

**GOVERNMENT OF PAKISTAN
(REVENUE DIVISION)
FEDERAL BOARD OF REVENUE
(CUSTOMS WING)**

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NOTIFICATION
NON-INTRUSIVE INSPECTION (NII) PROTOCOL

The Board is pleased to approve/notify the enclosed Non-Intrusive Inspection (NII) protocol, subject to condition that it will be implemented in phases and NII procedures shall also apply to loose/non-containerized cargo.

Encl.: **As above**



(Ubaidullah)

Secretary (Reforms & Automation)

Copy to:

1. All Chief Collectors of Customs
2. All Director Generals of Customs
3. Web Master for uploading on FBR website.

**Standard Operating Procedure (SOP) for Non-Intrusive Inspection (NII) of Containerized Cargo
- VERSION 2.0**

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Secretary (R&A)
Friday, 03 October 2025, 4:12:51 PM

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Abbreviations and Definitions

Abbreviation	Full Term	Definition
NII	Non-Intrusive Inspection	The examination of cargo utilizing X-ray or Gamma-ray scanning technology without compromising the container's integrity.
SLA	Service Level Agreement	The contractual agreement executed between the Customs Authority and the NII service provider (NLC).
WCO	World Customs Organization	The intergovernmental body providing international standards and guidance, including the SAFE Framework and NII Guidelines.
RMS	Risk Management System	The automated, data-driven system integral to the Customs Computerized System (WeBOC/PCS) used for intelligence-led targeting.
ATT	Afghan Transit Trade	Cargo moving under the transit regime towards Afghanistan, subject to 100% mandatory security screening as per the SLA.
RIAC	Remote Image Analysis Center	The secure, centralized facility where trained Customs Analysts remotely interpret NII images, ensuring separation from the operational site.
CIR	Central Image Repository	The high-security, national database for the immediate storage, indexing, and long-term archival of all NII images and associated metadata.
BWC	Body-Worn Camera	A wearable video device mandated for recording all physical examinations, ensuring transparency and providing definitive evidence.
HIT	Image Discrepancy (HIT)	An identified significant anomaly, volumetric inconsistency, or material mismatch between the NII image and the electronic cargo declaration.

II. Policy and Scope

2.1. Objective and Mandate

To establish a clear, transparent, and internationally compliant Standard Operating Procedure (SOP) for the use of Non-Intrusive Inspection (NII) scanners operated by Terminal Operators across Pakistan. This procedure ensures trade facilitation, reduction in dwell time, better revenue collection, and enhanced border security by integrating high-quality scanning images into the Customs Risk Management System (RMS) and assessment/audit procedures. It specifically aims to integrate high-quality NII data into the **RMS** and centralized audit systems, adhering to the principles of the **WCO SAFE Framework of Standards** for security and trade facilitation.

2.2. Scope and Application

This procedure constitutes the binding operational directive for all container-based NII scanning facilities deployed across the country. All Customs formations (Assessment, PCA, Enforcement, and IRM etc) whose functions interface with NII data or physical inspection protocols shall strictly adhere to these standards.

2.3. Statutory and International Framework

This procedure is aligned with the provisions of the Customs Act, 1969, and incorporates international best practices and standards, specifically the WCO SAFE Framework of Standards and the WCO Guidelines for the Procurement and Deployment of Scanning/NII Equipment, emphasizing a risk-based approach.

2.4. Scanning Threshold and Risk Management Mandate

1. **General Threshold Principle:** To avoid disruption of flow of containers at the ports and to assure compliance with WCO trade facilitation standards, the aggregate volume of risk-based import and export containers selected for NII scanning shall not surpass **thirty percent (30%)** of the total manifested volume at a terminal in the previous fiscal period. Selection of containers for scanners shall be automated via the Customs Risk Management System.

- Mandatory High-Risk Security Mandate (ATT):** In order to ensure safety/ integrity of international supply chain and recognizing the elevated security risk associated with transit movements, **all containers under the Afghan Transit Trade (ATT) regime are subject to one hundred percent (100%) mandatory NII scanning** at the designated **Port of Entry** and the **Port/Border of Exit**. The matching of images captured at entry and exit points shall be mandatory, preferably through AI enabled algorithm.

III. Scanner Operations and Image Management

3.1. Role of Terminal Operator and Customs Supervisory Staff

- Operator Responsibility:** The Terminal Operator or the Service Provider is contractually obliged to ensure NII equipment operates with **98% uptime** and meets the technical specifications for **Penetration and Imaging Quality** as defined in the respective service level agreement (e.g., penetrate at least **340 mm of steel**).
- Customs Supervisory Staff:** Responsible for enforcing safety protocols (**WCO NII Guideline, Section XI - Radiation Safety**) and ensuring that RMS-selected cargo and all **ATT cargo** is subjected to scanning, unless otherwise directed by the Board.

3.2. Image Integrity, Retention, and Archiving

- Image Transmission:** All NII images must be encrypted and transmitted to the **CIR** in **real-time**, preventing local alteration or deletion.
- Retention:** Images linked to a **HIT**, seizure, or legal proceeding must be archived for a minimum of **seven (7) years** to satisfy legal and audit requirements. Routine images shall be retained for a minimum of three (3) years.

IV. Cargo Selection and Application of NII

4.1. NII Cargo Selection Criteria (Risk Management)

Cargo for NII must be selected through the RMS based on the criteria as determined by the Risk Management System Committee duly notified by the Board. However, the committee might like to consider a tiered approach for cargo selection for NII:

High Risk: Mandatory NII based on criteria (e.g., origin/destination, specific H.S. Codes, high-value/sensitive goods, importer/exporter profile, past non-compliance record, cargo which cannot be physically inspected).

Targeted Risk: NII based on a deviation from historical or declared norms (e.g., weight/volume deviation, manifest inconsistency, specific intelligence).

Random Selection: A small percentage of RMS "Green Channel" consignments selected randomly to maintain deterrence and validate the RMS algorithm.

4.2. Cargo Categories for Non-Intrusive Inspection

4.2.1. Import/Export Cargo

Based on RMS selection all import and export cargo including cargo imported under various concessionary regimes (e.g. Export Facilitation scheme etc) must undergo NII.

4.2.2. Transshipment Cargo

Scanning of Transshipment cargo shall be conducted based on the RMS and specific intelligence. When scanned, the images shall be primarily used to:

- Compare the images with the declaration made by the trader in the Goods Declaration.
- Identify presence of high-risk/prohibited goods (e.g., arms, narcotics, radioactive material)
- Ensure that no high-risk/prohibited goods (e.g., arms, narcotics, radioactive material) are introduced into the domestic supply chain or transit/transshipment route.
- Identify en-route pilferage of goods under transit or transshipment.

4.2.3 Transit Cargo Protocol

In order to ensure integrity of international supply chain all transit cargo is subject to security controls and **100 %** scanning at the point of entry and exit. The WCO Transit Guidelines support the use of non-intrusive methods to secure the international movement of goods. For **ATT Cargo**, the double-scanning protocol is mandatory:

- **Entry Scan (Scan A):** Conducted at the first point of entry into the Customs territory, establishing the baseline image and seal integrity record.
- **Exit Scan (Scan B):** Conducted immediately prior to clearance from the Customs territory, enabling the crucial **image comparison and audit** against Scan A to confirm supply chain integrity.

V. Image Analysis and Verification Process

5.1 Local Control Room

The service provider for NII shall be responsible to establish a local control room for every scanner to be manned by trained Customs officials for real time image analysis and NII related decision makings. All containers assigned for physical inspections by Customs shall be first scanned and then the incharge of local control room from Customs shall decide whether to physically inspect the scanned container or to allow its clearance without physical inspection. The customs officials manning the local control room shall, however, be responsible to:

- **Consistency:** The type, density, and volume of the contents match with the declared description in the GD.
- **Prohibitions:** The absence of declared or un-declared prohibited/restricted items (e.g., arms, narcotics, explosives).
- **Container Integrity:** Absence of false compartments or tampering.
- **System Alert:** Take into account the AI enabled image analysis and risk alarm generated by the system.
- **Additional Checks:** Any other additional checks or measure recommended by the Board or Collector incharge

5.2 Regional RIACs: All local control rooms shall be connected with the regional RIAC which shall serve as the proximity supervision and localized image transmission management at the level of Chief Collector. It will have the authority for issuing a **Physical Examination Mandate** in case any discrepancy is suspected to over-rule the decision of the local control room. Regional RIACs will be used to maintain 24/7 supervision on local operations of NII at various terminals and scanners.

5.3 Centralized RIAC: Serves as the **National Command Centre** for NII intelligence as part of National Targeting Center (NTC). It maintains the master NII image database (**CIR**) and is responsible for country wide **Threat Image Projection (TIP)** exercises, statistical analysis, and the final adjudication of complex image discrepancies. It also provides training to Customs officials assigned for image reading. Centralized RIAC shall be authorized to generate alerts which may result into physical inspections. The outcome of these alerts shall be utilized as a feedback loop to enhance efficacy of NTC.

5.4. NII Decision-Making (WCO Best Practice)

In line with WCO recommendations for securing the inspection process, all NII images are processed and assessed at the **Remote Image Analysis Center (RIAC)**. This separation minimizes external influence and ensures expert, objective assessment.

Step	Procedure	Decision Criteria
1. Image Triage	<p>The system highlights the discrepancy based on comparison with AI image library on the screen of the local control room or the RIAC Analyst. The Image Analyst further reconfirms the findings of the automated system by comparing it against the electronic Goods Declaration (GD) in WeBOC/PCS.</p>	<p>WCO NII Guideline (Section VII): The image must be analyzed by personnel with specialized, WCO-aligned image interpretation training.</p>
2. Conclusive Determination	<p>If the control room determines the consistency between the imaged cargo profile and the declared manifest (commodity, density, volume) based on the AI image library comparison with the scanned image of the cargo. The cargo shall not be subjected to physical inspection unless any irregularity is observed or system alert is noticed</p>	<p>Image Match (Green): Cargo profile confirms consistency. Image Mismatch (Red/HIT): Profile is inconsistent, indicating potential concealment, substitution, or mis-declaration.</p>
3. Intervention Mandate	<p>Upon conclusive HIT determination, the Custom Risk Management System based on the input of control room/RIAC issues a non-discretionary mandate for physical</p>	<p>Mandate: Refer the cargo for Physical Examination (Red Protocol), citing the specific justification derived from the</p>

Step	Procedure	Decision Criteria
	intervention via the Customs system.	NII image.

5.5 Decision on Physical Examination (NII Release Protocol)

If the image is matched (Green) with the declaration, a physical examination shall NOT be conducted. The NII 'Green' result shall be considered sufficient to confirm the contents for the purpose of clearance, adhering to the principle of risk-based inspection and maximum trade facilitation.

- **Exception:** A physical examination may be ordered only if a *Major Discrepancy (Red Hit)* is confirmed or in the rare event of a specific, intelligence directive is received overriding the NII clearance.

VI. Image Utilisation by Customs

6.1. How Customs Authorities Use NII Inspection Results

Based on WCO guidelines and international best practices, Customs uses NII results for three core functions: **Real-Time Intervention, Clearance, and Post-Event Audit.**

1. Real-Time Intervention and Targeting

- **Image Discrepancy (HIT):** The NII image serves as **conclusive evidence** that the physical contents of the container do not match the electronic cargo declaration (GD/Manifest). This disparity triggers a **HIT** in the system.
- **Decision to Examine:** The resulting analysis report from the control room or analysis by the regional/central RIAC is the sole document used to justify mandatory physical intervention. The image data pinpoints the exact **location, size, and density** of the suspicious object, allowing for a targeted, efficient physical examination.
- **Contraband Detection:** NII results are used to positively identify materials inconsistent with the manifest, such as high-density anomalies (e.g., weapons, hidden compartments),

organic materials (e.g., narcotics, tobacco), or high-Z materials (e.g., precious metals), using multi-energy or color discrimination features.

- **Transit Cargo Comparison:** For high-risk cargo (like **Afghan Transit Trade - ATT**), Customs compares the **Entry Scan (Scan A)** and **Exit Scan (Scan B)**. A mismatch serves as **proof of a security breach** (pilferage, tampering, or substitution) that occurred while the cargo was under Customs control.

2. Clearance and Facilitation

- **NII Release Protocol (Green Match):** If the RIAC analysis confirms the image is consistent with the declaration (**Green Match**), the NII result is used to **expedite the release** of the cargo, adhering to the **WCO SAFE Framework** principle of facilitating legitimate trade. The image provides assurance without costly and time-consuming physical unloading.

3. Audit and Evidence

- **Post Clearance Audit (PCA):** The NII image and its analysis report are retained in the **Central Image Repository (CIR)** and used by PCA staff to audit high-risk transactions retrospectively. This helps verify the accuracy of the original declaration and provides evidence for fiscal fraud cases.
- **Legal Evidence:** In cases of seizure, the NII image, authenticated by the RIAC Analyst, is used as **primary forensic evidence** in judicial proceedings to establish the presence and nature of the smuggled goods.

II. Guidelines for Customs Officials Using NII Inspection

As per WCO publications the guidelines for Customs Officials using NII are split between the technical staff operating the scanner and the analytical staff interpreting the results, however, in case of a service provider Customs role will be limited to the later part.

A. Guidelines for Image Analysts (RIAC Staff)

The WCO emphasizes that analysis must be **remote, expert, and consistent:**

Guideline/Procedure	WCO Basis	Rationale
Remote, Centralized Analysis	WCO Best Practice (RIAC Model)	Decision-making must be separated from the operational site to ensure objectivity and prevent external interference.
Image-to-Declaration Verification	WCO SAFE Framework (Standard 4: Risk Management)	Comparison must be made solely against the Advance Electronic Information (AEI) /Goods Declaration (GD) to confirm consistency in commodity type, volume, and density.
Unified File Format (UFF) Use	WCO Technical Experts Group on NII	Analysts must be trained to work with standardized image formats to facilitate image exchange and comparison (especially crucial for inter-agency or cross-border sharing).
Threat Image Projection (TIP)	WCO NII Guidelines	Analysts must undergo continuous training and be tested with TIP—the random insertion of simulated threats (contraband objects) into live images—to maintain vigilance and proficiency.
Documentation of Discrepancy	WCO NII Guidelines (Transparency)	If a HIT is declared, the analyst must precisely mark and document the location and nature of the anomaly directly on the image before issuing the intervention mandate.

B. Guidelines for Operational/Examination Staff

These guidelines focus on safety, integrity, and efficiency at the port of inspection:

Guideline/Procedure	WCO Basis	Rationale
Strict Radiation Safety Protocol	WCO NII Guidelines (Section XI: Radiation Safety)	Mandatory adherence to exclusion zones , use of dosimeters, and protocols to minimize accidental exposure to staff and the public.
Non-Discretionary Intervention	WCO SAFE Framework	Physical examination is only permitted when mandated by the NII analysis (a "Red Mismatch") or by the RMS. Examination staff cannot decide to open a container based on suspicion alone.
Targeted Examination	WCO NII Guidelines (Efficiency)	Examination staff must use the coordinates provided by the RIAC report to quickly access the suspicious area of the container, avoiding unnecessary delays.
Body-Worn Camera (BWC) Protocol	WCO Best Practice (Integrity and Audit)	The entire physical examination of a container selected via NII/RMS must be video recorded to create an immutable audit trail of the process and the findings.

Based on these guidelines Pakistan Customs can utilize the NII inspection as follows:

6.2. Assessment/Appraisal Staff

Assessment Officers (AO) and Principal Appraising Officers (PAO) shall:

- Review NII images for all containers flagged as *Anomaly Detected (Yellow)* or *Major Discrepancy (Red)* before processing the Goods Declaration.
- Use the NII images to verify the *bona fide* of the declared items, particularly for high-duty, restricted, or bulk homogeneous goods (e.g., scrap, textiles, chemicals). The image serves as irrefutable evidence for assessment.

6.3. Post Clearance Audit (PCA) Staff

PCA staff shall utilise the archived NII images as a primary tool for conducting desk audits:

- The image can be cross-referenced with the commercial invoice, packing list, and final assessment documents to check for mis-declaration, under-declaration of volume, or wrong HS Code classification.
- The NII image file must be accessible through the PCA system for all GDs within the audit period, serving as electronic evidence of the physical cargo at the time of importation/exportation.

6.4. Export Collectorate/Rebate Staff

For consignments under duty and tax remission schemes (e.g., EFS, Rebate):

- NII images shall be reviewed to ensure that it matches with declared description in GD like in the case of imports.
- NII images shall be reviewed to ensure the nature and quantity of the exported goods match the claim documents, preventing fraudulent claims based on mis-declared cargo.

6.5. Transit Cargo Image Comparison and Mismatch Action

6.5.1. Protocol for Afghan Transit Trade (ATT) Cargo Image Comparison

The **NII Image Comparison Protocol** is the cornerstone of supply chain security for ATT and other transit movements:

1. **Data Linkage:** The Central Image Repository system shall automatically link and present **Scan A (Entry)** and **Scan B (Exit)**, along with the container seal and electronic GD, to the control room/RIAC Analyst in case where it detects any discrepancy.
2. **Comparative Analysis:** The Analyst conducts a rigorous, forensic examination to detect evidence of compromise, focusing on the four critical security factors: **Volumetric Consistency, Density Discrepancy, Structural Integrity (Tampering), and Object Substitution/Addition.**

6.5.2. Required Action in Case of Image Mismatch (Contraband/Security Breach)

A confirmed, conclusive image mismatch constitutes prima facie evidence of a security breach or contravention, demanding immediate and severe intervention:

1. **Formal Declaration of Contravening Unit:** The control room/RIAC Analyst shall issue an immediate alert, formally declaring the container as a **Contravening Unit** in WeBOC/PCS. The cargo should be placed under HOLD by the system automatically based on the alert generated by the system highlighting the image mismatch.
2. **Mandatory Physical Examination:** A **100% Physical Examination** is to be conducted in respect of the cargo identified as mismatch. The examination team must be provided with the RIAC analysis report, which specifically highlights the coordinates of the mismatch for targeted, efficient intervention.
3. **Definitive Evidence Collection:**
 - o The entire examination must be recorded via **Body-Worn Camera (BWC)**.
 - o **Scan A, Scan B**, and the BWC footage constitute the **definitive evidence chain** for criminal prosecution and penalty imposition, as recommended by international Customs best practices for integrity.

VII. Use of Body-Worn Camera (BWC) in Physical Examination

The use of Body-Worn Cameras (BWC) by Customs Examination Staff enhances transparency and accountability, particularly during physical inspection triggered by Local RIAC NII *Red Hit*.

7.1. BWC Activation and Recording Protocol

- **Mandatory Activation:** The BWC shall be activated to record the entire process immediately upon the opening of the container/package selected for physical examination.
- **Continuous Recording:** Recording must be continuous until the examination is concluded, the container is secured, and the examination report (IAR) is uploaded in WeBOC.
- **Location:** The BWC shall be worn on the uniform (lapel or chest) to ensure a clear, unobstructed, first-person view of the examination process.

7.2. Data Management and Retention

- **Upload:** Footage shall be uploaded to WeBOC within one (1) hour of the completion of the examination, along with the Examination Report (IAR).
- **Tagging:** Each video file must be tagged with the relevant GD and Container number.

- Retention: Video footage linked to a discrepancy, seizure, or complaint shall be retained for a minimum of five (5) years. All other routine footage shall be retained for a minimum of 90 days and later archived for 5 years for use by PCA, Intelligence staff.

7.3. BWC Footage Utilisation for Audit and Transparency

- Verification: The footage shall be used by the Collectorate, Internal Audit, and PCA staff to verify that the physical examination was conducted correctly and that the documented findings (e.g., quantity of undeclared goods) are accurate.
- Complaint Resolution: The video evidence is the definitive source for resolving any trade complaints regarding damage, tampering, or procedural irregularity during the physical examination.

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