



INSTRUCTIONS AND GUIDELINES

Container X-Ray System Start-Up Procedures

March 2011

**This Instruction & Guideline refers to Practice Statement No:
PS2009/22 – Inspection and Examination of Sea Cargo**

Published date: 14 July 2011

Availability: Internal and External

Subject: Scanning Hall Procedures

Purpose: Sets out procedures for safe x-ray system start up

Owner: National Director Cargo

Category: Operational

Contact: National ISO coordinator, Sea Cargo Improvements

The electronic version published on the intranet is the current Instruction and Guideline

Summary of main points

- Procedures to start-up the container x-ray systems in Melbourne, Sydney, Brisbane and Fremantle.

This National Guideline applies to staff and facilities in the following locations:

- Container Examination Facilities in Brisbane, Fremantle, Melbourne and Sydney

Introduction

These National Guidelines outlines the procedures to start-up the container x-ray systems in Melbourne, Sydney, Brisbane and Fremantle.

Competencies

In order to operate container X-ray equipment an officer must have been assessed and accredited in the following Units in the X-Ray Education Program:

- Unit 1 - X-Ray and Radiation Awareness; and
- Unit 4a - MB1215 Container X-Ray or
- Unit 4b - MB1213 Container X-ray

Instructions and Guidelines

The MB1215 system is used in Melbourne, Sydney and Brisbane.

The MT1213 truck mounted system is used in Fremantle.

NOTE:

- These instructions should be carried out by two container x-ray trained officers. This is to ensure the safety of both officers and equipment.
- All officers should be aware of the location of all emergency stop buttons and pull cords and how to correctly operate and reset them.
- The safety interlock key must be carried at all times during the start up process. This is to prevent the x-ray system starting with officers in the Scanning Hall.
- Pedestrian traffic should only enter the Truck Scanning Hall via the driver's door entrance.
- Officers and visitors with pacemakers should not enter the scanning hall. Strong magnetic forces operate within the accelerator cabin and can affect pacemakers
- The procedures should be followed in the order below.

MB1215 START-UP PROCEDURE

Starting up - Power to the x-ray system

- Turn the main power ISOLATOR switch "ON"

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- Press the “Control Power” on button
- Press the “S.U. Power” on button
- **The main power, control power and SU power indicator lights should all be on.**

Accelerator Cabin

- If there is no power inside the cabin, check that the main power switch located on the bottom left hand corner of the Operation Panel is on.
- When entering the accelerator cabin always turn the safety interlock key, switch to the off position. The key is located on the front panel of the pulse modulator cabin
- Ensure that the air conditioning has automatically turned on, the vent has opened and there is airflow. If required, switch on the AC, using the remote control. The set temperature should be within the temperature range stipulated in Attachment A of the container x-ray maintenance I&G. The temperature is set by the Nuctech engineer.
- Press the green power button located next to the safety interlock key switch
- The LCD touch panel should turn on and begin the warm up process.
- Return the safety interlock key switch to the “ON” position
- **The accelerator will now begin warming up. This will take approximately 8 minutes.**

Image Data Acquisition Cabin (Air conditioner)

- Ensure that the air conditioning has automatically turned on, the vent has opened and there is airflow. If required, switch on the AC, using the remote control. The set temperature should be within the temperature range stipulated in Attachment A of the container x-ray maintenance I&G. The temperature is set by the Nuctech engineer.

Scanning Unit Operation Panel

- Press the SU ready button.
- The three black mode switches should be set to **“stop /remote /run”**

Network Switch UPS

- If required, turn on the UPS
- The on button is marked on the front of the UPS with the symbol “ I ”

MSS (Server)

- Ensure the UPS is on
- If required turn on the MSS computer and monitor.

System Control Station (SCS)

- Ensure the UPS is on

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- Turn on the computer accessed from the back of the workstation module.
- Turn on the monitors.
- Log into Windows XP using: user id (scs) / Password (scs)

Check in Check out Station (CISCOS)

- Ensure the UPS is on
- Turn on the monitors
- Set BlackBox to number 1. Turn on CISCOS. Wait until the computer fully boots up before setting to number two for the LAN.
- Login to Windows XP using: user id (ciscos) / Password (ciscos)

Image Processing Stations (IPS)

- Ensure the UPS is on
- Turn on the computer and monitors
- Login to Windows XP using: user id (ips1 or ips2 or ips3) and Password (ips1 or ips2 or ips3)

MB1215 START UP IS NOW COMPLETE.

Fremantle MT1213 START-UP PROCEDURE

Control Room

Monday morning the Server Unit (Data Room) needs to be booted up first.

Rear of CISCOS/SCS Control Panel:

Cabinet 1

- On the Black Box Switching Unit ensure that input "1" is selected (red LED on)
- Use "select" button to change if necessary
- Switch on CISCOS computer and wait for Windows screen to boot up.
- Return to rear of cabinet and select input 2 on the Black Box then switch on the LAN computer.

Cabinet 4

- Switch on SCS computer
- Switch on "Indicator Lights" switch (white box)

Front of CISCOS/SCS Control Panel:

- Log on to CISCOS computer at keyboard (select Control/Control/1 if necessary), using administrator/root, followed by individual user login username (c5***) and password.

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- Alt/Tab to change screen. Use the mouse pointer on the task bar of the bottom screen to drag that screen to the top monitor.
- Log on to SCS computer at keyboard, using administrator/root, followed by individual user login username (c5****) and password.

IPS Stations:

- Turn on IPS CPU x 3
- Turn on LAN CPU x 3
- Log on to IPS x 3 using administrator/root.
- Turn on HP printer

OBTAIN SAFETY INTERLOCK KEY FROM B CLASS CABINET

Scanning Hall

- Switch the Mains Isolator switch on wall next to entry roller door to the "ON" (I) position

(Check for three green lights)

On the Scanning Vehicle:

- Check that Main Circuit Breaker at Power Inlet Box to the "ON" position.

(Switch should be in the up position)

In Control Cabin:

- Switch on the following using white ON buttons:
- Main Power
- Computer
- Motor
- LINAC
- Modulator (ensure green light turns "ON")

At the Operator Console on the Lower Electric Cabinet:

- Check green Ready light is on (If not, check all doors, interlocks and emergency stops)
- Check orange Remote Control light is on (If not press Remote Control button)

Scanning Hall Checks

- Check position of scanning vehicle and ensure all doors are closed

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- Check position of front stop board
- Ensure area around scanning vehicle is clear of obstructions
- Check position of rear stop board

CONTROL ROOM

SCS Control Panel

- SCS left hand monitor: Ensure Work Mode is set to Auto
- SCS right hand monitor: Ensure Acc Work Mode is set to 6/3 Mev
- (To change: go to left hand monitor select: menu, running setting, 6/3 Mev, ok, close)

MT1213 START UP IS NOW COMPLETE

Related Policies and References

Practice Statements:

- Inspection and Examination of Sea Cargo

Other Instructions & Guidelines

- Container X-ray Image Back UP
- Opening and Closing Down the CEF
- CEF Scanning Hall Procedures
- OH&S Instructions and Guidelines

Key Roles and Responsibilities

National ISO Coordinator, Sea Cargo Improvement, Canberra

CEF Managers

Consultation

Internal

The following internal stakeholders have been consulted in the development of these Instructions and Guidelines.

- Detection and Identification Technologies
- CEF Management
- Sea Cargo Improvement

External

- Nuctech
- Australian Radiation Services (Customs and Border Protection radiation consultancy service provider)

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Approval

Approved on	12 July 2011	
By	National Director Cargo Raelene Vivian	
Review Period	Annually	