



Office of Policy and
Program Development

Risk, Innovations, and Management Staff
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1400 Independence Ave. SW
Washington, DC 20250-3700

July 2, 2014

Dr. Jon Howarth
Enviro Tech Chemical Services
500 Winmoore Way
Modesto, CA 95358

Dear Dr. Howarth:

This letter is in response to your June 5, 2014, submission to the Food Safety and Inspection Service (FSIS), "Hide-On Carcass Wash Procedure Using Hypobromous Acid Solution" (FSIS Log No. 14-ING-0991-N-A).

The submission consists of a protocol for the use of hypobromous acid (HOBr) on pre-skinned carcasses of cattle to reduce the microbial load. Currently, HOBr is allowed to be used on meat and hide at 900 and 300 ppm, respectively.

FSIS has completed its review of your protocol and has no objection to increase the concentration of HOBr used on hides to 900 ppm. It is not necessary to obtain Letters of No Objection for each new client. However, each client is responsible for maintaining scientific support for the use of the technology and validate its use in accordance with the protocol to demonstrate that it is operating as intended.

The critical operating parameters described in the protocol include:

1. Introduce the HOBr (900 ppm as bromine) solution to the HOCW water so the prior to the first carcass entering the wash cabinet. This should be verified by QA.
2. Maintain the cabinet flow rate within the specific operating parameters for the cabinet (pressure and flow rate).
3. Wash solution temperature can range from 50° - 100°F. Specific temperature does not affect performance if within stated range.
4. The residence time in the HOCW will depend on the chain speed. Generally a residence time of 5-30 seconds is required for satisfactory efficacy required. A fresh water rinse of the hide is not necessary.

If the establishment does not address the effects of using your technology in its hazard analysis, FSIS would be unable to determine that the product processed using your technology is not adulterated, and therefore, the product would not be eligible to bear the mark of inspection.

This letter should not be considered as validation that your process will be effective in any particular FSIS establishment.

This technology should not require a regulatory change. However, the use of this substance by federally inspected establishments will need to be incorporated into an establishment’s hazard analysis. Where appropriate and based on the decisions made in the hazard analysis, the use of this processing aid must be incorporated into an establishment’s Hazard Analysis and Critical Control Point (HACCP) plan or written Sanitation Standard Operating procedures (SSOPs) or other prerequisite programs. The procedure must be validated under in-plant conditions and verified on an “on-going basis” for its effectiveness.

FSIS Directive 7120.1 will be updated to reflect the changes as indicated in the table below:

Antimicrobial

SUBSTANCE	PRODUCT	AMOUNT	REFERENCE	LABELING REQUIREMENTS
Hypobromous acid	In water or ice, used as either a spray or a dip, for meat (hides on or off)	Generated on-site from an aqueous mixture of hydrogen bromide and sodium, potassium, or calcium hypochlorite for use at a level not to exceed that needed to provide 900 ppm total bromine (546 ppm HOBr or 400 ppm total chlorine*) in water or ice applied to meat products. *(NOTE: Because there are a limited number of commercial test kits specific for bromine, chlorine kits may be used. The ppm levels between available bromine and chlorine is due to the difference in their molecular weight.)	Acceptability determination	None under the accepted conditions of use (1)

(1) The use of the substance(s) is consistent with FDA’s labeling definition of a processing aid.

If you have any questions, please contact the Project Manager, Dr. Udit Minocha at (301) 504-0896, or e-mail him at: Udit.Minocha@fsis.usda.gov.

Sincerely,

A handwritten signature in blue ink that reads "William K. Shaw, Jr." with a stylized flourish at the end.

William K. Shaw, Jr., Ph.D.

Director

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