EHOG APPENDIX

Bureau of Environmental Health Services

MISSOURI DEPARTMENT OF HEALTH AND SENIOR SERVICES

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RECALL FOLLOW-UP REPORT FORM

Print Report | Reset Form

MISSOURI DEPARTMENT OF HEALTH AND SENIOR SERVICES
BUREAU OF ENVIRONMENTAL HEALTH SERVICES

Date:

County:

1. RECALL INFORMATION

RECALLING COMPANY NAME/ADDRESS:

PRODUCT BEING RECALLED:

PRODUCT DESCRIPTION: (Recall code #, Plant Number, etc.)

2. ESTABLISHMENT INFORMATION

ESTABLISHMENT NAME:_____ PHONE #:_____

ADDRESS:_____ CITY:_____

ESTABLISHMENT TYPE:

☐ RESTAURANT ☐ CONVENIENCE STORE ☐ SCHOOL ☐ GROCERY STORE ☐ SALVAGE STORE ☐ INSTITUTION
☐ MANUFACTURER ☐ DISTRIBUTOR ☐ OTHER:_____

3. TYPE OF RECALL FOLLOW-UP CHECK. NAME & TITLE OF PERSON CONTACTED

☐ SITE VISIT TO FACILITY ☐ TELEPHONE CALL TO FACILITY ☐ OTHER: _____

NAME OF PERSON CONTACTED:_____ TITLE:_____

4. PRODUCT STATUS

A. DOES THE ESTABLISHMENT CARRY THE RECALLED PRODUCT? ☐ YES* ☐ NO (if NO skip to #6)
*YES: ESTIMATED QUANTITY OF RECALLED PRODUCT ON HAND AT TIME OF NOTIFICATION:_____

B. DID THE ESTABLISHMENT RECEIVE NOTIFICATION OF THE RECALL FROM ANOTHER SOURCE (RECALLING FIRM, DISTRIBUTOR, ETC.)? ☐ YES* ☐ NO *YES: Recall Notification Source:_____

C. DID THE ESTABLISHMENT FOLLOW THE RECALL INSTRUCTIONS?
☐ YES ☐ NO* (Explain):_____

D. IS THERE CURRENTLY ANY RECALLED PRODUCT FOR SALE OR USE? ☐ YES* ☐ NO
***NOTE: If the recalled product is still on the shelf for sale to the customer and the establishment does not take immediate corrective action to remove it from sale, the product must be immediately embargoed and placed in a secured location at the facility.**

E. WHAT IS THE CURRENT STATUS OF THE RECALLED PRODUCT?
☐ NONE ON HAND ☐ RETURNED TO RECALLING FIRM ☐ RECALLED PRODUCT DESTROYED
☐ PRODUCT BEING HELD FOR RETURN & STORED IN A SECURED LOCATION AND LABELED IN A MANNER TO PREVENT IT FROM BEING RETURNED TO THE SALES FLOOR ☐ OTHER:_____

F. IS AN EMBARGO IN PLACE AT THIS TIME? ☐ YES* ☐ NO *Attach Embargo Paperwork with this Report.

5. INJURIES/COMPLAINTS

IS THE ESTABLISHMENT AWARE OF ANY INJURIES, ILLNESSES, OR COMPLAINTS ASSOCIATED WITH THE RECALLED PRODUCT? ☐ INJURY ☐ ILLNESS ☐ COMPLAINT ☐ NONE

6. REMARKS/COMMENTS (INCLUDE ACTION TAKEN IF PRODUCT WAS STILL AVAILABLE FOR SALE OR USE)

Attach additional pages/documents as needed.

FAX form to 573-526-7377

NAME / TITLE / EPHS NUMBER	AGENCY NAME	TELEPHONE NUMBER

RECALL FOLLOW-UP SUMMARY REPORT FORM

MISSOURI DEPARTMENT OF HEALTH AND SENIOR SERVICES
BUREAU OF ENVIRONMENTAL HEALTH SERVICES

RECALLING COMPANY:

LPHA:

DATE:

PRODUCT BEING RECALLED:

Current status of the recalled product (check 1):

CIRCLE CLASS AND TYPE

RECALL CLASS: TYPE:

I High

CONTACT DATE	ESTABLISHMENT NAME/CITY	CONTACT TYPE: Visit(V) Phone (P) Fax (F) Email (E)	RECALLED PRODUCT HANDLED Y/N	PRODUCT AVAILABLE FOR SALE OR USE Y/N	NONE ON HAND	DESTROYED	HELD FOR RETURN	EMBARGO IN PLACE Y/N	COMMENTS:
		V			☐	☐	☐		
		V			☐	☐	☐		
		V			☐	☐	☐		
		V			☐	☐	☐		
		V			☐	☐	☐		
		V			☐	☐	☐		
		V			☐	☐	☐		
		V			☐	☐	☐		
		V			☐	☐	☐		
		V			☐	☐	☐		

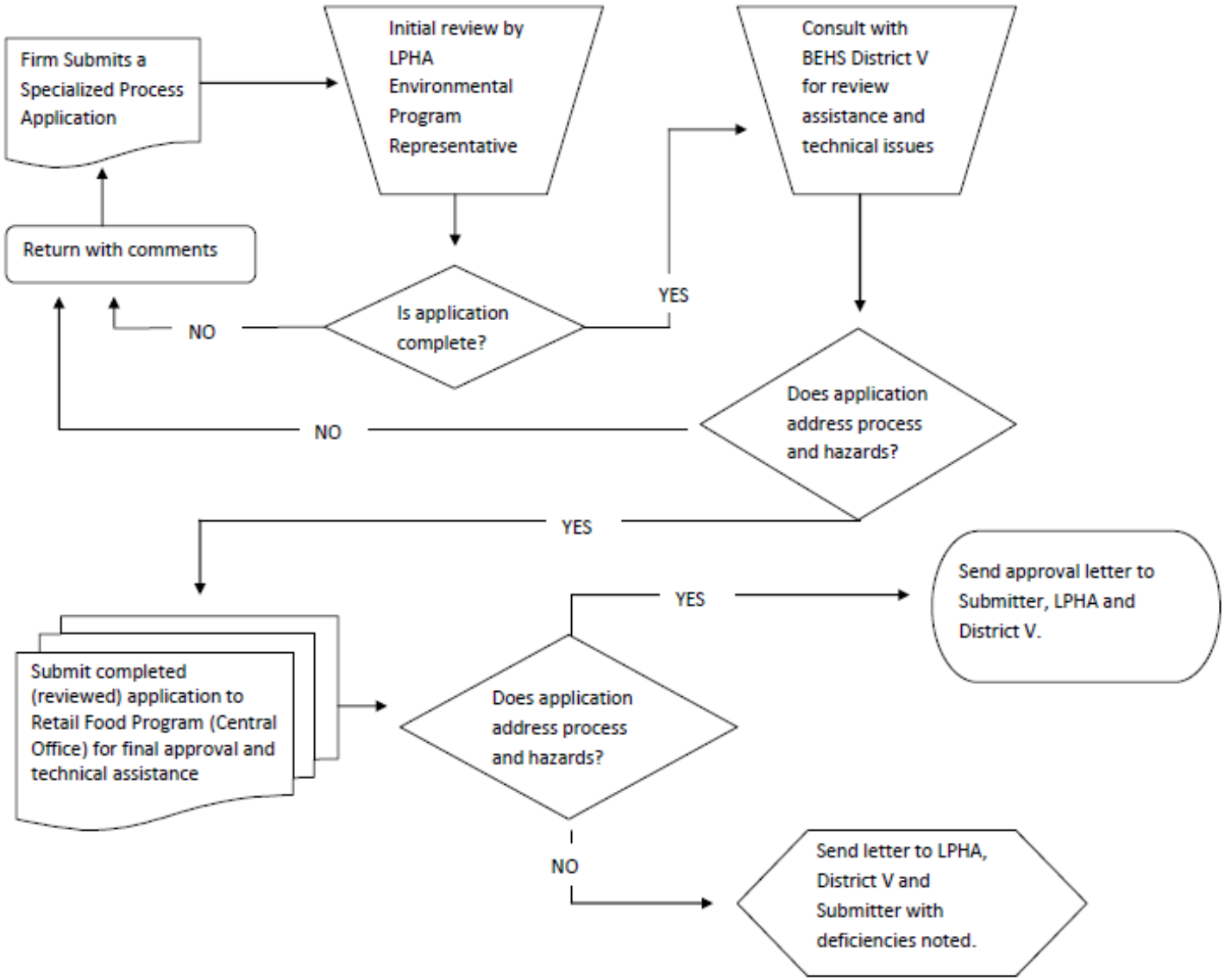
NAME OF PERSON SUBMITTING FORM:

FAX TO (573)626-7377

FOR QUESTIONS CONTACT: NANCY BEYER AT (573)751-6095 or nancy.beyer@health.mo.gov

11/14/11

Specialized Process Approval Application Submission Flow Chart



Specialized Process Application Checklist

On completion of collection and initial review this information shall be submitted to the appropriate Local Public Health Agency or Department of Health and Senior Services District office. This form can be found on the Department's Food Safety Web Page.

Name _____
Address _____
Telephone Number _____

Section 1 – Check which specific specialized process. Submit a separate application for each process.

- ☐ Smoking food (for preservation)
- ☐ Curing food
- ☐ Food additives (for preservation or to alter a food to a non-*PHF)
- ☐ Packaging food using Reduced Oxygen Packaging except as specified under 3-502.12**
- ☐ Custom Animal Processing (under Missouri Department of Agriculture (MDA) regulation)
- ☐ Other (per Regulatory Authority)

Section 2 – Proposal

- ☐ Statement of proposal citing code reference
- ☐ Statement why this proposal should be approved

Section 3 – Supporting documentation

- ☐ Scientific studies or other applicable supporting documentation
- ☐ Process authority analysis reports
- ☐ Prerequisite programs
- ☐ Maintenance logs
- ☐ Cleaning schedules
- ☐ Employee policy manuals
- ☐ Applicable Standard Operating Procedures
- ☐ Applicable Standard Sanitation Operating Procedures
- ☐ Examples of applicable checklists or records for verification of prerequisite programs and procedures
- ☐ Documentation of training programs and procedures including examples of training logs

Section 4 – HACCP plan

- ☐ Recipe
- ☐ Flow Chart
- ☐ Hazard Analysis
- ☐ Critical Control Point plan
- ☐ List of each Critical Control Point

- ☐ Statement of specific Critical Limit to be measured
- ☐ Statement of method and frequency of for monitoring
- ☐ Statement of who is responsible for monitoring and what records are to be kept
- ☐ Statement of corrective actions for each critical limit when not met
- ☐ Examples of applicable records used to document corrective actions taken
- ☐ Examples of verification records
- ☐ Other

_____

Section 5 – Additional information

- ☐ Examples of labeling and lot identification systems with explanations
- ☐ Layout of area to be used showing all equipment to be used for specialized process
- ☐ Explanation of physical or scheduling barriers between this area and other parts of the operation
- ☐ Information as needed on
- ☐ Safe source of water supply
- ☐ Approved waste disposal
- ☐ Methods to prevent cross-contamination
- ☐ Use, storage and labeling of toxics
- ☐ Pest control program
- ☐ List of job descriptions of personnel involved in the specialized process
- ☐ Calibration and use records on equipment used for monitoring Critical Control Point
- ☐ Other _____

I hereby certify that the above information is correct. I have provided all relevant material to the best of my ability. I understand until such time as this special process proposal is approved I must cease operation of any specialized process activity. I understand that submitting this application in no way guarantees that my application will be approved. I understand that if this application is approved it can be rescinded immediately during any official inspection if there is evidence of non-compliance with the approved process.

Applicant Signature: _____Date: _____
Print Name and Position Title: _____

Meets requirments: YES NO (If NO See comment sheet)
LPHA/DHSS Representative Signature: _____ Date: _____
Print Name and Position Title: _____
Submit the completed checklist and supporting documentation to your Local Public Health Agency (http://health.mo.gov/living/lpha/lphas.php). Questions may be directed to DHSS at (573) 751-6095 your Local Public Health Agency.

*PHF – potentially hazardous food

**3-502.12 – Reduced Oxygen Packaging may be conducted without having to obtain a "specialized process approval" from the Bureau when *Clostridium botulinum* and *Listeria monocytogenes* is identified as a microbiological hazard in the final packaged form and there are at least two barriers in place to control the growth and toxin formation of *C. botulinum* and *L. monocytogene*s. The facility must have an approved Hazard Analysis Critical Control Point (HACCP) plan and written proof that the barriers utilized are sufficient to prevent growth of the identified pathogens. This could include scientific documentation along with monitoring records, or independent laboratory analysis as needed. A separate checklist is available to assist in developing a HACCP plan in accordance with 3-502.12.

United States Department of Agriculture: http://www.fsis.usda.gov/wps/portal/fsis/topics/regulatory-compliance/haccp/small-and-very-small-plant-outreach/guidebook-haccp-plans-generic-haccp-models/haccp-plans-guidebook

Iowa State University Extension: http://www.extension.iastate.edu/foodsafety/HACCP

Food and Drug Administration HACCP: http://www.fda.gov/food/guidanceregulation/retailfoodprotection/foodcode/ucm054471.htm

Food and Drug Administration Food Safety: http://www.fda.gov/downloads/Food/GuidanceRegulation/HACCP/UCM077957.pdf

National Food Service Management Institute http://sop.nfsmi.org/HACCPBasedSOPs.php

Association of Food and Drug Officials: http://www.afdo.org/seafoodhaccp/

Food and Drug Administration Food Safety Management Manual: http://www.fda.gov/downloads/Food/FoodSafety/RetailFoodProtection/ManagingFoodSafetyHACCPPrinciples/Operators/UCM077957.pdf

UC Davis HACCP: http://ucfoodsafety.ucdavis.edu/Food_Processing/HACCP_Information/

University of Nebraska – Lincoln - Meat Products: http://food.unl.edu/web/meatproducts/introduction-to-haccp-training

University of Nebraska – Lincoln - Meat Products HACCP: http://food.unl.edu/web/meatproducts/haccpdocandlink

University of Nebraska – Lincoln – Meat Products SSOP: http://food.unl.edu/web/meatproducts/haccpsop#ssop

Chain-of-Custody Record for Specialized Process Material

Processor or Firm Name: _____
Agent or Representative: _____
Address: _____ City:_____ Zip: _____

General Description of Materials Relinquished/Received

_____
_____
_____
_____
_____
_____

Relinquished by	Agency	Received by	Agency	Date	Time

HACCP Agreement

This agreement is entered into on this_____day of_____20 , between___
_____(Health Authority) and
_____(Processor).

Health Authority and Processor Agree that:

- Health Authority has the obligation under Sections 196.010 through 196.120, to ensure the safety of food products in the State of Missouri.
- Under Section 196.055, the health authority shall have free access at all reasonable hours to any factory, warehouse, or establishment in which foods are manufactured, processed, packed, or held for introduction into commerce, or to enter any vehicle being used to transport or hold such foods, to determine if any of the provisions of sections 196.010 to 196.120 are being violated; and to secure samples or specimens of any food.
- Under state regulation, 19 CSR 20-1.025 Processor is required to submit to the Health Authority a Hazard Analysis Critical Control Points (HACCP) plans.
- Processor's HACCP plan contains recipes and processes in which the Processor has a proprietary interest.
- Section 610.021 (15), allows documents which relate to scientific and technological innovations in which the owner has a proprietary interest to be a closed record.
- HACCP plans submitted to the Health Authority shall remain closed and not be released to any other entity, except for the Department of Health and Senior Services, without approval of Processor.

Processor	Health Authority
_____	_____
(signature)	(signature)
_____	_____
(print name)	(print name)
_____	_____
(company name)	(organization name)

United States Department of Agriculture:

http://www.fsis.usda.gov/wps/portal/fsis/topics/regulatory-compliance/haccp/small-and-very-small-plant-outreach/guidebook-haccp-plans-generic-haccp-models/haccp-plans-guidebook

Iowa State University Extension: http://www.extension.iastate.edu/foodsafety/HACCP

Food and Drug Administration HACCP:
http://www.fda.gov/food/guidanceregulation/retailfoodprotection/foodcode/ucm054471.htm

Food and Drug Administration Food Safety:
http://www.fda.gov/downloads/Food/GuidanceRegulation/HACCP/UCM077957.pdf

National Food Service Management Institute http://sop.nfsmi.org/HACCPBasedSOPs.php

Association of Food and Drug Officials: http://www.afdo.org/seafoodhaccp/

Food and Drug Administration Food Safety Management Manual:
http://www.fda.gov/downloads/Food/FoodSafety/RetailFoodProtection/ManagingFoodSafetyHACCPPrinciples/Operators/UCM077957.pdf

UC Davis HACCP: http://ucfoodsafety.ucdavis.edu/Food_Processing/HACCP_Information/

University of Nebraska – Lincoln - Meat Products: http://food.unl.edu/web/meatproducts/introduction-to-haccp-training

University of Nebraska – Lincoln - Meat Products HACCP:
http://food.unl.edu/web/meatproducts/haccpdocandlink

University of Nebraska – Lincoln – Meat Products SSOP: http://food.unl.edu/web/meatproducts/haccpsop#ssop

HACCP Plan Validation Checklist

Principle # 1 of HACCP - Hazard Analysis and Flow Chart – Check box if information has been provided, Provide notes on deficiencies on a separate page. The documents written to support Principle #1 of HACCP are some of the most critical and demanding documents in the written plan.

Under Principle #1, the following need to be included in a logical order:

Y N N/A

☐ ☐ ☐ Name of the food product and the special process for which the HACCP plan is being submitted.

☐ ☐ ☐ Is a Special Process application included?

☐ ☐ ☐ Is sufficient data provided to support the petition?

☐ ☐ ☐ Detailed formulation and complete list of ingredients.

☐ ☐ ☐ Packaging and food contact materials, if used. Show that all are approved for food use.

☐ ☐ ☐ Facility layout and information on whether a dedicated workspace is provided to conduct the special process.

☐ ☐ ☐ A detailed flow chart showing the holding and preparation of the food product from receiving raw ingredients through packaging and any subsequent distribution. Flow chart should include each specific step and should include cooking, filling and specific temperatures, times, pH or other hurdles that are designed to control food hazards.

☐ ☐ ☐ Hazard analysis is provided.

☐ ☐ ☐ Description of intended use of product (i.e. Institutional use/Highly Susceptible Population)

☐ ☐ ☐ Copy of labeling – Check for any required warning concerning temperatures or shelf-life and disposal of food.

☐ ☐ ☐ Description of how the shelf-life will be determined.

Principle #2 of HACCP – Establish Critical Control Points

Does the submitted information provide:

☐ ☐ ☐ A description of the pertinent hazards associated with this food and special process?

☐ ☐ ☐ Critical control points on the flow chart that are designed to control hazards associated with the food?

☐ ☐ ☐ A description of how the CCP will control the pertinent hazards and specific reference information source?

Principle #3 of HACCP – Establish Critical Limits

Does the plan:

☐ ☐ ☐ Provide a CL for each CC?

☐ ☐ ☐ Verify that the critical limit is correct based on Food Code?

☐ ☐ ☐ Provide information on how the CL is measured?

☐ ☐ ☐ Provide information that demonstrates that this CL controls the identified hazard(s)?

Principle #4 of HACCP – Establish Monitoring Procedures

Does the plan:

☐ ☐ ☐ List of items to be monitored? The list will vary somewhat depending upon the special process.

☐ ☐ ☐ Provide forms or checklists used for monitoring each item?.

☐ ☐ ☐ State who will monitor the item? When will it be monitored and how often?

☐ ☐ ☐ Provide examples of items that might be monitored: sanitation, pH, a_w, calibration of equipment, temperatures, recipe (each batch), corrective actions, employee training, plan verification and review, HACCP revisions - changes in the recipe or protocols, receiving, food disposal, other.

☐ ☐ ☐ Indicate if monitoring is an OBSERVATION or a MEASUREMENT.

☐ ☐ ☐ Show that the instrument calibrated?

☐ ☐ ☐ Document employee training?

☐ ☐ ☐ Indicate how will records for continuous monitoring be provided? (example: cook chill/drying meat/fermenting).

Principle #5 of HACCP – Establish Corrective Actions

Does the plan:

☐ ☐ ☐ Have specific corrective actions for each CCP when out of compliance?

☐ ☐ ☐ Specify who will be responsible for the corrective action?

☐ ☐ ☐ Specify how each occurrence will be documented?

☐ ☐ ☐ Specify how food disposal will be done when necessary (SOP)?

☐ ☐ ☐ Establish a monitoring plan when deviations are identified?

Principle #6 of HACCP – Establish Record Keeping Procedures

Does the plan:

☐ ☐ ☐ Specify records to be kept and where they are kept?

☐ ☐ ☐ Describe of how long will records be kept?

☐ ☐ ☐ Provide a plan revision schedule?

☐ ☐ ☐ Describe where SOP and SSOP records are?

☐ ☐ ☐ Describe employee training records and monitoring records and where they are located?

Principle #7 of HACCP – Establish Verification Procedures

Does the plan:

☐ ☐ ☐ Establish WHO is responsible for verification?

☐ ☐ ☐ Establish what the procedure for verification and the frequency is?

☐ ☐ ☐ Establish what will be verified?

☐ ☐ ☐ Establish that the verification will confirm that established procedures are followed?

☐ ☐ ☐ Establish the verification will be documented in writing and any actions taken recorded?

☐ ☐ ☐ Establish that the HACCP system is reviewed annually to keep information up-to-date?

☐ ☐ ☐ Establish a policy that the HACCP team will send notification of significant changes in process or HACCP plan to the regulatory authority?

Reviewed by: _____

Agency: _____

Review Dates: _____

See additional pages for notes.

HACCP Field Verification Checklist

Establishment Name:		
Address:		
Person-in-Charge:	Phone:	e-mail:
Date Written Plan Validated:		
Food Product and Process:		
Inspection Type: ☐ HACCP Plan Review ☐ Record Review ☐ On-Site Verification		
Inspector:		

YES	NO	**Validated HACCP Plan Available for Review**
		Comments:

List Critical Control Points (CCPs) and Critical Limits identified by the establishment's HACCP plan.

Food Item or Process **e.g. receiving, cooler storage, dry storage**	**Critical Control Point**	**Critical Limits**	**Comments/** **Problems Noted**

What monitoring records are required by the establishment's HACCP plan?

Type of Record	**Monitoring Frequency and Procedure**	**Record Location** **(Where kept?)**

YES	NO	N/A	**Establishment has Implemented Effective SOP, SSOP, and Pre-Requisite Programs. (Document issues or non-compliances in comments.)**
			Vendor certification programs and buyer specifications
			Approved vendor documentation and product labeled for traceability
			Dedicated work areas for raw and prepared foods
			Food preparation complies with HACCP Plan
			Hand washing and bare hand contact policies
			Equipment specifications/Manufacturer's instructions and operational manual.
			Employee health policy (training and reporting requirements; exclusion and restriction requirements for ill food employees)
			Storage and display temperature 5°C (41°F)**/** 3°C
			Employee training
			Employee hygiene policy (clean clothing; hair restraints; prohibition of eating, smoking and drinking in work areas and of wearing jewelry)
			Thermometer calibration procedures and schedule
			Program to protect product from contamination--biological, chemical and physical
			Cleaning and sanitizing procedures
			Other
Comments			

YES	NO	N/A	**Accurate Description of Product/Process and Intended Uses (Document issues or non-compliances in comments.)**
			Food flow, menu, packaging and formulation are consistent with flow chart and approved HACCP
			Temperature and other critical control points and critical limits are followed per HACCP plan
			ROP products not requiring a variance are packaged as prescribed by the Food Code Section 3.502.12

			Employee demonstrates calibration, temperature and CCP measurement for inspector
			Employee uses forms for recording recipe, calibration, temperature or other measurement during inspection
			An accurate description or list of products to be reduced oxygen packaged is provided in the HACCP plan

Comments:			
YES	NO	N/A	**Hazards (Document issues or non-compliances in comments.)**
			Establishment identifies individual(s) responsible for maintaining system and verification that required records are being completed and properly maintained
			Records for the present day are accurate for the observed situation in the facility
			Employee demonstrates knowledge of CCPs and critical limits for their retail process when asked
			Employee demonstrates understanding of importance of critical limit(s) when asked
			Routine calibrations are performed, and documented on the appropriate form according to the plan
			Monitoring actions are performed according to the HACCP plan
			Are there specific issues with the current monitoring or record keeping regime.
Comments:			

YES	NO	**Shows Knowledge (Document issues or non-compliances in comments.)**
		When critical limits established by the plan are not met, are immediate corrective actions taken and recorded
		Employee knows whom to contact to take corrective actions. Uses corrective action monitoring form
		Person-in-charge shows knowledge of corrective action and proper disposal of food unfit for consumption
		Corrective actions taken reflect the same actions described in the establishment's plan
Comments:		

YES	NO	NA	**Training (Document issues or non-compliances in comments.)**
			The establishment has a training program to support the plan. If deficient, describe in comments
			When training is provided, is it documented and are the records available
			Employee demonstrates calibration and pH, temperature or CCP measurement for inspector
Comments:			

YES	NO	**Do managers and employees demonstrate knowledge of the plan?**
		Comments:

YES	NO	N/A	**Other issues or comments needing attention**
			Comments:

Corrective Action Needed

☐ No (Establishment is in compliance)
☐ Yes (Field Verification form, Sanitation Observation Form or Inspection Report Form attached)
☐ Suspension of HACCP operation
☐ Embargo of food
☐ Voluntary disposal of food
☐ Employee restriction/exclusion
☐ Employee training
☐ Other:_____

Inspector: _____ Date of Inspection: _____

3-502.12 Reduced Oxygen Packaging without a Special Process Approval, Criteria

Except for an establishment that obtains a special process approval as specified under § 3-502.11 of the Missouri Food Code, a food establishment that packages a potentially hazardous food (PHF) using a reduced oxygen packaging (ROP) method shall control the growth and toxin formation of ***Clostridium botulinum*** and the growth of ***Listeria monocytogenes***.

A food establishment that packages a PHF using an ROP method such as vacuum packaging, modified atmosphere packaging, cook/chill packaging or sous vide packaging shall implement a HACCP plan that contains the information specified under ¶¶ 8-201.14 (B) and (D) of the Missouri Food Code and that:

(1) identifies the food to be packaged: _____
(2) requires that vacuum packaged food(s) shall be maintained at 5°C (41°F) or less and meet at least one of the following criteria:
   - ☐ has an A_W of 0.91 or less,
   - ☐ has a pH of 4.6 or less,
   - ☐ is a meat or poultry product cured at a food processing plant regulated by the USDA using substances specified in 9 CFR 424.21, Use of food ingredients and sources of radiation, and is received in an intact package, or
   - ☐ is a food with a high level of competing organisms such as raw meat, raw poultry, or raw vegetables;
(3) describes how the package shall be prominently and conspicuously labeled on the principal display panel in bold type on a contrasting background, with instructions to:
   - ☐ maintain the food at 41ºF (5ºC) or below, and
   - ☐ discard the food if within 30 calendar days of its packaging if it is not served for on-premises consumption, or consumed if served or sold for off-premises consumption;
(4) limits the refrigerated shelf life to no more than 30 calendar days from packaging to consumption, except the time the product is maintained frozen, or the original manufacturer's "sell by" or "use by" date, whichever occurs first;
(5) includes operational procedures that:
   - ☐ prohibit contacting ready-to-eat food with bare hands as specified under ¶ 3-301.11(B) of the Missouri Food Code,
   - ☐ identifies a designated work area and the method by which:
     - physical barriers or methods of separation of raw foods and ready-to-eat foods minimize cross contamination, and
     - access to the processing equipment is limited to responsible trained personnel familiar with the potential hazards of the operation, and
   - ☐ delineates cleaning and sanitization procedures for food-contact surfaces; and
(6) describes the training program that ensures that the individual responsible for the ROP operation understands the:
   - ☐ concepts required for a safe operation,
   - ☐ equipment and facilities, and
   - ☐ procedures specified under the previous section and ¶¶ 8-201.14 (B) and (D) of the Missouri Food Code.
(7) is provided to the regulatory authority prior to implementation

A food establishment may not package fish using an ROP method unless the fish is frozen before, during, and after packaging.

A food establishment that packages PHF using a cook-chill or sous vide process shall:

(1) provide to the regulatory authority prior a HACCP plan that contains the information as specified under ¶¶ 8-201.14 (B) and (D) of the Missouri Food Code;
(2) the HACCP plan shall show how the establishment plans to ensure the food is:
    a. prepared and consumed on the premises, or
    b. prepared and consumed off the premises but within the same business entity with no distribution or sale of the packaged product to another business entity or the consumer,
    c. cooked to heat all parts of the food to a temperature and for a time as specified under ¶¶ 3-401.11 (A), (B), and (C) of the Missouri Food Code,
    d. protected from contamination before and after cooking as specified under Parts 3-3 and 3-4 of the Missouri Food Code,
    e. placed in a package with an oxygen barrier and sealed before cooking, or
    f. placed in a package and sealed immediately after cooking and before reaching a temperature below 57°C (135°F),
    g. cooled to 5°C (41°F) in the sealed package or bag as specified under § 3-501.14 of the Missouri Food Code and:
        □ Cooled to 1°C (34°F) within 48 hours of reaching 5°C (41°F) and held at that temperature until consumed or discarded within 30 days after the date of packaging; or
        □ Held at 5°C (41°F) or less for no more than 7 days, at which time the food must be consumed or discarded; or
        □ Held frozen with no shelf life restriction while frozen until consumed or used
    h. held in a refrigeration unit that is equipped with an electronic system that continuously monitors time and temperature and is visually examined for proper operation at least twice daily, and
    i. if transported off-site to a satellite location of the same business entity, equipped with verifiable electronic monitoring devices to ensure that times and temperatures are monitored during transportation, and
    j. labeled with the product name and the date packaged; and
(3) include a plan to maintain the records required to confirm that cooling and cold holding refrigeration time/temperature parameters are required as part of the HACCP plan and:
    a. Make such records available to the regulatory authority upon request, and
    b. Hold such records for at least 6 months; and
(4) implement written operational procedures and a training program.

A food establishment that packages cheese using a ROP method shall:

(1) limit the cheeses packaged to those that are commercially manufactured in a food processing plant with no ingredients added in the food establishment and that meet the Standards of Identity as specified in 21 CFR 133.150 Hard cheeses, 21 CFR 133.169 Pasteurized process cheese or 21 CFR 133.187 Semisoft cheeses; and
(2) have a HACCP plan that contains the information specified under ¶¶ 8-201.14 (B) and (D) of the Missouri Food Code; and
(3) labels the package on the principal display panel with a “use by” date that does not exceed 30 days from its packaging or the original manufacturer’s “sell by” or “use by” date, whichever occurs first; and

(4) Discards the ROP cheese if it is not sold for off-premises consumption or consumed within 30 calendar days of its packaging.

A HACCP plan is not required when a food establishment uses a ROP method to a PHF that is always:

(1) labeled with the production time and date, and
(2) held at 5°C (41°F) or less during refrigerated storage, and
(3) removed from its package in the food establishment within 48 hours after packaging.

I hereby certify that the above information is correct. I have provided all relevant material to the best of my ability. I understand that submitting this application in no way guarantees that my application will be approved. I understand that if this application is approved it can be rescinded immediately during any official inspection if there is evidence of non-compliance with the approved process.

Applicant Signature: _____Date: _____

Print Name and Position Title: _____

Establishment Name and City: _____

Approved: YES NO (If NO See comment sheet)

DHSS Representative Signature:_____ Date: _____

Print Name and Position Title: _____

RISK CONTROL PLAN

Establishment Name:	Type of Facility:
Physical Address:	County:
Person in Charge:	Title:
Inspector:	Agency:

The "risk control plan" is a voluntary agreement between the operator of the food establishment and the regulatory authority. It is intended to help management regain control over a hazard which was out of control at the time of the inspection. Based on the recent inspection the uncontrolled hazard noted below was identified. A separate risk control plan will be completed for other identified hazards. The inspection report identifies the uncontrolled hazards that may contribute to foodborne illnesses. The risk factors and public health interventions are described in the Food Code.

UNCONTROLLED HAZARD (RISK FACTOR)	CODE REQUIREMENT	DESCRIPTION OF ACTION TO ESTABLISH CONTROL OVER HAZARD	CORRECTIVE ACTION WHEN LIMITS ARE NOT MET

The provisions of this voluntary “risk control plan have been reviewed and are understood

_____ _____

(Operator) (date)

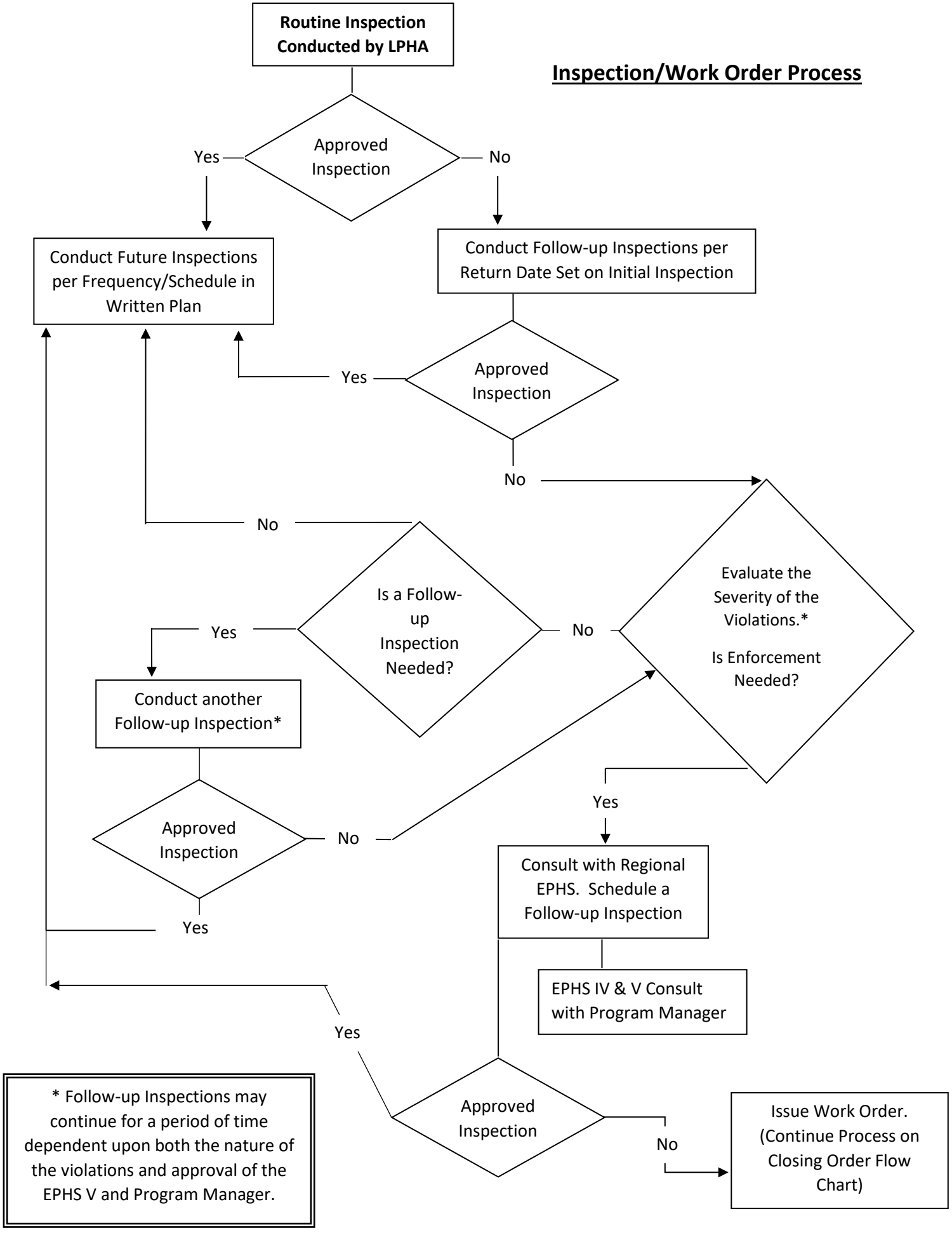
_____ _____

(Inspector) (date)

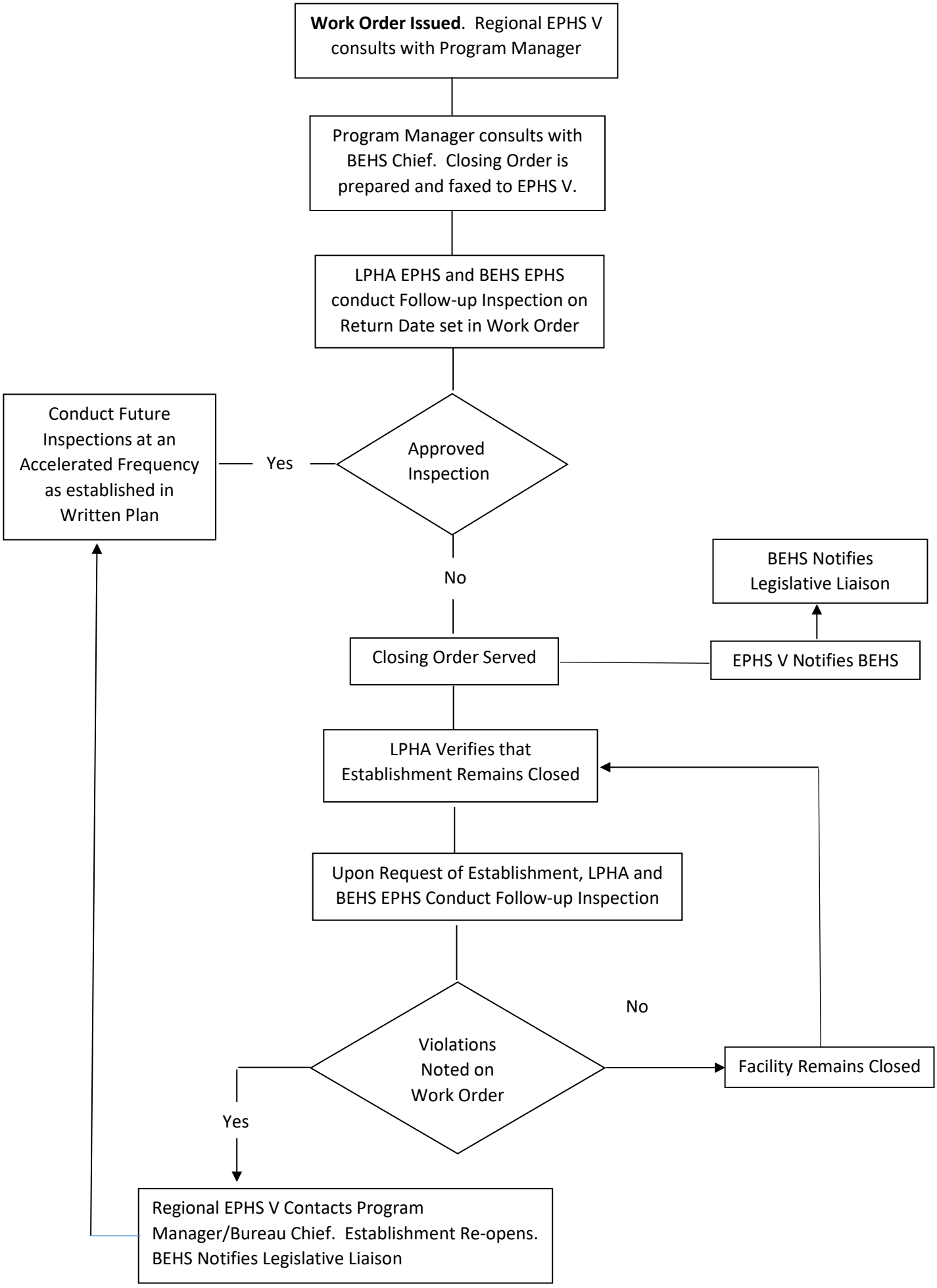
Inspection frequency will increase to assure that the facility implements corrective measures.

☐ Facility representative declines to implement the risk control plan.

Inspection/Work Order Process



* Follow-up Inspections may continue for a period of time dependent upon both the nature of the violations and approval of the EPHS V and Program Manager.


Work Order Issued. Regional EPHS V consults with Program Manager
Program Manager consults with BEHS Chief. Closing Order is prepared and faxed to EPHS V.
LPHA EPHS and BEHS EPHS conduct Follow-up Inspection on Return Date set in Work Order
Approved Inspection
Yes
Conduct Future Inspections at an Accelerated Frequency as established in Written Plan
No
Closing Order Served
EPHS V Notifies BEHS
BEHS Notifies Legislative Liaison
LPHA Verifies that Establishment Remains Closed
Upon Request of Establishment, LPHA and BEHS EPHS Conduct Follow-up Inspection
Violations Noted on Work Order
No
Facility Remains Closed
Yes
Regional EPHS V Contacts Program Manager/Bureau Chief. Establishment Re-opens. BEHS Notifies Legislative Liaison

Risk Based Inspection Assessment

Establishment Name: _____ Owner: _____

Establishment Address: _____

Check all that apply. If a facility meets one or more criteria in any category it must be classified at the higher risk/priority.

High Priority (examples include full service restaurants, nursing homes, and hospitals)

- ☐ Extensive menu. Potentially hazardous and non-potentially hazardous foods held and prepared.
- ☐ Extensive handling of raw ingredients.
- ☐ Complex preparation including cooking, cooling, and reheating;
- ☐ Potentially hazardous foods are prepared (hot or cold) and held hot or cold.
- ☐ Highly susceptible population served (nursing home, hospital, senior center and child care).
- ☐ Conducts a specialized process: smoking, curing, reduced oxygen packaging, etc.
- ☐ >400 patrons/meals served per day.

Medium Priority (examples include grocery stores, schools, and fast food restaurants)

- ☐ Potentially hazardous foods require minimal assembly, and are cooked and served immediately.
- ☐ Potentially hazardous foods may be held for hot or cold holding after preparation or cooking.
- ☐ Complex preparation is limited to only a few potentially hazardous foods that require cooking, cooling, and reheating.
- ☐ Establishments that would otherwise be assessed as High Priority, but have shown through inspection history to have achieved active managerial control of foodborne illness risk factors.
- ☐ New establishments that would be assessed as Low Priority but because of a lack of inspection history demonstrating active managerial control of foodborne illness risk factors.
- ☐ <400 patrons/meals served per day.

Low Priority (examples include convenience stores, hot dog carts, and coffee shops)

- ☐ Pre-packaged, non-potentially hazardous foods are available or served.*
- ☐ Non-potentially hazardous foods prepared and served.
- ☐ Commercially processed potentially hazardous foods prepared for hot holding.
- ☐ No cooling of potentially hazardous foods
- ☐ Establishments that would otherwise be assessed as Medium Priority, but have shown through inspection history to have achieved active managerial control of foodborne illness risk factors.
- ☐ <100 patrons/meals served per day.

Increase Frequency in Priority Assessment when any apply

- ☐ History of a lack of active managerial control of foodborne illness risk factors.
- ☐ Involvement in foodborne illness outbreak.

_____ _____

Environmental Public Health Specialist Date

* If the only one checked, this is not a food establishment if **only** pre-packaged, non-potentially hazardous foods are sold.

Table 1: How Businesses are Regulated for Food Safety

<table>
<tr><th colspan="4">The vendor operates a storefront, warehouse, processing plant, mobile cart, or mobile truck/trailer and provides food for:</th></tr>
<tr><th colspan="2">Consumers (retail)</th><th colspan="2">Businesses (wholesale)</th><th>Consumers AND Businesses</th></tr>
<tr><td colspan="2">Does the vendor produce their own baked good, jam, jelly, dried herb, or herb mix?</td><td colspan="2">Vendors that provide food or food ingredients to other businesses are regulated by state/federal agencies according to the type of product. See below.</td><td rowspan="2">Vendors that provide food products to both consumers and businesses are most likely to be regulated and inspected as both a retailer and wholesaler. See accompanying sections regarding retailers and wholesalers. Note the only wholesaled commodities exempt from inspection are…</td></tr>
<tr><td>Yes
Cottage food is exempt from inspection under state law as long as the following are met:
1. Products are not determined to be potentially hazardous by the MO Dept. of Health.
2. Annual gross sales are $50,000 or less.
3. Products are sold directly to consumers. No internet sales.
4. Products are labeled with the name and address of the operation and a statement that the food is not inspected by the state or local food establishment.</td><td>No
Does the vendor produce other non potentially hazardous foods only, such as fruit butters, sorghum, cracked nuts, dry cookie/cake/bread/soup mixes, honey or other raw agricultural commodity?
Yes
Vendor is exempt from routine inspection as long as the following are met:
1. Local ordinances allow it.
2. Products are sold directly to the consumer. No internet sales.
3. Products meet certain labeling requirements.
4. Products are not identified as being adulterated, misbranded, or associated with foodborne illness.
No
Vendor is a food establishment subject to inspection under the Missouri Food Code. Contact the Local Public Health Agency. Certain exemptions to exclusively private events and nonprofit fundraisers may apply.</td><td>Products containing Meat
USDA and the MO Dept. of Agriculture regulate the wholesaling of poultry products and red meat such as beef and pork. Most products that contain greater than 3% raw meat; 2% or more cooked meat are subject to inspection by the USDA and/or the MO Dept. of Agriculture. We recommend vendors that wholesale these products contact the MO Dept. of Agriculture first for guidance.

U.S. FDA is responsible for all non-specified red meats (bison, rabbits, game animals, zoo animals and all members of the deer family including elk (wapiti) and moose)). FDA is responsible for all non-specified birds including wild turkeys, wild ducks, and wild geese.

U.S. FDA is responsible for most fish/seafood. USDA is responsible for the regulation of catfish.

Exemption: Vendors who process fewer than 1,000 chickens and/or rabbits are generally exempt from inspection.

Caterers are subject to inspection under the Missouri Food Code.</td><td>Products that contain No Meat
Milk: manufacturing grade milk and manufacturing grade milk producers are inspected by the MO State Milk Board.

Eggs: producers may be inspected by various entities depending how the eggs are used. An egg license may be required by the MO Dept. of Agriculture.

Drugs/Dietary Supplements: Drugs and Dietary Supplements are inspected by the U.S. FDA.

Raw Agricultural Commodities: Defined in federal law. Limited regulation by the U.S. FDA and DHSS until they are processed.

Other Commodities: Other food products are inspected by the U.S. FDA and DHSS. The majority of businesses who engage in wholesaling foods in Missouri fall into this category.</td></tr>
<tr><td colspan="5">For event-based delivery of food products, see Table 2.</td></tr>
</table>

Table 2: How Events are Regulated for Food Safety

The Event is a Private Function, Charitable Fundraising Event, Nonprofit Service, or Individual Stand:			
Individual Stands	**Private Functions**	**Charitable Fundraising**	**Nonprofit Service**
In general, individual stands that provide food to the public are considered food establishments and are subject to inspection under the Missouri food code. A roadside kettle corn stand and a corn dog stand at a county fair are two common examples. However, Missouri laws/rules generally exempt the following types of stands from inspection: • A stand that offers only prepackaged foods that are not potentially hazardous. • A produce stand that offers whole, uncut fruits and vegetables. • Cottage food stands. • Stands operated by nonprofit organizations as a fundraising event.	Private events that do not provide food to the public do not meet the definition of a food establishment and are exempt from inspection under the Missouri food code. Key indicators of a private function include: • NOT open to the public. • Normally held to commemorate or mark an occasion. • Examples include but are not limited to church potlucks, wedding receptions, funeral receptions, birthday parties, anniversary parties, company get-togethers, and political gatherings. NOTE: caterers operating from food establishments and providing food to the private function are not exempt sole due to their association with the private function.	Missouri Law (196.056) allows nonprofit organizations to prepare food in uninspected kitchens for distribution to end consumers at charitable fundraising events. As such, charitable fundraising events are generally exempt from inspection. This exemption does not apply in Boone, Jackson, Jefferson, St. Charles, and St. Louis Counties, and St. Louis City and Kansas City.	Nonprofit organizations that regularly offer foodservice to the public in a format similar to for-profit permanent vendors fall within the definition of a food establishment and are subject to routine inspection under the food code. Senior centers, soup kitchens, and food pantries are a few examples. Nonprofit organizations that provide event-style intermittent foodservice may qualify for the charitable fundraising exemption depending on the specifics of a given situation. These operations should be evaluated by local health departments and its partners on a case-by-case basis.

HANDSINK

P No hand sink- 5-203.11
Handwashing signage- 6-301.14
No soap at sink- 6-301.11
No towels or dryer at sink- 6-301.12
No wastebasket for disposable towels- 5-501.16(C)
No hot water (at least 100° F)- 5-202.12(A)
Metered faucet does not provide water for at least 15 seconds- 5-202.12(C)
P Sink not in food preparation area or convenient for employees- 5-204.11
Sink is dirty (includes restroom sinks)- 6-501.18
Sink used for purposes other than hand washing- 5-205.11(B)
Sink is blocked or inaccessible- 5-205.11(A)

HYGIENIC PRACTICES AND PERSONAL CLEANLINESS

P Employees not washing hands- 2-301.14
P Employees not washing hands, properly- 2-301.12
Employees' fingernails long, dirty, polished or artificial- 2-302.11
Employees wearing more jewelry than a plain ring, on arms or hands- 2-303.11
Employees' clothing is dirty- 2-304.11
P Employees eating, drinking or using tobacco- 2-401.11
Hair restrained- 2-402.11

FOOD

P Raw meats above RTE food- 3-302.11
P Dented cans or moldy food- 3-101.11
P Bare hand contact with RTE food- 3-301.11(B)
P Improper use of gloves- 3-304.15
P Incorrect cooking temperature- 3-401.11
Improper thawing- 3-501.13
P Food from an unapproved source or improperly labeled- 3-201.11
P Food item is not in an hermetically sealed container, from an unapproved source- 3-201.12
Condiments are not protected from contamination- 3-306.12
Food uncovered with the risk of cross-contamination- 3-302.11(A)4
P Food that is unsafe, adulterated or contaminated (discarded)- 3-701.11
P Reservice of PHF items- 3-306.14
Food stored on floor or exposed to moisture/contamination- 3-305.11
P PHFs not cooled to 70° within 2 hours or to less than 41° within 4 hours- 3-501.14
Food storage is prohibited in areas such as restrooms, mechanical rooms, under sewer lines, etc. - 3-305.12
Customers who make return trips to a buffet may not use soiled tableware- 3-304.16
In-use serving utensil not stored properly- 3-304.12
P No sneeze guard for food at buffet- 3-306.11
Food stored on a cloth towel or napkin- 3-304.13
Personal foods stored with other foods- 3-307.11

FOOD TEMPERATURES (HOT OR COLD)

P PHFs not properly reheated for holding- 3-403.11
P PHFs not held at 135° or above- 3-501.16(A)(1)
P PHFs not held at 41° or below- 3-501.16(A)(2)
Refrigeration equipment not maintaining temperature- 4-301.11
P Time used for temperature control- 3-501.19

WAREWASHING

Dishes dried with a towel (not air-dried)- 4-901.11
Dishes not completely air-dried before storing- 4-901.11
Improper wash water temperature- 4-501.110
P Improper manual-wash sanitizer temperature- 4-703.11
P Improper mechanical-wash sanitizer temperature- 4-703.11
P Insufficient sanitizer- 4-501.114
Improper use of warewashing sinks- 4-501.16
Dirty warewashing sinks or machine- 4-501.14
Torn curtains or leaky door seals on machines- 4-501.11
No audible or visible alarm for sanitizer on machine- 4-204.117
Insufficient space or lack of drainboards for dirty and clean ware storage- 4-301.13
Three-compartment sink required for manual warewashing- 4-301.12
Incorrect order of wash-rinse-sanitize- 4-603.16(A)
Temperature gauge on dish machine is not functioning- 4-502.11(C)
Warewashing sink used for hand washing- 4-501.16

FCS

P Dirty FCSs- 4-601.11A or 4-602.11
P Chipped, cracked or broken- 4-202.11
P Non-food grade materials used for food storage- 4-101.11
P Vent hood dirty with grease dripping onto food contact surfaces- 4-601.11(A)
Wicker baskets used as a food contact surface- 4-101.17
P Utensils and FCS not sanitized before use- 4-702.11

NFCS

Dirty NFCSs- 4-601.11C or 4-602.13
Sharp irregular surfaces- 4-202.16
Vent hood dirty- 4-601.11(C)
Aluminum foil or contact paper covering shelves- 4-101.19
Wood shelves not sealed or painted- 4-101.19
Torn or broken door seals, hinges etc. (poorly maintained or in disrepair) - 4-501.11

ICE

P Drink ice used for cooling food or other surfaces too: such as a bowl of lemons in drink ice- 3-303.11
Package foods in undrained ice- 3-303.12
Ice bagged on premises is unlabeled - 3-602.11

TEST KIT

No test kit for sanitizer- 4-302.14

LABELING AND DATING

P Ready to eat PHFs not dated- 3-501.17
P Ready to eat PHFs past discard date- 3-501.18
Food packaged on-site not labeled or bulk foods for consumer service unlabelled- 3-602.11(C)
Manufacturer's dating concealed or altered- 3-602.12(B)
Containers storing foods that are not readily and unmistakably recognized not labeled- 3-302.12

LIGHTING/BULBS

Unshielded bulbs- 6-202.11(A)
Insufficient lighting- 6-303.11
Heat lamp not properly shielded- 6-202.11(C)

Equipment, linens, single service not stored properly- 4-903.11

LIVING QUARTERS

Separation of living quarters- 6-202.112
P Prohibition of homes and rooms used for food preparation- 6-202.111

PESTS AND THEIR CONTROL

P Mice feces or roaches seen- 6-501.111 or 3-302.11
Outer openings unprotected- 6-202.15
Pests control devices located in food preparation and unable to contain bug fragments- 6-202.13(B)
P Bait stations are not covered or tamper resistant- 7-206.12

PHYSICAL FACILITIES

Dirty walls, floors or ceilings because of infrequent cleaning- 6-501.12(A)
Dirty walls, floors or ceilings because of construction or improper installation- 6-201.11
Damaged floor tiles, holes in walls, missing ceiling tiles- 6-501.11
Coats, purses and other personal items stored improperly- 6-501.110(B)
Distressed merchandise not held in designated area separate from food, equipment, linens, and single-service items- 6-404.11
Unnecessary items/clutter and litter- 6-501.114
P Unapproved sewage system- 5-403.11 and failing sewage system 5-402.13
P Insufficient water capacity (includes hot water)- 5-103.11
P No air gap present- 5-202.13
P Backflow prevention device not present- 5-203.14
Leaking plumbing or in disrepair- 5-205.15(B)
No mop sink- 5-203.13
P Mop water dumped outside- 5-403.11
Mops not properly stored or dried after use- 6-501.16
Excessive heat, steam or fumes present, no mechanical ventilation- 6-304.11

RESTROOMS

No covered wastebasket in women's restroom- 5-501.17
No self-closing door to restroom- 6-202.14
No toilet paper- 6-302.11
Odors present, no mechanical ventilation - 6-304.11
Toilet dirty in restroom- 6-501.12
P No restroom- 5-203.12

SANITIZER/WIPING CLOTHS

P Equipment/ware not sanitized- 4-702.11
P Improper method used to sanitize- 4-703.11
P Sanitizer too strong- 7-204.11
Wiping cloths not stored in sanitizer- 3-304.14

SINGLE SERVICE

SS articles handled, dispensed or displayed improperly- 4-904.11
Re-use of SS prohibited- 4-502.13
Tube at milk dispenser too long and not cut diagonally- 4-502.13

SUPERVISION

P Consumer Advisory requirement for raw or undercooked foods- 3-603.11
P Failure to designate a Person-in-Charge- 2-101.11
P Unable to demonstrate knowledge of foodborne diseases, HACCP, the Code, etc.- 2-102.11
P PIC fails to have employees report illnesses- 2-201.11(B)
Unauthorized people in food prep areas- 2-103.11(B)
P Operators of new facilities fail to develop written cleaning, illness, cooking and cooling procedures- 8-304.11

THERMOMETERS

Thermometer missing from hot or cold unit- 4-204.112
No thermometer for cook's use- 4-302.12

TRASH

Trashcans are dirty- 5-501.116
Cardboard box used as a trash can, is not cleanable, durable or nonabsorbent- 5-501.13
Dumpster lids are open- 5-501.113
Dumpster lids are missing- 5-501.15
Dumpster not on a non-absorbent surface- 5-501.11
Drain plug not in-place in dumpster- 5-501.114
Unnecessary equipment in enclosure or litter- 5-501.115

TOXICS

P Unlabelled spray bottle- 7-102.11
P Improper storage of toxics- 7-201.11
P Toxic item in establishment that is not needed for cleaning or sanitizing equipment- 7-202.11
P Toxic item is not approved for use in a food service establishment- 7-202.12(A)(2)
P Food stored in a container that once held a toxic item- 7- 203.11
P Improper storage of medicines in a refrigerator- 7-207.12
P Employees medicine stored improperly- 7-207.11
P First aid kit not labeled or improperly located - 7-208.11(B)
P Toxic items for retail sales not separated by partitioning or spacing, or be stored above food, utensils, linens etc. - 7-301.11

SPECIAL PROCESSES

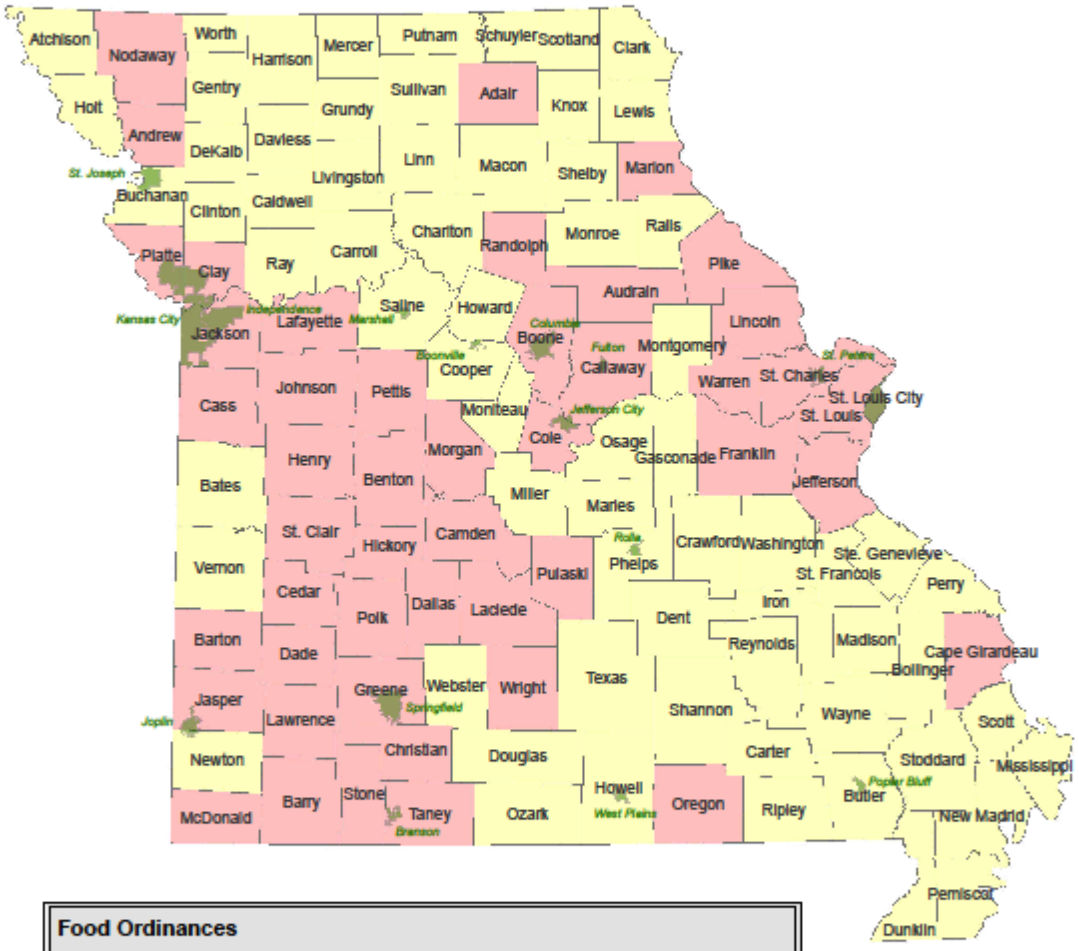
P Special processes being done without approval- 3-502.11
P Reduced Oxygen Packaging (ROP) done without approval- 3-502.12
P Special processes/ROP not in conformance with approved procedures- 8-103.12

APPLICATION

Facility opened without obtaining written approval- 8-301.11
Application for approval to open submitted with less than 30 calendar days before proposed opening- 8-302.11

Missouri Department of Health and Senior Services

Food Service Ordinance Map



Food Ordinances

- Cities with Food Ordinance (city inspectors perform inspection under local authority)
- State Authority (Local Public Health Agency inspectors perform inspections under state authority)
- County Ordinance (Local Public Health Agency inspectors perform inspections under local authority)

Counties with Food Ordinances = 47
Cities with Food Ordinances = 16
Counties without Food Ordinances = 67

Revised 01/05/2014

Missouri Department of Health and Senior Services
P.O. Box 570, Jefferson City, MO 65102-0570 Phone: 573-751-6400 FAX: 573-751-6010
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Randall W. Williams, MD, FACOG
Director

Michael L. Parson
Governor

TO: Local Public Health Agency Administrators
Local Public Health Agency Environmental Public Health Specialists
Bureau of Environmental Health Services Environmental Public Health Specialists

FROM: Eric Hueste, Bureau of Environmental Health Services, Chief

SUBJECT: Technical Bulletin F1-20 Food Code Manual Corrections

DATE: February 14, 2020

It has been brought to our attention that an unexpected deletion has occurred with the most recent printing of the Missouri Food Code Document. This document is only issued on request to local health department personnel. The online version of the document of the Food Safety web page is correct with no deletions.

The missing sections are in Chapter 2 as follows:

2-301.11 Clean Condition. Food employees shall keep their hands and exposed portions of their arms clean P.
2-301.12 Cleaning Procedure.
(A) Except as specified in ¶ (D) of this section, food employees shall clean their hands and exposed portions of their arms, including surrogate prosthetic devices for hands or arms for at least twenty (20) seconds, using a cleaning compound in a handwashing sink that is equipped as specified under § 5-202.12 and Subpart 6-301 P.
(B) Food employees shall use the following cleaning procedure in the order stated to clean their hands and exposed portions of their arms, including surrogate prosthetic devices for hands and arms:

(1) Rinse under clean, running warm water; P
(2) Apply an amount of cleaning compound recommended by the cleaning compound manufacturer; P
(3) Rub together vigorously for at least ten (10) to fifteen (15) seconds P while:
(a) Paying particular attention to removing soil from underneath the fingernails during the cleaning procedure, P and
(b) Creating friction on the surfaces of the hands and arms or surrogate prosthetic devices for hands and arms, fingertips, and areas between the fingers; P
(4) Thoroughly rinse under clean, running warm water; P and
(5) Immediately follow the cleaning procedure with thorough drying using a method as specified under § 6-301.12. P

(C) *To avoid recontaminating their hands or surrogate prosthetic devices, food employees may use disposable paper towels or similar clean barriers when touching surfaces such as manually operated faucet handles on a handwashing sink or the handle of a restroom door.*
(D) *If approved and capable of removing the types of soils encountered in the food operations involved, an automatic handwashing facility may be used by food employees to clean their hands or surrogate prosthetic devices.*

Print and insert this technical bulletin in any copies of the code you have received from the warehouse that may be missing these sections.

For questions or concerns contact Nancy Beyer, Retail Food Program Manager at 573-751-6095 or district staff.

MEMO

TECHNICAL BULLETIN NUMBER RFP21-03

TO: DHSS BEHS and LPHA Inspection Staff

THROUGH: Eric Hueste, Chief, Bureau of Environmental Health Services EH

THROUGH: Dusty Johnson, Assistant Chief, Bureau of Environmental Health Services

FROM: Nancy Beyer, Retail Food Program Manager

SUBJECT: Tetrahydrocannabinol (THC) in Food Products

ISSUE DATE: April 1, 2021

EFFECTIVE DATE: Immediate

CONTACT: Nancy Beyer, Program Manager NB
nancy.beyer@health.mo.gov
(573) 751-6095

The Department of Health and Senior Services' (DHSS) retail food program recently received several inquiries regarding the addition of varieties of tetrahydrocannabinol (THC) into food products. This technical bulletin is intended to share DHSS' current thinking on this subject. Technical Bulletins do not create or confer any rights for or on any person and do not operate to bind DHSS, Local Public Health Agencies, or the public. Alternative approaches may be possible if the approach satisfies the requirements of the applicable statutes and regulations.

According to the U.S. Drug Enforcement Agency, marijuana is a mind-altering (psychoactive) drug, produced by the *Cannabis sativa* plant. Marijuana contains over 480 constituents and THC-9 (delta-9-tetrahydrocannabinol) is believed to be the main ingredient that produces the psychoactive effect.[1] Yet another constituent of marijuana is Delta-8-THC or THC-8 (delta-8- tetrahydrocannabinol). THC-8 is less potent and not as well-known but appears to be gaining recognition. Some individuals believe that THC-8 was exempted from the Controlled Substances Act in the 2018 federal farm bill. This idea is explained in a recent *Rolling Stone* article: https://www.rollingstone.com/culture/culture-features/delta-8-thc-legal-weed- explained-1113859/.

The U.S. Food and Drug Administration's stance on cannabis and cannabis-derived products is posted online at https://www.fda.gov/news-events/public-health-focus/fda-regulation- cannabis-and-cannabis-derived-products-including-cannabidiol-cbd. FDA's stance is summarized in the response reproduced below from Question 2 of their Q and A section:

> *The 2018 Farm Bill, however, explicitly preserved FDA's authority to regulate products containing cannabis or cannabis-derived compounds under the FD&C Act and section 351 of the Public Health Service Act (PHS Act). FDA treats products containing cannabis or cannabis-derived compounds as it does any other FDA-regulated products — meaning they're subject to the same authorities and requirements as FDA-regulated products containing any other substance. This is true regardless of whether the cannabis or cannabis-derived compounds are classified as hemp under the 2018 Farm Bill.*

In Question 10, FDA goes on to state that that it is not legal under federal law to add THC to a food product.

The ongoing conflicts with federal and state regulations as well as enthusiasm from cannabis advocates has created a difficult and confusing regulatory environment. However, the following Missouri laws and rules do not support the addition of THC into food:

- 19 CSR 20-1.025 3-101.11 *Food shall be safe, unadulterated, and, as specified under 3-601.12, honestly presented*. Food additives must typically be recognized by U.S. FDA as safe and preapproved to be included in food. This is not the case with THC.
- 19 CSR 20-1.025 3-201.11(A) *Food shall be obtained from inspected and approved sources that comply with law*. There are no inspected or approved sources of THC compounds in Missouri, except those licensed through the DHSS Section for Medical Marijuana Regulation (Missouri legalized medical marijuana through an initiative petition in November 2018).
- 19 CSR 20-1.025 3.202.12 *Food may not contain unapproved food additives or additives that exceed amounts specified in 21 CFR 170-180 relating to food additives…* THC is not an FDA-approved food additive.
- 196.010 RSMo defines *food*, *drug*, and *new drug* separately. They are consistently addressed separately throughout Chapter 196 RSMo. This is consistent with the federal FD&C Act, as state law is based on early versions of the federal law. In other words, an article is usually regarded as a *food* or a *drug*, but not both.

Food products with THC-9 are regulated as drug products under state medical marijuana laws. There are no permissive state laws for adding other forms of THC including THC-8 to foods. Food companies that wish to add THC ingredients to their foods are subject to the relevant laws and regulations that govern all food products, including those that relate to the food additive and GRAS approval processes. Those wanting to pursue approval as a food ingredient should be referred to FDA and its website for more information about these approval processes.

[1] https://www.dea.gov/taxonomy/term/336

Missouri Department of Health and Senior Services
P.O. Box 570, Jefferson City, MO 65102-0570 Phone: 573-751-6400 FAX: 573-751-6010
RELAY MISSOURI for Hearing and Speech Impaired 1-800-735-2966 VOICE 1-800-735-2466

Randall W. Williams, MD, FACOG
Director

Eric R. Greitens
Governor

TO: Local Public Health Agency Administrators
Local Public Health Agency Environmental Public Health Specialists
Bureau of Environmental Health Services Environmental Public Health Specialists

FROM: Eric Hueste, Bureau of Environmental Health Services, Chief

SUBJECT: Technical Bulletin F1-17 Microgreens

DATE: May 30, 2017

In response to recent requests for guidance on *microgreens*, the following information is provided.

Microgreens are a unique challenge. Some of the questions that inspectors have asked include: are they produce (a raw agricultural product), are they 'sprouts', and are they time-temperature control for food safety (TCS)/potentially hazardous food (PHF).

Microgreens are edible young greens and grains that are produced from various kinds of vegetable, herb, or other plant seeds. They range in size from 1" to 3" including the stem and leaves. The seeds are not consumed like they would be if it were a sprout. A *microgreen* has a single central stem and a set of leaves, which will be cut just above the soil line during harvesting. The average crop-time for most *microgreens* is 10–14 days from planting to harvest. *Microgreens* are used both as a visual and flavor component or ingredient. Smaller than "baby greens," and harvested later than "sprouts," *microgreens* can provide a variety of leaf flavors, such as sweet and spicy. They are also known for their various colors and textures

In the food code sprouting seeds or beans requires approval in 3-502.11 Special Processes. So if *microgreens* are 'sprouts' a special process or variance would be needed according to the retail food code. However, a change to 3-502.11in the model food code was proposed at the Conference for Food Protection in Boise, ID in 2016, which would more clearly define 'sprouts': "(H) Sprouting seeds or beans for the purpose of human consumption of both the seed and the sprout, as in raw seed sprouts." The proposed language would clearly demonstrate that *microgreens* are not sprouts and a special process approval wouldn't be required. This proposed change to the model food code is currently under review by the FDA.

If *microgreens* aren't sprouts the production and processing of the *microgreens* might make them subject to the Standards for the Growing, Harvesting, Packing, and Holding of Produce for Human Consumption in 21 CFR Parts 11, 16, and 112; which were adopted under the Food Safety Modernization Act. The federal register 21 CFR Parts 11, 16, and 112 states: "Because *microgreens* are not sprouts, they are not subject to the requirements in subpart M. However, *microgreens* are considered "covered produce" for the purposes of this rule and, unless exempt or excluded under the provision in subpart A, *microgreens* and microgreen farms are subject to all other subparts of part 112." A copy of the Standards for the Growing, Harvesting, Packing, and Holding of Produce for Human Consumption can be found at: https://www.gpo.gov/fdsys/pkg/FR-2015-11-27/pdf/2015-28159.pdf.

MISSOURI DEPARTMENT OF HEALTH AND SENIOR SERVICES
LODGING PROGRAM

VIOLATION NOTICE

NAME OF OWNER(S) or GENERAL MANAGER OF LODGING ESTABLISHMENT

Jay Grassley

NAME OF LODGING ESTABLISHMENT	COUNTY
Backwoods Lodge	Cole

LODGING ESTABLISHMENT ADDRESS (STREET, CITY, STATE, ZIP CODE)

1234 Dusty Trail, Trace, MO 65102

As provided in Sections 315.005-315.065 RSMo, an act relating to the regulation of lodging establishments, and 19 CSR 20-3.050, "Sanitation and Safety Standards for Lodging Establishments", an inspection or investigation was conducted for the facility noted on this form.

As a result, the lodging establishment was determined to be in violation of the above law and rule due to the following conditions:

- ☐ Establishment is operating without a current license
- ☒ Establishment failed to correct violations noted on annual inspection and/or inspection(s) follow-up dated: __1/5/2015_____
- ☐ Establishment failed to correct violations noted on complaint investigation(s) dated: _____
- ☐ Establishment failed to correct violations noted on compliance plan inspection dated: _____

☐ Other (describe):

Aggrieved persons may request a facility review conference before the Department of Health and Senior Services by filing a written request within ten (10) days of receipt of this notice. Requests are to be directed to: Missouri Department of Health and Senior Services, Lodging Program, P.O. Box 570, Jefferson City, Missouri 65102-0570.

REMEDIAL ACTION(S) INDICATED

Violations noted on follow-up inspection dated 1/5/15 remain uncorrected. Facility must address the violations and contact the inspector when violations are fixed:

1. Emergency light and exit signs on the second floor were not working at the time of the inspection. Emergency lights must light when tested and exit signs are to be illuminated at all times.
2. Boiler in mechanical room is rated for 300,000 Btu heat input. This unit does not have a current inspection from the Division of Fire Safety. The facility should contact the inspector of record on the expired license and schedule an inspection.

If at any time it is determined that a lodging establishment is not in compliance with sections 315.005 to 315.065, the department director shall notify the owner of the lodging establishment of such alterations or changes as may be deemed necessary to be in compliance therewith. Should the violations not be addressed in the timeframe(s) allowed the department director is authorized to revoke or not renew the license. Under 315.045 RSMo, any person establishing, conducting, managing, or operating any lodging establishment without a license is guilty of a class B misdemeanor.

COMPLIANCE SCHEDULE

The facility is currently licensed until 9/30/2015. In order to obtain a license for the next year these violations must be addressed prior to September 2015. Owners and management are responsible for contacting the inspector to schedule a follow-up inspection. The violations must be corrected by May 1, 2015. Without an approved inspection completed prior to the end of September, the facility will not be able to obtain a license.

If the violations are not corrected, and the facility doesn't obtain a license to operate, the department will seek legal action through the county prosecutor.

RECEIVED BY (SIGNATURE)			DATE
IN LIEU OF SIGNATURE, SENT BY REGISTERED MAIL (ARTICLE NUMBER)			RECEIVED DATE
SIGNATURE OF REGULATORY AUTHORITY REPRESENTATIVE	TITLE	EPHS NO.	DATE
AGENCY NAME			TELEPHONE NO.

GUEST ROOMS:
Clean (C1 or C2)
Condition walls, floors, fixtures, furniture, AC, etc (C1)
Condition mattresses and box springs (C4)
Condition bed linen and towels (C3)
Proper cleaning of whirlpool/jacuzzi tub (C2)
Smoke detectors, hardwired and functioning (E5)
CO detector, hardwired and functioning, if required (D3)
Coffee maker/cups out of bathroom (C10)
Ice bucket out of bathroom (C10)
Ice bucket liner properly cleaned, sanitized (C)

Single-service cups prepackaged (C10)
Evacuation route posted (E6)
GFCI installed in bathroom, when applicable (D4)
Self-closing, 20 minute fire rated door (E4)
Single-service cups/glasses pre-packaged (C10)
Empty light sockets (D2)
Portable space heaters (H1)
Unvented fireplaces (H1)
Extension cords <6ft, no more than 2 per room (D2 or D4)
Mechanical ventilation for restrooms, new facilities (G2)
Receptacles, wiring (D4)
Over- rated bulb in fixture (D2)
Evidence of rodents or insects (C5)
Electrical switches, receptacles, boxes covered (D4)

HOUSE KEEPING STOREROOMS:
Clean (C1 or C2)
Condition walls, floors, fixtures (C1)
Evidence of rodents or insects (C5)
Smoke detectors, hardwired and functioning (E5)
Linen storage (C2 or C3)
Food/ single-service items storage (C10)
Electrical panels
Labeled, good repair, no openings (D7)
Unobstructed (D7)
Chemicals, used, stored and labeled (D1)

Mechanical Rooms:
Smoke detectors, hardwired and functioning (E5)
CO detectors, hardwired and functioning with gas burning appliances (D3)
Combustion/make-up air (H4)
Proper storage of combustible/toxins (D1)
Fire extinguisher, 5 pound, 2A10BC (E2)
Fire extinguisher charged and inspected (E2)
Exposed wiring (D2 or D4)
Condition walls, floors (C1)
Electrical switches, receptacles, boxes covered (D4)

Water Heater, Boilers, Storage Tanks
Unit psi adequate with relief valve (G4)
Unit BTU adequate with relief valve (G4)
Relief valve discharge pipe (bends, diameter) (G4)
Leaks(G1)
> 200,000 BTU or 120 Gallons, MDPS inspected (G1)
Fire-resistant room/sprinkler head (H2)
Electrical panels
Labeled, good repair, no openings (D7)
Unobstructed (D7)
Extension cords <6ft, no more than 2 per room (D2 or D4)
Gas shut-off to appliances (H5)

LAUNDRY ROOMS:
Clean (C1 or C2)
Evidence of rodents or insects (C5)
CO detector with gas dryer (D3)
Smoke detector (E5)
Dryer lint screens clean (D2)
Linen storage (C2 or C3)
Electrical panels
Labeled, good repair, no openings (D7)
Unobstructed (D7)
Fire extinguisher, 5 pound, 2A10BC (E2)
Fire extinguisher charged and inspected (E2)
Air gap on waste lines of washing machines (G5)

Laundry chute door, self-closing (E4)
Laundry chute door, 1- hour fire rating (E4)
Laundry room door, 1- hour fire rating, self-closing (E4)
Combustion/make-up air (H4)
Condition walls, floors (C1)
Electrical switches, receptacles, boxes covered (D4)

Common Areas:
Hallways

Clean (C1 or C2)
Emergency lights (D6)
Exit signs (D5)
Fire extinguisher, 5 pound, 2A10BC (E2)
Fire extinguisher charged and inspected (E2)
Air break on ice machine drains (G5)
Evidence of rodents or pests (C5)
Smoke detector (E5)
Condition walls, floors (C1)
Electrical switches, receptacles, boxes covered (D4)
Exterior/premises maintained (C8)
Garbage, refuse maintained (C7)
Threaded faucets, backflow prevention (G5)

COMMON AREAS, CONT:

Guest laundry room
- Clean (C2)
- Fire extinguisher (E2)
- Smoke detector (E5)
- GFCI (D4)

Egress (Primary)
- Emergency lights (D6)
- Exit signs (D5)
- Stairways in good repair (E9)
- No storage on stairs (E7)
- Stairs, ramps, walkways, free of ice and snow (E8)
- Handrail, 34-38 inches (E9)
- Guards/balusters spacing, 4 inch sphere (E9)
- Balcony rail, 42 inches (E9)
- Ramps, 44 inches wide (E9)
- Textiles, hangings, mirrors (E1)

Egress (Secondary)
- Window or door, > 20 inches wide & > 24 inches in height and 5.7 ft² in area; not more than 44 inches above the floor and w/in 20 feet of grade or opens onto a balcony accessible to Fire Dept. (E8)

Doors in egress unlocked(E8)

Food Service
- Source, condition (C10)
- Storage, service, temperature (C10)
- Proper place to clean food equipment, 3-vat sink (C11)
- Hand washing facilities (C12)
- Hand washing, bare hand contact (C12)

Pools:

Enclosed and self-closing (F1)
Depth markers on deck and sides of pool (F2)
Safety rope with floats & boundary line (F2)
Spa no more than 4ft deep (F2)
Reachable shepherd's crook (F4)
Throwable device, with rope (F4)
Water Chemistry
- Free Chlorine 1.0 ppm (F5)
- Bromine at 3-5 ppm (F5)
- pH 7.2-7.8 (F5)
- Clarity (F5)
- Spa temperature <104° F (F5)
- Continuous disinfections (F5)

Step/ladder provided at deep, shallow end (F6)
Drain grates in good repair, prevent entrapment (F6)
Pool equipment in good repair (F6)
Surface skimmers clean, in good repair (F6)
Slides and diving boards in good repair (F6)
Pool deck free of tripping hazards (F3)
Ventilation, pool and chemical storage to the outside (F7)
Lights maintained (F11)
GFCIs < 10 ft. from pool (F8)
Signage (F9)

FYI:
**TNP relief valve BTU must be < water heater BTU

**TNP relief valve PSI must be > than or equal to water heater PSI

First aid kit (F10)
Test kit for free chlorine and pH (F9)
Daily operating records (F9)

Water:

Chlorinator operating properly (A3)
Non-community water supplies, DNR permit (A1)
Bacti test satisfactory for private and non-community sources (A2)

Wastewater:

Operating properly (B4)
NPDES permit if installed after 2/2002 (B4)

Required Annual or Third Party Certification:

Fire extinguisher
Fire alarm system
Sprinkler system
Boilers, water heaters, storage tanks
LP gas system leak test
Backflow test, complies with local codes

New Establishments:

Smoke detectors hardwired
Fire alarm system installed(See section (E3) in the code book for exceptions and additional requirements)
Sprinkler system installed (See section (E3) in the code book for exceptions and additional requirements)
Swimming Pool Certified
Building Certified to National Standards or Occupancy Permit

Number of Guest Rooms to Inspect

Total Number of Guest Rooms	Percentage/Number of Guest Rooms to Inspect
5-20	50% of the total number of guest rooms
21-200	10 guest rooms or 15 % of the total number of guest rooms, whichever is greatest
>200	Minimum of 30 guest rooms, more if deemed necessary during inspection

Conversion Rates:
3.41 Kilowatts to 1 BTU

Print Form

Submit by Email

MISSOURI DEPARTMENT OF HEALTH AND SENIOR SERVICES
BUREAU OF ENVIRONMENTAL HEALTH SERVICES

CHANGE ORDER

TO: BUREAU OF ENVIRONMENTAL HEALTH SERVICES		DATE:
FROM:	COUNTY CODE:	TELEPHONE NUMBER

TYPE OF ESTABLISHMENT (PLEASE CHECK ONE)

- ☑ Lodging Establishment
- ☐ Frozen Desert Establishment
- ☐ Warehouse
- ☐ Food Processor
- ☐ Food Establishment (i.e., restaurant, school, grocery store)

STATUS CHANGE TO ESTABLISHMENT (PLEASE CHECK ALL THAT APPLY)

- ☐ Change in name
- ☐ Change in ownership
- ☐ Change in address
- ☐ Change in telephone number
- ☐ Change in number of units
- ☐ Change in months of operation
- ☐ New Establishment
- ☐ Close Establishment
- ☐ Reactivate Establishment

CHANGE IN NAME

PREVIOUS NAME	NEW NAME

CHANGE IN OWNERSHIP

PREVIOUS OWNER	NEW OWNER

CHANGE IN ADDRESS

PREVIOUS NUMBER AND STREET	NEW NUMBER AND STREET
PREVIOUS CITY AND STATE	NEW CITY AND STATE
PREVIOUS ZIP CODE	NEW ZIP CODE

CHANGE IN TELEPHONE NUMBER

PREVIOUS TELEPHONE NUMBER	NEW TELEPHONE NUMBER

CHANGE IN NUMBER OF UNITS

PREVIOUS NUMBER OF UNITS	NEW NUMBER OF UNITS
☐☐☐☐☐	☐☐☐☐☐

CHANGE IN MONTHS OF OPERATION

PREVIOUS MONTHS OF OPERATION	NEW MONTHS OF OPERATION
THROUGH	THROUGH

OWNER/OWNER'S AGENT SIGNATURE	DATE
×	

FOR CENTRAL OFFICE STAFF ONLY

ESTABLISHMENT NUMBER	CHANGED BY (INITIALS)	DATE
☐☐☐ - ☐☐☐☐☐	×	

MO 580-0463 (2-10) DISTRIBUTION: ONE COPY - COUNTY HEALTH OFFICE ONE COPY - CENTRAL OFFICE DH-50

Missouri Department of Health and Senior Services
P.O. Box 570, Jefferson City, MO 65102-0570 Phone: 573-751-6400 FAX: 573-751-6010
RELAY MISSOURI for Hearing and Speech Impaired 1-800-735-2966 VOICE 1-800-735-2466

Randall W. Williams, MD, FACOG
Director

Eric R. Greitens
Governor

TO: Local Public Health Agency Administrators
Local Public Health Agency Environmental Public Health Specialists
Bureau of Environmental Health Services Environmental Public Health Specialists

FROM: Eric Hueste, Bureau of Environmental Health Services, Chief

SUBJECT: Technical Bulletin L1-17 *Compliance with Local Ordinances*, (form E9.03)

DATE: April 14, 2017

Differences in how agencies were documenting compliance with the allowance in 315.019 RSMo, prompted the Bureau of Environmental Health Services to develop a form to standardize what is submitted.

Section 315.019 RSMo, allows a local city or county ordinance to be used in place of the lodging rule; when that ordinance is for one of the following areas:

- Fire safety,
- Installation and maintenance of electrical wiring,
- Venting of fuel-burning appliances,
- Installation and maintenance of plumbing, and
- Installation and maintenance of swimming pools and spas.

Since the lodging statute has a provision that would allow the facility to meet the local code and not the state's code, a method that could be used uniformly statewide was needed. For a local city or county ordinance to exempt a lodging facility from the lodging rule, the agency must have jurisdiction, conduct inspections, and sign the *Compliance with Local Ordinances*, (form E9.03).

The *Compliance with Local Ordinances*, (form E9.03) form will be completed annually during the lodging inspection. It will be provided to the owner or manager. Inspectors need to be familiar with what local ordinances may apply to lodging establishments and complete the E9.03 form accordingly. It is the owner or manager of the lodging establishment who is responsible for pursuing the allowance; not the inspector. When conducting the inspection the inspector should document all observed violations. When it is necessary to complete the E9.03 form, only those violations in the five categories listed previously will need to be recorded. The E9.03 form would need to be completed for violations noted in these sections of the inspection form: D4 and D7; all of E, F, and G; and H1 and H4. In order for the local code to be used in lieu of the lodging rule, the local city or county agency, with jurisdiction for the areas noted in 315.019 RSMo, must sign the E9.03 form. If that agency doesn't sign the form, the lodging establishment must address the violations and comply with the lodging rule. An "approved" lodging inspection cannot be issued until all violations are corrected.

When a local city or county exempts an establishment from a portion of the lodging rule, the inspector should note this on the comment page of the inspection form. For example: *"City fire department signed E9.03 form on 12/30/16, stating that smoke detectors do not need to be hard-wired with battery back-up."* The original signed E9.03 form should be retained in the lodging establishment file. For questions or concerns please contact Ellen Dettman, the Retail Food and Program Manager at 573-751-6095.

Can Classifications

1. FLAT – A can with both ends concave; the can remains in this condition even when the can is brought down sharply on its end on a solid flat surface.

2. FLIPPER – A can that normally appears flat, but when brought down sharply on its end on a flat surface; one end flips out. When pressure is applied to this end, it flips in again and can appear flat.

3. SPRINGER – A can with one end permanently bulged. When sufficient pressure is applied to this end, it will flip in, but the other end will flip out.

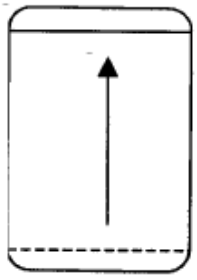
4. SOFT SWELL – A can bulged at both ends but not so tightly, the ends cannot be pushed in somewhat with thumb pressure.

5. HARD SWELL – A can bulged so tightly at both ends that no indentation can be made with thumb pressure. A hard swell will generally "buckle" before the can bursts. Bursting usually occurs at the double seam over the side lap or in the middle of the seam.

CAN CLASSIFICATIONS

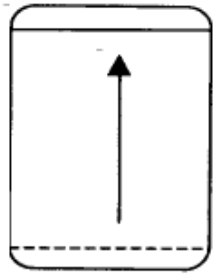
NORMAL CANS

1. ANALYZE ALL FLIPPERS, SPRINGERS AND SWELLS IMMEDIATELY.
2. INCUBATE NORMAL CANS FOURTEEN (14) DAYS AT 35 C.
    a. ANALYZE CANS CHANGED FROM NORMAL TO ABNORMAL IMMEDIATELY.
    b. ANALYZE A REPRESENTATIVE NUMBER OF NORMAL CANS AFTER FOURTEEN (14) DAYS INCUBATION.

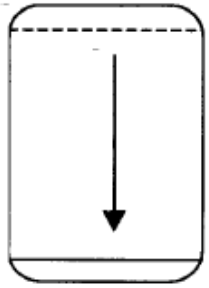


*FLIPPER

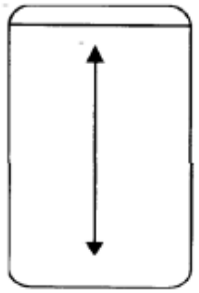
FLIPPER
PRESSED BY FINGER TO NORMAL APPEARANCE



SPRINGER



SPRINGER
PRESSED BY FINGER CAUSES OPPOSITE END TO BULGE



SWELL
CAN NOT BE PRESSED FLAT

*NOTE: It is sometimes necessary to strike a normal-appearing can on its end against a solid, flat surface to detect a "flipper".

a. SOFT SWELL YIELDS SLIGHTLY TO PRESSURE
b. HARD SWELL DOES NOT YIELD TO FINGER PRESSURE

Warren Landry, Microbiologist, Dallas District Office, U.S. Food & Drug Admin., Dallas, TX

MISSOURI DEPARTMENT OF HEALTH AND SENIOR SERVICES
BUREAU OF ENVIRONMENTAL HEALTH SERVICES
POWER OUTAGE NOTICE

In the event of an extended power outage, the safe storage of potentially hazardous food products requiring refrigeration becomes a serious public health concern. Potentially hazardous foods are primarily those containing meat, fish, poultry, and/or dairy, and cut fruits and vegetables. Refrigeration and freezer units without power can only maintain a safe product temperature for a short period of time.

Establishment Information

Establishment Name	Contact/Person in Charge
Address	County
City/Zip	Telephone Number

Event Information

Date of Power Outage	Date Power Restored
Time of Power Outage _____ AM ☐ PM ☐	Time Power Restored _____ AM ☐ PM ☐
Power Outage Due to Utility Work ☐ Tornado ☐ Flood ☐ Storm ☐ Other ☐	

As the owner or operator of a food establishment, you are responsible for maintaining your products in a wholesome condition.

When electricity has not been restored within X hours to your establishment and you are unable to make alternative arrangements for the proper storage of your refrigerated, potentially hazardous food products, the following guidelines are to be adhered to:

- All refrigerated, non shelf-stable, potentially hazardous food products must be maintained at a temperature of 41ºF or below and be protected from physical damage including but not limited to water, chemicals, and unauthorized personnel.
- If the temperature of any non shelf-stable, potentially hazardous food product exceeds 45 ºF for a period exceeding two (2) hours, **the product must be discarded**.
- If the temperature of any non shelf-stable, potentially hazardous food product exceeds 45 ºF and you cannot determine how long the product has been out of temperature, **the product must be discarded**.
- Frozen foods that become thawed, but remain below 45 ºF pose quality concerns, not public health concerns. Decisions regarding the use and/or refreezing of these products rest with the owner. However, if the temperature of the thawed product exceeds 45 ºF for a period exceeding two (2) hours, **the product must be discarded**.
- Discarded food products should be denatured by pouring liquid bleach, ammonia, soap, or similar products over the discarded food products in the dumpster and/or trash cans. Notify your waste hauler to arrange for special pick-up, if necessary.

Comments/Action Taken

You, as the Contact/Person in Charge, are responsible for ensuring that temperature-abused or otherwise adulterated food products are not sold, traded, or given to consumers as their consumption can lead to illness or injury. Adulterated food products are those considered impure, unsafe, or unwholesome and may be injurious when consumed.

Contact/Person in Charge Name (Signature)	Title	Date
Administrative Authority Name (Print)	Administrative Authority Name (Signature)	
Agency Name	Telephone Number	
Agency Address	City	Zip
Date	Time	

Onsite Wastewater Treatment System Application Process Form

Application Number: _____ Date Application Sent: _____

Owner's Name: _____ Daytime Phone: _____

Mailing Address: _____ Evening Phone: _____

_____ County: _____

Property Address: _____

_____

Date Received: _____

Date Reviewed: _____ Reviewing EPHS: _____

Installer or owner contact – Date: _____

Comments:_____

_____

_____

Preliminary site inspection – Date: _____

Comments:_____

_____

_____

Permit issued – Date: _____

_____

_____

Final Inspection – Date: _____

_____

_____

Certification Form sent – Date: _____Certification Form received sent – Date: _____

(Keep a copy of form in file)

Certification of System Without Onsite Inspection accepted – Date: _____

Installation approval – Date: _____

Attach lined sheet(s) for additional notes including contact log.

HOLDING TANK AGREEMENT
for the property located at:

_____

Site address, plat and lot number(s), or other legal location

Approval for the installation and use of a holding tank is based on the conditions below:

1. Installation and use of a holding tank must comply with all requirements of 19 CSR 20-3.060 subsection (6) (F).
2. A contract with a pumper will be kept in force, which specifies pumping and disposal of the holding tank waste at a DNR permitted wastewater treatment facility. The term of the pumping contract must be for a minimum of one year and a copy must be submitted to the administrative authority.
3. Discharge of waste from a holding tank, other than by an approved sewage tank pumper will result in rescission of this agreement and possible violation notice.
4. If and when a central wastewater collection and treatment facility becomes available, the property owner will connect all sewer facilities on this property to it.
5. The property owner will notify the administrative authority of any change in occupancy (such as full time versus weekend/vacation), or in the water supply.
6. The administrative authority is granted access to the property until the use of the holding tank is replaced by another approved system. Access is for the purpose of inspection or monitoring of the system as necessary, or for a complaint investigation.
7. This agreement is not transferable. The property owner will notify the administrative authority of any change in property ownership.
8. _____

   _____

This agreement expires _____ (Enter date). The term of this agreement is the shorter of:

1) The expected time period for site modifications to make the site provisionally suitable for construction of an onsite wastewater treatment system or the projected time period for availability of a central sewage collection and treatment system; or
2) The length of the pumping and disposal contract. This agreement may be renewed, within 30 days after the expiration of the previous agreement, after submitting a copy of the renewed pumping contract and complying with requirements in affect at that time.

I, the undersigned, agree to the above conditions.

Property owner (PRINT)	Property owner (PRINT)
Signature Date	Signature Date
EPHS name (PRINT)	Signature Date

Certification of System without Onsite Inspection Cover Letter

August 17, 2021

Type Installer's Name
Type Company Name
Type mailing address
Type City, State Zip

Dear Type Mr. or Ms. Last Name:

Thank you for notifying the Insert Administrative Authority of the completion date for the onsite wastewater treatment system (OWTS) listed below. An inspector will not be available to conduct a final inspection of the system.

Time/Date of Notification:	**Type time and date**
System Completion Date:	**Type date**
Construction Site:	**Type site address, City**
Application #:	**Type App. #**
Permit #:	**Permit #**

Enclosed you will find a Certification of System without Onsite Inspection form for the OWTS. The completed form must be received by the Administrative Authority before the installed OWTS can be approved.

Please complete the form and return within ten (10) business days of the date of this letter. Mail or fax completed form to:

Type Administrative Authority
ATTN: Type EPHS name
Type address
Type City, State Zip
Fax: Type fax number

If you have any questions, please do not hesitate to contact me at Insert phone #. Thank you for your prompt attention to this matter.

Sincerely,

Type EPHS name, EPHS
Type Administrative Authority

Enclosure

Cc: Type property owner's name, Owner

CERTIFICATION OF SYSTEM WITHOUT ONSITE INSPECTION

Sections 701.043(3) RSMo directs the administrative authority to inspect, in the aggregate, up to sixty percent of onsite wastewater treatment systems which have been constructed, modified or repaired by contractors registered under Sections 701.053 to 701.055 for which notice of construction, repair or modification is given under Sections 701.046 to 701.048 and Section 701.050 RSMo.

Section 701.043 (4) RSMo allows the administrative authority to accept certification without onsite inspection under Sections 701.046 to 701.048 and Section 701.050, from a registered contractor not required to provide a performance bond under Section 701.052, that a system is properly designed, installed, modified or repaired pursuant to the state standard.

I, _____, a registered installer not required to provide a performance bond under Section 701.052, registration # _____, do certify that I have properly designed, installed, modified and/or repaired the onsite wastewater treatment system represented by application #_____Type App. #_____, and permit #_____Permit #_____ pursuant to and in accordance with the state standard.

County_____

Date _____ Signature_____

The Missouri Department of Health and Senior Services or its contractor, being restricted by statute Section 701.043(3) to inspect, in the aggregate, not more than sixty percent of systems installed by registered contractors, do hereby accept this document as attesting that said system is properly installed in accordance with the state standard.

Date _____

Print Name of Administrative Authority

Representative_____

Signature of Administrative Authority

Representative_____

SECOND NOTICE

August 17, 2021

Type Installer's Name
Type Company Name
Type mailing address
Type City, State Zip

Dear Type Mr. or Ms. Last Name:

As of the date of this letter, the Insert Administrative Authority has not received the Certification without On-site Inspection form sent to you on **Insert date,** regarding the onsite wastewater treatment system (OWTS) listed below. A copy of the form is enclosed.

Time/Date of Notification:	**Type time and date**
System Completion Date:	**Type date**
Construction Site:	**Type site address, City**
Application #:	**Type App. #**
Permit #:	**Permit #**

Please note: 19 CSR 20-3.080(9)(B)10, Standards of Practice, require a registered installer to submit a complete and accurate certification without on-site inspection form when requested. This letter will serve as official notice that continued delay in submitting the enclosed form is in violation of the above referenced section of rule and action may be taken against an installer's registration, including suspension or revocation if the individual: "Fails to comply with standards of practice established by the rule." Please complete the form and return it within five (5) business days of the date of this letter. Mail or fax completed form to:

Type Administrative Authority
ATTN: Type EPHS name
Type address
Type City, State Zip
Fax: Type fax number

If you have any questions, please do not hesitate to contact me at Insert phone #. Thank you for your cooperation in this matter.

Sincerely,

Type EPHS name, EPHS
Type Administrative Authority

Enclosure

Cc: Type property owner's name, Owner

[Insert date]

«FirstName» «LastName»

«Address1»

«City», «State» «PostalCode»

Dear «LastName» :

Our records indicate that Onsite Wastewater Treatment System Permit Application number «ApplicationNumber»_ was mailed to you on «DateSent». As of this date, we have not received your completed application. Please check one of the boxes below to indicate the status of your onsite wastewater treatment system:

☐ System is still in planning; will submit application when plans are complete.

☐ I/we do not intend to construct the system; application should be canceled.

☐ I/we no longer own the property. Sold to:

Name of buyer: _____

Address of buyer: _____

_____

Telephone: _____

Other (please specify):

Please return this letter to [agency address] within 20 days from the date of this letter, or you may return it by fax to [Fax Number]. If you have any questions, please feel free to contact me at [Phone Number].

Sincerely,

[Insert EPHS name]

Environmental Public Health Specialist

[Type date]

«FirstName» «LastName»

«Address1»

«City», «State» «PostalCode»

Dear «LastName»:

On «Date», this office received an application for a permit to construct an Onsite Wastewater Treatment System, application number «ApplicationNumber», from you or your agent. On [insert date], you and/or your agent were notified by [phone or letter] of incomplete information or other deficiencies in the application.

To date we have not received the necessary information or system design changes and there has been no further progress on this application. Please contact this office at your earliest convenience to discuss the status of this permit application.

If there are any questions that I can answer, or if you need assistance, please contact me at [Insert Phone Number]. I will be happy to assist in any way that I can.

Sincerely,

[Type EPHS name]

Environmental Public Health Specialist

[Type Date]

«FirstName» «LastName»

«Address1»

«City», «State» «PostalCode»

Dear «LastName»:

Our records indicate you were issued onsite wastewater treatment system Construction Permit, number «PermitNumber», on «DateOpened». That permit is scheduled to expire on «ExpirationDate».

To date we have not received notification of completion of the system as required by Section 701.050 Missouri Revised Statutes.

Please contact this office at [Insert Phone Number] as soon as possible to discuss the status of this construction permit and options that may be available if the system is not completed before the expiration date.

Thank you for your cooperation.

Sincerely,

[Type EPHS name]

Environmental Public Health Specialist

STATEMENT OF PROBABLE CAUSE

COMES NOW the Affiant, [insert name], being first duly sworn, and states:

1. My name is [insert name]. I am over eighteen years of age and competent to make this affidavit. I am aware that any false statements made in this affidavit are punishable by law. All facts included in this affidavit are true and correct.
2. I am employed by the [insert agency name] as an [insert job title].
3. [insert person's name, agency] received an onsite wastewater complaint on [insert date] for a property located at [insert property address] ([insert street name] property). The complaint stated [insert short statement/summary. If referred in writing, note complaint referral date and attach document (attached)].
4. On [insert date], [insert name, job title of any other investigator(s) and] I investigated the complaint at the [insert street name] property. [summarize any contact with {insert name(s), owner, occupant, complainant as appropriate} and what information they provided] The sanitation observation form on which I documented my investigation is attached. Throughout my investigation, I took photographs (attached). I determined [insert conclusion].
5. Under the provisions of Section 701.037.1, RSMo, on [insert date], I issued the Notice of Violation (attached) to [insert owner's name], the owner of the [insert street name] property, by certified/registered mail and first-class mail [reword if delivered by another acceptable method]. [insert owner's name] received the Notice of Violation on [insert date].
6. The [insert date] Notice of Violation contained a statement of remedial actions required within 30 days ([insert date thirty days from NOV date]). [insert a short summary of required remedial action].
7. On [insert date of a recent – within a few days – visit to the site], I investigated further and found that the property owner, [insert owner's name], had not abated the [insert type of violation e.g. surface discharge of sewage effluent] on the [insert street name] property.
8. Pursuant to §701.029, RSMo, "No person or property owner may operate an on-site sewage disposal system or transport and dispose of waste removed therefrom in such a manner that may result in the contamination of surface waters or groundwater or present a nuisance or imminent health hazard to any other person or property owner and that does not comply with the requirements of sections 701.025 to 701.059 and the on-site sewage disposal rules promulgated under sections 701.025 to 701.059 by the department [of health and senior services]." [Similarly reference another section of statute or county ordinance if appropriate.]
9. By allowing [insert type of violation] to remain on the [insert street name] property, [insert owner's name] violated § 701.029 RSMo. Pursuant to § 701.057, RSMo, a violation of § 701.029, RSMo, is an infraction, except that a persistent violation after notification by the state or county is a Class C misdemeanor.
10. The facts contained in this probable cause statement are true and accurate to the best of my knowledge.

FURTHER AFFIANT SAITH NOT.

STATE OF MISSOURI)

)

COUNTY OF _____)

_____

[type affiant's name]

Subscribed and sworn to before me, a Notary Public, this ____ day of _____, _____.

_____

Notary Public

My Commission Expires: _____

MISSOURI DEPARTMENT OF HEALTH AND SENIOR SERVICES

ONSITE SEWAGE PROGRAM

VIOLATION NOTICE

NAME OF PROPERTY OWNER(S)	
MAILING ADDRESS (STREET, CITY, STATE, ZIP CODE)	**COUNTY**
As provided in Sections 701.025-701.059 RSMo, an act relating to regulation of certain onsite sewage systems, and 19 CSR 20-3.060, "Minimum Construction Standards for Onsite Sewage Disposal Systems", an investigation was made of the system located at the following site:	
SITE ADDRESS (STREET, CITY, STATE, ZIP CODE)	

As a result, the system was determined to be in violation of the above law and rule due to the following conditions:

☒ Sewage effluent not contained on own property

☒ Presents nuisance and/or health hazard

☒ Contamination of surface water and/or groundwater

☐ Direct contamination of well

☒ Potential for breeding flies and mosquitoes

☒ Production of odor

☐ Installation, repair or major modification of an onsite wastewater treatment system without the required permit and inspection.

☒ Other (describe): Wastewater surfaces from the wastewater treatment system lateral trenches serving your property. There is evidence that it has run onto adjoining property.

Aggrieved person(s) may request a hearing before the Department of Health and Senior Services by filing a written request within ten (10) days of receipt of this notice. Requests are to be directed to: Missouri Department of Health and Senior Services, Onsite Sewage Program, P.O. Box 570, Jefferson City, Missouri 65102-0570.

REMEDIAL ACTION(S) INDICATED

1. Contact the ____ County Health Department regarding this violation notice.
2. Contract with a state registered onsite soil evaluator to perform an evaluation of your site for an onsite system.
3. Complete the enclosed construction permit application form; submit the application, the application fee of $----, and the proposed system design to the ____ County Health Department. The proposed system must comply with the Missouri and ____ County minimum requirements for onsite systems (a copy is enclosed). It is recommended that you use the services of a state registered onsite wastewater treatment system installer to assist with the system design, or a professional engineer if soil limitations require.
4. Contract with a state registered system installer to install the system. NOTE: construction may not begin until the proposed system design has been approved and a valid permit issued by the ____ County Health Department.
5. Following approval of the design and application and prior to the permit being issued, you and/or your registered installer must meet a representative of the ____ County Health Department at your site to review the proposed system layout.

COMPLIANCE SCHEDULE

Immediately limit water use, divert roof, foundation drains, and other surface water from the field area to reduce nuisance conditions.

Within 10 calendar days, contact the ____ County Health Department to discuss compliance with the terms of this notice.

Within 20 calendar days, submit permit application, application fee, soil/site evaluation, and acceptable onsite system design to the _____ County Health Department for approval.

Within 30 calendar days, but only after receiving design approval and a valid construction permit, contract with a Missouri registered onsite system installer and complete construction of the permitted system.

Any request for extension(s) must be made in writing. An extension may be granted due to weather or lack of contractor availability.

RECEIVED BY (SIGNATURE)			**DATE**
IN LIEU OF SIGNATURE, SENT BY REGISTERED/CERTIFIED MAIL (ARTICLE NUMBER)			**RECEIVED DATE**
SIGNATURE OF REGULATORY AUTHORITY REPRESENTATIVE	**TITLE**	**EPHS NO.**	**DATE**
AGENCY NAME			**TELEPHONE NO.**

Photo Documentation

Owner's name: Site address:		Date: Photographer:	

[Click here and Insert Picture]	Direction of view: Photo description:
[Click here and Insert Picture]	Direction of view: Photo description:

INFORMATIONAL RELEASE NUMBER S3-15

TO: Local Public Health Agencies and other local Onsite Wastewater Agencies
Local Environmental Public Health Specialists
DHSS Environmental Public Health Specialists

THROUGH: Eric Hueste, Chief
Bureau of Environmental Health Services

FROM: James Gaughan, P.E.
Onsite Wastewater Treatment Program

SUBJECT: Innovative System Sizing Approval for Infiltrator Water Technologies, LLC, Quick4 Plus EQ36 LP and Quick4 EQ36 Chamber Systems

DATE: September 9, 2015

CONTACT: James Gaughan, Environmental Engineer
jim.gaughan@health.mo.gov
(573) 751-6095

The Missouri Department of Health and Senior Services (DHSS) Onsite Wastewater Treatment Program has reviewed the Infiltrator Quick4 Plus EQ36 LP Field Performance Study report by Dr. Dennis Sievers, P.E., and assisted with additional field monitoring of Quick4 EQ36 chambers to complete the Infiltrator Water Technologies, LLC, experimental protocol. Proposed experimental protocols for the Infiltrator Water Technologies, LLC, Quick4 EQ36, Quick4 Plus EQ36 LP, and Quick4 Plus Standard LP chambers were accepted by a letter dated April 23, 2012. The protocols were covered in Informational Release S2-12. The Quick4 Plus Standard LP chamber protocol was not completed.

The proposed protocol described the Quick4 Plus EQ36 LP (low profile) and Quick4 EQ36 chambers as four (4) feet long and 22 inches wide; the Quick4 Plus EQ36 LP chamber is eight (8) inches tall and the Quick4 EQ36 is 12 inches tall. A total of 18 Quick4 Plus EQ36 LP chamber installations were reported to DHSS under the experimental protocol. Another 11 Quick4 EQ36 chamber systems were reported to DHSS. Nine (9) of the Quick4 Plus EQ36 LP systems that were selected for monitoring had been installed for 2.4 to 3 years and were installed at the protocol sizing. Three (3) of the Quick4 EQ36 systems that were selected for monitoring had been installed for about 3 years to 3.7 years and were sized at the protocol sizing.

Soil group III was the most common soil group; however, groups IVa, and V were described on a few sites. The most common problem observed was unequal d-box distribution, which was considered unrelated to chamber system sizing. These observations highlight the need for onsite system management and for accessible distribution devices.

One Quick4 EQ36 system could not be confirmed to be functioning properly. It was on a lot where water tables had been described at shallow depths and unsuitable group IVb soil textures were described in two of the three soil profiles. Also, fill soil had been placed over the soil treatment area causing the trenches to be deeper than originally installed. Problems with this system were most likely related to soil limitations and not the system sizing. Except for the one Quick4 EQ36 system that appeared to have a relief line discharging in the woods, other Quick4 EQ36 and Quick4 Plus EQ36 LP systems were found to be functioning as designed or any observed problems were resolved. It should be noted that smaller dispersal trench system sizing will reduce any safety factor inherent in the Missouri Minimum Construction Standards sizing.

Based on the satisfactory completion of the experimental protocol, the Infiltrator Water Technologies, LLC, Quick4 EQ36 and Quick4 Plus EQ36 LP have been accepted by DHSS for innovative system sizing approval. Innovative approval is subject to the site requirements, minimum sizing, and operation and maintenance as discussed below. Due to the development of clogging mats and other variables influencing the long-term performance of a system, which are beyond the scope of the experimental protocol, this review and minimum sizing guidance is not a guarantee that an approved system will function in a satisfactory manner for any given period of time. Also, note that local permitting authorities may be more stringent.

For Quick4 EQ36 and Quick4 Plus EQ36 LP, as with all gravelless trench systems, the minimum site requirements for pipe and gravel filled gravity dispersal trenches shall apply, including provisionally suitable soil, vertical separation, and setback distances. The equivalent width allowed for the minimum sizing of 22-inch wide Quick4 EQ36 and Quick4 Plus EQ36 LP low profile chambers shall be 36 inches per foot of length.

Proper operation and regular maintenance is needed to ensure that any onsite wastewater treatment system continues to function and adequately protects public health and the environment. Proper operation includes limiting maximum daily flow to the system design flow and keeping inappropriate waste out of the system. Regular maintenance activities shall follow all recommendations of the manufacturer. Minimum maintenance consists of regular inspections and, as necessary, cleaning and/or adjusting sewage tanks, other pretreatment components, effluent filters, and gravity distribution devices. The soil treatment area must be inspected regularly and depressions, surface water impacts, or effluent surfacing must be corrected.

DHSS will continue to track any reports of the performance of systems that were installed under the experimental protocol. Data received will be used to compare and reevaluate sizing of onsite soil treatment systems. Approval may be discontinued at any time, if warranted by subsequent field experience with the innovative systems.

INFORMATIONAL RELEASE NUMBER S2-15

TO: Local Public Health Agencies and other local Onsite Wastewater Agencies
Local Environmental Public Health Specialists
DHSS Environmental Public Health Specialists

THROUGH: Eric Hueste, Chief
Bureau of Environmental Health Services

FROM: James Gaughan, P.E.
Onsite Wastewater Treatment Program

SUBJECT: Design Sizing for AES Wastewater Treatment Systems

DATE: June 16, 2015

CONTACT: James Gaughan, Environmental Engineer
jim.gaughan@health.mo.gov
(573) 751-6095

The Department of Health and Senior Services, Onsite Wastewater Treatment Program has reviewed and accepted a revised Presby Environmental, Inc. (PEI) innovative/experimental system protocol for treatment and soil dispersal using the Advanced Enviro-Septic (AES) system. The revised protocol and the design and installation manual specify a 10 percent reduction in the minimum size of an AES system compared to the sizing accepted in April 2012. The AES system is described as providing combined treatment and dispersal of wastewater that has received primary treatment in a septic tank. The system includes patented AES pipes, a layer of geo-textile fabric that partially surrounds the outer surface along the bottom of the pipe, a mat of coarse, randomly-oriented, plastic fibers surrounds the outside of the pipe, and another layer of geo-textile fabric surrounds the pipe and is stitched together to hold the fiber mat in place. The pipes are installed within a bed or trench of specified system sand. Systems include ventilation to maintain aerobic conditions in the AES system. Installation of up to 200 AES systems will be allowed in two phases. Following are general guidelines for considering proposed AES systems.

System design and installation must follow the experimental AES Missouri Design and Installation Manual, comply with the Missouri Minimum Construction Standards, and each system is subject to review and construction permit approval by the local administrative authority. PEI requires all AES designers and installers to be certified by completing an AES certification course. A DHSS registered advanced system installer, trained and certified by AES, must install AES systems. AES training is also available and recommended, for individuals involved in permitting or inspecting AES systems.

Based on a soil morphology evaluation, engineering is required for onsite wastewater treatment systems when unsuitable factors are described and are uncorrectable, 19 CSR 20-3.060(7)(K) and (L). Such unsuitable characteristics include, but are not limited to, bedrock described less than 36 inches deep, high shrink/swell clay less than 24 inches deep, a restrictive horizon less than 24 inches deep, or a seasonal high water table described less than 24 inches deep. Minimum AES sand bed sizing is determined based on soil loading rates (SLR) assigned by the Registered Onsite Soil Evaluator and using the lowest assigned load rate between the soil surface and one-foot (1') below the AES system sand or any sand fill.

PEI will notify property owners regarding the experimental status of AES systems and will warrantee the product. A permit issued for construction of any innovative/experimental system should be clearly marked as experimental. Third party monitoring will be conducted for 25 of the first systems installed under this innovative/experimental protocol. Monitored systems and the third party monitors will be acceptable to both DHSS and PEI. Four monitoring reports will be completed for each monitored system beginning within six months of installation and continuing at approximately six-month intervals. After the first 40 systems are installed, the accumulated data will be reviewed. If systems are performing satisfactorily, experimental system installation will continue up to a total of 200 while the monitoring program is completed. Evidence of any system malfunction and any potential warranty issue related to systems installed under this protocol is to be reported to the Onsite Wastewater Treatment Program.

DHSS does not endorse any brand or specific product model. However, a system using the AES product may be approved by local administrative authorities as part of an onsite wastewater treatment system when the proposed system design complies with the AES Missouri Design and Installation Manual and the requirements of the state minimum standards, or local standards, which can be more stringent. Approval may be discontinued at any time, if warranted by field experience with installed systems.

INFORMATIONAL RELEASE NUMBER S2-12

TO: Local Public Health Agencies and other local Onsite Sewage Agencies
Environmental Public Health Specialist V's

THROUGH: Mark Jenkerson, Chief
Bureau of Environmental Health Services

FROM: James Gaughan, P.E.
Onsite Wastewater Treatment Program

SUBJECT: Experimental Protocol for Quick4 EQ36, Quick4 Plus EQ36 LP, and Quick4 Plus Standard LP chambers

DATE: April 23, 2012

CONTACT: James Gaughan, Environmental Engineer
jim.gaughan@health.mo.gov
(573) 751-6095

The Department of Health and Senior Services, Onsite Wastewater Treatment Program has reviewed and accepted the Infiltrator Systems, Inc. (ISI) proposed innovative/experimental system protocol for sizing soil treatment systems using Quick4 EQ36, Quick4 Plus EQ36 LP, and Quick4 Plus Standard LP chambers. A copy of the experimental protocol is available from the Onsite Wastewater Treatment Program. The Quick4 EQ36 chamber is described as 22 inches wide by 12 inches tall, the Quick4 Plus EQ36 LP chamber as 22 inches wide by eight (8) inches tall, and the Quick4 Plus Standard LP chamber as 34 inches wide by eight (8) inches tall. Installation of up to 500 of each chamber system is allowed under this protocol. Following are general guidelines for considering proposed chamber systems under the accepted protocol.

Where these chambers are to be used, the chamber and sizing must be specified in the design and permit application. Under the experimental protocol, the Quick4 EQ36 and Quick4 Plus EQ36 LP would be sized at 3.0 square feet per foot of trench length, and the Quick4 Plus Standard LP chambers would be sized at 4.0 square feet per foot of trench length. Except for the sizing allowed under this protocol, system designs must comply with accepted design practices and with state and local standards including minimum vertical separation, layout, and distribution requirements. A DHSS registered onsite wastewater treatment system installer must install the chamber systems in compliance with state and local standards. In addition, the installer must follow the manufacturer's recommended installation procedures.

Under the innovative/experimental protocol, Infiltrator Systems, Inc. will notify property owners regarding the experimental status and will warrant system performance. Ten of the first 20 installations of each model will be selected for monitoring. After 24 months, a licensed engineer will conduct a field evaluation of the ten systems selected for each model. In addition, evidence of any system malfunction and any potential warranty issue related to systems installed under this protocol must be reported to the Onsite Wastewater Treatment Program.

DHSS does not endorse any brand or specific product model. However, a system using the Quick4 EQ36, Quick4 Plus EQ36 LP, and Quick4 Plus Standard LP chambers may be approved by local administrative authorities as part of an onsite wastewater treatment system when the proposed system design complies with the experimental sizing and the requirements of the state minimum standards, or local standards, which can be more stringent. Approval may be discontinued at any time, if warranted by subsequent field experience with installed systems.

INFORMATIONAL RELEASE NUMBER S3-12

TO: Local Public Health Agencies and other local Onsite Wastewater Agencies
Environmental Public Health Specialist V's

THROUGH: Mark Jenkerson, Chief
Bureau of Environmental Health Services

FROM: James Gaughan, P.E.
Onsite Wastewater Treatment Program

SUBJECT: Innovative System Approval for EZflow by Infiltrator

DATE: May 29, 2012

CONTACT: James Gaughan, Environmental Engineer
jim.gaughan@health.mo.gov
(573) 751-6095

The Missouri Department of Health and Senior Services (DHSS) reviewed the EZflow by Infiltrator, Inc. Site Performance Reviews report by Dr. Dennis Sievers, P.E., to complete the experimental protocols. Experimental protocols for the 1202GEO gravity system and the 1202GEO, 1201PGEO and 1001PGEO low-pressure pipe (LPP) configurations were accepted by letters dated August 6, 2008 and the amended protocol including the 801PGEO LPP configuration was accepted by letter dated September 8, 2010. The protocols were covered in previous Informational Releases.

The proposed 1202GEO protocol describes the system as two 12-inch diameter cylinders horizontally on the bottom of a trench for a product width of 24. Cylinders contain expanded polystyrene aggregate with a geotextile fabric along the top of the product, and at least one cylinder per trench contains a four-inch diameter perforated flexible plastic pipe. The proposed LPP protocol describes the products as 12-inch, 10-inch, or 8-inch diameter cylinders containing expanded polystyrene aggregate, a four-inch diameter perforated flexible plastic pipe, and a geotextile fabric along the top of the product. In an LPP system application, a 1 to 2-inch PVC distribution pipe would be housed within the corrugated pipe.

Ten (10) 1202GEO systems that had been installed for about 2.5 to 3.5 years were selected for the performance review from the ninety-five (95) installed systems that were reported. The selected systems were installed on six (6) sites where soil groups III, IVa, and V were described and on four (4) sites evaluated using percolation tests. Nine (9) of the ten (10) systems reviewed were found to be functioning as designed with no surfacing effluent. Only one of these nine was reported to have ponding in the core hole that was observed near a trench. The other one (1) of the ten (10) systems was found to have malfunctioned with surfacing effluent.

Another 1202GEO system, which was not part of the performance review, had been reported to DHSS by the property owner because of problems with surfacing effluent. Both systems that malfunctioned were designed based on percolation tests. Permit records show the systems were installed by different installers. The percolation test report for the system reviewed as part of the experimental protocol indicates the percolation test was conducted under extremely dry conditions. According to the Performance Review report for the reviewed system, soil observed from the auguring process appeared to be high in clay content. The system reported by the owner had been installed in 36-inch deep trenches or deeper, which is non-compliant with the Minimum Construction Standards and much deeper than the percolation test holes. The two system malfunctions are not apparently related to the EZflow product; the malfunctions may be related to the use of a percolation test and/or installation practices.

Thirty-seven (37) 1001PGEO and eleven (11) 801PGEO LPP systems were reported installed in soil groups III, IVa, and V. Four (4) of the 1001PGEO LPP that had been installed for over three years and eight (8) of the 801PGEO LPP that had been installed for about 2.5 to 3 years were selected for the performance review. All of the LPP systems were found to be functioning as designed; none had surfacing effluent.

Based on the satisfactory completion of the experimental protocols, EZflow by Infiltrator has been accepted by DHSS for innovative system approval of the 1202GEO gravity dispersal trench system and the 1202GEO, 1201PGEO, 1001PGEO, and 801PGEO LPP pressure distribution configurations. Innovative system approval is subject to the site requirements, minimum sizing, and operation and maintenance as discussed below. Due to the development of clogging mats and other variables influencing the long-term performance of a system, which are beyond the scope of the experimental protocol, this review and minimum sizing guidance is not a guarantee that an approved system will function in a satisfactory manner for any given period of time. Also, note that local permitting authorities may be more stringent.

For 1202GEO gravity systems, the minimum site requirements for pipe and gravel filled gravity dispersal trenches shall apply, including provisionally suitable soil, vertical separation, and setback distances. The minimum site requirements for LPP systems shall apply to the EZflow configurations used in LPP applications, except that a greater minimum soil depth will be required for the 10-inch and 12-inch products. The soil depth, consisting of suitable or provisionally suitable soils, must be adequate to provide a minimum of twelve (12) inches of vertical separation between the bottom of the proposed dispersal trench and bedrock, water-impeding formation, or evidence of seasonally high water table. LPP systems shall be designed and bear the seal of a Missouri Professional Engineer, as required by 19 CSR 20-3.060(6)(C).

The equivalent width allowed for minimum system sizing using EZflow by Infiltrator shall be as shown in the following tables. Because of the inherent limitations of percolation tests, extra caution should be used when designing any dispersal system based on a percolation test, and more conservative sizing is recommended.

Minimum Sizing for Gravity Systems using
EZflow by Infiltrator Expanded Polystyrene Cylinders

Product	Product Width	Maximum Equivalent Width
1201GEO (one 12-inch cylinder)	12 inches	24 inches (2 feet)
1202GEO (two 12-inch cylinders)	24 inches	36 inches (3 feet)

Minimum Sizing for Low-Pressure Pipe Systems using
EZflow By Infiltrator Expanded Polystyrene Cylinders

Product	Product Width	Maximum Equivalent Width
801PGEO LPP	8 inches	5 feet – based on approved engineered LPP design
1001PGEO LPP	10 inches	
1201PGEO	12 inches	
1202GEO(two 12-inch cylinders)	24 inches	

Proper operation and regular maintenance is needed to ensure that any onsite wastewater treatment system continues to function and adequately protects public health and the environment. Proper operation includes limiting peak daily flow to the system design flow and keeping inappropriate waste out of the system. Regular maintenance activities shall follow all manufacturer's recommendations. Minimum maintenance consists of regular inspections and, as necessary, cleaning and/or adjusting sewage tanks, other pretreatment components, effluent filters, and gravity distribution devices. The soil treatment area must be inspected regularly and depressions, surface water impacts, or effluent surfacing must be corrected. Minimum maintenance of pressure distribution systems includes inspecting the pump and controls, flushing the distribution lines, checking operating pressures, and making any adjustments necessary.

DHSS will continue to track any reports of the performance of systems that were installed under the experimental protocol. Data received will be used to compare and reevaluate sizing of onsite soil treatment systems. Approval may be discontinued at any time, if warranted by subsequent field experience with the innovative systems.

INFORMATIONAL RELEASE NUMBER S4-12

TO: Local Public Health Administrators
Local Environmental Public Health Specialists
DHSS Environmental Public Health Specialists
Onsite Wastewater Agencies

THROUGH: Mark Jenkerson, Bureau of Environmental Health Services Chief

FROM: James Gaughan, P.E.
Onsite Wastewater Treatment Program

SUBJECT: Experimental Protocol for the Aero-Stream Remediation system

DATE: September 28, 2012

CONTACT: James Gaughan, Environmental Engineer
jim.gaughan@health.mo.gov
(573) 751-6095

The Department of Health and Senior Services, Onsite Wastewater Treatment Program has reviewed and accepted the proposed innovative/experimental system protocol for the Aero-Stream Remediation system. A copy of the experimental protocol is available from the Onsite Wastewater Treatment Program. The Aero-Stream Remediation system is described as a sintered diffuser deployed in an existing septic tank with a coir fiber filament brush to facilitate attached growth bacteria; the diffuser is connected to an air pump. The stated purpose of the system is to restore the hydraulic capacity of a malfunctioning absorption system that is experiencing end-stage characteristics of ponding at the ground surface or is backing up into the home. Of a total of 20 Aero-Stream Remediation systems to be installed under the protocol, ten systems will be monitored and evaluated using the proposed protocol. Following are general guidelines for considering proposed Aero-Stream Remediation systems under the protocol.

Onsite wastewater systems that are the subject of a Notice of Violation are not considered for evaluation under this experimental protocol. An application to modify an existing onsite wastewater treatment system must be submitted to the local onsite wastewater authority for review. The sewage tank where the system would be installed must comply with the minimum requirements of state and local regulations. If the existing onsite system was designed by a professional engineer, the engineer should be consulted about the proposed system modification. A DHSS registered onsite wastewater treatment system installer must install the systems in compliance with applicable state and local standards and must follow the manufacturer's recommended installation procedures.

System owners must complete the acknowledgement portion of the Maintenance Inspection form. The proposed monitoring specifies that evaluated systems will be inspected after one day, about two weeks, and three, six and twelve months. After the evaluation of at least ten systems is completed, a summary report will be submitted to the Onsite Wastewater Treatment Program. The report will include the completed system monitoring data showing source water and tank pH; dissolved oxygen; odor; sewage level in the tank; the extent of, or reduction in, surface ponding; and any evidence of back-ups caused by hydraulic malfunction. In addition, any potential warranty issues for systems under this protocol are to be reported to the program.

DHSS does not endorse any brand or specific product model. However, provided the remediation system's operation is consistent with Missouri Statutes and the minimum state standards or local standards, system installation may be approved by local administrative authorities. Approval may be discontinued at any time, if warranted by subsequent field experience with installed systems.

INFORMATIONAL RELEASE NUMBER S1-08

TO: Local Public Health Agencies and other local Onsite Sewage Agencies
Environmental Public Health Specialist V's

FROM: Daryel Brock, Chief
Bureau of Environmental Regulation and Licensure

SUBJECT: Innovative System Protocol for Zoeller Fusion Model ZF-450

DATE: June 9, 2008

CONTACT: James Gaughan, Environmental Engineer
jim.gaughan@health.mo.gov
(573) 751-6095

The Onsite Sewage Program has reviewed and accepted a proposed innovative system protocol for the Zoeller Fusion Model ZF-450 aerobic treatment unit (ATU). The ZF-450 unit has a treatment capacity of 450 gallons per day, which is sufficient for treating the wastewater from a three bedroom house, yet is less than the 500-gallon per day minimum required by 19 CSR 20-3.060(4)(E)3. However, the ZF-450 unit as well as the ZF-600 and ZF-800 units have been certified by NSF International as meeting the requirements established by NSF/ANSI Standard 40 for Class I effluent.

Under the proposed protocol, Zoeller would monitor the first ten (10) units installed in Missouri and submit copies of maintenance and service reports to the Missouri Department of Health and Senior Services for a period of two (2) years. These reports indicate system performance, pH, ammonia, transparency of the effluent, nitrate and nitrite, and other physical parameters.

DHSS does not endorse any brand or specific product model. However, the NSF certified Zoeller ZF-450 unit may be approved by local administrative authorities as part of an onsite wastewater treatment system when the proposed system design as a whole meets the requirements (with the exception of minimum treatment capacity) of the state minimum standards, or local standards that can be more stringent. Installation and startup instructions provided by the ATU manufacturer must be followed. Innovative approval may be discontinued at any time, if warranted by subsequent field experience with installed ATU models.

INFORMATION RELEASE NUMBER C1-15

TO: Local Public Health Administrators
Local Environmental Public Health Specialists
DHSS Environmental Public Health Specialists

THROUGH: Eric Hueste, Bureau Chief
Bureau of Environmental Health Services

FROM: Michael Henderson, Assistant Bureau Chief
Bureau of Environmental Health Services

SUBJECT: Guidance on Disinfectant Use in Child Care Facilities

DATE: September 9, 2015

CONTACT: BEHS District Environmental Public Health Specialist
Environmental Child Care Program
EnvironmentalChildCare@health.mo.gov
(573) 751-6095

The Child Care Sanitation Guidelines are based on the Licensing Rules for Group Child Care Homes and Child Care Centers (19 CSR 30-60.010 - .12), Missouri Food Code Sanitation of Food Establishments (19 CSR 20-1.025), Caring for Our Children Health and Safety Guidelines by the American Public Health Association and the American Academy of Pediatrics, Environmental Health Guidelines for Child Care by the National Environmental Health Association, and Individual Sewage Treatment Standards (19 CSR 23-1.010 to 23-31.000 (4), 10 CSR 20-8.023(DNR), Chapter 701 RSMo 1986).

National performance standards for child care facilities have changed in recent years. Caring for Our Children (3rd ed.) standard 5.4.2.6 now requires that "changing tables should be non-porous, in good repair, and cleaned and disinfected after each use to remove visible soil and germs" and standard 5.4.1.7 requires that "toilets, non-flushing toilets (potty chairs), and hand sinks shall be cleaned and disinfected after each use." In addition, the Section for Child Care Regulation licensing rules for Group Homes and Child Care Centers 19 CSR 30-62.182 (1)(E)2 requires that "The diapering table shall be cleaned thoroughly with a disinfectant after each use."

The Bureau of Environmental Health Services (BEHS) will accept disinfection of diapering tables if discovered during routine annual/renewal inspections. Providers shall follow the manufacturer's label directions for appropriate use. Local Public Health Agencies (LPHAs) performing annual/renewal sanitation inspections of child care facilities shall ensure that all chemicals being used in the child care facilities are used per manufacturer's label. Test kits to check proper concentration of the disinfecting agent(s) may not be available or required. LPHAs shall cite any improper storage or use of chemicals within the facility. BEHS will provide additional guidance in upcoming revisions of the EHOG and Child Care Sanitation Guidelines.

If you have any questions or are in need of additional guidance or clarification concerning disinfection practices, please contact your BEHS District Environmental Public Health Specialist or the Environmental Child Care Program.

MH:bew

Did you wash your hands?

Stop the spread of germs and be healthy.

WET Wet hands under warm water.

WASH Wash hands with soap for 20 seconds.

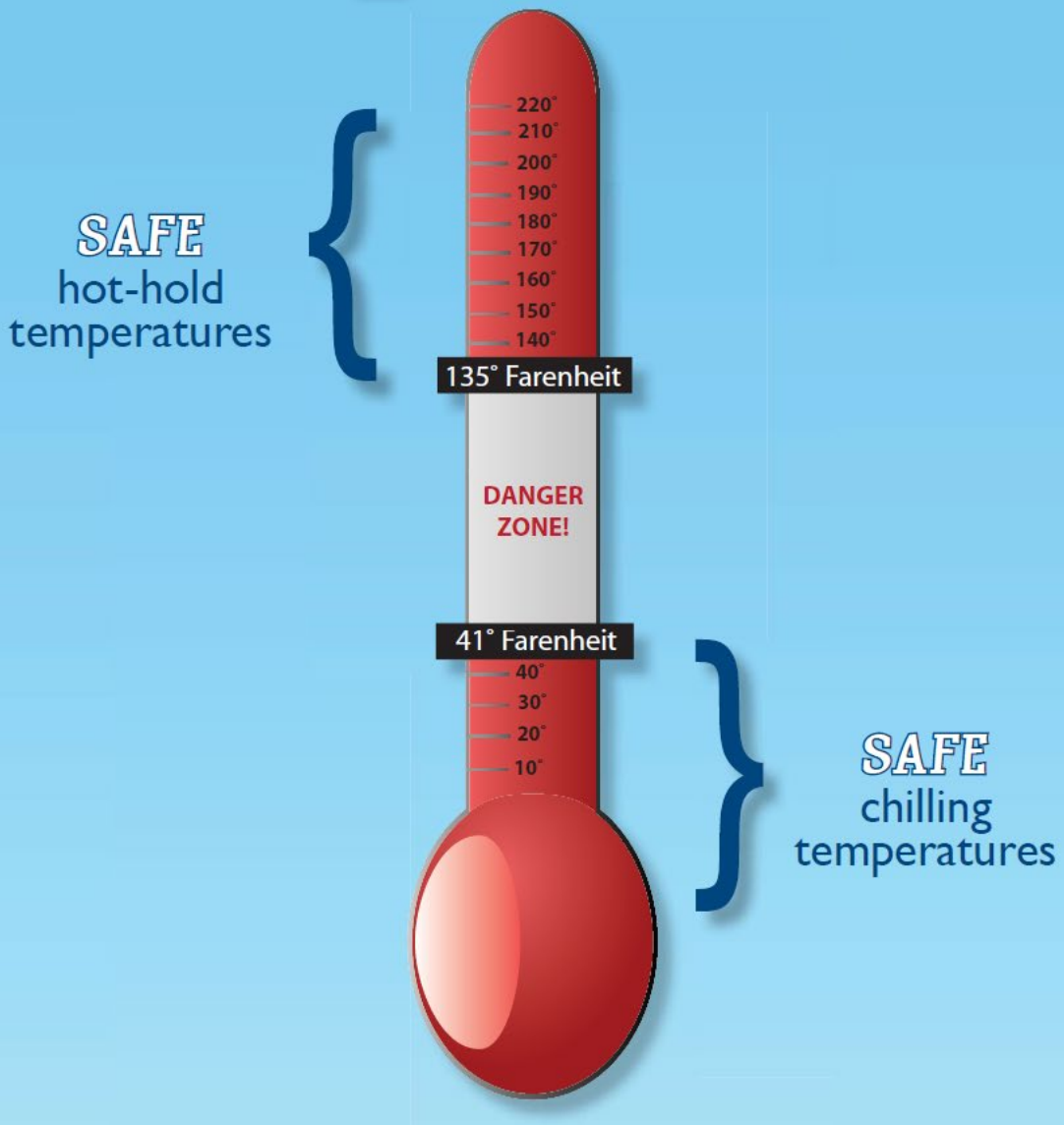
RINSE Rinse under warm water.

DRY Dry hands. Turn off water with paper towel.

Missouri Department of Health and Senior Services • health.mo.gov • 866.628.9891 #297

AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER Services provided on a nondiscriminatory basis.

Safe Food Temperatures



Water Play Table Guidelines

Water play tables are great opportunities for children to learn, but they must be carefully maintained to prevent the growth of disease-causing germs that can be found in warm and wet environments.

To ensure water play tables do not spread disease, the following guidelines must be followed:

- Before filling the table: wash, rinse and sanitize the table. Use test strips to ensure the sanitizing solution is adjusted properly (approximately 100 ppm for chlorine solutions).
- The toys should be clean before putting them into the water. It is best if they have been washed, rinsed and sanitized prior to usage.
- Make sure that children wash their hands before and after playing in the water table. Children with cuts or scrapes on their fingers, hands or arms should not participate in water play activities.
- Change water every 30 minutes or maintain a detectable chlorine residual of 1-10 ppm.
- Supervise the children to make sure they do not drink the water.
- Discard the water after play is over. Allow table to dry thoroughly.

Food Product Thermometer Calibration

A food product thermometer is a useful tool that is required for all food establishments and regulated child care providers.

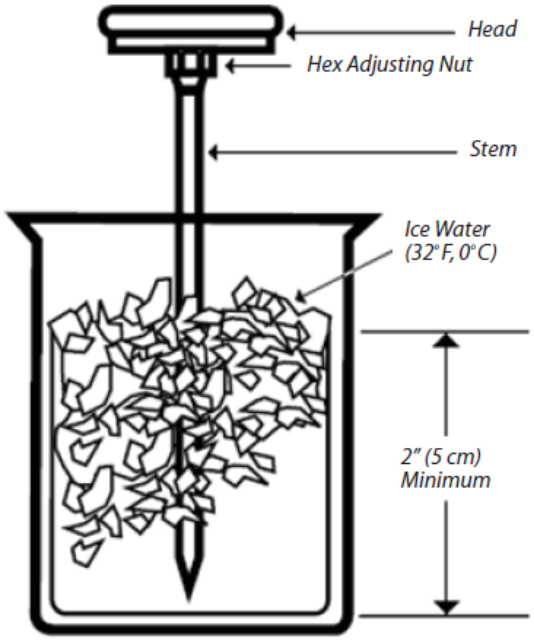
A typical analog food product thermometer is composed of a metal stem and head with a dial. The dial measures from 0-220° Fahrenheit in 2-degree increments to allow accurate measurements for cold-holding, hot-holding, cooking temperatures, hot water and ambient air.

When using a food product thermometer, allow adequate time for the thermometer to adjust to the right temperature, and remember to sanitize the stem between uses.

An important feature of any food product thermometer is that it can be calibrated. Thermometers should be calibrated before initial use, after being dropped and at regular intervals to ensure accuracy.

Most thermometers can be calibrated with the following method using ice water:

1. Fill an insulated cup with crushed ice and water.
2. Immerse the food thermometer stem a minimum of 2 inches into the mixture, touching neither the sides nor the bottom of the glass.
3. Wait 4-5 minutes to allow the temperature to stabilize. It may be necessary to add ice during this process to ensure the solution is maintained at 32° F.
4. Be sure to hold the stem of the instrument away from the bottom and sides of the container to avoid error.
5. If the thermometer is not accurate within +/- 2° F of 32° F, it must be adjusted accordingly.
6. Without removing the stem from the ice, hold the adjusting nut under the head of the thermometer with a suitable tool and turn the head so the dial reads 32° F.



165° F

meets or exceeds all required cooking temperatures

Use a food product thermometer to ensure foods are properly cooked

Shigellosis: What Is It?

Shigellosis is an infectious disease caused by a group of bacteria called *Shigella.* Every year, about 14, 000 cases of shigellosis are reported in the United States. Because many milder cases are not diagnosed or reported, the actual number of infections may be much greater. Shigellosis is particularly common and causes recurrent problems in settings where basic hygiene and handwashing habits are inadequate. It is more common in summer than winter. Children, especially toddlers aged 2 – 4, are the most likely to get shigellosis. Several cases are related to the spread of illness in child care settings, and many are the result of the spread of the illness between family members, caregivers, and playmates.

However, anyone can get shigellosis. Most *Shigella* infections are the result of the bacterium passing from stools usually via inadequately washed hands of one person to the mouth of another person. *Shigella* bacteria are present in the diarrheal stools of infected persons and can generally be excreted in feces for one (1) to four (4) weeks, in person without treatment. *Shigella* infections may also be acquired from eating contaminated food; drinking contaminated water; or swimming/playing in contaminated water, such as splash tables, untreated wading pools, or shallow play fountains used in child care settings.

Most individuals who are infected with *Shigella* develop diarrhea, headache, dehydration, fever, cramps, and mucous and blood in the stool which usually resolves in five (5) to seven (7) days. Some persons who are infected may have no symptoms at all, but may still pass the *Shigella* bacteria to others. Antibiotics are sometimes used to treat severe cases or to shorten the duration of the illness. A physician should determine the best method of treatment for a *Shigella* infection.

Currently, there is no vaccine to prevent shigellosis. However, the spread of *Shigella* from an infected person to others can be stopped by frequent and thorough handwashing with soap and warm running water after using the bathroom; changing diapers; and before preparing food, beverages; or caring for children or patients. In addition, implementing the following general control measures can further reduce and/or eliminate the spread of shigellosis:

- Supervise handwashing of toddlers and small children after they use the toilet.
- Dispose of soiled diapers in a covered diaper container.
- Wash, rinse, and sanitize and/or disinfect diaper changing areas after use.
- Keep children with diarrhea out of child care settings.
- Exclude persons ill with diarrhea from food handling. These individuals shall not prepare food or drinks for others or provide care or services to children or patients that pose significant risk of transmission until diarrhea ceases and appropriate medical documentation is provided showing the person is free of *Shigella* infection based on test results.
- Avoid swallowing water from ponds, lakes, or untreated pools.
- Refrain from recreational water venues (e.g. swimming pools, water parks) for one (1) week after symptoms resolve.

Due to the potential for rapid spread in the child care setting, additional precautions are recommended when shigellosis is diagnosed in an attendee or employee of a child care facility. *Shigella* outbreaks involving groups of young children, especially those who are not yet toilet trained, can be difficult to control. The following procedures incorporate glove use as an additional barrier and heightened awareness to reduce the likelihood of contamination of hands and environment.

Diapering Procedures:

- Collect all necessary supplies. Put on a clean pair of single-use, tight fitting gloves.
- Handle the child and clothing to prevent contamination.
- Remove soiled diaper and clean child. (Remember children cannot be left unattended while on the diapering table).
- Remove gloves by inverting each glove one-at-a-time over the bundled diaper, containing the soiled wipes. Discard in a diaper pail.
- Place a clean diaper on the child and then put the outer clothing back on the child.
- Immediately wash your hands and the child's hands, using soap and warm running water. Return the child to a supervised area.
- Clean the diapering surface and any other contaminated surfaces using soapy water and disposable towels.
- Remove soap residue with clear water.
- Sanitize and/or disinfect the contaminated areas with an approved sanitizing or disinfecting solution and allow surface to air dry.
- Wash your hands before returning to other duties.

Cleaning Procedures:

- Collect all necessary supplies. Put on a clean pair of single-use, tight fitting gloves.
- Remove as much bodily fluids as possible using disposable towels.
- Clean with your preferred cleaning agent.
- Rinse with plain water.
- Disinfect affected area. Using a more powerful disinfectant instead of a sanitizer in these instances is recommended due to the nature of the accident. A disinfectant must be used according to the manufacturer's instructions.
- Remove gloves and dispose of gloves and other used materials in a sealed plastic trash bag. Place the trash bag a covered trash receptacle outside of child care space.
- Wash your hands using soap and warm running water.
- Allow the affected surface to air dry, restricting children's access to the area in the interim if possible. Children should not have contact with areas that remain wet from a disinfectant.

Supervision:

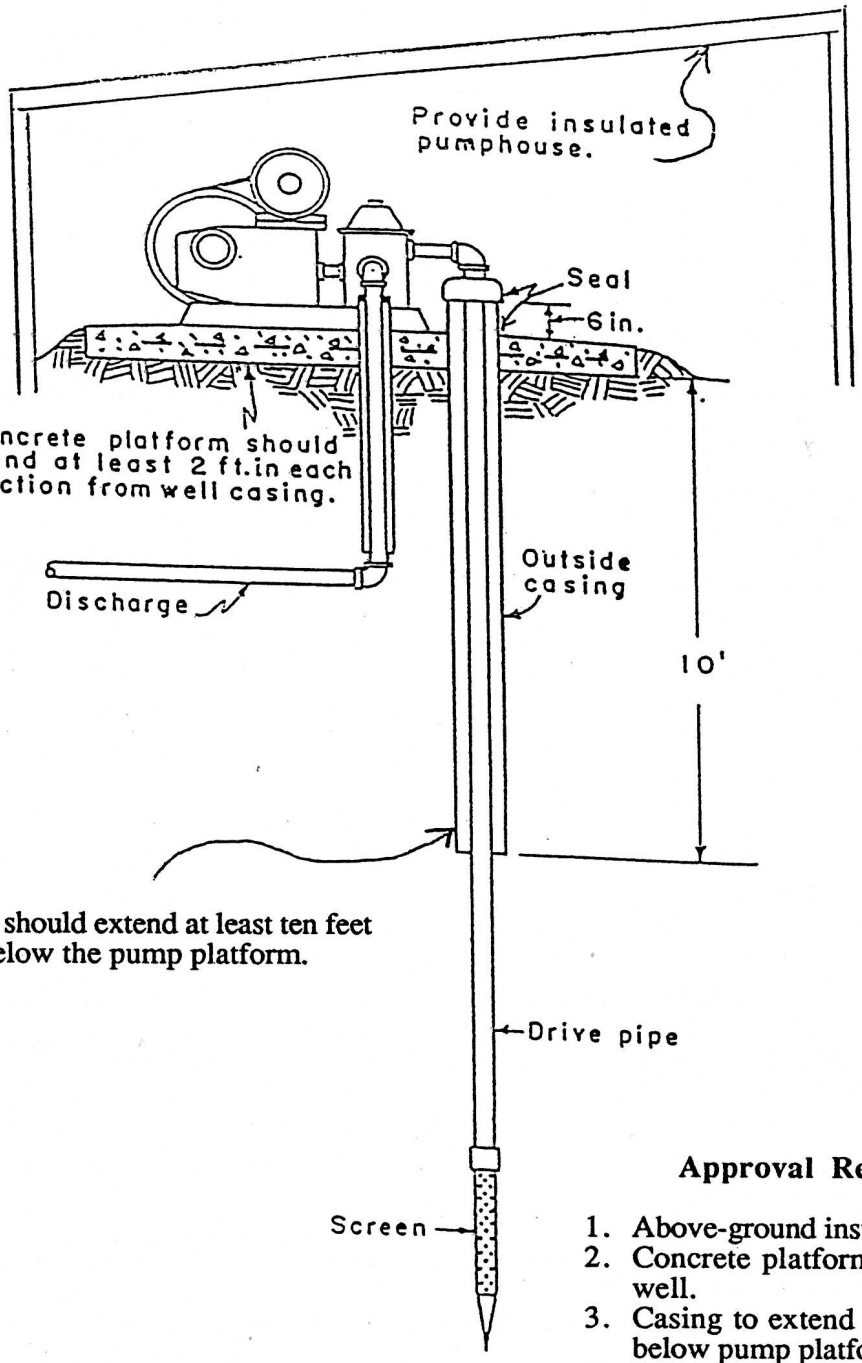
- Ensure appropriate staff are familiar with proper handwashing procedures, diapering procedures, and illness policies. Ensure staff are trained on how to respond to accidents involving diarrhea and vomit.
- Increase surveillance within the child care facility to identify others with diarrheal illness.
- Eliminate access to water-play areas.

Attendance:

- Children and child care staff with diarrhea should be excluded from day care until they are well. Shigellosis is transmitted easily and can be severe, so all symptomatic persons (employees and children) should be excluded from the child care setting in which *Shigella* infection has been identified, until diarrhea has ceased for 24 hours; and one (1) stool culture is free of *Shigella.* Samples should not be obtained earlier than 48 hours after discontinuation of antibiotics.
- Because Shigella can spread most quickly as a foodborne illness, excluded food employees should be reinstated only with written medical documentation showing the food employee is free of *Shigella* infection based on test results showing two (2) consecutive negative stool cultures that are taken at least 24 hours after diarrhea ceases.
- Symptomatic employees, children, and family members should seek medical attention. Antibiotics are sometimes used to treat severe cases or to shorten the time during which the germ can be spread. A physician will determine the best method of treatment for a *Shigella* infection.
- Child care facilities should avoid new admissions when *Shigella* infections have been identified and transmission has been epidemiologically linked to the facility.

Employee Assignments:

- Emphasize handwashing. Because good hand hygiene is the best preventive measure, supervised handwashing after visiting the bathroom and before eating is necessary for all children. Verify all child care staff are familiar with handwashing requirements. Waterless hand sanitizers may also be helpful as an adjunct to washing hands with soap.
- Surfaces and objects should be decontaminated regularly; daily during an outbreak of shigellosis. Utilize the wash, rinse, and sanitize or disinfect procedure to ensure surfaces are free of contamination.
- Staff changing diapers should incorporate the use of disposable gloves into the diapering process.
- Staff preparing food should refrain from changing diapers or assisting children in using the toilet.
- Staff preparing food should not handle ready-to-eat foods with their bare hands.



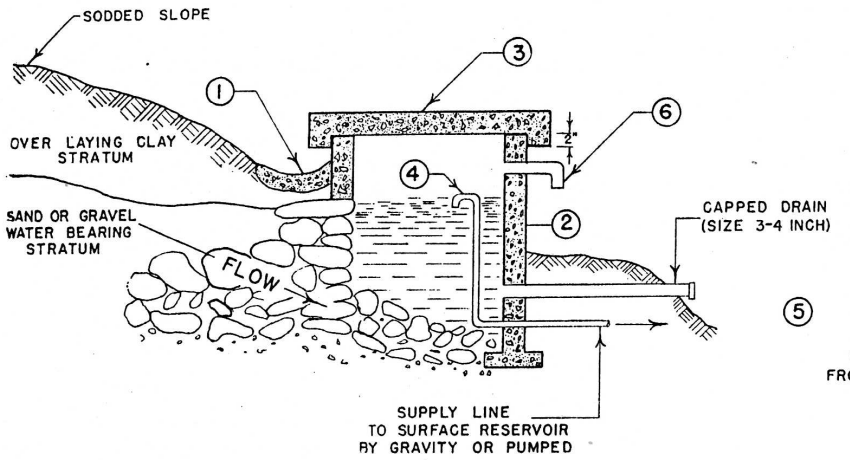
Casing should extend at least ten feet (10') below the pump platform.

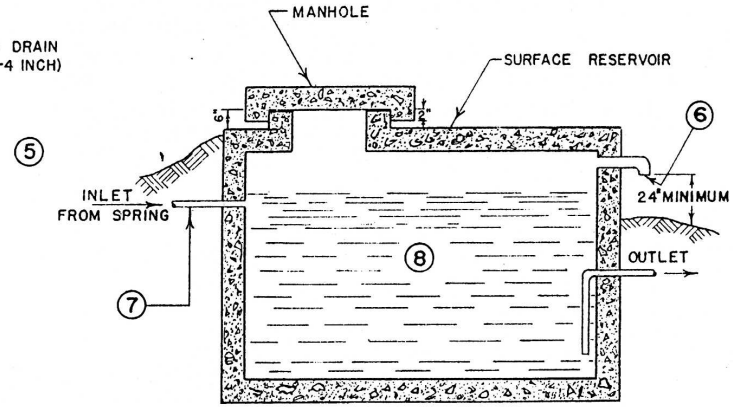
Approval Requirements:

1. Above-ground installation.
2. Concrete platform sloping away from well.
3. Casing to extend at least ten feet (10') below pump platform.
4. Insulated well house.
5. Surface drainage away from the well.
6. All openings to the well must be sealed.
7. Wells located in basements or pits cannot be approved.

MISSOURI DEPARTMENT OF HEALTH

RECOMMENDED CONSTRUCTION AND PROTECTION OF A SPRING WATER SUPPLY INCLUDING CHLORINATION FACILITIES





1-GOOD SURFACE DRAINAGE AWAY FROM SPRING ON ALL SIDES.

2-CONCRETE BOX AROUND SPRING WITH WALLS OF WATER TIGHT CONSTRUCTION.

3-CONCRETE BOX FITTED WITH TIGHT COVER TO PREVENT ENTRANCE OF ANIMALS, INSECTS AND VERMIN.

4-SUPPLY LINE PLACED AT NORMAL ELEVATION OF WATER IN SPRING, WATER DRAWN FROM BELOW THE SURFACE.

5-LOCATION OF SPRING AND RESERVOIR ABOVE FLOOD LEVEL.

6-OVERFLOW PIPES, OPENINGS SCREENED WITH 16 MESH WIRE SCREEN.

7-LOCATION OF CHLORINATING UNIT AND CHLORINATION OF WATER PRIOR TO DISCHARGE INTO RESERVOIR.

8-WATER FROM SPRING MUST BE DISCHARGED INTO A WATER TIGHT RESERVOIR LARGE ENOUGH TO PROVIDE 2 HOURS HOLDING TIME BEFORE CONSUMPTION.

FIGURE 1

BURIED SLAB CONSTRUCTION
(Preferred Method)

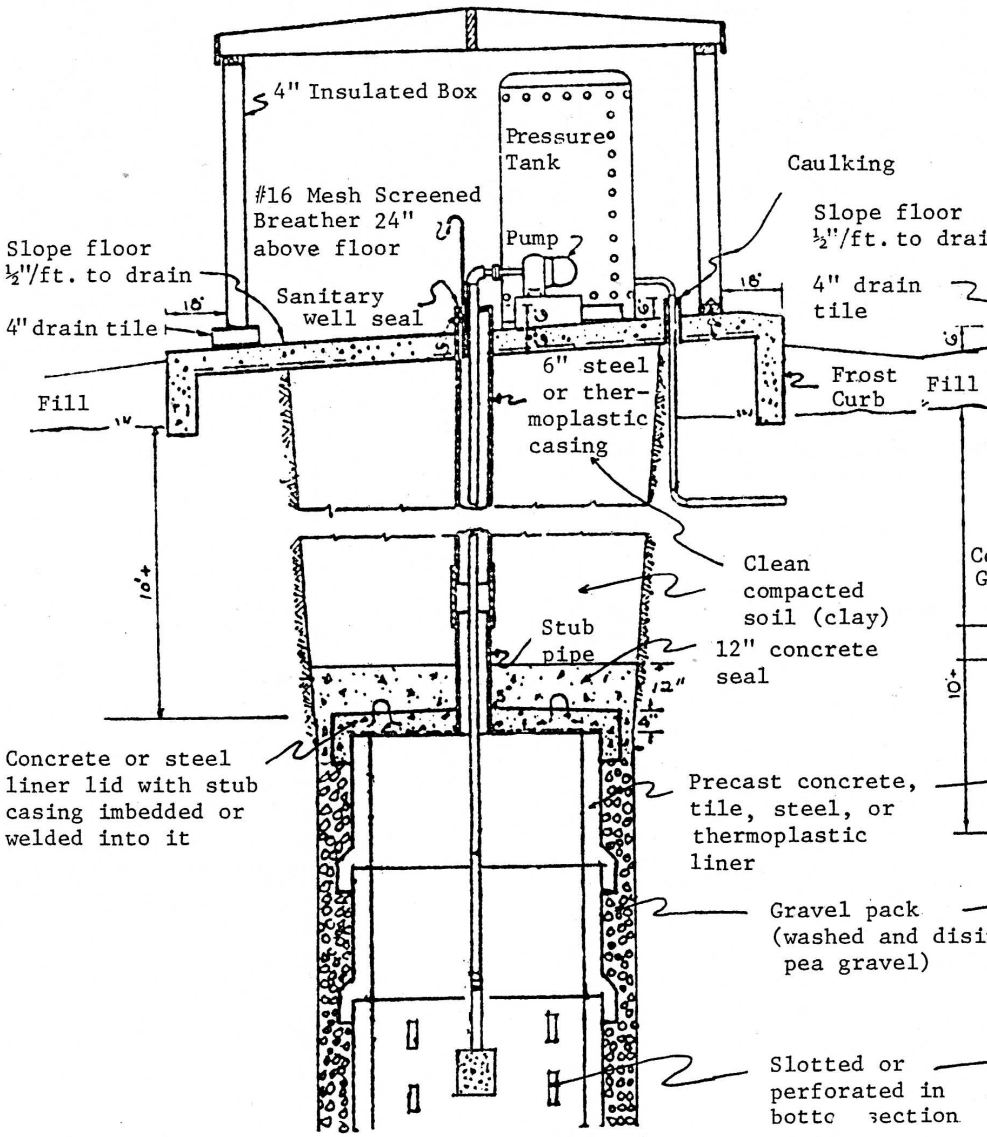
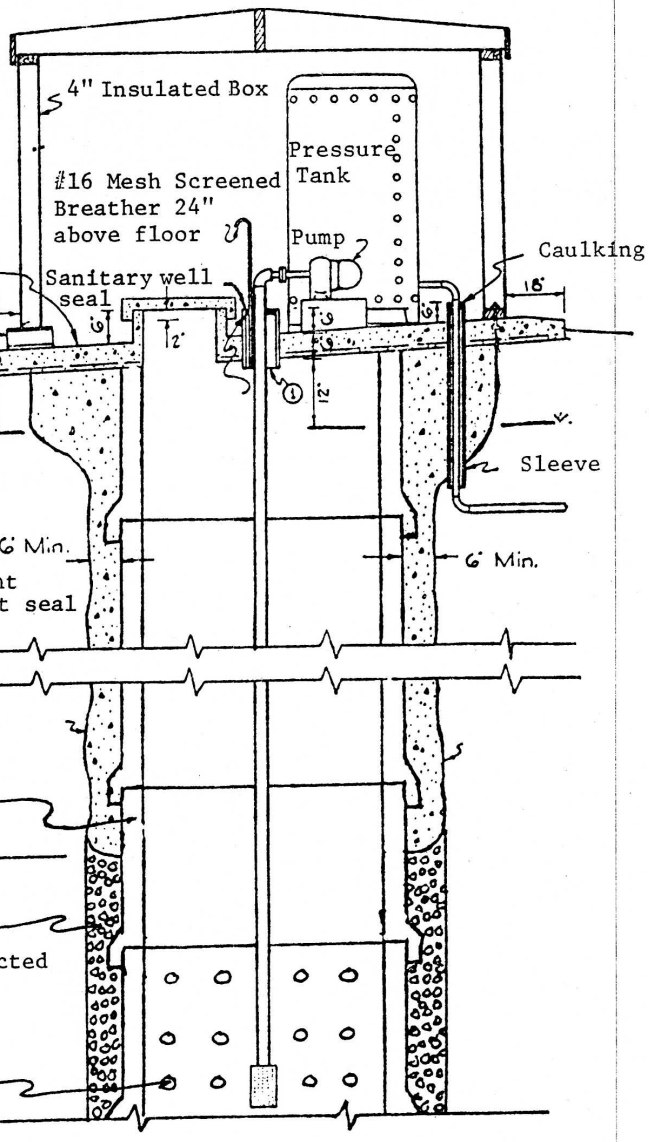
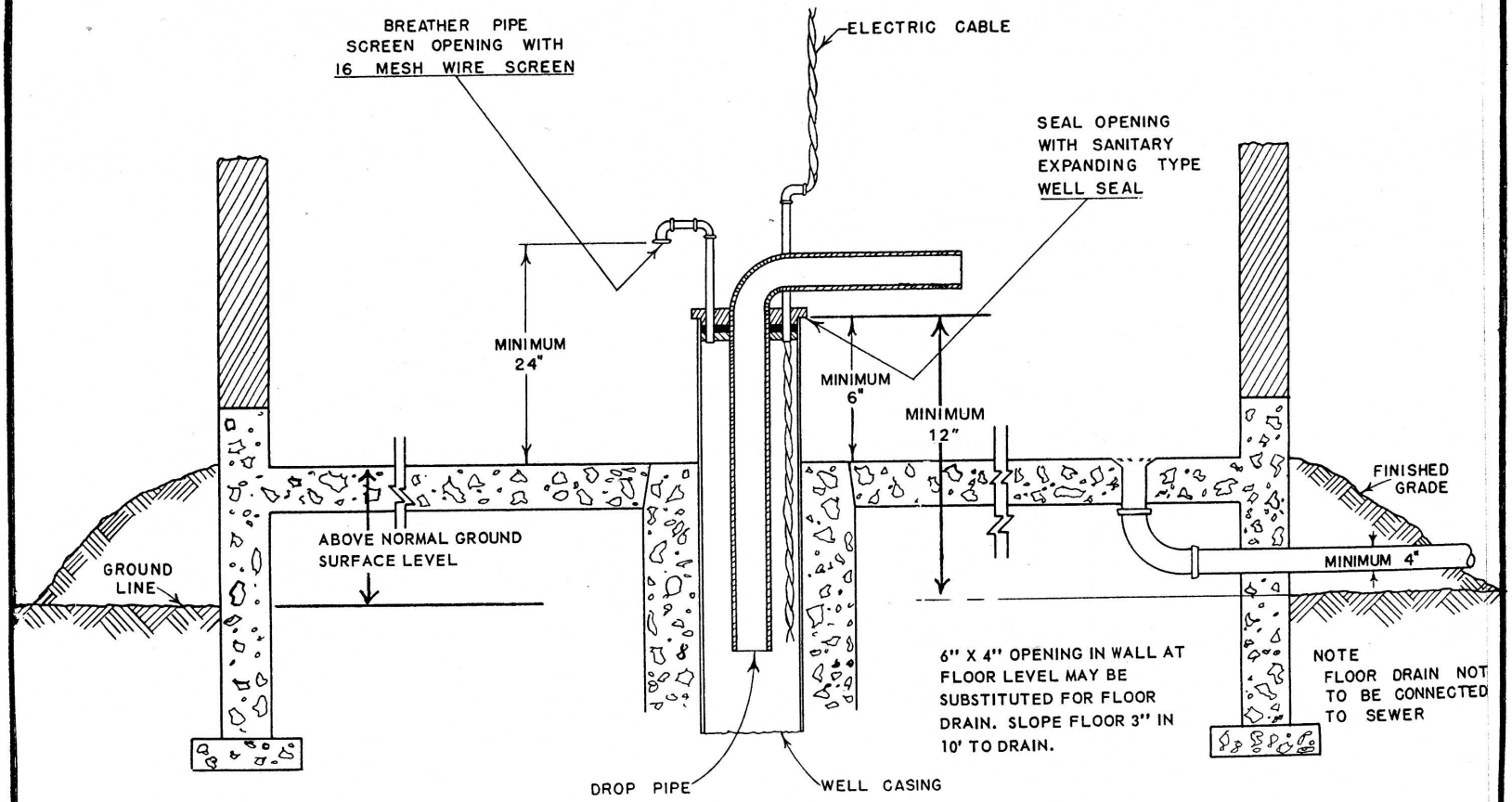


FIGURE 2

CONTINUOUS LINER WITH GROUT SEAL CONSTRUCTION



MISSOURI DEPARTMENT OF HEALTH



PROPER INSTALLATION OF SUBMERSIBLE TYPE PUMP ON DRILLED WELL