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

APPLICATION FOR USDA VAPOR HEAT/FORCED HOT AIR TREATMENT CHAMBER APPROVAL

FOR USE IN CONDUCTING QUARANTINE HEAT TREATMENTS UNDER USDA REGULATIONS

INSTRUCTIONS

a. Use one application for each chamber.

b. Review the regulatory requirements in Chapters 3 and 6 of the USDA Treatment Manual. An electronic PDF document of the manual is available at the following website: http://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 a PDF or Word file. The page number requested for specific technical information should be the PDF or Word document page number. Any large blueprints can be attached as a separate file. These drawings 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 to (PPQ.Ops.Treatments@usda.gov) 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.) 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
ppqtmt@usda.gov

1. CONTACT INFORMATION

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

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

Agent Responsible for the VT/FHA Chamber Operation (if different from Requestor)

NAME OF COMPANY	NAME OF AGENT
ADDRESS OF AGENT	TELEPHONE
	EMAIL

1. CONTACT INFORMATION, CONTINUED

Location of Treatment Facility

NAME OF FACILITY			
STREET ADDRESS OF FACILITY			
CITY	STATE/PROVINCE	POSTAL CODE	COUNTRY

☐ *(Required)* Attach a map showing the location of the treatment facility (drawing or satellite map).
Indicate the page number(s) and/or filename where this item can be found in the attached technical documentation.

PAGE NUMBERS / FILENAME

Local APHIS-PPQ Contact

Complete this section only if the facility is located in the United States. If the facility is located outside the United States, leave blank.

NAME	TITLE AND UNIT
TELEPHONE	EMAIL ADDRESS

2. TYPE OF REQUEST

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 chamber 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:

3. OPERATING PROCEDURE

☐ *(Required)* Attach a written description of all operational processes of the facility including the following: Fruit arrival, sanitation, sorting and grading prior to treatment; fruit loading into the chamber and placement of temperature sensors; treatment start and stop procedures; temperature monitoring and recording process; post-treatment cooling process; packaging, storage and shipping process. Include diagrams where appropriate.

Indicate the page numbers and/or filename where this information can be found in the attached technical documentation.

PAGE NUMBERS / FILENAME

4. DESIGN / LAYOUT

General Design

☐ *(Required)* Attach a facility diagram that shows all aspects of the facility, including the following:

1. Area designated for fruit arrival
2. Area for storage of untreated fruits
3. Pre-treatment sorting and grading areas
4. Treatment area (vapor heat or forced hot air chamber)
5. Cooling equipment
6. Post-treatment packing area
7. Area for storage of treated fruits (refrigerated rooms)
8. Area designated for loading of treated fruit
9. Delimitation of areas of untreated and treated fruits
10. Designated quarantine area
11. Double doors, heavy duty vinyl curtains, and air curtains on entrances and exits to the quarantine area

The diagram must clearly show the entire border of the Quarantine Section and all entrances/exits. All entrances into the quarantine area require phytosanitary protection and these protections should be indicated on the diagram.

Quarantine Section (Fruit Packing Area)

Is a diagram included that clearly shows the entire border of the quarantine area?	☐ YES	☐ NO	
Are all entrances into the Quarantine Section indicated on diagrams?	☐ YES	☐ NO	
Do all entrances and exits to the quarantine area have quarantine security measures?	☐ YES	☐ NO	
Is the entire quarantine area enclosed by walls and/or screens without any holes or gaps?	☐ YES	☐ NO	
Is the insect proof screen 100 meshes per square inch or greater?	☐ YES	☐ NO	☐ NA
Do all loading docks have loading dock boots (cushions that tightly seal against the rear doors of the truck)?	☐ YES	☐ NO	

5. EQUIPMENT

Chamber Specifications

What type of chamber is this? (Check one or more) ☐ Vapor Heat Chamber ☐ Forced Hot Air Chamber

TOTAL VOLUME OF THE CHAMBER (m^3)	CHAMBER CAPACITY (NUMBER OF CONTAINERS/BASKETS/BINS)
VOLUME OF EACH BASKET/CONTAINER/BIN (m^3)	**APPROXIMATE NUMBER OF FRUIT PER BASKET/CONTAINER/BIN**

How is the fruit arranged in the holding containers? ☐ SINGLE LAYER IN EACH BASKET ☐ OTHER, PLEASE DESCRIBE:
☐ MULTIPLE LAYERS IN LARGE BINS

☐ *(Required)* Attach pictures of containers for holding fruit. Indicate the page numbers and/or filename where this information can be found in the attached technical documentation.	PAGE NUMBERS / FILENAME

HEATING SYSTEM:	COOLING METHOD
☐ STEAM FROM BOILER ☐ HEATER(S)	

How are the permanent sensors connected to the chamber? ☐ HARDWIRED TO THE CHAMBER ☐ OTHER, PLEASE DESCRIBE:
☐ DETACHABLE AND PLUG-IN

☐ *(Required)* Attach detailed technical specifications, operating manuals and software manuals for the chamber and hot air system.	PAGE NUMBERS / FILENAME

Chamber Air Flow Direction

☐ UP-FLOW ONLY ☐ DOWN-FLOW ONLY ☐ ALTERNATE FLOW DIRECTIONS

☐ *(Required)* Attach a chamber schematic showing dimensions, direction of air flow, crate arrangement in chamber and location of permanent temperature air and pulp sensors.	PAGE NUMBERS / FILENAME

5. EQUIPMENT, CONTINUED

Heating/Steam Generating Unit

MANUFACTURER OF HEATING/STEAM GENERATING UNIT	MODEL OF HEATING/STEAM GENERATING UNIT
LOCATION OF HEATING/STEAM GENERATING UNIT	BTU HEATING CAPACITY

Temperature Recorder *(must be approved by USDA)*

Is the recorder a USDA-approved model? ☐ YES ☐ NO

MANUFACTURER	MODEL	QUANTITY OF RECORDERS

Are recorders password-protected and tamper-proof? ☐ YES ☐ NO

☐ *(Required)* Attach a recorder printout displaying all sensors in the chamber. Printout must include all sensors, temperature in °C or °F, time and date, and alarm set points.	PAGE NUMBERS / FILENAME

RECORDER SERIAL NUMBER 1	RECORDER SERIAL NUMBER 2	RECORDER SERIAL NUMBER 3

Computer	Monitor	Printer
SERIAL NUMBER 1	SERIAL NUMBER 1	SERIAL NUMBER 1
SERIAL NUMBER 2	SERIAL NUMBER 2	SERIAL NUMBER 2

Temperature Sensors

Description	Air Sensors	Pulp Sensors
MANUFACTURER		
MODEL		
LENGTH OF SENSOR CABLE (m)		

☐ *(Required)* Attach a table showing the number of temperature sensors	PAGE NUMBERS / FILENAME

Fruit Sorting Machine

All systems must be able to accurately segregate fruit into weight classes

MANUFACTURER AND MODEL OF FRUIT SORTER	MANUFACTURER AND MODEL OF DIGITAL SCALE *(Used to verify weight classes)*

☐ *(Required)* Attach photos, diagrams and technical specifications for the fruit sizing and sorting equipment, and for the digital scale for weighing fruit. The documentation must include accuracy of the scale.	PAGE NUMBERS / FILENAME

Equipment for Chamber Certification

Does the facility have a digital hot water bath with an immersion circulator for sensor calibration? ☐ YES ☐ NO

- Does it have a capacity large enough to include all portable sensors? ☐ YES ☐ NO
- Does it have a temperature accuracy of at least ± 0.3C° or ± 0.5°F of true temperature? ☐ YES ☐ NO
- Does it have a temperature stability of at least ± 0.1°C (± 0.18°F)? ☐ YES ☐ NO
- Does it have a NIST-traceable calibration (National Institute of Standards and Technology)? ☐ YES ☐ NO

Does the facility have a portable calibrated digital thermometer/data logger with probe for fruit pulp temperatures? ☐ YES ☐ NO

- Does it meet the requirements listed in the USDA Treatment Manual? ☐ YES ☐ NO
- Does it have a pulp temperature accuracy of at least ± 0.3C° or ± 0.5°F of true temperature? ☐ YES ☐ NO

Does the facility have a calibrated certified reference thermometer (accuracy of ± 0.1°C or ± 0.18°F) approved by USDA? ☐ YES ☐ NO

6. SAFETY

Are steam and hot water pipes insulated or otherwise protected?	☐ YES	☐ NO
Are safety plates installed on all pulley and belt systems?	☐ YES	☐ NO
Do all catwalks and stairways have railings for safety?	☐ YES	☐ NO
Is there sufficient lighting in all working areas?	☐ YES	☐ NO
Does the facility have fire extinguishers?	☐ YES	☐ NO
Does the facility have a first aid kit?	☐ YES	☐ NO
Does the facility have a method to maintain water quality to keep it free from microbial contamination?	☐ YES	☐ NO
Are all electrical systems earth-grounded?	☐ YES	☐ NO
Does all electrical wiring throughout the facility meet both international, as well as local safety code requirements?	☐ YES	☐ NO
Does the facility use a commercial line conditioner (surge protector) to protect computers and microprocessors? *(Recommended, not required)*	☐ YES	☐ NO
Does the facility have a back-up generator in case of power outages? *(Recommended, not required)*	☐ YES	☐ NO

7. ATTACHMENTS (supporting documentation)

Are the following technical documents included in the submission attachments?

Map showing the location of the treatment facility	☐ YES	☐ NO
Written description and diagrams of all operational processes of the facility	☐ YES	☐ NO
Facility diagram showing all aspects of the facility, including the designated quarantine area	☐ YES	☐ NO
Pictures of containers for holding fruit	☐ YES	☐ NO
Technical specifications, operating manuals and software manuals for the chamber and hot air system	☐ YES	☐ NO
Chamber schematic showing dimensions, direction of air flow, crate arrangement in chamber and location of permanent temperature air and pulp sensors	☐ YES	☐ NO
Temperature recorder printout *(must include date and time, each sensor with unique ID, temperature unit, and alarms)*	☐ YES	☐ NO
Table indicating the number of temperature sensors	☐ YES	☐ NO
Technical specifications for the fruit sizing and sorting equipment, including accuracy and photos/diagrams	☐ YES	☐ NO
Technical specifications including accuracy for the digital scale for weighing fruit	☐ YES	☐ NO

8. ADDITIONAL INFORMATION

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

9. REQUESTOR SIGNATURE

SIGNATURE	PRINT NAME	DATE *(mm/dd/yyyy)*