

# HELL ENERGY HUNGARY LTD.

## GOOD HANDLING PRACTICE IV. QUALITY ASSURANCE

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## Chapter IV. Quality assurance

### 1. Source of quality faults

The source of the quality fault can be originated from three factors:

- Manufacturer;
- Supplier;
- warehousing.

Consequence of the quality fault (Cans)

- 1, Primary corrosion occurs when the packaging of the product is not adequate (inner lacquering is not perfect). Corrosion starts and product starts to leak from the can.
- 2, Secondary corrosion occurs when primary or stress corrosion or as the effect of external damage the leaked product starts corrosion on the neighbouring cans and consequently, the product leaks from the other cans, as well.
- 3, Stress corrosion occurs when external factors indicate corrosion from outside towards the inner part and after a time it leads to leakage.

Hell Energy Hungary Ltd. believes that just one leaking can per pallet can cause secondary corrosion and perforation, which can damage the neighbouring cans and those placed on the lower layers. If secondary corrosion is not identified in time and is totally neglected, corrosion can spread in the whole warehouse and lead to high material and financial costs.

In case of bulk goods (milk, granulated sugar) the quality defect may affect the quality of the finished product. The quality defect can be physical (e.g. a piece of metal) chemical (e.g. chemical, allergenic) or biological (microorganism) hazard.

### 2. How to avoid the possession of products with quality faults

The consigned product must be checked thoroughly both by the Deliverer (Seller or Supplier) and the Recipient (Buyer, Supplier).



Only immaculate products, free from quality faults can be transported and stored otherwise secondary corrosion can cause huge damages to the owner.

Both before and after loading products must be visually checked and in case any tiny damages are found, the requirements of Paragraph *Handling of Products with Quality faults* shall be applied, because it can lead to secondary corrosion.

The packaging of the product cannot be damp from the inside. Damp can indicate leaking products. If there is damp under the packaging of the pallets, the requirements of Paragraph *Handling of Products with quality faults* shall be applied as it can be the source of secondary corrosion.

As the product can only be dispatched after 3 days of quarantine from the producer, it is excluded that the fault is not detected during this period. If the fault can be identified only later, good product handling practice can decrease the number of rejected products to a minimum level.

Precisely complying with the Delivery rules, the number of products with quality faults can be decreased to zero. This way high material costs can be avoided and the owner can be prevented from much annoyance.

### 3. Avoidance of generating products with quality faults

To avoid primary corrosion is the task of the Producer. The producer assures, with continuous monitoring, that he uses cans with perfect quality lacquering, and bottles of perfect quality and closures, for production.

In case primary corrosion has occurred, the requirements of *Handling of Products with Quality faults* shall be applied because it can lead to secondary corrosion.

Secondary corrosion can be decreased to a minimum level if the following instructions are taken into account:

- care must be taken that the conditions of generating the primary and stress corrosion are not given;
- care must be taken that only impeccable product can be delivered and dispatched;
- it must be checked that damp or not adequately dry product cannot enter the warehouse;

- the product shall be monitored continuously, wet trays and shrink packages, which contain leaking cans, shall be identified and removed;
- warehouse staff shall get adequate training of the handling of products with quality faults;
- much attention must be paid to shipping, downloading and storing of finished products.

In case secondary corrosion occurs, the requirements of *Handling of Products with Quality faults* shall be applied because it can lead to secondary corrosion.

To avoid stress corrosion the following rules shall be taken into account.

The following factors promote the evolution of stress corrosion:

- high humidity;
- filmed, damp cans;
- huge variations in temperature fluctuations;
- high storage temperature.

Thus the tasks are the following:

- the factors of finished product storage must be kept;
- the warehouse must be monitored continuously;
- shall be checked that wet or not enough dry cans, bottles and trays must not be taken over;
- wet trays and shrink packages, pallets shall be identified and removed;
- corroded or leaking products shall be removed;
- staff shall get adequate training on the handling of stress corrosion;
- much attention must be paid to shipping, downloading and the storage of finished products.

In case stress corrosion occurs, the requirements of Paragraph *Handling of Products with Quality faults* shall be applied because it can be the indicator of secondary corrosion.

Regarding external damages the requirements of Chapter III. *Requirements of Product storage* must be kept. If those requirements are met, the number of quality claims regarding external damages can be decreased dramatically.

If an external damage has occurred, the requirements of (next) Paragraph *Handling of Products with Quality faults* shall be applied as it can lead to further, secondary corrosion.

#### 4. Handling of Products with Quality faults

Firstly, products with quality faults cannot be delivered without a well documented trace. (According to Chapter II. paragraph 1. *Requirements of Delivery*, Chapter V. Annex Paragraph 1. 2.). The document must be represented to the Supplier or the Producer. (According to paragraph 6. *Steps of handling complaints regarding faulty products*).

In case there is a quality complaint with the delivered product, the product must be checked thoroughly and if:

- 1, The source of the quality claim is not identifiable, the following steps shall be performed:
  - damaged pallets cannot be opened;
  - the pallet shall be preserved in its original state (avoid damages, not be opened by the employees, etc.);
  - it must be separated from the other sound pallets immediately (in case it is not possible, support must be required from the Producer by phone);
  - the storing conditions must not be alter from those of the original (impeccable) products;
  - it must be well visibly labelled: PRODUCT WITH QUALITY FAULT / MUST NOT BE OPENED;
  - the quality fault must be reported to the commercial representative in 24 hours according to the requirements of Paragraph 6. *Steps of handling complaints regarding faulty products*.
  - Then he shall wait for the producer's reaction, who defines the further steps.
  
- 2, If it is obvious, that the quality fault cannot be originated from the producer's fault but from e.g. shipping or product movements and the Buyer does not complain, the following steps shall be taken:
  - a. The film shall be removed from the pallet immediately.
  - b. Completely dry products with dry film shall be separated. These products are still marketable. In case of PET bottles it is enough to remove just the damaged product from the stack, while the other contaminated bottles shall be cleaned and washed. These products are also marketable.

- c. Trays with little damp inside their film, but with a dry tray shall be opened, and the cans must be washed with water as fast as possible. Then they shall be dried thoroughly. These products are suitable for inner use.
- d. Damp trays must be assorted. These are scrap/rejected products. These ones have to be rolled out.
- e. The required steps must be taken to avoid repeated occurrence of the fault.



## 5. Searching for the source of the quality fault

To reveal the source of the quality fault, the product which causes the fault has to be found.

The first step is to check the goods thoroughly.

- 1, Most cases the cause of quality faults are well visible, they are transporting or loading problems associated with the damage of outer packaging.

The Producer dispatches goods in a closed packaging, consequently they have to arrive that way and be available until the packaging is opened deliberately.

It shall be visibly checked if the tray, positioned at the damaged film, wet or not. If it is wet, or its film is moistured, the leakage is caused by external conditions and corrosion started from here, in case of cans. At this time, it can be concluded that the quality problem was caused by an external delivery and loading problem

In case of CANS, if the tray is not wet and the film is not moistured, the leaking can shall be further searched for. In case of unsuccess, one shall go on according to point 2.

In case of PET bottles it shall also be checked if the bottles, positioned at the damage of the film, are also damaged. If yes, the leakage was due to external reasons.

If the leakage is not due to external damage of products positioned at the edge of the pallet, in case of PET bottles, the leaking can be found easier. Products shall be assorted (from up to down) and shall be searched for the bottle with less liquid. If the leaking bottle is found, it shall be examined thoroughly. It shall be searched for physical damage or other problems (e.g.: at the screw cap).

Damaged product(s) shall be removed at once. The leaking product does not make harm to the other, undamaged products, but those shall be cleaned. They will be marketable products.

- 2, In case there is no external film damage accompanied by can leakage, the film covering the pallet has to be unrolled from the products.

From the smell and taste of the condensed humidity it can be concluded if it is the result of a leaking can or it is just a wet pallet.

In case of a wet pallet it is important to dry up the product as soon as possible because it can start stress corrosion.

- 3, If there is unpleasant odor under the unrolled film, the quality problem originates from the leaking product undoubtedly.

Leaking product goes from up to down, so we have to follow the same way from up to down. If the damaged tray or bottle is not in the top layer, products shall be assorted row by row, until the top wet product can be seen. This tray or shrink packaging is completely wet.

- 4, Products are given out with sound film by the producer. Consequently it shall arrive in the same state and keep its condition until the opening of the packaging.

It must be checked visually if the shrinkfilm is damaged or not and that the can at the damage is leaking or not. If the film is damaged and the can is leaking and the damage of the can can be found at the same level of the damaged film, it can be stated that the source of the quality fault is caused by external damage.

- 5, If the film is not damaged, it has to be opened. Carefully, in the middle, the film has to be cut and removed.

Carefully lifting the leaking can(s) or bottles must be found.

- 6, The following factors have to be checked:

- How many cans have less product inside;
- How the leaking cans are placed on the tray;
- Are there any visible damages, dents, deformities or any other deviations, etc. on the cans;
- In case there is visible damage on the can, where it is situated, how large it is and what shape it has;
- What is the bottom of the can like;
- Are there any useful information regarding the investigation;

And possessing all these we can conclude the cause of the quality claim.

#### **6. Steps of the complaint regarding products with quality faults:**

The following requirements have to be strictly met to validate the Producer's warranty:

1. Damaged pallets must not be opened, they have to be preserved in their original state.
2. They have to be separated from the other sound pallets immediately but have to be stored under the same storage conditions.

3. Their warehouse status have to be well visibly indicated.

Then:

4. Well visible, sharp pictures have to be taken of the pallets and the quality fault. On the picture the whole pallet shall be presented from all sides and the quality fault in distance and close-ups. These pictures must be attached to the letter of complaint.
5. The commercial representative has to be informed of the quality fault within 24 hours by e-mail. The following documents have to be also attached:
  - The filled in letter of complaint issued by the Producer (Chapter V. Annex paragraph 3.);
  - The taken pictures;
  - Copy of the Report of Delivery and Acceptance (Chapter V. Annex Paragraph 2.);
  - Copy of the shipping document;
  - Possibly a picture of the bottle, the bottom of the can or the quality defect visible on the can/bottle but in just the case if the problem was discovered at an already opened pallet. The pallet must not be opened due to this reason.

The Producer's reaction:

- If it is possible from the pictures, he reveals the fault or its possible cause and gives further instructions,
- If the fault cannot be originated from the pictures, he can request an on-site inspection from the Buyer and there the cause of the fault is investigated and further steps are suggested.

As soon as the investigation is finished, the requirements of *Handling of Products with quality faults* have to be applied because it can lead to further, secondary corrosion.

