

**Addendum to PPQ Form 519 – Treatment Options**  
Compliance Agreement # \_\_\_\_\_

**1. Removal of bark and additional ½ inch of wood** \_\_\_\_\_ (initials/date)

The standard for bark removal calls for 100% of the bark to be removed and an additional ½ inch of wood. No residual bark or cambium shall remain.

**2. Kiln Sterilization Treatment Schedule** \_\_\_\_\_ (initials/date)

Treatment: T404-b-4 Kiln Sterilization

\*\*Note: The maximum thickness of allowable wood is three inches.

Dry bulb temperatures	Wet bulb depression	Relative humidity	Moisture content	Thickness of lumber	Exposure time
140° F	7° F	82%	13.8%	1 inch	3 hrs.
				2 inches	5 hrs.
				3 inches	7 hrs.
130° F	16° F	60%	9.4%	1 inch	10 hrs.
				2 inches	12 hrs.
				3 inches	14 hrs.

- After kiln sterilization, the wood will be checked with a moisture meter to verify the wood is at or below the appropriate moisture content listed above. Two (2) readings will be taken per stack of wood: one (1) near the top of the stack and one (1) near the bottom of the stack. These readings will be recorded along with the date/time and quantity of ash. This database information will be supplied to United States Department of Agriculture Animal and Plant Health Inspection Service Plant Protection and Quarantine (USDA APHIS PPQ) on a monthly basis.
- If the wood does not meet moisture content guidelines, it will NOT be in compliance unless it undergoes additional kiln sterilization and can then demonstrate that the moisture requirement has been met.

**3. Fumigation Treatment Schedule** \_\_\_\_\_ (initials/date)

Treatment: T404-b-1-1 MB at NAP-tarpaulin or chamber

Temperature	Dosage Rate (lb/1,000 ft <sup>3</sup> )	Minimum Concentration Readings (ounces) At:			
		0.5 hr	2 hrs	4 hrs	16 hrs
70° F or above	3 lbs	36	30	27	25
40-69° F	5 lbs	60	51	46	42

- The fumigation must be performed by a licensed fumigator.
- The licensed fumigator must have a fumigator compliance agreement with USDA APHIS PPQ.
- Review the treatment schedule for specific fumigation guidelines.

**4. Heat Treatment Schedule** \_\_\_\_\_ (initials/date)

Treatment: T314-a Heat treatment

- Heat treatment procedures may employ steam, hot water, kilns, or any other method that raises the temperature of the center of the wood to at least 140° F (60° C) and maintains the center temperature for at least 60 minutes.
- Facilities, temperature monitors, and temperature sensors will be approved by the USDA APHIS PPQ Center for Plant Health and Science Technology (CPHST) prior to a compliance agreement being initiated. Compliance Agreements must contain a diagram of the treatment facility to include at a minimum: dimensions, capacity, circulation fans, heat input location, and door locations. For additional information on the certification of heat treatment facilities, please see page 635 at the following web location:  
[http://www.aphis.usda.gov/import\\_export/plants/manuals/ports/downloads/treatment.pdf](http://www.aphis.usda.gov/import_export/plants/manuals/ports/downloads/treatment.pdf)
- The temperature monitoring equipment (thermocouples, temperature data loggers, etc.) must be accurate to within ± 0.5° C (0.9° F) at the treatment temperature, capable of collecting temperature data at least once every five (5) minutes and recording or storing data for 30 days. The temperature monitoring equipment must also be calibrated prior to facility certification tests and a minimum of once annually thereafter. In addition, if a permanent temperature recording system is used, the system must be recalibrated when any part or portion of the system is repaired or replaced.
- Temperature monitoring equipment must be able to provide a record of the treatment that identifies each sensor and indicates time and temperature for the full run time.
- Internal wood temperatures shall be obtained and verified by sensors located in the larger pieces of wood at representative locations within the stack. The number of temperature sensing elements required per load will vary with the size of the load. The minimum requirement is four (4) sensors – one (1) for measuring ambient temperature and three (3) for measuring internal wood temperature. For loads greater than 5,000 ft<sup>3</sup> (142 m<sup>3</sup>) of wood, a minimum of one (1) additional sensor for measuring internal wood temperature must be provided for each additional 2,000 ft<sup>3</sup> (57 m<sup>3</sup>). For example, a load of 9,000 ft<sup>3</sup> (255 m<sup>3</sup>) would require a total of six (6) sensors (one [1] ambient air temperature sensor and five [3 + 2 additional sensors]). At least one (1) sensor shall be placed in a large firewood piece in a portion of the load furthest away from initial heat circulation. Sensors will be placed in the wood in pre-drilled holes to measure core wood temperature. Probes are to be sealed into each hole with putty (electricians putty is recommended) to prevent reading ambient air temperature. Other recording arrangements may be considered if approved by CPHST.
- Begin treatment when all the temperature sensors reach the threshold temperature of 140° F (60° C). Treatment will be complete when all temperature probe readings are at or above the threshold temperature for the entire 60 minutes.
- Temperature monitoring equipment will be certified by USDA APHIS PPQ personnel at regular intervals (e.g., monthly) except in those cases where a facility is inactive in excess of two (2) months. Certification will occur before production activities resume.

**5. Chip or compost** \_\_\_\_\_ (initials/date)

This facility will ship regulated ash chips and mulch interstate only after one of the following treatments is completed: 1) Produce mulch chips that comply with the emerald ash borer (EAB) Mulch Sample Protocol (chips less than one [1] inch in two dimensions) or 2) Composting process as outlined in Appendix E of the APHIS Emerald Ash Borer Program Manual (For additional information see:

[http://www.aphis.usda.gov/import\\_export/plants/manuals/domestic/downloads/emerald\\_ash\\_borer\\_manual.pdf](http://www.aphis.usda.gov/import_export/plants/manuals/domestic/downloads/emerald_ash_borer_manual.pdf))

## **6. Safeguarding** \_\_\_\_\_ (initials/date)

This facility will distribute hardwood firewood interstate from the distribution center located in the quarantined area under the following conditions:

1. Firewood stored and distributed shall be either:
  - a. Certified by USDA for treatment of EAB under an appropriate USDA compliance agreement or;
  - b. Originate from an area not quarantined for EAB.
2. Firewood bundles will be individually labeled:
  - a. Treated certified bundles will be labeled in a format approved by USDA APHIS PPQ;
  - b. Bundles originating from non-quarantined states or counties will be labeled with origin to the county level.
3. Firewood will not be stored outside at the distribution center while awaiting delivery to retail stores.
4. Firewood will be transported in enclosed containers and/or vehicles.

This facility will ship regulated ash logs, lumber, stumps, branches, and chips interstate from a quarantined area only if the regulated article will move to a mill approved under an appropriate USDA Compliance Agreement or under an appropriate cooperator's compliance agreement.

## **Limited Permit (PPQ 530) Required**

Shipments will be allowed during the appropriate non-flight season ([See Zone Reference for Dates](#)) if a limited permit (PPQ 530) is present with each shipment. Shipments must proceed from origin to mill destination without stopping (except for refueling or traffic conditions).

## **Shipment Not Authorized**

No shipment of regulated materials outside of non-flight season ([See Zone Reference for Dates](#)) under this compliance agreement.

## **7. Receiving mill or facility outside the quarantine area** \_\_\_\_\_ (initials/date)

Facilities outside the quarantined area of the regulated material's origin may only accept regulated ash logs, lumber, stumps, branches, and chips moved interstate from a shipper under an appropriate USDA Compliance Agreement with a valid limited permit (PPQ 530). PPQ limited permits must be signed and dated upon receipt, maintained at the mill, and surrendered to USDA upon request. Regulated materials accepted must meet the following conditions in addition to the selected treatment/mitigation option requirements:

- Facility will ensure that all regulated material will be physically separated from other regulated items until processed and waste disposed of by shredding/chipping to less than one (1) inch in two dimensions, and/or burned on site. **None of these items shall be sold as firewood.**
- Facility will ensure that all regulated material (including waste, e.g., slab wood) will be processed or disposed of by the end of non-flight season ([See Zone Reference for Dates](#)). Any regulated materials remaining after non-flight season ([See Zone Reference for Dates](#)) will be considered a violation of this agreement. If regulated items are present in violation of this agreement, they will be immediately treated/disposed of under PPQ supervision using appropriate safeguards at the owner's expense. The manufacturing/treatment process will take place on the mill premises between [See Zone Reference for Dates](#).

## **8. ISPM-15 for ash lumber in wood packing material (WPM)** \_\_\_\_\_ (initials/date)

Treatment: T404-e-2

Heat treatment must achieve a minimum core temperature of 56° C (132.8° F) for a minimum of 30 minutes. Treatments must be conducted in USDA approved facilities. This establishment agrees to maintain their status as a USDA Approved Facility for WPM through a certification program with a company that is accredited by the American Lumber Standards Committee WPM Program and meets the International Plant Protection Convention Guidelines.

## **Additional Items**

### **A. Nursery stock** \_\_\_\_\_ (initials/date)

There is no approved treatment/mitigation for ash nursery stock. All ash nursery stock is prohibited from exiting the regulated areas.

### **B. Electronic Stamp for EAB firewood and mulch certification** \_\_\_\_\_ (initials/date)

An electronic/printed shield may be used in lieu of PPQ Form 540 as indicated in the compliance agreement. This file or printout will be provided by USDA APHIS PPQ for use by the establishment. The size of the shield may be modified for use on packaging/forms but must remain large enough to be legible. A copy or imprint utilizing the shield must be provided for approval prior to use and a log must be kept in accordance with USDA APHIS PPQ quality assurance protocols.

### **C. Compliance Stipulations** \_\_\_\_\_ (initials/date)

- **This agreement shall remain in effect for one year, but may be revised or revoked for noncompliance.**
- The USDA and/or \_\_\_\_\_ retain the right to conduct inspections of regulated articles, monitor inspection procedures, and examine shipment, treatment, and certificate records at any time.
- If the Establishment named in Block 1 of the Compliance Agreement fails to comply with the provisions of this Compliance Agreement and/or the Emerald Ash Borer Quarantine regulations, this Compliance Agreement will be canceled. In addition, violations of Federal regulations, including any alteration, forgery, or unauthorized use of Federal forms, are subject to criminal penalties with monetary fines in accordance with 18 USC, imprisonment for a period not to exceed one year, or both, or civil penalties of up to \$500,000 (7USC s7734 (b)). The USDA reserves the right to revise or cancel the Compliance Agreement at any time.
- Compliance Agreements are non-transferable. The establishment must notify the USDA of any change regarding ownership, location, company name, or processing of material.

### **D. Handling of Federal forms** \_\_\_\_\_ (initials/date)

The establishment will ensure that each shipment of treated regulated material moved interstate is accompanied by a completed Federally-issued Certificate (PPQ Form 540) and will maintain Part 2 (green copy) of the PPQ 540 Certificate at their premises. This establishment will ensure that the Federal Certificates (PPQ Form 540) are safeguarded from misuse, unauthorized use, and loss. No certificates are to be duplicated without the approval of USDA APHIS PPQ. All certificates must be accounted for responsibly, including voids.

The USDA retains the right to conduct inspections of regulated articles, monitor inspection procedures, and examine shipment, treatment, and certificate records at any time. All records must be maintained for at least 36 months. All document requests will be filled within 48 hours of the initial request. Inspector copies of Federal Certificates, Limited Permits, and other forms must be forwarded to the issuing office once per month.