ABC Restaurant

123 Main Street S.E.

Minneapolis, MN 55404

# HACCP Plan

# for Reduced Oxygen Packaging

# Raw meats and poultry

# General SOPs

ROP procedures

Cleaning and sanitizing

Employee practices

Training program

[Month day, year]

[minneapolismn.gov/HACCP](https://www.minneapolismn.gov/business-services/business-assistance/run/food-safety/haccp/templates-resources/)

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Vacuum packaging raw meats

Products Raw meats (beef, goat and lamb) and poultry (chicken)

Ingredients Raw meats and poultry with no additional ingredients added

Intended use Served in the restaurant to diners

Time/shelf-life 30 Days under cold storage41°F or below

## Process description

ABC Restaurant’s reduced vacuum packaging (ROP) processes are limited to raw meats and poultry. The meat is packaged for in-house restaurant use only for the purposes of:

* Saving cooler/freezer storage space
* To keep the freshness of the meats and poultry

We purchase all meats and poultry from approved and licensed suppliers. We inspect them during receiving for temperature (41°F or below) and quality. The handling, preparation, packaging, and monitoring of vacuum packaged products are conducted by employees who:

* Have thorough understanding of this HACCP plan
* Are trained in the reduced oxygen packaging processes.

The ROP operations are conducted only in the designated areas of the kitchen. All vacuum packaged meats and poultry are removed from their bags prior to cooking.

## Equipment list

Include make, model and specification sheet, for example:

* Walk-in refrigerator: TKM-0900 (coil) & HWN010X6B (condenser)
* Vacuum packager: VP321 (VacMaster)
* Thermometers: 9848 (Taylor pocket thermometer)

## HACCP team members

|  |  |
| --- | --- |
| Name | Title or role |
| John Doe | Executive chef |
| Jane Doe | Sous chef |
| Bob Doe | Sous chef |
| Jen Doe | Sous chef |

# Recipe page

**< Insert Recipe Here >**

**< Include all ingredient names and weights >**

**< Include all processing steps >**

# Flow diagram

Preparation #2

*bag opened (7)*

Receiving raw meats & poultry

(1)

Cold storage (6)

**CCP #1**

Preparation #1, vacuum packing & labeling (5)

Cooking (8)

Service (9)

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Dry storage (4)

Cold storage (3)

Receiving of packaging materials (2)

# Hazard analysis

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Process steps** | | | | | |
| **Process step** | **Potential hazards**  (B) Biological  (C) Chemical (P) Physical | **Is this hazard significant?** | **Justification of decision** | **Preventative measures** | **Is this step a CCP?** |
| Receiving raw meats & poultry  (1) | (B) Pathogens, Salmonella, and E. coli 0157:H7, Campylobacter jejune, Clostridium Botulinum, etc. | Yes | Fresh meat and poultry are known to contain pathogens | Meat and poultry will be purchased from approved suppliers and received at proper temps. | No |
| Receiving packaging materials (2) | (C) Deleterious chemicals  (P) Foreign material. | No | Non-food packaging materials might have been treated or washed with chemicals not suitable for food contact surfaces. | Letters of guarantee to make sure packaging materials are appropriate for the product will be kept on file. | No |
| Cold storage of raw meats & poultry (3) | (B) Pathogens, Salmonella, and E. coli 0157:H7, Campylobacter jejune, Clostridium Botulinum, etc. | Yes | Potential growth of pathogens. | All meat and poultry will be immediately put in, and kept stored in, coolers and freezers. | No |
| Dry storage of packaging materials (4) | (P) Foreign material. | No | Visible foreign material that could compromise product safety; rodent droppings, insects, etc. | Visual inspection of packaging materials to ensure no foreign material is present. | No |
| Preparation #1, Vacuum packing & labeling (5) | (B) Pathogens, Salmonella, and E. coli 0157:H7, Campylobacter jejune, Clostridium Botulinum, etc. | No | Potential growth of pathogens due to cross-contaminations is likely.  Improperly labeled products will result in outdated or unsafe products. | Time product will be in the temp. danger zone during assembly will be minimized and monitored.  Each bag with be properly labeled with ‘use-by’ date. | No |
| Cold storage (6)  **CCP #1** | B) Pathogens, Salmonella, and E. coli 0157:H7, Campylobacter jejune, Clostridium Botulinum, Listeria, etc. | Yes | Potential growth of pathogens if proper temperatures are not maintained. | ROP packaged and labeled products will be monitored for time and temperature control. | **Yes**  **CCP #1** |
| Preparation #2 (7) | B) Pathogens, Salmonella, and E. coli 0157:H7, Campylobacter jejune, Clostridium Botulinum, Listeria, etc. | Yes | Potential growth of pathogens. | ROP packaging will be opened prior to cooking. The time product will be in the temp. danger zone during assembly will be minimized and monitored. | No |
| Cooking (8) | B) Pathogens, Salmonella, and E. coli 0157:H7, Campylobacter jejune, Clostridium Botulinum, Listeria, etc. | Yes | Survival of bacterial spores if products are not properly cooked to correct internal temperatures. | Products will be cooked to the appropriate minimum internal temperatures. | No |

# HACCP form

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Critical Control Points (CCP)** | | | | | | | | | |
| **(1)**  **Critical Control Point** | **(2)**  **Hazard description** | **(3)**  **Critical limits** | **Monitoring** | | | | **(8)**  **Corrective action** | **(9)**  **Verification activities** | **(10)**  **Record-keeping procedures** |
| **(4)**  **What** | **(5)**  **How** | **(6)**  **Frequency** | **(7)**  **Who** |
| Cold storage  (CCP 1) | Pathogens | **Temperatures:**  41°F or less  **Time limit:**  30 days or less | Cooler and freezer temps will be checked  Date on ROP product labels will be checked and recorded | Use of thermometers and visual check of cooler and freezer thermometers  Visual check of the labels on the bag | 2x Daily  Daily | Designated food worker  Designated food worker | Immediately discard product if product temperature exceeds  41°F. Identify and eliminate cause of deviation.  Identify out of date products and discard them. | Product refrigeration and date log will be reviewed daily by the executive chef or the manager on duty. | Product refrigeration and date log |

Vacuum packaging procedures

The only foodservice employees who conduct ROP operations must:

* Are trained in the use of the reduced oxygen packaging equipment
* Have a thorough understanding of the HACCP plan

1. **Receiving raw meat and poultry**

Inspect meat and poultry products upon receiving.

* Check temperature and quality
* Verify product temps are at or below 41ºF

1. **Receiving packaging materials**

Inspect the condition of dry goods and packaging materials upon receipt. Verify products are in good condition.

1. **Cold storage**

Immediately store all perishable products in the designated coolers. Coolers must have a temperature at or below 41°F.

1. **Dry storage**

Store non-perishable products in a clean location that is separated from any potential sources of contamination.

1. **Preparation #1, Vacuum packaging & labeling**

Assemble products, ingredients, packaging materials, labels, etc. necessary to the operation.

Assemble products that are to be vacuum packaged. Make sure products remain at room temperature no longer than 30 minutes during the packaging process.

Place product in the packaging materials. Place bags in the vacuum machine making sure there is adequate space around each package.

Make sure the machine is working properly and settings are appropriate for the product being packaged.

Start the machine. Wait for the lid to open indicating that the process is complete. Remove packages from the machine.

Visually check the seal to make sure it is tight and that there are no food materials in the seal. Packages with a faulty seal should be re-packaged. Trim excess packaging as required.

Label each package with a use-by date. The use-by date must be:

* Within 30 days of vacuum packaging the product, or;
* The original manufacturer's "sell-by" or "use-by" date, whichever occurs first

If sold or served for off premise consumption, the product must be stored in a designated container with a label stating:

* Must be kept refrigerated or frozen, and
* Must be discarded if past “sell-by” or “use-by” date

1. **Cold storage (CCP #1)**

Place ROP packages in coolers immediately after vacuum packaging and labeling.

* Critical Limit - Products must be:
  + At or below 41°F, and
  + Held in ROP packages for no longer than 30 days under refrigeration
* Monitoring - The designated employees must:
  + At least twice a day during business operating times, visually check and record temperatures of coolers containing ROP products, and
  + Record temperatures on the Refrigeration and date log.
  + Visually check labels of ROP products for use-by-dates every day, and
  + Record monitoring results on the Refrigeration and date log.
* Corrective action:
* If ambient cooler temperatures exceed 41°F, check actual product temperatures.
* If the product is above 41°F:
  + - Discard the product, and
    - Notify the Manager on Duty that the cooler is not properly working.
* Record corrective actions on the Refrigeration and date log. If the use-by date is past the designated date;
  + Discard the product, and
  + Record corrective actions on the Refrigeration and date log.
* Verification

Manager on Duty must:

* + Visually monitor employees during their shift to verify designated employees are monitoring and checking:
    - ROP product temperatures
    - Use-by dates.

Review and sign Refrigeration and date log daily.

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1. **Preparation #2** 
   1. Remove vacuum packaged products from coolers
   2. Open the bag prior to cooking
   3. Prepare meat or poultry product for cooking according to recipe
2. **Cooking**

Properly cook each product to the required minimum internal temperatures in compliance with the Minnesota Food Code as listed below and/or instructed in the recipe:

* + Beef: 155ºF for 15 seconds
  + Chicken: 165ºF for 15 seconds
  + Pork: 155ºF for 15 seconds

1. **Serving**

Immediately portion and serve meals as ordered by patrons.

## Sanitation Standard Operating Procedures (SSOP)

### Employee hygiene and practices

1. Hands are to be thoroughly washed in a designated hand sink with soap and water, paying particular attention to the areas:
   * Underneath the fingernails and between the fingers
   * Dry with single use towels
2. Handwashing is to be done at the following times:

* After using the toilet, in the toilet room
* After coughing, sneezing, using a tissue, using tobacco, eating, or drinking
* After handling soiled equipment or utensils
* Immediately before engaging in food preparation activities
* During food preparation as necessary to remove soil and prevent cross contamination
* When switching between raw and ready-to-eat foods
* Other times as needed to maintain good sanitation

1. Fingernails must be kept:

* Trimmed
* Filed
* Free of nail polish
* Maintained so the edges are cleanable and not rough

1. Make sure employees are preventing cross contamination of ready-to-eat foods with bare hands by using:
   * Deli tissue
   * Spatulas
   * Tongs
   * Single-use gloves
   * Proper dispensing equipment
2. Eating and drinking is prohibited in areas where contamination could occur of:

* Exposed food
* Clean equipment
* Utensils
* Unwrapped single service
* Single use articles

A food employee may drink from a closed beverage container in a food prep area as long as it is handled to prevent contamination.

1. Effective hair restraints must be worn in processing areas.
2. Smoking and other uses of tobacco are prohibited.
3. Clean outer clothing must be worn each day and changed as often as necessary throughout the day.
   * For example, when moving from a raw food operation to a ready-to-eat food operation.
4. Aprons used by employees are to be hung in a designated area when not in use. They are not to be worn in the:
   * Toilet area,
   * Eating areas
   * Locker rooms
5. Foot wear is to be kept clean.
6. No jewelry may be worn during handling of food. The only exception is a wedding band or other plain ring.
7. Food employees with a symptom caused by illness, infection or other source must report it to the Person in Charge.

Report symptoms that are:

* Associated with diarrhea, vomiting or other acute gastrointestinal illness
* Jaundice
* A boil, infected wound or other lesion on the hands or wrists containing pus that is open or draining unless:
  + A finger cot or other impermeable cover protects the lesion, and
  + A single use glove is worn
  + If the wound or lesion is on an exposed portions of the arms, the lesion must be protected by an impermeable cover.

**The Person in Charge shall impose the proper restrictions and exclusions according to rule.**

## Cleaning and sanitizing

### Equipment food contact surfaces

Properly cleaned and sanitized food contact surfaces are critical to making sure you have a safe, sanitary operation. Using approved cleaners and sanitizers will reduce levels of pathogenic organisms to prevent cross contamination of the product.

* Detergent cleaners suspend and help remove various food soils
* Chemical sanitizers (chlorine, quaternary ammonia, etc.) reduce the numbers of pathogens and other microorganism to insignificant levels

### Cleanup procedures

**The cleanup process must be completed in accordance with following procedures:**

* **Pre-cleaning**

Equipment and utensils shall be pre-flushed, presoaked, or scraped as necessary to eliminate excessive food debris.

* **Washing**

Equipment and utensils shall be effectively washed to remove or completely loosen soils using manual or mechanical means. Only approved chemicals are to be used in this process.

* **Rinsing**

Washed utensils and equipment shall be rinsed to remove abrasives and to remove or dilute cleaning chemicals with water.

* **Sanitizing**

After being washed and rinsed, equipment and utensils must be sanitized with an approved chemical by either:

* Immersion
* Manual swabbing
* Brushing
* Pressure spraying methods

Exposure time is important to ensure effectiveness of the chemical.

Ensure that an appropriate chemical test kit is available and routinely used to make sure accurate concentrations of the sanitizing solutions are being used.

### Cleaning frequency

**Clean food contact surfaces and utensils:**

* Before each use with a different type of raw animal food, including beef, fish, lamb, pork, or poultry
* Each time there is a change from working with raw foods to working with ready to eat foods
* Between uses with raw fruits or vegetables and with potentially hazardous foods
* At any time during the operation when contamination may have occurred
* If used with potentially hazardous foods, throughout the day at least once every four hours
* Utensils and equipment that are used to prepare food:
  1. In a refrigerated room that maintains the utensils, equipment, and food under preparation at 41°F or less,
  2. Are cleaned at least once every 24 hours

### Cleaning frequency of thermometers and other equipment

* Clean food thermometers before using or storing
* Equipment used for storage of packaged or unpackaged food, including coolers, is cleaned at a frequency necessary to eliminate soil residue. The equipment must be cleaned often enough to eliminate soil residue
* Ice bins must be cleaned often enough to prevent accumulation of soil or mold
* Food contact surfaces of cooking equipment must be cleaned at least once every 24 hours

Non-food contact surfaces of equipment must be cleaned often enough to prevent accumulation of soil residues.

## HACCP training for employees

**Understanding the potential hazards associated with reduced oxygen packaging.**

While the process of packaging foods using a reduced oxygen method extends the shelf life, it also can pose a serious public health threat. Generally, bacteria survive under conditions where:

* Oxygen is present (aerobic conditions), or
* Oxygen is not present (anaerobic conditions).

Some bacteria have the ability to adapt to either condition.

Under traditional packaging conditions (aerobic conditions), spoilage bacteria would normally thrive. This may cause the product to spoil before the more hazardous types of bacteria might become a problem.

During the process of vacuum packaging or reduced oxygen packaging, the air inside the package is eliminated. (The air inside the package is approximately 21% oxygen.)

Eliminating the air creates anaerobic conditions and changes the types of bacteria that can survive in the package. Spoilage organisms are eliminated. However, several types of pathogenic bacteria survive and actually thrive under these conditions.

**Clostridium botulinum** is the pathogen of greatest concern. While a cooking step normally kills botulism bacteria, spores of the bacteria may survive and could grow and produce toxin if the conditions are right. These conditions are similar to those that occur in a vacuum/reduced oxygen package.

Other pathogens of concern may be:

* **Listeria monocytogenes**

**Concepts required for a safe operation**

To safely use a restaurant’s vacuum packaged products, there needs to be:

* A thorough understanding of this HACCP plan
* The use of the reduced oxygen packaging equipment
* The HACCP based standard operating procedures

Areas to focus on include:

* Products that can be packaged
* Time and temperature control
* Prevention of cross contamination
* Health and personal hygiene of food handlers

**Products that can be packaged by ROP**

State of Minnesota regulations limit the types of foods that can be vacuum packaged.

ABC Restaurant’s HACCP plan defines the foods that can be packaged using reduced oxygen packaging.

**Only the specific products on this list can be reduced oxygen packaged**.

Any addition to the above list must first have the approval of the manager on duty or executive chef.

Changes must be noted in the HACCP plan.

**Limiting Clostridium botulinum growth**

Foods to be reduced oxygen packaged at the restaurant must be limited to foods that do not support the growth of Clostridium botulinum. The following conditions do not support the grown of Clostridium botulinum:

* Has a water activity of 0.91 or less
* Has a pH of 4.6 or less
* Is a food with a high level of competing organisms, including raw meat, raw poultry, or a naturally cultured standardized cheese
* Is a meat or poultry product that was cured at a USDA meat plant and received in an intact package or cured using approved substances (nitrates/nitrites).

An additional barrier to allowing the growth of Clostridium botulinum is provided by limiting the types of food that can be ROP. This helps to ensure a safe product.

**ROP Fish**

In addition, a food business shall not package fish using a reduced oxygen packaging method. An exception is fish that is frozen before, during, and after packaging.

Some foods do not meet the requirements to limit Clostridum botulinum growth and therefore may NOT be reduced oxygen packaged. Examples are:

* Cooked turkey (including whole or sliced turkey breast)
* Cooked roast beef
* Sandwich spread (including ham salad, chicken salad, etc.)
* Cooked fresh sausage (not cured or smoked such as bratwurst)
* Fresh salads

**Time and temperature control**

Temperature control is an important factor in keeping all potentially hazardous foods safe.

But the extended shelf life and decreased oxygen concentration allows certain pathogens to multiply in reduced oxygen conditions.

Reduce the potential for pathogen growth by storing products (packaged and unpackaged):

* At temperatures of 41o F or less
* For no more than 30 days

You may request an extended storage time from the Health Department. The Health Department must approve your extended storage request before you being using it.

**Preventing cross contamination**

* To avoid cross contamination, raw foods should be handled separately from cooked and ready to eat foods.
* Clean and sanitize utensils, equipment and work surfaces used for raw foods before using for cooked or ready-to-eat foods.
* Make sure ready-to-eat foods are stored so that blood or juices from raw products cannot drip or come into contact with them.
* Food handlers can be a source of cross contamination through:
* Improper handwashing
* Soiled clothing or aprons

**Employee health and hygiene**

The health and personal hygiene of food handlers play a critical role in producing safe ROP food. It is vital that employees working in this business follow the Employee Hygiene and Practices guidelines in the Sanitation Standard Operating Procedures (SSOPs).

## Refrigeration and date log

Instructions for the refrigeration and date log form.

The designated food worker must:

* Check the temperatures of coolers holding vacuum packaged products
* Record the:
  + Product
  + Unit location
  + Date
  + Time
  + Air temperature
  + Product temperature
  + Any corrective actions
  + Check the product label of vacuum packaged products and make sure they do not exceed the use-by date.
* Initial this log daily

The designated chef or manager must verify that food workers:

* Have taken the required temperatures
* Checked product labels

Additionally, the designated chef or manager must:

* Visually monitor food workers during their shift
* Review, initial, and date this log daily

The log should be kept for a minimum of 6 months.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Refrigeration and date log**  **Instructions:** The designated foodservice employee must check the temperatures of coolers holding vacuum packaged products. They must record the product and refrigeration location, date, time, product temperature, and any corrective actions. Employee must check the product label of vacuum packaged products and make sure they do not exceed the use-by date. Employees must initial this log daily. The designated chef or manager must verify that foodservice workers have taken the required temperatures and checked product labels by visually monitoring food workers during their shift, and must review, initial, and date this log daily. This log should be kept for a minimum of 6 months.  worker make | | | | | | | |
| **Product and location** | **Date** | **Time** | **Temp** | **Past used-by date?** | **Corrective action** | **Employee Initials** | **Manager Initials** |
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| **Updates and edits to HACCP plan**  **Instructions:** All edits or changes to an approved HACCP plan must be logged. Tracking changes helps during the inspection and the facility’s annual review. Significant changes to a HACCP plan must be approved by the City of Minneapolis prior to changing. Contact a member of our HACCP team to determine if additional approvals are needed for proposed changes. | | |
| **Date** | **Initials** | **Summary of changes** |
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