CONTAINER INSPECTION
RADIATION SAFETY INFORMATION

SECURITY AND CONTAINER INSPECTION

With the rise of globalised trade and threats to supply chain security, container Inspection systems are increasingly used throughout the world to scan containers, trucks and other cargo carrying vehicles for contraband, smuggled goods, drugs, explosives, weapons and other mis-declared cargo. The Kingdom of Bahrain is at the forefront in the use of such technologies to ensure compliance with international supply chain security best practices and the security of our borders.

CONTAINER INSPECTION FACILITIES

Bahrain Customs operates advanced container inspection equipment at major customs border points throughout the Kingdom of Bahrain. This includes the new Khalifa Bin Salman Port and the land border point between Saudi Arabia and Bahrain at the King Fahd Causeway.

CONTAINER SCANNING PROCEDURE

The scanning process involves the container carrying truck being guided into the scanning tunnel. The driver exits the truck and waits in the special shielded waiting area.

The x-ray scanner consisting of a housing which includes an x-ray source and detector, passes over the container on a fixed rail system.

The x-ray scanner uses a dual source energy (6/3MeV) linear accelerator which can easily discriminate different types of material both organic and non-organic. Full containers can be unloaded and the palletized cargo is scanned using smaller pallet x-ray scanners.

Our skilled and trained operators can very quickly analyze the image produced by the scanners and determine concealed items and under-declared quantities.

SCANNING EFFECTS ON CONTAINER CONTENTS

Incorrect information has been circulated about the effects of scanning on the contents of containers by those who are not fully aware of the facts.

The scanners that customs use have a dosage considerably lower than that which has been set out by the World Health Organization (WHO) and conform to IAEA and ICRP standards. This allows items such as foodstuffs, liquids, medicines and other sensitive items to scanned very safely.

The radiation dosage absorbed due to a container scan is less than that one would receive aboard a passenger aircraft flight, or standing out in the mid-day sun during the day.

RADIATION SAFETY

Bahrain Customs takes the safety of its staff and the public very seriously. The building which house the scanning equipment and operators are designed to fully protect the public and operators from any radiation used in the scanning process.

Customs staff are fully trained in all aspects of the use of the scanning equipment, including safety. Bahrain Customs uses a world renown company who have expertise in all aspects of the safety and operation of x-ray scanning equipment to provide regular and comprehensive quality and safety checks to the scanning equipment. The company is used to provide a full range of services including training, maintenance and safety of the scanners.

Since the operations first starting using x-ray scanners, to date there have been no reported incidents or accidents. This is a reflection of the strict safety standards, the training and the safety of the equipment.
The scanning systems are fully equipped with a full range of safety features which includes:

1. Shielding facilities: shielding is used in the scanning equipment and the associated scanning tunnel as well as the operations buildings.

2. The exclusion zone is fully equipped with barriers and alarms. In addition a PA and CCTV systems are used to ensure against unauthorized access during scanning operations.

3. Radiation safety interlocks with emergency stops in the scanning tunnel and operations rooms. During a scanning operations, the power to the scanner can be stopped almost instantaneously by pressing these emergency stops.

4. Radiation dosage monitors are used all around the system to monitor radiation levels.

The detectors used in the scanners are extremely sensitive and ensure that only the minimum amount of radiation required for an image is used.

FREQUENTLY ASKED QUESTIONS

I have heard that food is affected and damaged by X-rays and contains radiation after scanning, is this true?

This is a rumor spread by either uninformed people or those who do not wish to have us use this equipment to find illicit goods and contraband efficiently and quickly.

The scanning equipment has been very thoroughly tested on all types of sensitive items including foodstuffs and liquids. The scanning process does not affect these items. The scanners conform to all international standards on safety and exposure.

Will items in containers or the truck/transport vehicles absorb any X-rays during the scanning process?

No radiation is absorbed by either the truck, the container or its contents.

How safe is the scanner?

The scanning equipment undergoes, daily, weekly and monthly checks to ensure that it meets the very stringent international safety standards employed. During each inspection, all aspects of the scanning equipment is checked, including all safety related features.

Further Information

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Protecting Bahrain Promoting Trade

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