Emerald Ash Borer
Federal Regulatory Overview

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USDAAPHIS PPQ
Plant Protection and Quarantine (PPQ) is a program within the Animal and Plant Health Inspection Service (APHIS). PPQ safeguards agriculture and natural resources from the entry, establishment, and spread of animal and plant pests and noxious weeds into the United States.
The Federal Emerald Ash Borer Quarantine (7 CFR 301.53) provides the authority to conduct regulatory activities.

The Plant Protection Act of 2000 (Statute 7 USC 7701-7758) provides authority for implementation of emergency quarantine action.

Federal authority authorizes **interstate** regulatory action only.
Damage From EAB

- In June, 2002, EAB was identified as the causal agent in ash tree decline and mortality in the Detroit metropolitan area.
- Feeding EAB larvae produce galleries that cut off the flow of nutrients.
- Eventually girdle and kill branches and entire trees.
- Millions of trees have died and economic and environmental losses are considerable.
COMPONENTS OF A QUARANTINE

- **Survey** – to determine extent of infestation
  - Federal/State

- **Regulatory** – to control the movement of articles that can spread the pest
  - Federal/State

- **Eradication/Control Measures** – to eliminate or control the spread of the pest
  - Federal/State/Local/Private
Purple Prism trap survey
Emerald Ash Borer Sample Design

_Agrilus planipennis_ (Fairmaire)

The Emerald Ash Borer (EAB) Sample Design prioritizes detection and monitoring locations based on EAB risk using a spatially balanced random sampling methodology. A total of 20,000 sample locations were selected for trap placement for the 2013 EAB field season.
2013
455 traps - NH
482 traps - VT

2012
1452 traps – VT
872 traps – NH
Three Parasitoids Discovered in China

- Oobius agrili
- Tetrastichus planipennisi
- Spathius agrili

Houping Liu

Zhong-qi Yang
The regulatory challenge
The purpose of this regulation is to stop the artificial spread of EAB

- Regulations are put into place both BEFORE EAB is in an area and AFTER EAB has been detected.

- Compliance agreements, kiln certification, certificates and limited permits are issued
  - Regulates and tracks wood movement, treatment, and disposal.

- Outreach and Education
Federal EAB Quarantine

Cooperative Emerald Ash Borer Project

Federal EAB Quarantine & Authorized Transit

June 3, 2013

Movement of EAB regulated articles cannot exit Federal quarantine boundaries without Federal permits. Movement of EAB regulated articles within Federal quarantine boundaries (excluding protected areas) does not require Federal permits but may require State permits. Check for and follow any relevant interior State EAB quarantine regulations before moving regulated articles. For more information: 866-322-4512

Map Key
- Federal quarantine boundaries
- Protected area restricted for interstate and intrastate movement and permits are required
- Area subject to Michigan Department of Agriculture and Rural Development regulatory policies

Legend:
- Federal quarantine boundaries
- Protected area restricted for interstate and intrastate movement and permits are required
- Area subject to Michigan Department of Agriculture and Rural Development regulatory policies
 REGULATED ARTICLES  

- All life stages of the Emerald Ash Borer.
- All hardwood firewood (non-coniferous).
- All species of *Fraxinus* (Ash)
  - Nursery Stock
  - Green lumber
  - Logs
  - Any other material, living, dead, cut, or fallen; including, but not limited to chips, stumps, branches, twigs, roots and debris.
MAJOR INDUSTRIES IMPACTED

- Logging/Lumber
- Nursery
- Arborists and Landscapers
- Firewood
- Milling and Manufacturing
- Wood Packing Materials (WPM)
- Wood by-products
COMPLIANCE AGREEMENTS

- Agreement between an approved establishment and federal and state agency.
- Allows for movement of regulated articles from the quarantined area.
- Defines acceptable treatments/mitigation of regulated articles.
### UNITED STATES DEPARTMENT OF AGRICULTURE
### ANIMAL AND PLANT HEALTH INSPECTION SERVICE
### PLANT PROTECTION AND QUARANTINE

#### COMPLIANCE AGREEMENT

<table>
<thead>
<tr>
<th>Field</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. NAME AND MAILING ADDRESS OF PERSON OR FIRM</td>
<td></td>
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<tr>
<td>2. LOCATION</td>
<td></td>
</tr>
<tr>
<td>3. REGULATED ARTICLE(S)</td>
<td>All ash (Tree, shrub, plant) material must be processed and/or documented in accordance with Federal규정에 따른 Emerald Ash Borer quarantine requirements before interstate transport. Regulated material includes but is not limited to: ash nursery stock, ash logs, ash lumber, hardwood firewood (non-confined), ash chips/mulch, wooden packing material constructed with ash.</td>
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<tr>
<td>4. APPLICABLE FEDERAL QUARANTINE(S) OR REGULATIONS</td>
<td>7 CFR 301.83 Emerald Ash Borer (Agrilus planipennis), State of EAB Interior Quarantine</td>
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<tr>
<td>5. I AGREE TO THE FOLLOWING: This establishment will ship regulated ash material interstate from a quarantined area ONLY after all applicable treatments/mitigations are completed at the establishment's expense. Exclusions and exceptions are detailed in attached addendum. Regulated articles that have undergone an approved treatment or mitigating process may be shipped throughout the year. This establishment will ensure that each shipment of regulated material moved interstate is accompanied by a completed Federal Certificate or Federally Issued Limited Permit. All Federal forms are available and will be handled according to USDA requirements.</td>
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This establishment will handle the following regulated article(s): (check all applicable)

- Ash logs
- Ash lumber (peeled)
- Hardwood firewood (non-confined)
- Ash chips/mulch
- Wooden packing material constructed with ash
- Other (specify)

Treatment/Mitigation (check all applicable)

- 1. Remove the bark and an additional 1/2 inch of wood.
- 2. Fumigation
- 3. Heat Treatment
- 4. Chip or Compost
- 5. Safeguarding (transport)
- 6. Isolate outside of quarantine area
- 7. Qualify under quarantine area

6. SIGNATURE

7. TITLE

8. DATE SIGNED

9. AGREEMENT NO.

The offering of the signatures below will validate this agreement which shall remain in effect until canceled, but may be revised as necessary or revoked for noncompliance.

10. DATE OF AGREEMENT

11. FPO/DSP OFFICIAL (NAME AND TITLE)

12. ADDRESS

13. SIGNATURE

14. U.S. GOVERNMENT/STATE AGENCY OFFICIAL (NAME AND TITLE)

15. ADDRESS

16. SIGNATURE

PPQ FORM 230 (MAY 2007)
RISK RELATED TO EAB LIFE CYCLE

- Movement of untreated regulated articles is time dependent
  - High Risk (adult flight period) May 1 – Sept 30
    - No movement outside regulated area
  - Low Risk (larval/pupal stage) Oct 1 – April 30
    - Movement allowed under compliance agreement
Remove the bark and an additional ½ inch of wood

Heat Treatment according to schedule (140°F/60°C at core for 60 minutes). Facility must be approved by USDA.

Chipped to less than 1” in two dimensions.

Kiln sterilization treatment schedule. The maximum thickness of allowable wood is three inches (time/temp/moisture content)

Fumigate with Methyl Bromide using a USDA approved fumigator

ISPM-15 for ash lumber in wood packing material (132.8°F/56°C for 30 minutes) via accreditation of establishment via ALSC

Nursery Stock of Fraxinus spp.: No treatments available. Not being moved at this time.
The movement of regulated articles from the quarantined areas to non-quarantined areas

Certificate (PPQ 540). Accompanies all TREATED regulated articles when they leave a quarantined area.

Limited Permit (PPQ 530). Accompanies all UNTREATED regulated articles that leave a quarantined area, and are destined to an approved facility during the “Low Risk” season.

“Low Risk” season is Oct 1 – May 1
Regulated articles can move freely within the quarantine area.

No compliance agreement, certificate, limited permit, or treatment is required.
You must contact USDA APHIS in the states of origin and destination to ensure you meet quarantine requirements before you move regulated articles.
WHAT CAN I DO?

- Become familiar with the signs of EAB presence on ash trees.
- Report any suspected finds to the USDA EAB Hotline toll free 1-866-322-4512
- Contact local USDA or State to apply for a compliance agreement to move regulated articles legally.
- Contact local USDA or State for conditions for exporting Ash to a foreign country.
- Be especially careful when moving any firewood, logs or trees.
FOR FURTHER INFORMATION ON EAB

http://www.emeraldashborer.info/
http://www.usda.aphis.gov/
http://www.stopthebeetle.info/

USDA, APHIS, PPQ
CT/MA/RI: (203) 741-5641
VT/NH: (802) 828-4545
ME: (207) 848-5199
NY: (518) 218-7510
PA: (717) 241-2465
Verifying Treatment Methods for Export of Forest Products

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Field Operations
USDA APHIS PPQ
Phytosanitary Certification

- Internationally recognized plant health certification
- Not required by the USDA
- Indicates import requirements of foreign countries have been met
- Plants and un-processed plant products
- Commodity MUST be inspected before the shipment leaves the U.S.
Exporter Responsibilities

- Apply in writing for inspection, sampling, and/or testing
- Contact an Authorized Certifying Official (ACO)
- Provide all necessary documentation
- Ensure commodity is available, provide labor and facilities
Exporter Responsibilities, cont.

- Provide for required treatments or other actions
- Safeguard the certified shipment from infestation
- Comply with U.S. export control regulations
- Export only those plants or plant products that have been certified
Import Permits

- Special permission granted by a foreign government’s department of agriculture to the importer
- Permits specify the requirements that will need to be met
- Permission may not be granted for prohibited plants or plant products – e.g. Elm plants from the U.S. to China
Eligible Forest Products

- Trees
- Logs
- Lumber
- Wood Chips
- Some Processed Wood Products
Regulations Are Specific To Each Country

- China’s regulations for maple logs are different than Taiwan’s
- Some countries allow green lumber to be imported, most require at least kiln drying to below 20% moisture, or heat treatment.
**Kiln Drying (KD) -**

- **Definition** - A process in which wood is dried in a closed chamber using heat and/or humidity control to achieve a required moisture content [ISPM No 15, 2002].

- **Goal** – to reduce the amount of moisture to a percentage that is not likely to support pests, regardless of temperature.
KD Verification – for Hardwood and Conifers

- Evidence of kiln drying by “KD” marks on lumber
- Checking moisture content
- Inspecting kiln charge chart
- The ACO signing the phytosanitary certificate verifies the treatment.
Heat Treatment (HT) -

- Definition - The process in which a commodity is heated until it reaches a minimum temperature for a minimum period of time according to an official technical specification [ISPM N° 15, 2002; revised ICPM, 2005].

- Goal – Reach a core temperature sufficient to ensure no pest can survive, regardless of moisture content.
HT Verification

- For Coniferous Sawn Wood –
  - Mills must be certified by Lumber Grading Agencies Participating in Mill Certification Programs for Coniferous Sawn Wood.
  - The Agency provides a heat treatment certificate to the ACO.
  - The Agency must have an MOU with the USDA for either EU countries, non-EU countries, or both.
HT Verification, cont.

- There is no USDA Certification Program for HT of **Hardwood** -
  - forest products
  - logs
  - bark, chips, chunks, shavings, dust, flour……
  - except for solid wood packing material
HT Verification, cont.

- If a country requires HT of a **hardwood** –
  - Exporter submits request to the USDA for initial evaluation.
  - Kilns must be certified by either USDA, or a grading agency, to the USDA standards.
  - Exporter must sign a compliance agreement with the USDA.
  - The ACO must verify the treatment.
Wood Packing Material (WPM)

- “Heat Treatment Program” for WPM developed for use by the American Lumber Standard Committee (ALSC).

- implement as a quality control program for the official labeling of heat treated wood packaging material.

- with ISPM 15 official mark to signify compliance with the ISPM 15 standard.
WPM, cont.

- The stamp on the WPM must be compliant with ISPM 15.
- Verification of HT is conducted by an ALSC approved grading agency.
- No phytosanitary certificate is issued.
QUESTIONS ??