



# जवाहरलाल नेहरू पोर्ट ट्रस्ट JAWAHARLAL NEHRU PORT TRUST

ISO 9001 : 2008  
ISO 14001 : 2004  
ISO 27001 : 2005  
OHSAS 18001 : 2007  
IRQS Approved

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JNP/M/S/SoP-Reefer/2013/559

24<sup>th</sup> June 2013

## C I R C U L A R

The Port has formulated "Safety Operating Procedure" for operation, repairs and maintenance works of reefer containers handled at JNPCT and JNP ICD. Work permit format for carrying maintenance work of reefer containers is also developed. Copies of the "Safety Operating Procedure" and "Work Permit" are enclosed for strict compliance with immediate effect.

Harbour Master

To,  
MANSA, All Shipping Lines/Agents,  
All HoDs, Sr. Commandant – CISF  
Addl. Asstt. Director (Safety), INS, JNPT

CC to,  
CVO : for information please.  
PS to Chairman/PS to Dy. Chairman : for information please

## **SAFE OPERATING PROCEDURE FOR OPERATION, REPAIRS AND MAINTENANCE WORKS OF REEFER CONTAINERS HANDLED AT JNPCT AND JNP ICD**

- Objective : The objective of procedure to ensure that reefer containers and atmosphere of the job are made safe and free from any dangerous condition for safe completion of job which is being carried out.
- Scope : Applicable for operation, repairs and maintenance works of reefer containers handled at JNPCT and JNP ICD.
- Responsibility :
- 1) Shipping Line/Agents
  - 2) Reefer container monitoring contractors
  - 3) Officer in charge of the area where work is being carried out / officer in-charge responsible for the work.
  - 4) Substation staff and officer in-charge
- Cross Ref. : Nil
- Procedure : (A) For inspection, repairing
1. Ensure that electrical supply is turned off before connecting or disconnecting reefer containers
  2. Check cables are not damaged/open/cut etc. before turning on electrical supply.
  3. Check covers of evaporator, condenser etc. are in proper condition and not open.
  4. In case of severe vibration or unusual noise, stop the unit and investigate.
  5. Always turn off the main power supply of the reefer container before inspecting the interior or repairing.
  6. Always wear safety glasses.
  7. Keep hands, clothing and tools clear of the evaporator and condenser fans.
  8. No work should be performed on the unit until all circuit breakers, start-stop switches are turned off, and power supply is disconnected.
  9. Always work in pairs. Never work on the equipment alone.
  10. Beware of unannounced starting of the evaporator and condenser fans. Do not open the condenser fan grille or evaporator access panels before turning power off, disconnecting and securing the power plug.
  11. Be sure power is turned off before working on motors, controllers, solenoid valves and electrical control switches. Tag circuit breaker and power supply to prevent accidental energizing of circuit.

12. Do not bypass any electrical safety devices, e.g. bridging an overload, or using any sort of jumper wires.
13. Problems with the system should be diagnosed, and any necessary repairs performed, by qualified service personnel only.
14. When performing any arc welding on the unit or container, disconnect all wire harness connectors from the modules in both control boxes. Do not remove wire harness from the modules unless you are grounded to the unit frame with a static safe wrist strap.
15. In case of electrical fire, open circuit switch and extinguish with CO<sub>2</sub> (never use water).

(B) Welding work

1. Electric welding can cause serious damage to electronic circuits when performed on any portion of the refrigeration unit, container or container chassis with the refrigeration unit attached. It is necessary to ensure that welding currents are not allowed to flow through the electronic circuits of the unit. The following statements must be rigidly adhered to when servicing these units to avoid damage or destruction.
2. Disconnect all power to the refrigeration unit.
3. Disconnect all quick-disconnect wire harnesses from the back of the controller.
4. Disconnect all wire harnesses from the Remote Monitor Modem (RMM).
5. Switch all of the electrical circuit breakers in the control box to the off position.

(C) Safety Precautions: Danger of High voltage

1. Always turn off the main power supply in the facility before inspecting the interior of the control box. This is important because high voltage remains at the circuit breaker and the optionally provided modem even though the circuit breaker in the control box is turned off.
2. The possibility of serious or fatal injury from electrical shock exists when servicing a refrigeration unit. Extreme care must be used when working with a refrigeration unit that is connected to its power source. Extreme care must be used even if the unit is not running. Lethal voltage potentials can exist at the unit power cord, inside the control box, inside any high voltage junction box, at the motors and within the wiring harnesses.

3. Do not touch the condenser fan while power to the unit is ON.
4. Before removing the condenser fan cover, turn off the circuit breaker and disconnect the power plug. During air-cooled operation: Condenser fan may start and stop automatically for the refrigerant high pressure control.

(D) General Safety:

1. Use suitable PPES (Personal Protective Equipment) like Electrical Safety Shoes, Electrical Hand gloves, suitable tight fitting dry clothes, Safety Helmet, high visibility fluorescent vests etc. shall be used while carrying out Maintenance work and other operational works like inspections, loading unloading etc.
2. Wooden / Electrical insulated Ladder and tools shall be used to avoid Electrical Shocks.
3. Container shall be isolated and keep sedately from the others live Containers while carrying out Maintenance work.
4. Work Permit shall be obtained prior to initiate the Checking and Repair Work.
5. Only qualified persons to be employed for operation, repairs and maintenance works of reefer containers.
6. Regular health check-up of employees and records are required to be maintained as per Dock Workers (Safety, Health and Welfare) Regulations, 1990.

