

# Chapter 16-450 WAC

## CONTROLLED ATMOSPHERE STORAGE REQUIREMENTS FOR WASHINGTON FRUITS AND VEGETABLES

(Formerly chapters 16-449, 16-459 and 16-690 WAC)

### WAC

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**WAC 16-450-005 What definitions are important to this chapter? "Department"** means the Washington state department of agriculture (WSDA).

**"Director"** means the director of the Washington state department of agriculture or the director's designee.

**"Person"** means an individual, firm, partnership, corporation, or association.

**"CA number"** means the license number assigned to a facility by the director.

[Statutory Authority: Chapters 15.17 and 34.05 RCW. WSR 04-05-117, § 16-450-005, filed 2/18/04, effective 3/20/04.]

**WAC 16-450-010 What are "controlled atmosphere fruits and vegetables"?** "Controlled atmosphere fruits and vegetables" are fruits and vegetables that are:

(1) Inspected by the director of the Washington state department of agriculture (WSDA) or the director's designee;

(2) Stored in containers or subcontainers marked with a CA number and either a dated state lot number or a sequential state lot number; and

(3) Identified by a certificate documenting:

(a) Their quality and condition;

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(b) That they have been stored in a CA facility licensed according to the requirements of this chapter; and

(c) That they comply with all of the requirements of this chapter.

[Statutory Authority: Chapters 15.17 and 34.05 RCW. WSR 04-05-117, § 16-450-010, filed 2/18/04, effective 3/20/04.]

**WAC 16-450-012 Where must the letters "CA" appear?** The letters "CA" or a similar designation must appear only on containers or subcontainers of fruits or vegetables that comply with the requirements of this chapter.

[Statutory Authority: Chapters 15.17 and 34.05 RCW. WSR 04-05-117, § 16-450-012, filed 2/18/04, effective 3/20/04.]

**WAC 16-450-014 When must controlled atmosphere fruit enter commercial trade channels?** (1) Controlled atmosphere (CA) fruits or vegetables must enter commercial trade channels within two weeks following a CA inspection and certification.

(2) If the CA fruits and/or vegetables do not enter commercial channels within the two weeks following a CA inspection and certification, they must be reinspected to meet controlled atmosphere conditions and maturity requirements before they are shipped.

[Statutory Authority: Chapters 15.17 and 34.05 RCW. WSR 04-05-117, § 16-450-014, filed 2/18/04, effective 3/20/04.]

**WAC 16-450-016 What is controlled atmosphere storage?** (1) Controlled atmosphere storage is an area of one or more rooms in a facility where atmospheric gases are controlled by amount and degrees of temperature.

(2) The purpose of a controlled atmosphere storage area is to control the condition and maturity of any fresh fruits or vegetables stored there so when those fruits and vegetables are removed from storage they can be designated as having been exposed to controlled atmosphere.

[Statutory Authority: Chapters 15.17 and 34.05 RCW. WSR 04-05-117, § 16-450-016, filed 2/18/04, effective 3/20/04.]

**WAC 16-450-020 Is a license required to operate or lease a controlled atmosphere storage facility in Washington state?** (1) Before any person can operate or lease a controlled atmosphere storage facility, they must obtain a license from the department. These are annual licenses that expire each year on August 31.

(2) When the WSDA director issues a controlled atmosphere storage facility license, the licensee receives a facility number preceded by the letters "WN CA" or "WA CA."

(a) These letters and numbers are the "CA number" of the storage facility.

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(b) This CA number verifies that the fruits or vegetables meet the requirements for controlled atmosphere storage.

(c) This CA number must appear on all containers, after they are certified, in which CA fruits or vegetables are packed.

[Statutory Authority: Chapters 15.17 and 34.05 RCW. WSR 04-05-117, § 16-450-020, filed 2/18/04, effective 3/20/04.]

**WAC 16-450-022 How can I obtain a license to operate or lease a controlled atmosphere storage facility in Washington state?** (1) To apply for a license, you must complete and submit WSDA form 6074 (Application for a Controlled Atmosphere License) to the department.

(2) You can obtain this form (and any others required by this chapter) by *writing*:

WA State Department of Agriculture  
Commodity Inspection Division  
Fruit & Vegetable Inspection Program  
P.O. Box 42560

Olympia, WA 98504;

Or *calling* 360-902-1828 or *faxing* 360-902-2085 or *online* at agr.wa.gov.

(3) Your application for an annual license to operate a controlled atmosphere storage warehouse or warehouses must be accompanied by an annual license fee of five dollars per room, with a minimum fee of twenty-five dollars for five rooms or less.

[Statutory Authority: Chapters 15.17 and 34.05 RCW. WSR 04-05-117, § 16-450-022, filed 2/18/04, effective 3/20/04.]

**WAC 16-450-024 When must I apply for a license to operate or lease a controlled atmosphere storage facility in Washington state?** You must apply for your initial license before September 1 of any given year. Once issued, your license is valid for one year and must be renewed each year on or before August 31.

[Statutory Authority: Chapters 15.17 and 34.05 RCW. WSR 04-05-117, § 16-450-024, filed 2/18/04, effective 3/20/04.]

**WAC 16-450-026 Can I renew my license after August 31?** (1) You can renew your license after August 31 but such a renewal is considered "late." Late renewals are regulated by RCW 15.30.070, which requires that you pay your original license fee plus a late renewal penalty of two dollars and fifty cents.

(2) You do not have to pay a late renewal penalty if you submit an affidavit to the department declaring that you have not operated or leased a controlled atmosphere storage facility since your previous license expired.

[Statutory Authority: Chapters 15.17 and 34.05 RCW. WSR 04-05-117, § 16-450-026, filed 2/18/04, effective 3/20/04.]

**WAC 16-450-028 What requirements affect all licensed controlled atmosphere storage facility operators?** (1) Every licensed operator or lessee must submit to the manager of their local WSDA fruit and vegetable inspection district a signed, completed copy of WSDA form 6075A (Storage Closing and Inventory - Operator) or a form approved by the director whenever they close a CA room in

one of their facilities. The completed form must contain the following information:

(a) Location of the room;

(b) Storage room number;

(c) Date the room was sealed;

(d) Quantity of loose fruit in the room identified by variety; and

(e) Quantity of packed fruit in the room identified by variety.

(2) Every licensed operator or lessee must, at least once a day, record the following information on a form approved by the director:

(a) The percentage of carbon dioxide and oxygen inside the sealed storage area;

(b) The temperature inside the sealed storage area; and

(c) The time the percentages and temperature were measured.

(3) WSDA fruit and vegetable inspectors have the right to audit the forms required in this section. Upon completing an audit, the inspector must report their audit results on WSDA form 6076 (Audit of Daily Log) or a form approved by the director.

(4) All Standard and Red Delicious apple varieties must be stored in sealed controlled atmosphere storage on or before December 15 of each year to qualify and be identified as Washington controlled atmosphere storage apples.

(5) For auditing purposes, all licensed operators must notify their local WSDA inspection office before they open any controlled atmosphere storage rooms or before they pack any controlled atmosphere storage fruit.

[Statutory Authority: Chapters 15.17 and 34.05 RCW. WSR 04-05-117, § 16-450-028, filed 2/18/04, effective 3/20/04.]

**WAC 16-450-032 Violations of this chapter and/or chapter 15.30 RCW.** Any willful violation of either chapter 15.30 RCW or this chapter by any controlled atmosphere operator or lessee is sufficient cause for the suspension of their license by the department.

[Statutory Authority: Chapters 15.17 and 34.05 RCW. WSR 04-05-117, § 16-450-032, filed 2/18/04, effective 3/20/04.]

**WAC 16-450-040 What requirements apply to controlled atmosphere storage facilities?** All controlled atmosphere facilities must comply with the following controlled atmosphere requirements:

(1) The oxygen content of each storage room must be reduced to five percent within twenty calendar days after the room is sealed.

(2) Stored fruits or vegetables must be kept in controlled atmosphere storage under required degrees of temperature and percentage of air components for the specified period, including the following:

Apple Varieties:	Storage Period:
<ul style="list-style-type: none"> <li>Gala and Jonagold varieties</li> </ul>	<ul style="list-style-type: none"> <li>At least forty-five continuous calendar days</li> </ul>
<ul style="list-style-type: none"> <li>Other varieties</li> </ul>	<ul style="list-style-type: none"> <li>At least sixty continuous calendar days</li> </ul>

Pear Varieties:	Storage Period:
• Bartlett varieties	• At least forty-five continuous calendar days
• Other summer varieties	• At least sixty continuous calendar days
• Bosc variety	• At least forty-five continuous calendar days
• Other winter varieties	• At least sixty continuous calendar days

[Statutory Authority: Chapters 15.17 and 34.05 RCW. WSR 04-05-117, § 16-450-040, filed 2/18/04, effective 3/20/04.]

**WAC 16-450-042 What are the specific controlled atmosphere storage requirements for Bartlett pears?** To qualify as controlled atmosphere storage pears, Bartlett pears must comply with the requirements in chapter 15.30 RCW, this chapter and the following additional requirements:

(1) Oxygen content of each room where the pears are stored must be reduced to five percent within twenty calendar days after the room is sealed.

(2) The pears must be kept in controlled atmosphere storage, under the required degrees of temperature and percentage of air components, for at least forty-five continuous calendar days.

(3) At the time of shipment, the pears marked with a CA number must:

(a) Be no further advanced in maturity than "mostly hard—some firm."

(b) Not exceed an average of two percent decay and/or breakdown.

(4) Pears that fail to meet any requirement in this section:

(a) Must not be sold as CA storage fruit; and

(b) Their containers must not be marked with a CA number.

[Statutory Authority: Chapters 15.17 and 34.05 RCW. WSR 04-05-117, § 16-450-042, filed 2/18/04, effective 3/20/04.]

**WAC 16-450-044 What are the specific controlled atmosphere requirements for winter pears?** To qualify as controlled atmosphere storage pears, winter pears must comply with the requirements in chapter 15.30 RCW, this chapter and the following additional requirements:

(1) Oxygen content of each room where the pears are stored must be reduced to five percent within twenty calendar days after the room is sealed.

(2) The pears must be kept in controlled atmosphere storage, under the required degrees of temperature and percentage of air components, for:

(a) At least forty-five continuous calendar days for Bosc pears; and

(b) At least sixty continuous calendar days for all other varieties of winter pears.

(3) All CA-marked winter pears must meet the following standards when shipped:

(a) **Condition standards:**

• No more than two percent decay;

• No more than two percent scald; and

• A five percent maximum aggregate for all condition factors including cork.

(2/18/04)

(b) **Maturity standards:**

• No more than five percent must be advanced beyond "firm."

[Statutory Authority: Chapters 15.17 and 34.05 RCW. WSR 04-05-117, § 16-450-044, filed 2/18/04, effective 3/20/04.]

**WAC 16-450-046 When must controlled atmosphere fruits and vegetables be identified for certification?** (1) All fruits and vegetables intended for controlled atmosphere storage certification must be identified before being placed in the controlled atmosphere storage room.

(2) Before the controlled atmosphere room is sealed, all packed fruit or vegetable containers intended for controlled atmosphere storage must be:

(a) Marked either with "WSDA and (year of production)" or with a department-supplied stamp; and

(b) Marked under the supervision of WSDA inspection personnel.

[Statutory Authority: Chapters 15.17 and 34.05 RCW. WSR 04-05-117, § 16-450-046, filed 2/18/04, effective 3/20/04.]

**WAC 16-450-048 What inspection, certification and marking requirements apply to controlled atmosphere fruits and vegetables?** All Washington state fruits and vegetables sold as CA fruits or vegetables:

(1) Must be inspected and certified as to grade and condition; and

(2) At time of certification, all containers holding CA fruits and vegetables must be marked with both a dated state lot number and a CA number.

[Statutory Authority: Chapters 15.17 and 34.05 RCW. WSR 04-05-117, § 16-450-048, filed 2/18/04, effective 3/20/04.]

**WAC 16-450-050 When is a reinspection of controlled atmosphere fruit and vegetables required?** (1) If CA fruits or vegetables are not shipped within two weeks after they are inspected and certified, they must be reinspected to meet controlled atmosphere and maturity requirements in order to qualify for an additional two-week shipping period.

(2) If identification of a reinspected lot:

(a) Can be accomplished without a problem, the reinspected containers do not have to be restamped with a current date state lot number.

(b) May be a problem, the reinspected containers must be restamped with a current date state lot number.

[Statutory Authority: Chapters 15.17 and 34.05 RCW. WSR 04-05-117, § 16-450-050, filed 2/18/04, effective 3/20/04.]

**WAC 16-450-060 What are the shipping standards for controlled atmosphere storage fruits and vegetables?** (1) When shipped, all controlled atmosphere fruits and vegetables must be certified and marked with a CA number and dated state lot stamp.

(2) Apples must meet U.S. condition standards for export.

(3) Pears must meet the maturity requirements of WAC 16-450-042 (3)(a) and (b) or 16-450-044 (3)(b).

[Statutory Authority: Chapters 15.17 and 34.05 RCW. WSR 04-05-117, § 16-450-060, filed 2/18/04, effective 3/20/04.]

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**WAC 16-450-070 What if my fruit does not comply with the requirements of this chapter?** If your fruit does not comply with any of the requirements in this chapter, you are prohibited from:

(1) Selling your fruit as controlled atmosphere storage fruit; or

(2) Representing your fruit using terms, words or symbols that imply that it has been exposed to controlled atmosphere storage. For example, the words "controlled atmosphere" or the symbol "CA" must be removed from the container and/or subcontainer.

[Statutory Authority: Chapters 15.17 and 34.05 RCW. WSR 04-05-117, § 16-450-070, filed 2/18/04, effective 3/20/04.]