

Dukumiintiga Tasmada

Guidance Document

Somali

MAWDUUCA: BAAKADAYNTA OKSIJIINTU KU YAR YAHAY (ROP)

XEERARKA AMA QAWAANIINTA: XEERARKA MINNESOTA, CUTUBKA 4626

BADASHAA: 021914

TAARIKHDA: JANAAYO 1, 2019

LAMBARKA DUKUMIINTIGA: 010119

Ujeedada

Isbadallada ku dhaca xeerka cuntada ee Minnesota (Xeerarka Minnesota, cutubka 4626) oo dhaqan galay Janaayo 1, 2019 waxaa ku jira isbadallo wayn oo lagu sameeyay shuruudaha qaababka baakadaynta oksijiintu ku yar yahay (ROP) ee xarumaha cuntada tafaariiqda ah ee ruqsada ka haysta xeerarka Minnesota, cutubyada 28A iyo 157. Tasmadaan waxaa loogu talagalay inay ka caawiso shaqsiyaadka maamulaaya ama kormeeraaya sharciyadana siinaaya xarumaha cuntada ee ku yaala Minnesota inay fahmaan shuruudaha ROP ee ku jira Xeerarka Minnesota, cutubka 4626. Dukumiintigu badal uma ahan kumana lamaanaanayso sharciyada jira, laakiin waxay tusmo ka bixinaysaa farsamooyinka midaysan ee joogtada ah.

Aasaaska

Adeegsiga qaababka ROP ee goobaha cuntada ayaa leh faa'iidada siinta mudada ay qaanadaha saarnaan karaan cuntooyin badan waayo waxay leedahay ilmo aragtay cuntada haleeya oo caadiyan ah nool kubcana. ROP ayaa sidoo kale bixin karta faa'iido la xariirta

English

SUBJECT: REDUCED OXYGEN PACKAGING (ROP)

STATUTES OR RULES: MINNESOTA RULES, CHAPTER 4626

SUPERSEDES: 021914

DATE: JANUARY 1, 2019

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Purpose

Changes to Minnesota food code (Minnesota Rules, chapter 4626) effective January 1, 2019 include significant modifications to requirements for reduced oxygen packaging (ROP) methods in retail food establishments licensed under Minnesota Statutes, chapters 28A and 157. This guidance is intended to help persons who operate or who inspect and regulate food establishments in Minnesota understand the requirements for ROP found in Minnesota Rules, chapter 4626. The document is not intended to replace or duplicate existing regulations, but to offer guidance for uniform and consistent practices.

Background

Using ROP methods in food establishments has the advantage of providing extended shelf life to many foods because it inhibits spoilage organisms that are typically aerobic. ROP may also offer benefits related to time and labor savings, portion control and quality retention.

waqtiga iyo kaydka shaqaalaha, xakamaynta qaybta iyo joogtaynta tayada.

Shaxda soo socota ayaad ka helaysaa qaar kamid ah qaababka ROP iyo tusalayaasha laga heli karo xarumaha cuntada tafaariiqda ah.

The following table provides some ROP methods and examples that may be found in retail food establishments.

Qaababka ROP (ROP methods)	Qeexitaanka qaabka ROP	Description of ROP method	Tusaalayaasha	Examples
Baakadaynta buufinta (Vacuum packaging) (VP)	<ol style="list-style-type: none"> 1. Cuntada waxaa la gashaa baakad la ogolaaday loona sameeyay ROP 2. Hawada ayaa qaab farsamo looga saaraa baakada 3. Bacda ayaa dusha kore laga sajal gareeyaa si hawo la'aan u ahaato gudaha bacda. 4. Cuntada bacda ku jirta ayaa la gashaa talaagada ama baraf dhaliye. 	<ol style="list-style-type: none"> 1. Food is put in bag approved and designed for ROP 2. Air is mechanically removed from bag 3. Bag is hermetically sealed so a vacuum remains inside the bag 4. Bagged food is refrigerated or frozen 	<ul style="list-style-type: none"> ▪ Hilib la daaweeyay ▪ Hilib ceeriin ah, digaag ceeriin ama khudaar ceeriin ah ▪ Burcadka qaar oo lagu sameeyo laguna baakadeeyo warshadaha cuntada sameeyo ee sharciyaysan ayadoon wax maadooyin ah lagu darin xarunta cuntada tafaariiqda ah (arag Xeerka Cuntada ee FDA 2013: Farqada 3 – Cuntada 3-502.12 si aad u hesho liiska burcadka la ogol yahay) ▪ Hawo ka saarida baakada burcadka jilicsan LAMA ogola ▪ Hawo ka saarida baakada kaluunka cusub ama la dhalaaliyay LAMA ogola 	<ul style="list-style-type: none"> ▪ Cured meat ▪ Raw meat, raw poultry or raw vegetables ▪ Certain cheeses manufactured and packaged in a regulated food processing plant with no ingredients added in the retail food establishment (See FDA Food Code 2013: Annex 3 – Food 3-502.12 for list of approved cheeses) ▪ Vacuum packaging of soft cheeses is NOT allowed ▪ Vacuum packaging of fresh or thawed fish is NOT allowed

DUKUMIINTIGA TUSMADA BAAKADAYNTA OKSIJIINTU KU YAR YAHAY | REDUCED OXYGEN PACKAGING GUIDANCE DOCUMENT

Qaababka ROP (ROP methods)	Qeexitaanka qaabka ROP	Description of ROP method	Tusaalayaasha	Examples
Baakadaynta cuntada la karshay kadibna la qaboojiyay (Cook-chill packaging) (CC)	<ol style="list-style-type: none"> 1. Hanaanka karinta ayaa ka saara cuntada oksijiinka, asagoo abuuraya aaga ogsijiintu ku yar tahay 2. Cuntada kulul waxaa la gashaa baakad la ogolaaday loona sameeyay ROP 3. Bacda ayaa la sajal gareeyaa ama aad loo xiraa kahor intaan cuntadu gaarin heerkulka 135°F 4. Cuntada ayaa degdeg loo qaboojiyaa kadibna la gashaa talaagada 	<ol style="list-style-type: none"> 1. Process of cooking drives off oxygen, creating a reduced oxygen environment 2. Hot food is put in bag approved and designed for ROP 3. Bag is sealed or crimped closed before the food reaches a temperature below 135°F. 4. Food is rapidly cooled and then refrigerated 	<ul style="list-style-type: none"> ▪ Maraq jilicsan ▪ Maraqa ▪ Digirta la dubay ▪ Baasto maraq leh ▪ Shurbad 	<ul style="list-style-type: none"> ▪ Soups ▪ Sauces ▪ Refried beans ▪ Pasta with sauce ▪ Gravies

Qaababka ROP (ROP methods)	Qeexitaanka qaabka ROP	Description of ROP method	Tusaalayaasha	Examples
Baakadaynta Sous vide (Sous vide packaging) (SV)	<ol style="list-style-type: none"> Cuntada ceeriinka ah ama qayb ahaan la karshay ayaa lagu baakadeeyaa bac bilaa hawo ah oo la ogol yahay loona naqshadeeyay ROP Cuntada waxaa la karshaa ayadoo ku jirta bacda Cuntada la karshay ayaa degdeg loo qaboojaa kadibna la gashaa talaagada, ama ayadoo kulul la cunaa 	<ol style="list-style-type: none"> Raw or partially cooked food is vacuum packaged in bag approved and designed for ROP Food is cooked in the bag Cooked food is rapidly cooled and refrigerated, or served hot 	<ul style="list-style-type: none"> Hilib jiir ah Marag hilib leh oo adag Digaag leh maraq ama maceeyaal 	<ul style="list-style-type: none"> Steak Pot roast Chicken with marinade or spices

Qaababka kale ee ROP waxaa ku jira baakadaynta wax laga badalay (MAP) iyo baakadaynta cimilada maaraysan (CAP). Cimilada baakada cuntada ayaa wax laga badalaa si huurintu uga duwanaato hawada. Noocyadaan baakadaynta waxaa badanaa lagu sameeyaa warshadaha cuntada sameeya.

Tilmaanta

Qorshayaasha bar koontaroolka muhiimka ah ee qiimaynta iyo xakamaynta adag ee khatarta (HACCP) ayaa qasab u ah inta badan qaababka ROP ee lagu sameeyo goobta cuntada tafaariiqda ku iibsha. Marka loo raaco sida ay u qoran yihiin, qaababka ROP ee Xeerarka Minnesota, qaybta 4626.0420

Other ROP methods include modified atmosphere packaging (MAP) and controlled atmosphere packaging (CAP). The atmosphere of the package of food is modified so the composition is different from the air. These types of packaging are more commonly conducted in food manufacturing plants.

Guidance

Hazard analysis and critical control point (HACCP) plans are required for most ROP methods conducted in retail food establishments. When followed as written, the ROP methods in Minnesota Rules, part 4626.0420 provide controls for the growth and/or toxin production of *Clostridium*

ayaa bixinaysa xakamaynada kobaca iyo/ama samaynta sunta *Clostridium botulinum* iyo *Listeria monocytogenes* oon lahayn farac. Haddii shuruudaha xeerka cuntada ee ku salaysan sayniska aan la raacin si loo xaqiijiyo badqabka cuntada, cimilada lagu abuuray gudaha baakada iyo cabirada cuntada ee loo adeegsado qaababka ROP ee aan qumanayn ayaa abuuri kara xaalado kordhinaaya khatarta caafimaadka dadwaynaha ee ka imaanaysa *C. botulinum* iyo *L. monocytogenes*.

Xeerka cuntada ee Minnesota ayaa bixinaaya sadex dookh oo lagu adeegsano qaababka ROP oo badqab leh:

- Markay leedahay farac, ayadoo la raacaayo qorshaha HACCP ee la ogol yahay (4626.0420, qaybta A)
- Bilaa farac, raacida qorshaha HACCP ee la ogol yahay kaasoo buuxinaaya cabirada la sheegay (4626.0420, qaybaha B ilaa E)
- Bilaa farac, ku dhaqanka shuruudaha waqtiga/heerkulka iyo calaamadaynta ee aan qasab ka dhigayn qorshaha HACCP (4626.0420, qaybta F)

Gudbinta iyo ansixinta dib u eegista qorshaha HACCP

Xeerarka Minnesota, qaybta 4626.1730 ayaa qasab ka dhigaaya in ruqsadluhu ama codsaduhu uu soo gudbiyo qorshaha HACCP ee qaababka ROP uuna ogolaansho ka qaato maamulka sharciyaynta kahor intuuusan samayn shaqada ROP. Qorshaha HACCP waa inuu buuxshaa cabirada Xeerarka Minnesota, qaybta 4626.0420, qaybaha B ilaa E iyo 4626.1735. Maamulka sharciyaynta ayaa ansixin doona qorshayaasha ee buuxsha shuruudaha.

botulinum and *Listeria monocytogenes* without a variance. If science based food code requirements are not followed to ensure a safe product, the environment created within a package and the food matrix by improper ROP methods may create conditions of increased public health risk from *C. botulinum* and *L. monocytogenes*.

Minnesota food code provides three options for safe ROP methods:

- With a variance, following an approved HACCP plan (4626.0420, item A)
- Without a variance, following an approved HACCP plan which meets defined parameters (4626.0420, items B through E)
- Without a variance, following specific time/temperature and labeling requirements which do not require a HACCP plan (4626.0420, item F)

HACCP plan review submittal and approval

Minnesota Rules, part 4626.1730 requires the license holder or applicant to submit a HACCP plan for ROP methods and obtain approval from the regulatory authority prior to conducting ROP. The HACCP plan must meet parameters in Minnesota Rules, part 4626.0420, items B through E and 4626.1735. The regulatory authority will approve HACCP plans that meet the requirements.

Kormeerka – Xaqiijinta

MDH ayaa xaqiijin doonta in xarun ay raacayso iyo in kale qorshaheeda HACCP inta lagu jiro kormeerada. Kormeeradu waxay diirada saarayaan dookhyada cuntada iyo dib u eegista diiwaannada, dood ku saabsan hanaanada la adeegsanaayo, iyo qalabka ROP ee la adeegsaday.

Fulinta amarka

Haddii la arko qaababka ROP oon la ogolaan inta la wado kormeer, xaruntu waa inay joojisaa ROP. Xarunta iyo maamulka sharciyaynta ayaa intaas kadib ka wada shaqayn kara go'aaminta talaabooyinka toosinta ah ee ku haboon si loo xaliyo qaababka aan la ogolaan. Dookhyada qaar ee talaabooyinka toosinta ah waxaa kamid ah:

- In la waafajiyo qorshaha HACCP ee la ogolaaday kahor intaan dib loo bilaabin ROP.
- Dirista qorshaha la saxay si loo xaqiijiyo loona ansixiyo kahor dib u bilaabida ROP.
- In wax laga badalo qaababka ROP si loo buuxsho shuruudaha Xeerarka Minnesota, qaybta 4626.0420, farqada F kahor intaan ROP dib loo bilaabin.
- Inaad joojiso ROP ka lagu isticmaalo xarunta.

Faraca

Inta badan xaaladaha, farac ayaan looga baahnayn goobta cuntada ee samaynaaya qaababka ROP.

Farac ayaa loo baahan yahay marka xarun cunto ay doonayso inay adeegsato qaabka ROP oon ahayn kuwa ku qoran Xeerarka Minnesota, qaybta 4626.0420. Si loo helo

Inspection – Verification

MDH will verify whether or not the establishment is following their HACCP plan during inspections. Inspections will focus on menu and records review, a discussion of the processes being used, and the ROP equipment being used.

Enforcement

If unapproved ROP methods are observed during an inspection, the establishment must stop ROP. The establishment and regulatory authority may then work together to determine appropriate corrective actions to address the unapproved methods. Some options for corrective actions are:

- Conform to the approved HACCP plan before resuming ROP.
- Submit a revised plan for validation and approval before resuming ROP.
- Modify the ROP methods to meet requirements in Minnesota Rules, part 4626.0420, item F before resuming ROP.
- Discontinue ROP in the establishment.

Variance

In most situations, a variance is not required for food establishments conducting ROP methods.

A variance is required when a food establishment intends to use an ROP method other than those described in Minnesota Rules, part 4626.0420. In order to provide

difaaca caafimaadka dadwaynaha oo ku filan, hanaanka ROP waa in lagu daraa xakameeyaasha kobaca iyo abuurista sunta ka dhalata *C. botulinum* iyo dhalashada *L. monocytogenes*.

Maamulka sharciyayntu ayaa bixin doona aqoonsiga faraca haddii badalka lasoo jeedshay ee shardigu ay bixinayso difaaca caafimaadka dadwaynaha oo u dhigma ama ka balaaran cabirada ku qoran xeerka cuntada ee Minnesota. Waa masuuliyad saaran mulkiilaha ruqsada ama codsada inuu soo gudbiyo codsiga faraca ama cusboonaysiinta faraca si waafaqsan Xeerarka Minnesota, qaybta 4626.0415 uuna helo ogollaansho kahor intuuusan samayn ROP. Xeerarka Minnesota, qaybta 4626.1690 ayaa qeexaaya habraacyada codsiga faraca. Xeerarka Minnesota, qaybta 4626.1710 ayaa qeexaaya habraacyada cusboonaysiinta faraca.

Dukumiintiyada tixraaca ah

[Tusmada Dhismaha Goobta Cuntada \(PDF\) \(https://www.health.state.mn.us/communities/environment/food/docs/license/feconstguide.pdf\)](https://www.health.state.mn.us/communities/environment/food/docs/license/feconstguide.pdf)

Sharciyada khuseeya

Sharciga Minnesota, cutubka 157 – Ruqsadaynta (MDH)
Sharciga Minnesota, cutubka 28A – Ruqsadaynta (MDA)
Xeerarka Minnesota, cutubka 4626.0020 – Bayaanka Codsiga iyo Qeexitaanka
Xeerarka Minnesota, cutubka 4626.0415 – Shuruudaha Gaarka ah ee Ka shaqaynta Faraca
Xeerarka Minnesota, cutubka 4626.0420 – Baakadaynta Oksijiinta La yareeyay ee Bilaa Faraca ah; Shardiga

adequate public health protection, the ROP process must include controls for growth of and toxin formation by *C. botulinum* and growth of *L. monocytogenes*.

The regulatory authority will grant a variance only if the proposed alternative to the requirement will provide public health protection equal to or greater than the measures provided for in Minnesota food code. It is the responsibility of the license holder or applicant to submit a variance request or variance renewal according to Minnesota Rules, part 4626.0415 and obtain approval prior to conducting ROP. Minnesota Rules, part 4626.1690 specifies procedures for a variance request. Minnesota Rules, part 4626.1710 specifies procedures for variance renewal.

Reference documents

[Food Establishment Construction Guide \(PDF\) \(https://www.health.state.mn.us/communities/environment/food/docs/license/feconstguide.pdf\)](https://www.health.state.mn.us/communities/environment/food/docs/license/feconstguide.pdf)

Applicable laws

Minnesota Statutes, chapter 157 – Licensing (MDH)
Minnesota Statutes, chapter 28A – Licensing (MDA)
Minnesota Rules, part 4626.0020 – Statement of Application and Definitions
Minnesota Rules, part 4626.0415 – Specialized Processing Variance Requirements
Minnesota Rules, part 4626.0420 – Reduced Oxygen Packaging Without a Variance; Criteria

Xeerarka Minnesota, cutubka 4626.1690 – Codsiga Faraca; Habraacyada
Xeerarka Minnesota, cutubka 4626.1695 – Codsiga Faraca; Shuruudaha Go'aanka
Xeerarka Minnesota, cutubka 4626.1700 – Shuruudaha Faraca; HACCP; Ogaysiiska Go'aanka
Xeerarka Minnesota, cutubka 4626.1710 – Cusboonaysiinta Faraca
Xeerarka Minnesota, cutubka 4626.1725 – Mawduucyada Qorshaha iyo Sifooyinka
Xeerarka Minnesota, cutubka 4626.1730 – Marka qorshaha HACCP loo baahan yahay
Xeerarka Minnesota, cutubka 4626.1735 – Mawduucyada Qorshaha HACCP
Xeerarka Minnesota, cutubka 4626.1787 – Kormeerada Ku salaysan Shaqada iyo Khatarteeda

Su`aalaha Inta badan la Isweydiyo

Waa maxay shuruudaha u adeegsiga ROP kaluunka ceeriinka ah?

Maadaama *C. botulinum* si joogto ah looga helo kaluunka ceeriinka ah, kaluunka waa in lagu hayaa baraf kahor, inta lagu jiro iyo kadib ku baakadaynta ROP. Kaluunka la dhalaaliyay waa in lagasoo saaraa baakada ROP ama la furaa baakada si aysan ugu jirin cimilo oksijiintu ku yar yahay sida ku cad Xeerarka Minnesota, qaybta 4626.0380, farqada E.

Xeerarka Minnesota, qaybta 4626.0420, farqada F ma qabanaayo kaluunka waayo kaluunka waa in baraf laga dhigaa kahor, inta lagu jiro yio kadib ROP.

Minnesota Rules, part 4626.1690 – Variance Request; Procedures
Minnesota Rules, part 4626.1695 – Variance Request; Criteria for Decision
Minnesota Rules, part 4626.1700 – Variance Conditions; HACCP; Notification of Decision
Minnesota Rules, part 4626.1710 – Renewal of Variance
Minnesota Rules, part 4626.1725 – Contents of Plans and Specifications
Minnesota Rules, part 4626.1730 – When a HACCP Plan is Required
Minnesota Rules, part 4626.1735 – Contents of HACCP Plan
Minnesota Rules, part 4626.1787 – Performance and Risk-Based Inspections

Frequently asked questions

What are the requirements for using ROP for raw fish?

Since *C. botulinum* is frequently found in raw fish, fish must be kept frozen before, during and after being packaged using ROP. Fish being thawed must be removed from the ROP package or have the package opened so it is not in a reduced oxygen atmosphere according to Minnesota Rules, part 4626.0380, item E.

Minnesota Rules, part 4626.0420, item F does not apply to fish because fish must be frozen before, during and after ROP.

Cuntada TCS ee diyaarka u ah in la cuno, ee qaboow ma lagu baakadayn karaa bacaha loo ogolaaday loona sameeyay ROP?

Haa, marka cuntada TCS ee diyaarka u ah in la cuno, oo qaboow loo baakadeeyo si ahayn **bilaa hawo**. Cuntada qaboow ee diyaarka u ah in la cuno, laguna shubay bacda kadibna la sajal gareeyay bilaa hawo maaha ROP. Midkoodna HACCP iyo faraca looma baahna. Cuntada TCS ee diyaarka u ah in la cuno, ee talaagada ku jirta ee lagu hayay xarunta wax ka badan 24 saac waa in lagu qoraa taariikhda. Cuntada TCS ee lagu diyaarshay xarunta waxaa la hayn karaa todobo maalmood ayadoo lagu haynaayo 41° F ama ka hooseeya.

Tusaale: Goobta cuntada ayaa karinaysa kadibna qaboojinaysa lugaha digaaga, ku guraysa bac kadibna bacda xiraysa bilaa hawo. Tani maaha ROP. Lugaha digaaga ee bacda la gashay oo bisil ayaa ah cunto TCS ah waana in lagu qoraa taariikhda.

ROP ma loo adeegsan karaa cuntada TCS, diyaarka u ah in la cuno ee aan la dawayn, oo qaboow?

May, cuntada TCS, diyaarka u ah in la cuno ee aan la dawayn, oo qaboow waa inaan lagu baakadayn **hawo**.

Tusaale: Xarunta cuntada ayaa diyaarinaysa, karinaysa kadibna qaboojinaysa lasagna, kadibna cadad ayadoo ah gelinaysa baco, ka saaraysa hawada, sajal garaynaysa bacaha kadibna haynaysa lasagna wax ka badan 48 saacadood. Qaabkaan wuxuu kordhinayaa khatarta cudurka cuntada ka dhasha asagoo abuuraya xaalado taageeraaya kobaca C.

Can cold, ready-to-eat TCS food be packaged in bags approved and designed for ROP?

Yes, when cold, ready-to-eat TCS food is packaged **without a vacuum**. Ready-to-eat food packaged cold, placed in a bag and sealed without a vacuum is not ROP. Neither HACCP nor variance is required. Refrigerated, ready-to-eat TCS food held in the establishment for longer than 24 hours must be date marked. TCS food prepared in the establishment may be kept for up to seven days at 41° F or below.

Example: A food establishment cooks and cools chicken wings, places them in a bag and seals the bag without a vacuum. This is not ROP. Bagged ready-to-eat chicken wings are TCS food and must be date marked.

Can ROP be used for uncured, cold, ready-to-eat TCS food?

No, uncured, cold, ready-to-eat TCS food must not be packaged **with a vacuum**.

Example: A food establishment prepares, cooks and cools lasagna, places individual pieces in bags, pulls a vacuum, seals the bags and holds the lasagna for more than 48 hours. This method increases the risk of foodborne illness by creating conditions supporting the growth of *C. botulinum* and *L. monocytogenes*. A variance request for this process would be denied.

botulinum iyo *L. monocytogenes*. Codsiga faraca ee habraacan waa la diidi doonaa.

Shardi nooc ee ah ayaan midkoodna HACCP iyo farac laga doonayn si loo adeegsato qaababka ROP ee Ilaalinta Waqtiga/Heerkulka si loo fayodhowro Cuntada (TCS)?

Xeerarka Minnesota, qaybta 4626.0420, farqada F ayaa ka reebaysa cuntooyinka talaagada la gashay, ee ROP kuwaas oo markasta laga saaro baakada 48 saacadood gudahood marka baakada laga saaro shuruudaha waayo kobaca iyo abuuranka sunta *Clostridium botulinum* iyo *Listeria monocytogenes* mudadaas kooban gudaheed looma arko khatar wayn oo cuntooyin noocaas ah ku jirta.

Tusaale: Goobta cuntada ayaa karinaysa roosto, gelinaysa bac loo ogolaaday loona sameeyay ROP kadibna bacda sajalaynaysa. Baakada waxaa lagu qoray waqtiga iyo taariikhda la baakadeeyay. Cuntada bacda ku jirta ayaa degdeg loo qaboojiyay ilaa 41°F ama ka hoos ayadoo la adeegsanaayo barafka biyaha kadibna waxaa lagu hayay heerkulka 41°F ama ka hoos. Baakada ayaa la furaa 48 saacadood gudahood marka roostadu kumasii jirayso jawiga oksijiinta laga yareeyay.

Tusaale: Goobta cuntada ayaa hilibka digaag ceeriin ah oo lagu daray maraq gelinaysa bac loo ogolaaday loona sameeyay ROP kadibna bacda sajalaynaysa. Baakada waxaa lagu qoray waqti iyo taariikhda la baakadeeyay. Cuntada bacda ku jirta waxaa lagu hayaa 41°F ama ka hoos. Cuntada ayaa lagu karshaa sous-vide kadibna si degdeg ah ayaa loogu qaboojiyaa heerkul dhan 41°F ama ka hoos ayadoo la adeegsanaayo barafka biyaha.

Under what conditions is neither HACCP nor a variance required to use ROP methods for time/temperature control for safety (TCS) food?

Minnesota Rules, part 4626.0420, item F exempts refrigerated, ROP foods that are always removed from the package within 48 hours of packaging from the requirements because growth and toxin formation of *Clostridium botulinum* and *Listeria monocytogenes* in that limited time frame is not considered a significant hazard in such foods.

Example: A food establishment cooks a roast, places it in a bag approved and designed for ROP and seals the bag. The package is labeled with the time and date it was bagged. Bagged product is quickly cooled to 41°F or below using an ice water bath and held at 41°F or below. The package is opened within 48 hours so the roast is no longer in a reduced oxygen atmosphere.

Example: A food establishment places raw chicken breast with marinade in a bag approved and designed for ROP and seals the bag. The package is labeled with the time and date it was bagged. Bagged product is held at 41°F or below. Product is cooked sous-vide and quickly cooled to 41°F or below using an ice water bath. Package is opened so the chicken is no longer in a reduced oxygen atmosphere. The entire process must take no longer than 48 hours.

Baakada ayaa la furaa marka digaagu kumasii
jirayso jawiga oksijiinta laga yareeyay.
Hanaanka dhan waa inuu qataa ugu badnaan
48 saacadood.

Macluumaadka (Resources)

[Minnesota Department of Health Food Business Safety](http://www.health.state.mn.us/foodbizsafety)
(<http://www.health.state.mn.us/foodbizsafety>)

Minnesota Department of Health
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