"Thai Union Group Packaging Safety & Hygiene Requirements"
(Version 1.0 June 2016)

INTRODUCTION

Welcome to version 1.0 of the Thai Union Group Packaging Safety & Hygiene Requirements (TU-PK). This standard is indicated the level of packaging safety and hygiene such provided with an all-encompassing the packaging safety with good manufacturing practice, the quality and the legality. In addition, this standard is including a concern with the social responsibility and the environmental issues.

OBJECTIVE

- All products produced by TU are consistent quality, safe and comply with relevant legal requirement and meet our customer's requirements through whole packaging supply chain.
- TU-PK is guideline and applies to all packaging suppliers excluding raw materials, ingredients and premix suppliers.
- In case standard revision or any changes, TU group team will inform to our suppliers before issuing new version.

SCOPE OF AUDIT

This Standard can be applied to packaging manufactures which are supplying to TU group such as all packages which are direct and indirect to products.

- The Supplier shall plan to produce TU's products at the time of audit for the intended scope of the assessment.
- If no TU's production onsite audit, the supplier shall inform TU or CB before audit day and the team would consider acceptance if the product produced on the audit day is similar TU's products which include the same production line and equipment.
- The excluded product from this audit could be produced at the same production line with TU's product. However the site has the responsibility to ensure no contamination or adverse impact to TU's products.
- Where the area that out of scope may contaminate to TU's product, the auditor has the discretion to continue the audit until sufficiently satisfied that the intended scope of the assessment.
- Any doubt or questions please contacts TU Group team.

AUDIT PLANNING

- This is available for existing onsite audit and the same audit process used for sites with announced audit.
- CB and TU get agreement on audit appointment and inform the supplier in advance.
- After confirm audit day by supplier, CB would send the audit plan to the supplier.
- Any emergency or inconvenient onsite audit on that appointment, the supplier shall immediately inform CB to be permitted by CB or TU group to postpone the audit.

AUDIT PROCESS AND NON–CONFORMANCE REPORT (NCR)

- The auditor conducts open meeting to inform the objective of audit including the confidentiality.
- The auditor preparing audit conclusion and report the audit result as conducted at the closing meeting.
- The supplier acknowledges the audit result included with non-conformity report and recommendation excludes the score of audit.
- All corrective action with objective evidence for each non-conformance raised must be sent to TU group within 7 days of the audit.
- The follow up each non-conformance will be conducted by TU group who will advance contact to supplier. The auditor prepares the audit report to TU Group not more than 15 days after audit.
- Final scoring and audit grading will be considered by TU after the completion of all corrective action required.
- TU Group /CB issue the Certificate of Thai Union Group Packaging Safety & Hygiene requirements with the score of audit.

NON –CONFORMANCE DEFINITIONS

Level	Definition
Critical (C)	Failure to meet a packaging safety standard or a legal standard; where this failure puts the customer and or TU brands integrity at risk.
Major (M)	A deficiency which requires prompt attention to prevent a potential packaging safety failure or legal issue from arising; where this failure may potentially put customers or the TU brands integrity at risk.
Minor (N)	A deficiency which requires attention to improve Good Manufacturing Practice standards, Due Diligence documentation (our ability to defend a legal challenge) or to achieve compliance with TU-PK standards.
Observation (O)	An area of concern, a process, document or activity that is currently conforming but may, if not improved, result in a nonconforming system, product.

AUDIT SCORING AND GRADE

Level	Score
Critical (C)	0
Major (M)	3
Minor (N)	5
Accept (A)	8
Observation (O)	8

SCORING CRITERIA AND FREQUENCY OF AUDIT

- The auditor conducts the audit according to this requirement.
- Not applicable (N/A) requirement could not be applied for the suppliers if their products or process are related to the packaging quality or safety issue.
- The auditor will conduct assessment for whole TU requirement. Justification will be indicated for any not applicable requirement.
- The non-applicable requirement will not be accounted for scoring and grading of the audit.

Grade	% scoring	Frequency of audit
A	90-100	Every a year
B	70-89.99	Every a year
C	60-69.99	Every 6 months
D	Less than 59.99	Suspended

However, for Grade D or any critical level result are an automatic fail and would be deemed unsatisfactory. The supplier must be suspended for immediately remedial with TU's management. Commercial continuity will be based on re-audit or TU's management approval.

CONTENT

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2. Hazard Analysis and Risk-based Preventive Controls
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5. Product and Process Control
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1. Senior Management Commitment

1.1 Senior Management Commitment and Continual Improvement

Senior Management must demonstrate their commitment to the effective implementation of this packaging standard to ensure safety and quality and must provide necessary resources and communication which include;

- The supplier shall have a documented manual and policy which states their intention to ensure meets its obligation to products safe and legal products to the specified quality and its responsibility to their customer (TU group). These documents are readable for all staffs.
- The policy shall clearly communicate to customer and relevant vendor.
- The management shall ensure those clear objectives are defined to maintain and improve the safety, legality and quality of products, in accordance with specification. These objectives shall be monitored and results reported at least annually.
- The supplier's factory shall operate legally with the license that relevant governmental agency.

1.2 Management Review

- Senior Management must conduct management review and performed regularly.
- The review process should be include the evaluation of;

a) Previous management review, action plans and time frame.
b) Results of internal, second party and third party audits.
c) Customer complaints with performance reviews and feedback.
d) Review the Hazard Analysis and Risk-based Preventive Controls, hazard analysis, any change of packaging safety and corrective action.
e) Review the relevant legislation and consistency, emerging change which impact to quality, packaging safety and processing.
f) Any necessary issues that may affect quality and packaging safety e.g. material and compound used, terrorism etc.

1.3 Organizational Structure , Responsibilities and Management Authority

An organizational structure chart shall be in place showing management authority and indicating the responsibilities of activities which ensure packaging safety, legality and relevant requirement is efficiency. The structure and job description are be clearly allocated and understood by all management and staffs.

2. Hazard Analysis and Risk-based Preventive Controls

The supplier shall fully control and effectively implement this standard to ensure the quality, safety and legality of its processing and product (packaging).The preventive controls are indicated from hazard analysis and risk assessment;

2.1 Identify Hazards

The supplier shall identify all potential hazards and risk assessment at each step in relation to product and processing from raw material and chemical used, in processing, packing, storage and transportation. Once identified the supplier must develop a control plan to prevent, eliminate or minimize the hazards. The risk should be included at least:

- Identify the Biological, chemical, physical and relevant hazards affecting to safety of process and product.
- Identify the risk of product quality from the processing e.g. printing, forming step etc.
- Identify the risk of illegal from the selection of material and chemical used, the processing to the finish products e.g. select the master batch, additive resin, chemical and compound used etc.

Remark: The identified hazards and analysis could use the likely occurrence of hazards, account of hazards and severity.

2.2 Risk-based Preventive Controls

The supplier shall develop and implement a series of risk-based controls at the critical points or specific control of the manufacturing process where the identified hazards must be prevented or minimized to ensure quality, safety of the package and legality as these are identify as in clause 2.1 and designate the preventive control to ensure the greatest level of risk prevention or mitigation is achieved by normal operation of that processing, packing, storage and transportation. The preventive control could be provided following;

- Sanitation procedures at product surface contact points e.g. the machine, utensils, equipment and area where pose a risk of contamination to product.
- Staff hygiene training
- Tractability and Recall program
- Vendor verification activities

2.3 Monitoring of Effectiveness

The supplier shall establish and implement a monitoring program which ensures the factory conducts regular evaluation of control measures to determine whether the preventive controls are efficiency. The record shall be maintained.

2.4 Corrective Actions

The corrective action plan shall be defined and documented when the monitored result indicate a failure to meet the control limit or when monitored results indicate a trend towards loss of control.

2.5 Verification

The supplier shall establish verification plan to confirm that hazard identification and analysis, preventive controls and control measures, monitoring and corrective action are operating correctly to prevent or minimize adulteration hazards, quality and legality. Examples of verification activities are included:

a) Internal audits
b) Review of records where acceptable limits have been exceeded
c) Review of complaints by enforcement authorities or customers
d) Review of incidents of product withdrawal or recall
e) Results of verification shall be recorded and communicated to the HACCP/HARPC system team.
f) Calibration

2.6 Recordkeeping and Documentation

Documentation and record keeping must be sufficient to enable verify the HACCP controls, including monitoring the prerequisite programs, the corrective action and product testing are in place and maintained.

2.7 Review hazard analysis and risk base preventive control

The packaging safety team must review the hazard analysis and risk base preventive control at least annually and prior to any changes which may affect product safety, quality and legality. As a guide, these may include the following, although this list is not exhaustive:

a) Change in raw materials, master batch, additive, chemical used or supplier of raw materials.
b) Change in ingredients/recipe
c) Change in processing conditions or process flow
d) Change in machine or equipment
e) Change in packaging, storage or distribution conditions
f) Change in Thai union's consumer use
g) Emergence of a new risk (e.g. known chemical hazard of material used)
h) New developments in scientific information associated with ingredients, process or product
i) Change the pre-requisite program or preventive control plan

3. Product Safety and Quality Management

3.1 Product Safety and Quality Management System

The product and quality management shall meet the packaging safety and legality. The record shall be in place. The processing and method shall meet the requirements of this standard including facilitate training to staffs.

3.2 Documentation control

The supplier shall operate an effective document control system included with recording forms to ensure that are available and in use;

- A list of all controlled documents indication the latest version number.
- The method for the identification and authorisation of controlled documents.
- The record shall be in place and maintained as well as record of the reason for any changes or amendments to documents.
- The document is updated or latest version at site and available at points of use.
- The document which is used at core process shall legibly for user e.g. critical point, preventive control etc.

3.3 Record keeping

- Record shall remain legible, readily identifiable, retrievable and not permitted to use correcting fluid.
- Record shall be maintained and support traceability and due diligence in the production.
- Records shall be retained relevant the shelf life of TU's shelf life product or shelf life of package (depend on which one is longest).

3.4 Specification

The supplier shall establish specification exist for raw materials, process, product and service. The specification is carried out product safety and quality involve the customer requirement as following;

- Specifications indicating raw materials, master batch, additive , chemical used and compound, packaging include products shall be adequate and accurate and ensure compliance with relevant safety and legislative requirements.
- Specifications shall be available for all finish products. These shall be agreed and sign off by TU group.
- The specifications must following requirements such as type of material used, defined these relevant the legislative requirement as well as renewable material or recycled materials which control the ratio of used.

3.5 Internal Audits

Internal audit is documented planned covering hazard, risk assessment and all activities shall be carried out at least annually.

- The scope and frequency of the audits shall be established in relation to the risk associated with the activity and previous audit performance.
- Internal audit shall be conducted by appropriately trained competent auditors, who are independent from the audited department.
- Internal audit report shall be identified conformity as well as non-conformity, Investigate cause of problem, and corrective action includes timescales for action taken appropriately.

3.6 Supplier Approval and performance monitoring

3.6.1 The supplier shall undertake a documented approval , criteria and assessment for all vendors which supply material via agent or broker. This would decrease the likelihood of having issues that affect the safety, legality and quality of finished product and ensures trust in the supply chain.

The approval and monitoring procedure shall be based on one or a combination of;

- Third party audits or certification food safety system
- The supplier assessment questionnaire
- The onsite audit

The supplier shall update the vendor list when changing new vendor and inform to TU Group.

3.6.2 The vendor assessment record shall be in place all the time of purchasing period.

3.6.3 If the vendor could not practice as this requirement (3.6.1), the supplier shall indicate this exception.

3.7 Management of subcontracted processes and supplier of services (service provider)

The service provider management procedure shall be carried out from the processing to the subcontractor (outsource) who is sub processing to ensure that no issues that affect the safety, legality and quality of finished product.

3.7.1 The subcontractor shall be agreed by Thai Union Group and documented in place before service provision.

3.7.2 Contracts or formal agreements shall be exist with the suppliers of service (service provider) and clearly define product specification before service provision.

3.7.3 Any subcontracted/outsource process e.g.artwork design, processing or pre-press, the supplier shall assess hazard and risk assessment with the record maintained.

3.7.4 The supplier shall monitor all products and service from service provider and shall be retained record of monitoring the quality and product safety by trained staff who work on receipt according to documented procedures.

3.8 Management of suppliers of services

The supplier shall be able to demonstrate that they have control systems in place to manage effectively the product safety, quality and legality when using supplier of service.

There shall be a documented procedure for the approval and monitoring of suppliers of service. Such service shall include as appropriate;

- Pest control
- Laundry services
- Distribution and transportation
- Storage and disposal
- Provider
- Laboratory
- Calibration
- Waste management

3.9 Traceability system/ Withdrawal/ Recall program

3.9.1 Traceability

There shall be documented procedures or work instruction for managing traceability which conduct an effective traceability system provides completely of all raw materials, components, work in progress, packaging and finished products and record shall be in place.

- Identification of raw materials, including primary involve packaging and processing aids, intermediate/semi-processed products ,part-used materials, finished products, materials pending investigation and rework, shall be adequate to ensure traceability.

3.9.2 The company shall test the traceability system annually (backward or forward) across the range of product groups

- Traceability can be determined from raw material to finished product which are produced for TU group and vice versa, including quantity check/mass balance in acceptance criteria 95-105%.

Remark

1. The auditor shall random on-site traceability test that should be achievable within 4 hours, including quantity check/mass balance in acceptance criteria 95-105%.
2. The traceability are including 2 types;
   - Backward The traceable from the product which is lot identification testing through all stages of the process to all raw material and inputs used such as master batch, additive, chemical as well as packaging.
   - Forward The traceable from the raw material and inputs used such as mater batch, additive, chemical testing through all stages of the process to the finish products.

3.9.3 Withdrawal/Recall program

The supplier shall have a documented product withdrawal and recall procedure. This shall include;

- An up-to-date list of key contacts or reference to the location of such a list. e.g. recall management team who is authorized and could make decision to withdrawal or recall. Key contact information must be maintained for both working and out-of-hours contacts authority. This information must be communicated to TU group immediately where it affects the supply or brand integrity of TU group and product safety issue within 24 hours as well as 3 days of quality and other issues.
- The procedure shall be full process of traceability to identifying key points at any production and distribution process.
- The continuity plan shall be included when recall.
- All communication with Government or enforcement agencies, regarding TU brands products must be coordinated following the guidelines.

*Remark : Auditor shall ensure that the contact list name is up to date with e-mail, and telephone no. The mass balance or quantity check shall be verified in acceptance criteria 95-105%.

3.9.4 The product recall and withdrawal procedures shall be tested, at least annually, in a way that ensures their effective operation and the recorded should be maintained.

- Mock Recall involves the traceability determined from raw material to finished products to customer.
- The products are in warehouse, distribution are involve the mock recall including work in process and re-work products.
- The quantity check/mass balance shall be carried out in acceptance criteria 95-105%.

*Remark :

- Product recall : mean any measure aimed at achieving the return of a dangerous product that has already been supplied or made available to consumers by the producer, co-packer, distributor, retailer or whole seller.
- Withdrawal : mean any measure aimed at preventing the distribution, display and offer of a product dangerous to the consumer e.g. the products are considered and controlled by producer, distributor and retailer.

3.10 Customer focus and contract review

The supplier shall be ensuring processe for customer focus and demonstrate to TU group satisfaction and expectation relevant product quality, safety and legality.

3.10.1 The supplier shall specify contact person who communicate with TU group for effective process.

3.10.2 The contract review of TU group requirement shall be review appropriately by supplier. The change of specific requirement shall be made known to TU group and communicate to relevant staff within the site and record shall be in place.

3.10.3 The customer satisfaction for TU group should be provided as applicable as well as the result of that survey should monitoring and communicate to relevant department for improvement. The record shall be maintained and in place.

3.11 Customer complaint

- The supplier shall provide the customer complaint procedure for handled effectively and information used to reduce recurring complaint levels.
- The complaints shall be recorded, investigated and the results of investigation and root cause of the issue recorded where sufficient information is provided.
- A prompt response must be provide to TU group within 24 hours, investigation and corrective action must be promptly applied appropriate to the severity of the product safety issue within 24 hours as well as within 3 days of quality issue.
- Where investigate and action taken replying and response back to TU group shall be done within 7 days.
- Complete records must be kept and the outcome of the investigation promptly reported to relevant personnel and departments for related corrective action plans to be carried, which must result in the prevention of a re-occurrence.

4. Site Standards

4.1 External and location standard

Location establishments should not be located anywhere, after considering such protective measures, it is clear that there will remain a threat to packaging safety or suitability. In particular, establishments should normally locate away from;

- Environmentally polluted areas and industrial activities which pose a serious threat of contaminating product.
- Around building is waste area and prone to infestations of pests.
- The stockyards are near production area.
- Areas where wasted, either solid or liquid, cannot be removed effectively.
- The external areas shall be maintained in good order. Where buildings are surrounded by grassed or planted area.
- External traffic routes under site control shall be suitably surfaced and maintained in good repair to avoid contamination of the product.
- The activity or environmental which are potential to contaminate to product or in processing shall be provided the control measure e.g. areas subject to flooding unless sufficient safeguards.
- The building fabric shall be maintained to minimise potential for product contamination (e.g. elimination of bird roosting sites, sealing gaps around pipes to prevent pest entry, ingress of water and other contaminants).
- Where a risk to contamination, the preventive control shall be put in place to prevent contamination to the production area.

4.2 Building Fabric and interiors: Raw Materials Handling, Preparation, Processing, Packing and Storage areas

4.2.1 Building;

- Walls, floors and ceilings must be impervious, sealed and easily cleaned and maintained to eliminate any risk of contamination. Design and construction to minimise accumulation of dirt, debris and pests and no wood material except window/door frame.
- There shall be plan of the site which designates areas where product is at different levels of risk from contamination.
- Good ventilation
- Adequate lighting must be provided for clear working visibility.
- Where the area with stairs, walkway, conveyor shall be protected contamination.

4.2.2 Ventilation and Extraction

- Adequate ventilation must be provided to minimise process dust or these aspects must be otherwise controlled.

4.3 Utilities

Utilities such the water, air, steam used within the production and storage areas shall be monitored and maintenance to effectively control the risk of product contamination.

- All water used as in the manufacture of process (potable water) and cleaning the equipment, shall be pose no risk of contamination according to applicable legislation.
- Where primary packaging producer shall be conducted risk assessment the microbiological, chemical and shall be monitored to ensure this does not represent a contamination risk and impact in quality, product safety and legality issues.
- Compressed air used directly in contact with the product shall be filtered.

4.4 Plant security

The supplier shall undertake a documented assessment of the security arrangements to ensure that products are protected from theft or malicious contamination whilst under the control of the site;

- The procedure or control measure are provided and shall be assessed according to risk for access control or sensitive or restricted areas shall be defined, clearly marked, monitored and controlled.
- The sensitive or restricted areas such as the batching room, chemical room, or mixing room, print master and formula room etc.
- Measures shall be in place to ensure only authorised personnel have access to production area and other area e.g. batching room, chemical room or mixing room, print master and formula room etc.
- Access to the site must be restricted to employees, contractors and accompanied visitors. The record shall be in place.

4.5 Layout and Product Flow and Segregation

The supplier shall carry out the factory layout, segregation area to prevent the risk of product contamination including the waste, rework area and temporary structures constructed during building work or refurbishment, etc. shall be designed and located to avoid pest harbourage and ensure the safety and quality of products.

4.6 Equipment

The equipment shall be suitable for the intended used and maintenance relevant the quality, product safety and legality.

4.6.1 All equipment shall be constructed of appropriate materials. The design and placement of equipment shall ensure it can be effectively cleaned and maintained.

4.6.2 Before installed new machine or equipment, the supplier shall study their specification and test run as well as the method to plan the maintenance and cleaning program.

4.6.3 Where constructor or some parts of infrastructure e.g. table, chair are made from wood, they should be good in place and maintained to prevent the physical contamination.

4.6.4 Suitable control of used the equipment and able to clean relevant the safety.

4.7 Maintenance

4.7.1 Maintenance documentation and methods used are provided.

4.7.2 There shall be a documented planned maintenance schedule or condition monitoring system which includes all plant and processing equipment with detail;

a) list of processing equipment and part changed
b) frequency
c) responsible person as site engineer

Remark ; Any out planned maintenance programme, where there is a risk of product contamination by foreign bodies arising from equipment damage, the equipment shall be inspected at predetermined intervals, inspection results documented and appropriate action taken.

4.7.3 The break down record of equipment is kept in place.

4.7.4 Cleaning must be carried out post-maintenance unless it can be documented to demonstrate there is no risk to product.

a) Maintenance work shall be followed by a documented hygiene clearance operations, which records that product contamination hazards have been removed from machinery and equipment.
b) Maintenance staff shall work following a documented hygiene.
c) An effective maintenance process must be documented as physical count of all tools equipment and materials used are undertaken and all items are accounted for prior to re-commencement of manufacture. The correction and corrective action shall be provided if some part or tools are lost.

4.7.5 Temporary (tape, wire) engineering repairs must be minimised. These must not affect product safety, quality or legality and the use of temporary fixes must be promptly documented and rectified with permanent solutions as soon as possible and within a defined time.

4.7.6 The machine are waiting for maintenance or fix shall be identified tag of responsible person and due date of finish date.

4.8 Housekeeping and cleaning

Housekeeping and cleaning systems must be in place to ensure that necessary standards of hygiene are maintained at all times and the risk of product cross contamination is minimised.

4.8.1 Procedures must be developed, documented and implemented for the cleaning and sanitation of the production facility, fixtures and equipment.

4.8.2 Cleaning work instructions must be developed for the site, documented and implemented. Where written cleaning programmes are specify frequency and method of cleaning, the programme which include:

a) Responsibility for particular tasks

b) The cleaning program shall include as minimum;

- areas, items of equipment and utensils to be cleaned
- frequency of cleaning
- method of cleaning
- detergent and disinfectant used
- cleaning record and verification program

4.8.3 Cleaning chemicals should be handled and used carefully in accordance with supplier manufacturers' instructions and stored with locked, where necessary, separated from product, in clearly identified containers to avoid the risk of contamination.

4.8.4 Cleaning chemical shall be control used, clearly identification and preparation by the training staff.

4.8.5 All cleaning equipment must be identified and captive to the risk area where usage e.g. the broom, rag (some cleaning equipment are strictly at some areas which are pose the risk of contamination).

4.9 Product contamination control

4.9.1 Glass, brittle plastic, ceramic and similar material control.

- Glass or other brittle materials shall be excluded or protected against breakage in areas.
- The supplier shall provide documented procedures for handling glass and other brittle materials shall be in place and implemented which include as a minimum ;
  - Listed on a register and layout, where they may pose a risk of product contamination and record checks of condition of items including the glass of equipment from laboratory when intake in the production area.
  - The procedure must be in place for the management of Glass, Glass Like Materials & hard (Brittle) Plastic breakages e.g. stopping of production and Restriction of movement through the affected area, Quarantine of all product and packaging materials possibly contaminated. A record of product, codes, and quantities to be logged for reference. Completion of an incident log and sign off that production can restart, by a responsible/senior person and record of incident should keep in place.

- Where the supplier who produce the bottle glass; the process control shall be designated at all process step and monitor the amount of glass products and ensure that no piece of glass contaminate to the finish products.

4.9.2 Sharps control

- The supplier shall carry out the documented sharp control policy.
- The supplier shall control of use and implements including other metal equipment shall only specified use and the design could not contaminate to products.
- The equipment e.g. sharp used in process shall be control and check involve intake used and take place away from production area.
- The snap blade knives must not be used at the process or production area are pose a risk of contamination such as cut the rolling film, seal pack, packing room etc.
- Control used of others equipment e.g. staples and drawing pins must not be permitted in production areas.

4.9.3 Chemical Control and Biological control

The supplier must manage the use, storage and handling of non-packaging chemical material to prevent chemical contamination which includes;

- The approve list of chemical is comply with legal and no residue contaminate to products.
- The identification label and Safety Data Sheets (SDS) available in chemical storage areas and other key locations.
- Segregated and secure storage with restricted access to authorised personnel.
- Only food grade lubricants may be used on handling/contact equipment. Information must be available to demonstrate food grade suitability for materials used and certificate shall keep in place include the MSDS.
- The staff who responsible for preparation chemical use shall be trained such the preparation and safety.
- The control of contamination shall be indicated in hazard analysis include other risk form microbiological and chemical at the processing.

4.9.4 Waste and Waste disposal

- The supplier shall maintain active document or license to manage waster and disposal in accordance with legal requirements and to prevent accumulation, risk of contamination and the attraction of pests.
- Waste must be collected in containers, correctly disposed and must not pose a risk to the environmental.
- Waste container should be adequate, designed be covered or doors kept closed as appropriate to prevent attraction of pets.
- Where the waste is removed by contractors, the licensing is required for the disposal or categorised waste and records shall be maintained.
- The waste water treatment shall be complied with the legal.
- The air emission release to environment shall be complied with the legal.

4.9.5 Pest control

The whole site must be protected by an effective pest prevention program which reduces the risk of infestation;

- Identified the bait at the appropriate location and up-to-date plan of the full site.
- The pest inspection frequency is once every 2 weeks for internal activities and once a month for external activities. Where live catch system need to be monitored at least once a week.
- Pest monitoring devices must be secured to wall/floor/fixed structure to prevent removal and access by unauthorized staff.
- Label and Material Safety Data Sheets must be included for all chemicals used and approved by government.
- A trained company employee and nominated deputy must be accountable for managing the pest control program.
- The inspection record shall be maintained includes correction and corrective action should be taken when pest control deviation.
- Pest control measure must be in place to prevent pest ingress and have adverse impact to product or the premise.
- No rodents or nest of birds at inside premises and the surrounding area.
- When audit at site, shall not found the evidence of infestation as presenting a risk of contamination to products, raw materials or packaging.
- Electronic fly killer (EFK) units shall be placed with tray to prevent contamination from any part of insect and should be properly clean.
- No live rodent caught in the trap observed during the audit.

In case of the Pest Control Provider (PCP) is contracted, the signed contract shall be in place including;

- Identified the bait at the appropriate location and up-to-date plan of the full site
- The pest inspection frequency is once every 2 weeks for internal activities and once a month for external activities. Where live catch system need to be monitored at least once a week.
- Label all traps used.
- Label and Material Safety Data Sheets must be included for all chemicals used and approved by government.
- Company employees engaged as PCPs must have proof of appropriate certified and licence as required by state or local regulations.
- Training to the supplier's pest staff can be conducted by PCP or other qualified experts.
- The inspection record shall be maintained including correction and corrective action should be taken when pest control deviation.
- The supplier must verify the PCPs work as required in this standard.

5. Product and Process control

5.1 Product development

Development and process changes in formulation must be adequately assessed for legal and safety issues, should be documented and records.

- All new products and change from the customer requirement shall be formally approved with the document from TU group. The parameter of process and product control shall be maintained and accordance with the quality, product safety and legality.
- The product sample with the agreed specification shall be maintained for reference.

5.2 Graphic design, artwork and master control

System shall be in place to prevent data loss or any change to TU's graphic design, artwork/master control.

5.2.1 Control shall be in place to ensure only authorised personnel have access to storage of artwork/master, prevent data loss and used by unauthorised person.

5.2.2 Control in place to ensure only updated artwork/master which is agreed with specification is in use. e.g. a list of all specification with artwork/master documents indication the latest version number and review before using .Control of obsolete artwork/master.

5.3 Customer property

Where customer property is in use e.g. TU's artwork/master/mould plate, the system shall be in place to prevent loss, damage, or miss-use. Unless informing to TU with the record of this incident.

5.4 Packaging Print Control

The information provided on the packaging shall be clear, accurate and in accordance with the requirements of the customer's country as following;

5.4.1 Monitoring and verification on the pre-press process which is first run product to ensure that no data loss and miss-printing.

5.4.2 Before printing, the pre-press shall be approved by TU group or authorized person and record is in place.

5.4.3 Control of record should be maintained.

5.5 Process Control

5.5.1 The supplier shall provide documented process specifications and work instructions for the key process.

5.5.2 The monitoring of process and printing shall be conducted to comply with quality issue.

5.5.3 Each lot no. of production shall be controlled to comply with the specifications such from raw material throughout the processing and finish products.

5.5.4 Documented checks shall be carried out .When adjust the tools or machines, shall be monitored and verified.

5.5.5 The monitoring and updating the regulation or standard involve processing and quality control shall be carried out to ensure that products are safe, legality and safety.

5.5.6 Process monitoring such as temperature, time, pressure and chemical properties, shall be implemented, adequately controlled and recorded to ensure that product is produced within the required process specification.

5.5.7 The inspectors and operators shall be qualified at the function and be trained appropriately.

5.5.8 Labelling and pack control

At the end of process, Labelling and coding shall be checked at least:

a) Date (Production and best before or expiry date)
b) Batch
c) Quality check

Where the camera inspector equipment is applied, the supplier should verify this equipment to ensure that correct working due to auto reject the incorrect label or code.

5.5.9 Quantity and weight control

The supplier must have a clear documented quality plan (Quality control program and record) which include;

- The Sampling Plan, criteria, frequency , responsible person checking, the correction and corrective action shall be recorded in place when deviation.
- Relevant records shall be maintained.

5.6 Calibration and control of measuring and monitoring device

- The measuring device is used to monitor critical parameters and product safety, quality and legality shall be calibrated annually or relevant the legal. Reference measuring equipment shall be calibrated and traceable to a recognised national or international standard.
- After calibration or verification, the measuring device shall be evaluated before used.
- The identified measuring devices are include,

a) tag no.
b) calibration date
c) calibration due date
d) name of responsible person

- Prevention from adjustment by unauthorised staff
- The calibration record shall be maintained.

5.7 Product inspection , Testing and measuring

5.7.1 Product inspection and testing

The supplier shall provide scheduled programme of testing covering products and the processing to comply with the specification. When the result of testing is noncompliance, the correction and corrective action shall be indicated. The product testing is such as migration, tensile strength, seaming, volume test, and torque as well as tone colour of printing.

The sensitivity test of measurement device or equipment for product testing shall be provided properly.

5.7.2 Laboratory testing

If an on-site laboratory is used, the supplier shall concern ;

a) Control the environment of laboratory e.g. temperature, light, R.H and ventilation is appropriate the testing condition.
b) The laboratory staff shall have competency and proper training. Laboratory methodologies must refer to the international with traceable and documented for all analyses carried out on site, the validation testing shall be undertaken for applicable method.
c) Laboratories shall participate in proficiency / correlation testing to verified the efficiency and effectiveness of testing.

External laboratory shall be accredited ISO/IEC 17025 relevant the scope of testing. If the laboratory is not accredited, the proficiency test should be conducted or comparison testing between labs.

5.8 Control of non-conforming Product

The supplier shall ensure that any out-off specification product is effectively managed and not releasing. There shall be documented procedures for managing non-conforming products which include;

- Define responsibilities for decision making on the user or disposal of products appropriate to the issue, e.g. destruction, reworking, downgrading to an alternative label or acceptance by concession.
- Allocate and segregate area must be applied for the quarantine of raw materials, packaging or finished products.
- The acceptance criteria of releasing non conformity products.
- Records of the decision on the use of disposal of the product.

Permitted rework must be appropriate controlled in use, must not negatively affect to product quality, safety or legality and the final product must still meet the TU group specification that is approved by TU team.

5.9 Incoming material

All raw materials which are master batch, material and additive, chemical used and packaging intake shall be risk assessed and inspection to ensure comply with the specification and no adulterated material intake. The inspection should include quality aspect, label condition and any sign of contamination. The inspection record shall be relevant the purchasing order and specification.

5.10 Storage of all materials and intermediate and finished products

The supplier shall identified and managing its storage relevant to shelf life of product. These would ensure that all its products are protected during all stages to transportation. This would reduce any risk or likelihood of occurrence of product contamination or damage to the product and maintain the quality, product safety and legality.

5.10.1 Identification must be maintained for raw material including packaging or product.
5.10.2 Where storage outside is necessary, items shall be protected from contamination, dust, odour and deterioration as well as keep maintain in their area.
5.10.3 Segregation of products where necessary to avoid cross-contamination.
5.10.4 The supplier shall maintain the chemical control for product safety.
5.10.5 Recycled material shall be controlled to prevent contamination.

5.11 Dispatch and transport

The supplier managing providers and vehicles would ensure that all its products are protected during transport. This would reduce any occurrence of product contamination.

5.11.1 Where some packages are opened wrap to use, the others one as remain in packs shall be kept in good condition to prevent contaminate from negative environment or malicious and maintain identification for traceability.
5.11.2 Pallets are in good hygiene condition. Where used the wood pallet, the monitoring shall be carried out and segregated un-good hygiene that may causes of product damage.
5.11.3 Vehicles shall be in a clean and hygienic condition to prevent contamination.
5.11.4 Checking the hygienic condition of all vehicles of preload to ensure product safety.
5.11.5 Where the supplier employs third-party contractors, all requirements shall be clearly defined in the contract to ensure product safety and good hygiene without the odour.
5.11.6 The staff who responsible to transportation shall work follow the regulation and be trained.

6. Personnel

6.1 Training and Competence : Raw materials Handling , Preparation, Processing , Packing and Storage areas.

Training and competency : The Supplier shall carry out the documented procedure to ensure all staffs are trained and supervised in the activities which they carry out includes;

- The supplier must define the training needs that relevant with job specific skills. The training program may include the on-the-job training and any specific training required. Training material such VDO, media etc. should be indicated in the training program.
- Staffs must be trained accordance with the training program. The training evaluation shall be carried out appropriately.
- Records of training of all employees in the relevant procedures to their duties must be maintained.
- The staffs shall be trained accordance with the job specification e.g. chemical control, control of operation, contamination control and personal hygiene etc.

6.2 Personal Hygiene

The procedures regarding personal hygiene must be developed, documented and implemented commensurate with the product risk in consideration with the following requirements:

- The staffs shall wear the suitable cloth including personal protective equipment properly.
- The changing and other facilities area including with;
  - The changing shoes area shall be provide appropriately and separate place between personal's shoes and working's shoes. (Base on risk assessment)
  - Designated smoking facilities must be provided as permitted by law and be located away from product handling or storage areas. Smoker's areas must be controlled to prevent contamination risk to product.
  - The facilities for storage of personal food e.g. lunches shall be available. These must be maintained in a clean condition. The bins should be appropriate outside of production area.
- Jewellery shall not be worn in rule due to the rule is appropriate controls for acceptable wearing of jewellery; which must be specified risk assessment to ensure so as to minimise the risk of product contamination.
- The staffs are being a carrier of a disease or illness likely to be transmitted through product or visibly infected skin lesions (boils, cuts, etc.) should not be allowed to enter any product handling area if there is a likelihood of their contamination. Spitting, eating, smoking in production and relevant area must be prohibited.
- Regular monitoring staffs who contact or risk to product safety compliance to the personal hygiene policy at before and during working.

6.3 Staff facilities

- The supplier must provide following facility design aspects are required to be addressed based on product risk at least;
  - Adequate locker/storage facilities for personal.
  - Toilets shall be adequately segregated and shall not open directly into production.
  - Hand wash stations and sanitizer must be located to facilitate regarding the risk assessment including complete hand drying e.g. single use towels or dryers as appropriately.

- Advisory sign are promptly for hand washing at the hand wash station e.g. before entering production or toilet including the method of washing.
- The supplier shall document and communicate to visitors and others to know the rules regarding the wearing of protective and good practice before entering production area.

6.4 Medical Screening

- The medical check for employees shall be done annually regarding the FDA /national legislation accordance with the risk assessment of working area.
- The supplier shall have a procedure which enables notification by employees, including temporary employees, visitor, of any relevant infection, diseases or condition with which they may have been in contact of be suffering from.
- The health questionnaire or otherwise confirm shall be provided before entering the production line, packing and storage room.
- The personal medicines shall be controlled and monitoring appropriately such as not permitted to bring to production line or base on risk assessment.

6.5 Protective Clothing

Designate the protective cloth to prevent the contamination in consideration following;

- Define the changing clothes rule in some specific area which are poses the risk of contamination e.g. raw material, preparation, processing and storage areas including some area is not require changing due to the risk assessment. Mask, beard/moustache snood or hair cover shall be direct contact to food packaging.
- Rules of wearing/changing the personal clothes at work area.
- Rules of wearing/changing the clothes when entry non production area such as toilet, canteen and smoking area.
- The clothes and protective clothing are in good condition.
- The gloves shall be provided for staffs who work at the potential risk area to contamination or direct contact the product.

7 .Environmental & Social responsibility

7.1 The supplier must specific Environmental documented must be in place, detailing responsibility to meet in the local legislative requirements, minimizing overall environmental impact and how this is measured.

- Where the hazardous waste shall be control if transfer outside record shall be in place such as Uniforms Hazardous Waste Manifest .
- The waste treatment shall meet the local legislative requirements (BOD < 20 mg/l, COD < 120 mg/l, Oil & Grease < 5 mg/l, pH 5.5 – 9.0, TDS < 3000 mg/l, TSS < 50 mg/l)
- Where the supplier's site places in the industrial estate, shall carry out relevant to the estate and local legislative requirement.
- Separate and identified the wastes include the hazardous waste and must be kept in good condition place.

7.2 The supplier must management to employ the employee meet in legislative requirement and have knowledge of the Ethical Trading Initiative (ETI) included with,

- The minimum age of employee is meet in the national legislation e.g. Thai Labour Protection Act is specified stated that not less than 15 years old of employee.
- The employee shall be given properly the wages and relevant this Act.
- The working hours are meet in the legislation, total working time is not over 48 hours per week or relevant national legislation.
- The overtime and working on day off or holiday shall not over 36 hours per week. If working time is 5 hours, the supplier (employer) shall provide breaking every an hour. In case of the overtime is more than 2 hours, the breaking time is provided for 20 minutes. In addition, the day off should be established at least a day per week and in the period 6 workdays as maximum (or relevant the national legislation).

Remark : Thai Labour Protection Act is stated the exemption of employee age following;

- Where the employee is less than 18 years old, the employer shall apply to meet in section 45,46,47,48,49,50,51 and 52
- The employee who is less than 18 years (but over 15 years old) could work except seafood processing and poultry slaughters.