

# **WISHA REGIONAL DIRECTIVE**

*Department of Labor and Industries  
Division of Occupational Safety and Health*

## **8.35 Meat Tenderizing Technology in the Meat Packing Industry**

**Date Issued: August 11, 2006**

### **I. Background**

The process of tenderizing meat by electrical stimulation has been developed apparently to improve the meat. Since it is gaining publicity in the industry, the use of meat tenderizing equipment is becoming widespread.

### **II. Scope and Application**

This WRD provides guidelines for inspection of possible electrically hazardous conditions associated with a meat tenderizing technology being introduced into the meat packing industry. This WRD replaces, but does not substantively change WRD 80-18A , which is hereby rescinded.

NOTE: This shall not be construed as proof that any manufacturer's equipment or the total installation is unsafe in any way. It is intended to be a guide for the inspection of this type of equipment, so that a determination can be made as to whether hazardous conditions exist.

### **III. Interpretive Guidance**

1. The electrical stimulation equipment operates at standard 120 volt AC. By use of a transformer the voltage is stepped up to a range of 400V to 600V, and is applied to the carcass either manually or automatically. Before application of electricity, the carcass is cleaned and suspended, usually on a conveyor track. When the energized element (a probe or rub-bar) makes contact, the whole carcass becomes electrically "hot." Current flows through the carcass into the conveyor tract or conductor back to its source.

2. The electrical stimulation is performed on the carcass shortly after it is killed. Rigor mortis has not occurred, and the muscles will still contract upon stimulation by electric

current. Due to the presence of water, size of carcass, violent movement of carcass, crowded conditions, speed of operation, elevated voltages and other factors, conditions are favorable for the possibility of electrical shock.

3. To our knowledge, only a few manufacturers are currently producing the stimulation equipment, although this does not necessarily mean others will not appear. The concept is simple; and the equipment, which is easy to manufacture, is being distributed and installed nationwide. Electrical stimulation equipment may possibly be found in many processing plants.

#### **IV. Special Enforcement Protocols**

Compliance Managers and Supervisor shall assure that:

1. Each Compliance Officer is made aware of the technology on electrically tenderizing meat in the meat packing industry.
2. The Compliance Officer devotes special attention to workplace hazards, if any, created by this technology and issues citations for violations of applicable standards to the hazards.
3. The Compliance Officer during his inspection checks at least the following items:
  - (i) Whether the meat tenderizer operator is qualified in the sense of being knowledgeable about the electrical hazards of the installation and the working conditions.
  - (ii) Whether the design of the equipment and its installation are in accordance with the requirements of WAC 296-24-956 by reviewing the installation and schematics of equipment and circuitry.
  - (iii) Whether the operating procedures and working conditions are made safe by including such measures as: lock outs, alarms, flashing lights, danger signs, area restrictions, physical or electronic barriers, interlocks, necessary personal protective clothing, proper housekeeping, protection from water spraying off the carcass, a working GFCI, etc.
4. The meat packing officials, employees, unions, trade associations, etc., are notified about possible electrical hazards of the technology by whatever means appropriate. (Retain records of any notifications.) OSHA Instruction CPL 2-1.15A, dated December 23, 1981, was used in the preparation of this WISHA Regional Directive.

Approved: \_\_\_\_\_  
Stephen M. Cant, CIH, Assistant Director  
Department of Labor and Industries  
Division of Occupational Safety and Health

For further information about this or other WISHA Regional Directives, you may contact DOSH Compliance Operations at P.O. Box 44650, Olympia, WA 98504-4650 -- or by telephone at (360) 902-5460. You also may review policy information on the DOSH website (<http://www.lni.wa.gov/Safety-health/>).