



Temperature Controlled Supply Chain Solutions

A Member Of The *mafc* Group

CHALLENGES IN THE TEMPERATURE CONTROLLED SUPPLY CHAIN



COLD CHAIN NETWORK (M) SDN BHD.
No. 3, Jalan Perindustrian Puchong, Bandar Metro Puchong, 47160 Puchong, Selangor, Malaysia.

GMFR
Ver: 6 May 2014

CORPORATE STRUCTURE



Khazanah Nasional is the investment holding arm of Malaysia and the Government's strategic investor in new industries and markets.



Malaysian Agrifood Corporation is an integrated food supply chain management company in Malaysia.



Cold Chain Network (M) Sdn Bhd (CCN) is a logistics, warehousing facility provider and a distribution centre.



CCN FAST FACTS



Multi-compartment Fleet

- Equipped with GPS
- On-board temperature monitoring
- Online temperature monitoring

FLEET	
Fleet Type	No. of Units
40 Footers	23
18 Tonner	10
8.5 Tonner	16
5 Tonner	5
TOTAL	54



Temperature Controlled Warehouse

- 198,195 ft² floor space.
- 18,828 pallet positions.
- 39 loading bays with dock shelters.
- 15 cold rooms
 - 4 chillers
 - 4 freezers
 - 2 multi-temperature cold-rooms
 - 5 dedicated picking chambers
- Flexible cold room temperatures -30°C to 18°C.
- Sub-zero (-10°C) capable receiving/ante rooms



MS 2400-1:2010
2/036-08/2013

MS 2400-2:2010
2/035-08/2013

HALAL LOGISTICS Certified



MS 2400:2010-1
Halalan-Toyyiban Assurance Pipeline Part 1: Management System Requirements For Transportation of Goods And/or Cargo Chain Services



MS 2400:2010-2
Halalan-Toyyiban Assurance Pipeline Part 2: Management System Requirements For Warehousing And Related Activities

Other Certifications

- **MS 1900:2005**
Quality Management Systems-Requirements From Islamic Perspectives
- **MS 1480:2007**
Food Safety According To Hazard Analysis And Control Point (HACCP) System
- **ISO 9001:2008**
Quality Management Systems-requirements

COLD CHAIN KEY CHALLENGES



1. Maintaining **temperature integrity** throughout the delivery chain. We sell temperature.
2. Ensuring Transports and deliveries are **IFOT**, and at the right temperature.
3. **Securing “The Bank”** – security, inventory integrity and accuracy.
4. **Timely and accurate** information – on deliveries, to customer complaints.
5. **Managing labour** – cold working conditions

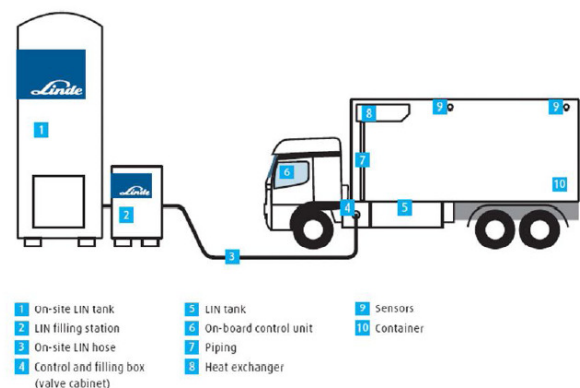


MAINTAINING TEMPERATURE INTEGRITY TO ENSURE PRODUCT QUALITY & COST OPTIMISATION

- Electrical Consumption is rising.
- A slightest change in the activities such as the door opening frequency due to activities has an impact on the condensation rate in the chambers.
- Over a period of time, the refrigeration system is less efficient or malfunctioning.
- Generally outside temperature is recorded higher than normal, sometime up to 35° C – 38° C, has forced the Refrigeration System to work harder to maintain the temperature requirement.

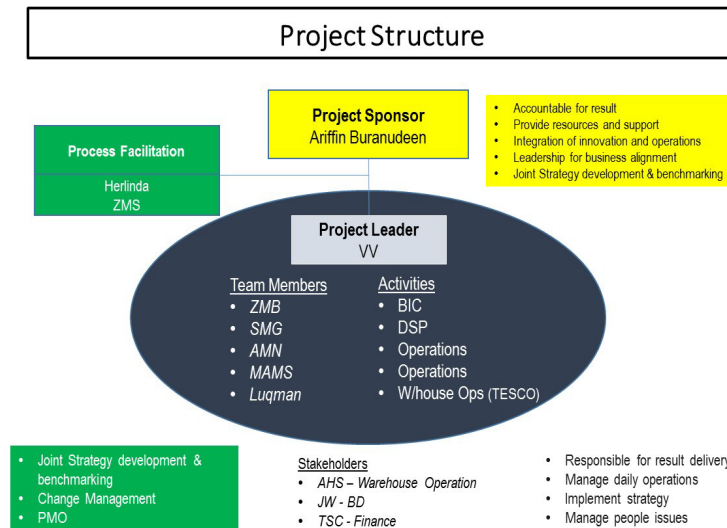
WINNING WITH INNOVATIONS

- Like all supply chains, cold chain operators must continually upgrade technology to ensure efficiency, integrity, and safety. This includes both back-end IT infrastructure and front-end devices to gather and report key data such as temperature reading in real time.
- Cold chain carriers have invested considerably in on-board equipment built into refrigeration units to track temperature and location, offering increased visibility and the opportunity to prevent or mitigate loss.
- We are also exploring “rapid cooling” systems.



GOING THE NEXT LEVEL - BIC

- A dedicated team was formed to look into BIC strategies. The structure of the team mainly Sponsors, Project Leader & Team Member.
- Leaders normally are people not involved in the Operations or SME (Subject Matter Expert)



At CCN, a project called BIC (Best In Class) was launched in 2015, mainly looking into COMPLIANCE, SAFETY & PROFITABILITY.

One of the key deliverables of the Project is to review all the SOPs involving temperature integrity.

A team was also formed to explore the latest technology and new innovations to keep us abreast with our competitors.

SUMMARY

- Operating a cold chain net work is extremely challenging and competitive.
- In order to sustain business one has to be efficient and cost effective. The main focus will be on control of energy usage, manpower and facilities (warehousing and fleet) utilisation.

Quality Certifications - CCN



Cert No: CICH/1001IPI
MS 1900:2005 Certified



Rgn No : H183388
HACCP Certified



Rgn No: Q183388 Q183388 QMS-1023-1
ISO 9001:2008 Certified



MS 1900:2005
Quality Management
Systems-
Requirements From
Islamic Perspectives



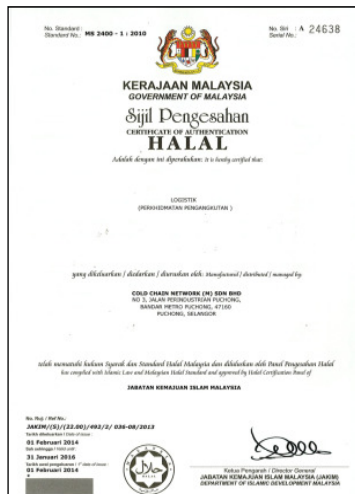
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