2.4.1 Traceability

The SALSA Requirement:

“The business shall have the proven ability to identify and trace all raw materials, including food contact packaging, from suppliers through all stages of production to the point of despatch and, where appropriate, delivery to known customers and vice versa.

Traceability shall be tested each way at least annually and more frequently if there are known risks in the supply chain.”

About this SALSA Requirement:

This Requirement is intended to ensure that you can demonstrate full traceability of your ingredients, food contact packaging and finished products, so that they can be easily identified in the case of a product withdrawal or recall. You must have systems in place to trace all raw materials, re-work, semi-processed products and food contact packaging, throughout all stages of production, processing and distribution. The key information about any material which will help you with this is: the product’s specification/recipe, batch code, location, quantity, where it came from (your suppliers) and where it went to (your customers).

Tools

- A list of your suppliers and all materials supplied by them
- A list of all your customers and products bought by them
- A system of clear labelling for food ingredients, re-work, semi-processed products and food contact packaging
- Records to capture details of all goods delivered such as product, supplier, batch code, durability date, quantity etc., a ‘Goods In’ form or computer spreadsheet
- Records to capture details of all products despatched to your customers, including recording of finished product batch codes etc
- A simple batch code system for your products, so you can cross-reference goods delivered with their use in production and despatch of product to your customers

Tips

- Record batch codes on arrival
- Make sure ingredient batch codes are clearly visible before putting away
- Label ingredients once they are out of their original packaging
- Consider how to trace bulk materials such as flour or milk if they are added to residual stock in silos
- For ‘continuous’ processes, identify what constitutes a traceable ‘batch’ for potential quarantine or recall
- Re-work or semi-processed products need to be clearly identified so they can be traced as well
- Test your systems regularly, and at least annually. Keep records of the tests and if a system ‘didn’t work’ then take Corrective Action and re-test the system at a later date to see if the changes worked

Additional resources:

See also Guidance Notes for: 1.6 Control of Raw Materials; 1.7 Stock Control; 1.12 Labelling Control; 1.14 Product Shelf-life; 2.5 Managing Incidents & 3.1. Document Control.
2.4.1 Traceability

What do I need to do to show I comply with this Requirement?

Ensure that all relevant information is recorded for all ingredients and food contact packaging, so that your system can trace them back to your suppliers, through all your process steps and onto your customers, i.e. you need to be able to trace 100% of your finished product, one step backwards to the ingredients used, and one step forward to where you delivered it. Test your traceability system at least annually to see if it is working, and take Corrective Action if it doesn’t. You should then conduct another traceability challenge to ensure the changes are effective and that your system works. Results of the tests should be recorded.

The true value of a traceability system is using it ‘forwards & backwards’ and being able to account for ‘quantity’ used. As an example: a consumer finds a genuine, potentially harmful foreign body in one of your products. The foreign body is returned to you and you can identify that it most probably came from one particular raw material. You know which batch of finished product it was found in so, you can withdraw / recall that batch from your customers. From your batch records, you identify which batch of a raw material was used in that finished product batch. However, you then need to ask what other batches of your finished product used that batch of raw material, as there is a risk the same foreign body contaminants could be affecting all the batches in which it was used. The sooner you warn customers of a potential danger and ask them to place relevant batches on ‘hold’ until notified, the lower the risk of harm to consumers, damage to your business’s reputation and hefty legal bills.

<table>
<thead>
<tr>
<th>Goods In Sheet</th>
<th>Supplier</th>
<th>Ingredient</th>
<th>Batch Code</th>
<th>Quantity</th>
<th>Expiry Date</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delivery Date</td>
<td>01/07/13</td>
<td>Oat Mills Ltd</td>
<td>Dried Oats</td>
<td>A1234</td>
<td>50 Kg</td>
<td>Good</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Production Sheet</th>
<th>Date</th>
<th>Product</th>
<th>Production Batch Code</th>
<th>Ingredient</th>
<th>Ingredient Batch Code</th>
<th>Quantity Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>02/07/13</td>
<td>Oat Muesli</td>
<td>L3183</td>
<td>Oats</td>
<td>A1234</td>
<td>20 Kg</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Wheat flakes</td>
<td>85217</td>
<td>10 Kg</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Raisins</td>
<td>26123</td>
<td>5 Kg</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Barley flakes</td>
<td>45457</td>
<td>5 Kg</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Despatch Sheet</th>
<th>Date</th>
<th>Product</th>
<th>Production Batch Code</th>
<th>Quantity</th>
<th>Customer (Location/Address)</th>
<th>Reference (Despatch Note/Invoice)</th>
</tr>
</thead>
<tbody>
<tr>
<td>05/07/13</td>
<td>Oat Muesli</td>
<td>L3183</td>
<td>20 Kg</td>
<td>Healthfood Local</td>
<td>2022</td>
<td></td>
</tr>
<tr>
<td>09/07/13</td>
<td>Oat Muesli</td>
<td>L3183</td>
<td>30 Kg</td>
<td>Jones Food Market</td>
<td>2030</td>
<td></td>
</tr>
</tbody>
</table>
2.4.1 Traceability

How can I use this example in my business?
The example above is just an extract for typical records that would meet the Requirement adequately. You may have several forms containing traceability information in your factory e.g. ‘Goods In’ forms, production traceability sheets, batch codes listed on despatch notes etc.

‘Mass Balance’: What is it and why is it important?
Mass balance is a phrase you may see relating to traceability systems. It means being able to account for 100% of raw materials through to finished products, net of normal production yields.

Within the food industry, the 100% mass balance accountability is important in two main respects:

- **Traceability**: Being able to know exactly where all of a contaminated batch of raw material was used.
- **Fraud**: e.g. organic & ‘identity‐preserved’ products:
  You and your suppliers need to be able to prove that the designated ingredients you purchased were sufficient to manufacture the quantity of finished product that you sold – ie to prevent fraud and prove authenticity to clients.

Best practice is that your internal traceability tests should include a mass balance check on at least one key ingredient.

Example: A trace / mass-balance test: Production of muesli (see forms above)

**Backward Trace**

- A customer finds a foreign body in a pack of muesli code L3183. From this ‘batch code’ we can trace it to the production sheet.
- The Production Sheet (note percentages are not shown) lists the recipe: Oats 50%, Wheat Flakes 25%, Raisins 12.5%, Barley Flakes 12.5%.
- Batch L3183 made 50kg of muesli and the despatch records (which have the finished product batch code numbers on them), show clearly where the full 50kgs went: 20kg to Healthfood Local & 30kg to Jones Food Market.
- The Production Sheet lists ingredient batch codes for each of the four raw materials. Using the ‘Goods In’ sheets, the codes can be used to trace back to dates & weight of raw materials received & the suppliers. If we assume, for this example, that the ‘foreign body’ was a stone and that historically, we know that small stones are not uncommon contaminants in dried fruit, therefore we assume the raisins are the most likely culprit.

**Forward Trace & Mass Balance**

- From the Production Sheet, we know the raw material Raisin batch code 26123 and we could use that to trace back to the ‘Goods In’ sheet (not included in the examples above), for this example we will state that this shows 100kg received 1/6/13 from Whites.
- Our next task would be to identify where all of the 100kg of raisins were used / are now.
- Production sheets for other products (not shown in the examples above) might list a total of 88kgs used in production (11kg each day on 15th to 18th and 21st to 24th June). With the 10kg used in production batch L3183 on 2/7/13, this accounts for 98kg of the 100kg.
- Reviewing Production Weight‐Check Sheets (not shown in the examples above) we might then reveal that packs are normally over‐filled by 2%, accounting for the remaining 2kg of the [total] 100kg received 1/6/13.
2.4.1 Traceability

- From the Production Sheets of the other days when the contaminated raisins were used, we would be able to take the ‘production batch codes’ and then, from the Despatch Sheets, trace the quantities of each batch sold, to whom & when.
- A ‘count’ of finished product stock would show how many 1kg bags of finished product muesli remain on site.

This is what is meant by ‘mass balance’ as part of a traceability exercise.