Reduced Oxygen Packaging Without a Variance

Reduced Oxygen Packaging (ROP) is done in many ways. The most common use of ROP in a food establishment is to mechanically remove air from around food in a plastic bag to create a tight seal, which is also called vacuum packaging. Packaging food in resealable zipper storage bags is not considered ROP.

There are many benefits to using ROP, such as reducing freezer burn, portioning product, and prolonging shelf life. Unfortunately, by removing the oxygen from around a food, you are also creating an environment favorable to the growth and/or toxin formation by *Clostridium botulinum* and the growth of *Listeria monocytogenes*. ROP can turn a safe food into a potentially lethal food after packaging—for this reason, there are many requirements around ROP.

You can ROP some foods without a variance because they have certain intrinsic barriers that help to prevent the growth and/or toxin production of *C. botulinum* and the growth of *L. monocytogenes*. Before conducting any ROP in the food establishment, you must first develop a Hazard Analysis and Critical Control Points (HACCP) plan and have it approved by the ODA Food Safety Program. FOOD CODE, OAR 603-25-0030, CHAPTER 3-502.12

Foods that are reduced oxygen packaged by the food establishment without a variance must be held at 41ºF (5ºC) or less at all times for not more than 30 days **and**:

- Have a water activity of 0.91 or less; **or**
- Have a pH of 4.6 or less; **or**
- Be a cured meat from a USDA-regulated facility from an intact package; **or**
- Be a commercially manufactured cheese that meets certain standards of identity; **or**
- Have a high level of competing organisms, such as raw meat, raw poultry, or raw vegetables.

ROP for fish is stricter than other products because certain species of *C. botulinum* bacteria found in fish can grow at temperatures lower than customary commercial refrigeration. Fish must be frozen before, during, and after reduced oxygen packaging. An approved HACCP plan is also required prior to starting any ROP of fish.

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