Operational Prerequisite Programme Training Guide
Operational prerequisite programmes are put in place for significant hazards that are not controlled in the HACCP plan at Critical Control Points.
When selecting and/or establishing PRP(s), the food safety team will need to consider and utilize appropriate information such as statutory and regulatory requirements, customer requirements, recognized guidelines, Codex Alimentarius Commission (Codex) principles and codes of practices, national, international or sector standards. Prerequisite programmes will need to be appropriate, implemented across the entire production system and be approved by the food safety team.
An operational PRP is defined in ISO 22000 as a prerequisite (PRP) identified by the hazard analysis as essential in order to control the likelihood of introducing food safety hazards to and/or the contamination or proliferation of food safety hazards in the product(s) or in the processing environment.
Identifying Operational Prerequisite Programmes

Use our unique HACCP Calculator ISO 22000 to help identify your Operational PRPs:

- Use the simple steps to assessing Hazard significance generating a rating of 1 – 9
- The calculator automatically highlights significant hazards which require critical control point assessment
- Significant Hazards that are not included in your HACCP plan should be controlled by Operational Prerequisite programmes

Identifying Operational Prerequisite Programmes

We will now go through the steps to identifying Operational Prerequisite Programmes.

7.4.3 Hazard assessment
A hazard assessment should be conducted to determine, for each food safety hazard identified, whether its elimination or reduction to acceptable levels is essential to the production of a safe food, and whether its control is needed to enable the defined acceptable levels to be met.
The ISO 22000 HACCP Calculator can be used to help select and categorize control measures:
Control measures will not be subject to the next stage and determining if they are critical control points if the food safety team decides based on their assessment as per Clause 7.4.4 that this is not necessary or feasible. These control measures will be part of the Operational Prerequisite Programme Plan.
ISO 22000 Selection and Categorization of Control Measures

e) Assess the severity of the consequence(s) in the case of failure in its functioning:
ISO 22000 Selection and Categorization of Control Measures

So now you will have assessed the control measures as per ISO 22000 Clause 7.4.4. Based on this assessment of control measures there are 3 results:

1. Proceed to Decision Tree
2. Review Control Measure and if to use Decision Tree
3. Stop at this point not a CCP. Implement as an OPRP or consider alternative control measures.
Now in order to decide if a Hazard control is a Critical Control Point and in the HACCP plan we use the decision tree to help us.
Determine the Critical Control Points (CCPs)

Q1 Are control measures in places for the hazard? Enter Y or N in the appropriate box.
Determine the Critical Control Points (CCPs)

A red cell indicates a CCP.
The food safety team have now decided if control measures are to be part of Operational Prerequisite Programmes or the HACCP plan.

Critical Control Points identified are included in the HACCP plan.

Significant hazards that are not CCP’s should be controlled by Operational Prerequisite Programmes.

Other hazards identified in the Preliminary Hazard List should be controlled by Prerequisite programmes.

See the summary in the columns U – W on the next slide.
Validation of CCP’s and Operational Prerequisite Programmes

### HACCP Validation - CCP 1

<table>
<thead>
<tr>
<th>Product Category</th>
<th>Step Number</th>
<th>Hazard Control Measure</th>
<th>Validation Methods</th>
<th>Applicable</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pasteurisation</td>
<td>24</td>
<td>Survival of pathogens</td>
<td>Minimum pasteurisation temperature of 87 °C is applied</td>
<td>Yes</td>
<td>* CODEX guidance</td>
</tr>
</tbody>
</table>

**Conclusion**

Minimum requirements for the pasteurization of milk are 71.7 °C for 15 seconds. This plant holds product for 300 seconds.

**CCP Confirmed**

**Authorised by (Name):**

**Signature:**

*CODE OF HYGIENIC PRACTICE FOR MILK AND MILK PRODUCTS CAC/IRCP

**Process management**

Performance criteria

As C. burnettii is the most heat-resistant non-spore forming pathogen likely to be present in milk, pasteurization is designed to achieve at least a 5 log reduction of C. burnettii in whole milk (4% milk at).

**Process criteria**

According to validations carried out on whole milk, the minimum pasteurization conditions are those having bactericidal effects equivalent to heating every particle of the milk to 72 °C for 15 seconds (continuous flow pasteurization) or 63 °C for 30 minutes (batch pasteurization).

### HACCP Validation - OPRP 2

<table>
<thead>
<tr>
<th>Product Category</th>
<th>Step Number</th>
<th>Hazard Control Measure</th>
<th>Validation Methods</th>
<th>Applicable</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storage Yoghurt Tank</td>
<td>28</td>
<td>Contamination from glass/porous</td>
<td>Checking the Safety Glass</td>
<td>Yes</td>
<td>Lighting Light fixtures shall be protected to ensure that materials, product or equipment are not contaminated in the case of breakage.</td>
</tr>
</tbody>
</table>

**Condition**

<table>
<thead>
<tr>
<th>Third Party Scientific Validation</th>
<th>Historical Knowledge</th>
<th>Simulated Production Conditions</th>
<th>Collection of Data in normal production</th>
<th>Admissible in industrial practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Statistical Programmes**

**Mathematical Modelling**

**Conclusion**

Prerequisite controls are sufficient to reduce the likelihood of contamination. The significance of the hazard is reduced by product

**CCP Confirmed**

**Authorised by (Name):**

**Signature:**

**PRP Verification required**

- Start-up check: Ensure safety glass is intact prior to start-up - YQR 005 Yogurt Pasteurizer Log

**PAS 220:2008 10.4 Physical contamination Where glass and/or brittle material are used, periodic inspection requirements and defined procedures in case of breakage shall be put in place.**

- Glass breakage records shall be maintained.

- Based on hazard assessment, measures shall be put in place to prevent, control or detect potential contamination.
**ISO 22000 HACCP - CCP Example**

**Q2** Does the step eliminate or reduce the hazard to an acceptable level?

Yes - Y is entered into the box which turns red. We stop at this point as it is a critical control point.

### Hazard Analysis and Critical Control Point Calculator

<table>
<thead>
<tr>
<th>Step Number</th>
<th>Step Description</th>
<th>Hazards Identified</th>
<th>Specific Details/Hazard Category</th>
<th>Existing Prerequisite Programmes which assist in controlling the hazard</th>
<th>Control Measure</th>
<th>Probability</th>
<th>Significance</th>
<th>Assessment of control measures</th>
<th>Decision Tree</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>Peat Sterilisation</td>
<td>Survival of pathogens due to insufficient</td>
<td>Microbiological</td>
<td>2. Manufacturing Control</td>
<td>Automatic monitoring on pasteuriser and divert at 67°C</td>
<td>3</td>
<td>9</td>
<td>Y</td>
<td>NOT a CCP</td>
</tr>
<tr>
<td>12</td>
<td>Peat Sterilisation</td>
<td>Survival of pathogens due to insufficient</td>
<td>Microbiological</td>
<td>3. Monitoring Equipment</td>
<td>Maximum flow rate verified</td>
<td>2</td>
<td>6</td>
<td>Y</td>
<td>NOT a CCP</td>
</tr>
<tr>
<td>13</td>
<td>Storage Yogurt Tank</td>
<td>Growth of Pathogens</td>
<td>Microbiological</td>
<td>2. Manufacturing Control</td>
<td>Work instruction in place and adhered to/operations profile checked</td>
<td>3</td>
<td>9</td>
<td>Y</td>
<td>NOT a CCP</td>
</tr>
<tr>
<td>14</td>
<td>Storage Yogurt Tank</td>
<td>Growth of Pathogens &amp; production atmosphere</td>
<td>Microbiological</td>
<td>2. Manufacturing Control</td>
<td>Work instruction in place and adhered to/operations profile checked</td>
<td>3</td>
<td>9</td>
<td>Y</td>
<td>NOT a CCP</td>
</tr>
<tr>
<td>15</td>
<td>Storage Yogurt Tank</td>
<td>Contamination from dirty plant/equipment</td>
<td>Microbiological</td>
<td>4. Management of Cleaning</td>
<td>OP before each production day and disinfection before start up</td>
<td>3</td>
<td>4</td>
<td>Y</td>
<td>NOT a CCP</td>
</tr>
<tr>
<td>16</td>
<td>Storage Yogurt Tank</td>
<td>Contamination from broken site glass</td>
<td>Physical</td>
<td>Control of Brittle Materials</td>
<td>Check at start up/breakage procedure</td>
<td>3</td>
<td>3</td>
<td>Y</td>
<td>NOT a CCP</td>
</tr>
</tbody>
</table>

- **Assessment of control measures**
  - Proceed to Decision Tree
  - Read control measure and if it uses decision tree

- **Decision Tree**
  - N = NOT a CCP
  - Y = Check
  - Red box indicates Y is entered into the box which turns red. We stop at this point as it is a critical control point.
So let’s look an example where a control measure is categorised not as a critical control point but an Operational Prerequisite Programme.
CIP daily and before use is implemented as a Prerequisite procedure.
That's the end of this training package

Thank you for attending