Risk Assessment Model
Employee Footwear

The following is a risk assessment model for employee footwear worn in the processing plant and may be used as a guide for developing a risk assessment for a specific processing facility.

The risk assessment is based on the assumption the processor has written sanitation standard operating procedures that addresses footwear, including:

- Applicable standards, e.g., U.S. Food and Drug Administration, Title 21 CFR - Parts 110, 113 and 123, and State of Alaska, Title 18, Chapter 34;
- Control Measures;
- Monitoring Procedures;
- Corrective Actions; and
- Records.

Depending upon the specific processing facility, elements of this employee footwear risk assessment can be added or deleted.
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Risk Assessment - Potential Hazard Identification:

Pathogens and/or filth on employees’ boots and/or shoes may be transported into sensitive areas of a fish and fishery processing facility. These potential sources of the food safety hazards are especially a concern in the retort and post-retort operating areas of a cannery or in a ready-to-eat processing facility.

Risk Assessment - Hazard Characterization:

The potential food safety hazard associated with employees’ boots and shoes is pathogens.

*Title 21, Code of Federal Regulations Part 110 – Good Manufacturing Practices (GMPs)* does not have any specific requirements for footwear dips and/or disinfecting of footwear before entering a food processing plant.

Although there is no specific requirement in the regulation, footwear dips are commonly used at the entrance into sensitive processing areas where food products are exposed. The objective is to disinfect the footwear coming in from the warehouse, street, or office floor. Typically, the footwear dips have thousands of rubber “fingers” designed to scrape dirt and potential food safety contaminants from the soles of the footwear, and an approved sanitizer is used and maintained at an effective level based on the manufacturer’s recommendations. In addition and/or alternatively, some facilities have automatic foam sanitizer dispensers at ground level that spray the footwear.

The procedure of changing footwear before and after entering the sensitive processing areas is not practical in most fish processing plants; nor is changing footwear before and after entering the restrooms and canteen (eating facilities). These procedures could actually exacerbate the potential risk of microorganisms and filth being transported into the sensitive processing areas.

Risk Assessment – Exposure Assessment:

All areas of the processing facility are potentially exposed to pathogen and filth food safety hazards being transported by employee footwear, although the exposure would be limited to the floors in contact with the footwear.

Any contaminants that eludes disinfection by the footwear dip or foam sanitizer will remain on the floor and food, food contact surfaces, and packaging materials will not be exposed to contaminants unless deviations from established procedures occur, e.g., employees climb on processing equipment, hot retorted cans are picked-up off the floor.
### Risk Assessment – Risk Characterization:

<table>
<thead>
<tr>
<th>Likelihood</th>
<th>High – Occurs frequently</th>
<th>Medium – May occur in time</th>
<th>Low – Not likely to occur but possible</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>High</td>
<td>Medium</td>
<td>Low</td>
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<td>Low</td>
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</tbody>
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### Risk Management:

Overall, the potential risk of product contamination associated with footwear is low under normal operating conditions. Enforcing the basic GMPs should be adequate to maintain the sanitary condition of the sensitive areas of the plant and prevent contamination of food, food contact surfaces and packaging materials, provided:

- Footwear dips and/or automatic foam sanitizer dispensers are located at the entry to sensitive areas of the processing facility and the sanitizer level is maintained in accordance with the manufacturer’s directions and monitored during production;
- Employees are required to use the footwear dips or automatic foam sanitizer dispensers;
- Employees are instructed on the proper procedures for handling any food item that contacts the floor;
- Employees are instructed on proper hand washing and sanitizing procedures anytime they contact a non-food contact surface, e.g., floor, and before returning to their work station;
- Employee practices are monitored during production; and
Employees are advised of prohibitive actions (e.g., climbing on equipment) and possible disciplinary action.

Risk Communication:

The established written policies must be communicated to all employees---especially those working in the sensitive areas of the plant---during pre-season employee training.

Where appropriate, signage should be posted to emphasize the key elements identified above to protect products from potential microbiological and other contaminants.

As warranted, the established procedures shall be discussed with individuals when infractions occur to ensure compliance with the written policies, and discipline action taken if necessary.