Claims:

1. A method of operating an atmosphere control system (74) to control an atmosphere in a refrigerated container (10), the method comprising:

operating the atmosphere control system (74) in a start up phase (100) to control an oxygen level in the container;

ending the start up phase (100); and

operating the atmosphere control system in a control phase (200) to control the oxygen level and a carbon dioxide level in the container (10);

wherein the control phase (200) comprises:

determining that the oxygen level in the container (10) is less than an oxygen lower control limit; and

characterized by adding outside air to the container (10) until the oxygen level in the container (10) equals an oxygen upper control limit.

2. The method of claim 1 wherein:

the start up phase (100) comprises adding nitrogen to the container (10) until the oxygen level in the container (10) is equal to an oxygen pulldown limit.

3. The method of claim 1 or 2 wherein:

the start up phase (100) comprises adding nitrogen to the container (10) until the oxygen level in the container (10) is not greater than or equal to an oxygen pulldown limit.

4. The method of claim 1, 2 or 3 wherein:

the control phase (200) comprises determining that the carbon dioxide level in the container (10) is greater than a carbon dioxide upper threshold.

5. The method of claim 4 wherein:

When the carbon dioxide level in the container (10) is greater than the carbon dioxide upper threshold, adding outside air to the container (10) until the carbon dioxide level in the container equals a carbon dioxide lower control limit.

6. The method of any preceding claim wherein:

the control phase (200) comprises:

determining that the oxygen level in the container (10) is greater than an oxygen upper threshold; and

adding nitrogen to the container (10) until the oxygen level in the container (10) equals an oxygen pulldown limit.

7. The method of any preceding claim wherein:

the control phase (200) comprises:

determining that the carbon dioxide level in the container (10) is greater than a carbon dioxide upper control limit; and

when the carbon dioxide level in the container (10) is greater than a carbon dioxide upper control limit, adding nitrogen to the container (10) until the carbon dioxide level in the container (10) equals a carbon dioxide lower control limit.

8. The method of claim 7 further comprising:

adding outside air to the container (10) until the oxygen level in the container (10) equals an oxygen upper control limit.

9. The method of any preceding claim, comprising:

after ending the start up phase (100), adding nitrogen to the container (10) until the carbon dioxide level in the container (10) equals a carbon dioxide lower control limit.

10. The method of claim 9 further comprising:

adding outside air to the container (10) until the oxygen level in the container (10) equals an oxygen upper control limit.