 2, Repeat - Serious	\$140000.00
TOTAL PROPOSED PENALTIES	\$147000.00

To avoid additional charges, please remit payment promptly to this Area Office for the total amount of the uncontested penalties summarized above. Make your check or money order payable to: "DOL-OSHA". Please indicate OSHA's Inspection Number (indicated above) on the remittance.

OSHA does not agree to any restrictions or conditions or endorsements put on any check or money order for less than the full amount due, and will cash the check or money order as if these restrictions or conditions do not exist.

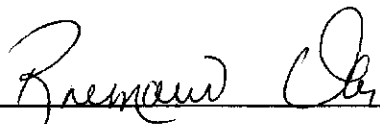
If a personal check is issued, it will be converted into an electronic fund transfer (EFT). This means that our bank will copy your check and use the account information on it to electronically debit your account for the amount of the check. The debit from your account will then usually occur within 24 hours and will be shown on your regular account statement. You will not receive your original check back. The bank will destroy your original check, but will keep a copy of it. If the EFT cannot be completed because of insufficient funds or closed account, the bank will attempt to make the transfer up to 2 times.

Pursuant to the Debt Collection Act of 1982 (Public Law 97-365) and regulations of the U.S. Department of Labor (29 CFR Part 20), the Occupational Safety and Health Administration is required to assess interest, delinquent charges, and administrative costs for the collection of delinquent penalty debts for violations of the Occupational Safety and Health Act.

Interest: Interest charges will be assessed at an annual rate determined by the Secretary of the Treasury on all penalty debt amounts not paid within one month (30 calendar days) of the date on which the debt amount becomes due and payable (penalty due date). The current interest rate is one percent (1%). Interest will accrue from the date on which the penalty amounts (as proposed or adjusted) become a final order of the Occupational Safety and Health Review Commission (that is, 15 working days from your receipt of the Citation and Notification of Penalty), unless you file a notice of contest. Interest charges will be waived if the full amount owed is paid within 30 calendar days of the final order.

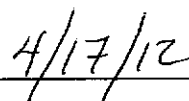
Delinquent Charges: A debt is considered delinquent if it has not been paid within one month (30 calendar days) of the penalty due date or if a satisfactory payment arrangement has not been made. If the debt remains delinquent for more than 90 calendar days, a delinquent charge of six percent (6%) per annum will be assessed accruing from the date that the debt became delinquent.

Administrative Costs: Agencies of the Department of Labor are required to assess additional charges for the recovery of delinquent debts. These additional charges are administrative costs incurred by the Agency in its attempt to collect an unpaid debt. Administrative costs will be assessed for demand letters sent in an attempt to collect the unpaid debt.



Rosemarie Ohar

Area Director



Date