

UNITED STATES DEPARTMENT OF AGRICULTURE  
ANIMAL AND PLANT HEALTH INSPECTION SERVICE  
PLANT PROTECTION AND QUARANTINE

## APPLICATION FOR USDA FUMIGATION FACILITY APPROVAL

FOR USE IN CONDUCTING QUARANTINE FUMIGATION TREATMENTS UNDER USDA REGULATIONS

### INSTRUCTIONS

- a. Use one application for each chamber.
- b. Review the regulatory requirements in Chapters 2, 6 and 8 of the USDA Treatment Manual. An electronic PDF document of the manual is available at the following website: [https://www.aphis.usda.gov/import\\_export/plants/manuals/ports/downloads/treatment.pdf](https://www.aphis.usda.gov/import_export/plants/manuals/ports/downloads/treatment.pdf).
- c. Each application must include technical documents that support the information supplied. Please attach the supporting documentation in the form of PDF or Word files. Any large blueprints or facility schematics need to be in a high resolution format so that details can be clearly seen.
- d. Fill in each field of the application completely. Review of the application will not begin until all information is received. If a field is not applicable, please put "N/A" in the space provided.
- e. All responses and supporting materials in this application must be written in English.
- f. After receiving all requested information and required documentation, application approval may take as long as 60 (sixty) days.
- g. Once the application has been approved by APHIS-S&T, an onsite certification inspection may be scheduled.
- h. Facilities located in the United States should contact USDA-APHIS PPQ Field Operations ([PPQ.Ops.Treatments@usda.gov](mailto:PPQ.Ops.Treatments@usda.gov)) to discuss the certification process and requirements.
- i. Facilities located in countries other than the United States should contact the National Plant Protection Organization (NPPO) in their country to request information and submit their applications. The foreign country NPPO will then forward the application to USDA-APHIS International Services. (Your applicable International Services office can be located at [https://www.aphis.usda.gov/aphis/ourfocus/internationalservices/contact\\_map](https://www.aphis.usda.gov/aphis/ourfocus/internationalservices/contact_map)). Applications will then be forwarded to PPQ Phytosanitary Issues Management (PIM), and finally Preclearance and Offshore Programs (POP). Foreign facilities should not contact PPQ without first consulting with their NPPO.
- j. Questions regarding the application should be routed to:

USDA-APHIS-PPQ-S&T-TMT  
Phone: +1-305-278-4877  
[ppqmt@usda.gov](mailto:ppqmt@usda.gov)

### 1. CONTACT INFORMATION

This information will be used by USDA as the official contact information for this chamber

NAME OF COMPANY	NAME AND TITLE OF REQUESTOR
ADDRESS OF REQUESTOR	TELEPHONE
	EMAIL

### Location of Fumigation Chamber

NAME OF FACILITY	COUNTRY
ADDRESS	TELEPHONE
	EMAIL

(Required) Attach a map showing the location of the treatment facility (drawing or satellite map).

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### 1. CONTACT INFORMATION, CONTINUED

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#### Agent Responsible for the Fumigation Chamber (if different from Requestor)

NAME OF COMPANY	NAME OF AGENT
ADDRESS OF AGENT	TELEPHONE
	EMAIL

#### Local APHIS-PPQ Contact

NAME AND TITLE	TELEPHONE
EMAIL	

#### Fumigator Information

NAME OF CERTIFIED FUMIGATOR	IS THE FUMIGATOR/FUMIGATION COMPANY APPROVED BY PPQ? <input type="checkbox"/> YES <input type="checkbox"/> NO
ADDRESS OF FUMIGATOR	TELEPHONE
	EMAIL

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### 2. TYPE OF REQUEST

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What type of request is this? (Check one only)

- Request for approval of a new chamber (chamber is fully built and all equipment is in place).
- Request for approval of plans to begin construction of a new chamber. For this type of request, only fill out sections 1 and 2 and attach facility drawings/plans. When the chamber is fully built and all equipment is in place, you will need to submit a full application.
- Request for approval of modifications to an existing chamber that was previously certified by USDA. If this is a request for approval of modifications to a chamber that was previously certified, ONLY complete the sections below where changes have been made since the last time the facility was certified. If no changes have been made for a particular section, leave it blank.

If requesting approval of modifications to an existing chamber, please describe each modification below:

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### 3. OPERATING PROCEDURES

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Will this chamber be used to fumigate commodities for import, export, or domestic movement inside the United States? (Check all that apply.)

- Import
- Export
- US Interstate Movement

Is this a vacuum or NAP (Normal Atmospheric Pressure) chamber?

- NAP
- VACUUM

Is this chamber a converted refrigerated container?

YES  NO

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### 3. OPERATING PROCEDURES, CONTINUED

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What commodity/commodities will be fumigated?

What chemical will be used in fumigations?

Methyl Bromide

Phosphine                      If Phosphine, what formulation will be used?

Is the chamber located inside or outside of a building?

Inside

Outside

If the chamber is located inside of a building, is a low-level gas monitoring device installed in the same room as the chamber?     YES     NO

Number of Low-Level Gas Monitors:

Type of Low-Level Gas Monitors:

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### 4. DESIGN / LAYOUT

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(Required) Attach fumigation chamber schematics that indicate the location of the following items:

1. Chamber—delineation of treatment area; length, width, and height of chamber; chamber door(s)
2. Circulation system—fans, blowers, ductwork
3. Exhaust system—fans, stack, ventilation door/vent
4. Fumigation monitoring system—fittings, leads, gas analyzer
5. Fumigation dispensing system—cylinder, scale, volatilizer, gas introduction point into chamber, hoses and tubing
6. Pressure testing—blower opening, fitting for manometer
7. Auxiliary equipment—refrigeration unit, heating unit, temperature recorder(s), temperature sensor(s), low-level gas monitoring device(s)
8. Vacuum pump and gauge (only for vacuum chambers)

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#### Chamber Dimensions

CHAMBER VOLUME or CAPACITY (ft<sup>3</sup>)

WIDTH (feet)

LENGTH (feet)

HEIGHT (feet)

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#### Construction Materials

List and describe all materials used in chamber construction by component, e.g., floor—concrete, walls—sheet metal. If a single component (e.g., walls) is constructed of more than one material, please describe the location of each of these materials relative to each other. (Example: Both the interior and exterior walls of the chamber are constructed of sheet metal with a layer of polyurethane foam between the two layers.)

Walls:

Floor:

Ceiling:

Door:

Other:

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#### Connections of Joints/Seams

Describe how each category of joints/seams is connected, including any solders, welds, or non-hardening materials used for joints/seams:

Seams between walls and panels:

Seams between walls and floors:

Seams between door and walls:

Seams around any other opening:

#### 4. DESIGN / LAYOUT, CONTINUED

Are the interior surfaces painted?

YES  NO

If yes, what type of paint? (Aluminum base paints are NOT acceptable. Stainless steel surfaces do not need to be painted.)

- Epoxy resin  
 Vinyl plastic  
 Asphalt base paint  
 Other, please describe and attach specification sheet for the paint:

#### Chamber Doors

How many doors does the chamber have?	Door Length (feet):	Door Width (feet):	Door Height (feet):
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Location of chamber doors, describe:

Description of chamber doors:

How are the chamber doors mounted? (Check all that apply)

- Hinges  On Top  On Side  
 Sliding rails  Horizontal  Vertical  Other:  
 (Required) Attach pictures of chamber doors

Are hinges made of heavy duty/industrial material?  YES  NO

Describe how chamber doors are compressed against the gasket:

Is there a high quality gasket around all vents and other chamber openings?

YES  NO

Describe the gasket types around all vents and other chamber openings. Specify the material used to construct gaskets:

Describe location of manometer and blower holes in relation to each other:

#### 5. EQUIPMENT

##### Refrigeration and Heating Units

(Required) Attach a diagram and equipment manual for the refrigeration unit and heating unit, if applicable.

Is a refrigeration unit present?

YES  NO

Is the air inside the refrigeration unit separated from the air inside the chamber, such that fumigant cannot circulate inside the refrigeration unit itself?

YES  NO

Is a heating unit present?

YES  NO

Is the air inside the heating unit separated from the air inside the chamber such that fumigant cannot circulate inside the heating unit itself?

YES  NO

Describe the heating unit:

Does the heating unit contain exposed electric coils or produce open flames during operation?

YES  NO

##### Temperature Recorder (Not required for treatments lasting less than 6 hours)

MANUFACTURER	MODEL
ACCURACY	QUANTITY OF RECORDERS

Can temperature be monitored during a fumigation?

YES  NO

Describe how temperature information is recorded and stored:

Can the recorder system operate in both AC and DC modes?

YES  NO

Is the recorder system tamper-proof?

YES  NO

##### Temperature Sensors (Not required for treatments lasting less than 6 hours)

MANUFACTURER	MODEL
ACCURACY	QUANTITY OF SENSORS

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**5. EQUIPMENT, CONTINUED**

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**Manometer**

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TYPE (E.G., OPEN-ARM, ELECTRONIC)

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MANUFACTURER

MODEL

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**Circulation Systems**

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 (Required) Attach a diagram and equipment manuals for the fans/blowers.

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MANUFACTURER OF FANS/BLOWERS

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MODEL

NUMBER OF FANS/BLOWERS

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List CFM capacity of each fan/blower:

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Calculated volume circulated within the chamber per minute (must be 1/3 of chamber volume or greater):

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Describe how the circulation system works. Include the following: 1) the pattern of airflow within chamber, 2) the location, operation and design of ducts and fans used in gas movement, and 3) the point of gas introduction into the chamber.

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**Exhaust System**

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 (Required) Attach a diagram and equipment manuals for the exhaust system.

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MANUFACTURER OF FANS/BLOWERS

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MODEL

NUMBER OF FANS/BLOWERS

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Describe the location of all exhaust fans/blowers:

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List CFM capacity of each fan/blower:

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Maximum airflow rate of system (in CFM):

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How many gas exchanges per hour are the fans capable of (minimum of four is required):

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Describe how the exhaust system operates:

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Exhaust stack Height (feet):

Exhaust stack Diameter (feet):

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Material used to construct exhaust stack:

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Does the exhaust system, including stack height, meet state and local requirements?

 YES  NO

Does the stack extend above the tallest point of the roof?

 YES  NO

Does the stack extend at least 15 feet above nearby structures?

 YES  NOWhere is the exhaust stack located relative to the fresh air intake to the chamber?

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Will a Methyl Bromide Recapture system be used?

 YES  NO If yes, Attach Diagram of Recapture System and Manual

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**Fumigation Monitoring System (Gas Analyzer)**

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MANUFACTURER

MODEL

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Is this a USDA-approved gas analyzer?

 YES  NO

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**5. EQUIPMENT, CONTINUED**

**Fumigation Dispensing System**

Type of device used to measure the amount of gas going into the chamber:

- Scale
- Graduated Dispenser

VOLATILIZER MANUFACTURER:

Volatilizer description:

What is the source of heat for the water in the volatilizer?

- Propane
- Electrical
- Other (describe):

What material is the tubing in the volatilizer constructed of?

- Copper
- Other (describe):

Outside diameter of tubing inside volatilizer (inches):

Length of tubing inside of volatilizer (feet):

Can the volatilizer heat water to 200°F or more and maintain a minimum of 150°F during gas introduction?

- YES
- NO

What material(s) is (are) the introduction lines constructed of?

Is the line, which runs from the cylinder to the volatilizer, a 3000 PSI hydraulic high pressure hose with an inner diameter of at least 3/8 inch?

- YES
- NO

Is the line, which exits the volatilizer and runs into the enclosure 350 PSI tubing, of an inner diameter of at least 1/2 inch?

- YES
- NO

What will be the rate of the gas introduction into the chamber?

Describe how the introduction lines will be purged of methyl bromide following gas introduction:

(Required) Attach a diagram and specifications for the fumigant introduction system, including scale and volatilizer.

**Bins or Pallets used to Hold Commodities during Fumigation**

Are you using bins or pallets?

- BINS
- PALLETS

Dimensions of bins or pallets	Length (feet):	Width (feet):	Height (feet):

What material are the bins or pallets constructed of?

How much airspace is there underneath the bins or pallets during fumigation (in inches)?

*There must be at least 2 inches under the commodity and between each bin or pallet.*

Describe how the bins or pallets will be arranged in the chamber, will they be stacked? Please explain:

(Required) Attach picture(s) of bins or pallets.

**Provide Information on Vacuum Chamber (if applicable)**

VACUUM PUMP MANUFACTURER

VACUUM PUMP MODEL

Does the vacuum pump have the capacity to reduce chamber pressure to 1 - 2 inches of mercury in 15 minutes or less?

- YES
- NO

VACUUM GAUGE MANUFACTURER

VACUUM GAUGE MODEL

If this is a cylindrical chamber, are the doors convex or concave?

- CONVEX
- CONCAVE

Describe how the chamber is reinforced to be structurally sound:

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### 5. EQUIPMENT, CONTINUED

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#### Provide Information on Phosphine Chamber (if applicable)

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- Are the fans and blowers manufactured from materials resistant to the fumigant?  
(Gold, silver, copper, brass, copper alloys are susceptible to corrosion.)  YES  NO
- Is wiring external to the chambers (recommended)?  YES  NO
- Are all wiring, electrical, and exhaust systems non-sparking and explosion-proof?  YES  NO
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### 6. SAFETY REQUIREMENTS

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- Does the facility have fire extinguishers?  YES  NO
- Does the facility have a first aid kit?  YES  NO
- Are all electrical systems earth-grounded?  YES  NO
- Is there sufficient lighting in all working areas?  YES  NO
- Does the facility have personal safety detectors for the specific fumigant to be used?  YES  NO
- Does the facility have SCBA available?  YES  NO
- Does the facility have appropriate personal protective equipment (PPE) for all employees?  YES  NO
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### 7. ATTACHMENTS (supporting documentation)

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**Are the following technical documents included in the submission attachments?** (All information must be clearly referenced in supporting technical documents.)

- Map of Facility Location  YES  NO
- Fumigation Chamber Schematics  YES  NO
- Pictures of Chamber Doors  YES  NO
- Diagrams and Equipment Manuals for the Refrigeration Unit and Heating Unit, if applicable.  N/A  YES  NO
- Diagram and Equipment Manuals for Circulation System (fans/blowers).  YES  NO
- Diagram and Equipment Manuals for the Exhaust System (fans/blowers).  YES  NO
- Diagram and Specifications for Fumigant Introduction System  YES  NO
- Picture(s) of bins or pallets  YES  NO
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### 8. ADDITIONAL INFORMATION

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Information critical to treatment at your facility not otherwise captured in this application form. Please describe below:

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### 9. REQUESTOR SIGNATURE

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SIGNATURE

PRINT NAME

DATE (mm/dd/yyyy)

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