

Seatt de Mexico
Operation Systems and Procedures

Department: Engineering
Title : Visual and Dimentional Material Inspection
No. : ING-014

Revision : G
Date: May 13, 1996
Use conditions: General

REVISIONS RECORD

REVISION	DATE	DESCRIPTION	REALIZED BY
A	July 26, 1987	Original Document	Luis Eduardo Lopez
B	March 20, 1990	Adding of models Style Line	Luis Eduardo Lopez
C	April 29, 1991	New structure and contents expansion	Elizabeth Tavares T.
D	June 01, 1994	Complete restructure according to the CNSNS Directions	Sergio Chavez
E	April 01, 1994	Change of procedure format SPC-011	Higinio Calderon
F	November 13, 1995	Procedure up-dating to eliminate source 260-002 and change inspection table.	Sergio Chavez
G	May 13, 1996	Add reference of document QA-001	Sergio Chavez

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AUTHORIZATIONS

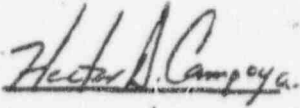

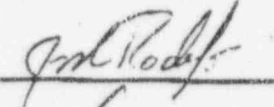
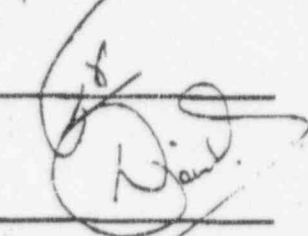

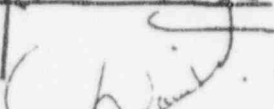
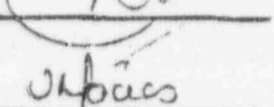
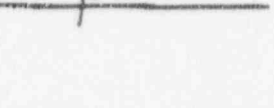
Department	Signature	Date
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Production Rodolfo Flores	_____	_____
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Accounting Emeterio Flores	_____	_____
Training Martha Sofia Chavez	_____	_____

Seatt de México
Sistemas y procedimientos de operación

Depto: Ingeniería
Título: Inspección Visual y Dimensional del Material
Radiactivo.
No.: ING-014

Revisión: G
Fecha: Mayo 13, 1996
Condiciones de uso: General

AUTORIZACIONES

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REFERENCIA

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OBJECTIVE

Indicate the alignments to follow to inspect visual and dimensionally the radioactive material getting to the clean room.

SCOPE

This document defines the inspections realized to make sure that the product accomplishes the specifications required.

RESPONSIBILITIES

It is Radiological Security Department responsibility to realize inspection tests to the radioactive material.

REFERENCE DOCUMENTS

- * ANSI/ASQC Z1.4
- * Radioactive material plans 451-009

PROCEDURE

Meanings:

Inspection: Verification of physical and dimensional conditions of radioactive material.
Inspection tables: Sampling plan for a normal inspection ANSI/ASQC Z1.4

Material and Equipment:

- *Cotton gloves
- *Shoe covers
- *Latex finger covers
- * Lab smock
- * Calibrator (6 inches Vernier)
- *Radiation Detector Eberline
- *Alphas counter
- *Knife

Caution:

The inspection and handling of radioactive material, will be realized only by the trained and equipped personnel, with cotton gloves, latex finger covers to avoid hands pollution.

Directions:

Once the radiological security responsible has sent the radioactive material the clean room to be inspected, the inspector of that area will proceed with the verification as follows:

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RADIOACTIVE SOURCE 451-009

- a) Using the knife, cut the tape of the box and open it, take out the big metal cans with cover which are packed in filling material.
- b) Verify the presence of the following labels on each can:
- * Supplier, where the name and address appears.
 - * Caution of radioactive material.
 - * Material identification, where indicates shipment date, supplier model, Seatt part number, isotope Am-241, activity of 0.9 uCi each source, quantity and total activity. (See attachment No. 1)
- c) Verify the presence of metal locks of the covers with the packing integrity blue labels.
- d) Remove the locks to remove the tops from cans.
- e) Take out the plastic cans that are inside the metal cans.
- f) There must be 500 americium sources in each plastic can, for this, the material quantity should be verified before anything counting the number of cans.
- g) Once all the material received in the shipment has been taken out from the metal cans the plastic cans should be ^{separated} ~~separated~~ by lots according to the number on the yellow labels on them. (See attachment No. 2)
- h) The visual and emission inspections should be done under a normal inspection plan, under the table ANSI/ASQC Z1.4 and taking a sample of each plastic can, verify the following:
- * Verify that the capsule has the source
 - * Source conditions, don't be folded, damaged, crashed, or bad stamped) (half moons)
 - * Dimensions: Take as reference the picture (blue print) with part number 451-009 that is in the documentation control file.
 - * Radiation presence, using the Eberline Detector, check that the source has radiation, which will be verified by the noise coming from the detector, when a radioactive source gets close to the screen or zonda. (This step only will be done in case any lot shows emission or radiation problems in the calibration tests in the production cells.)
- i) The radioactive sources lots already separated by number, will be classified by a visual inspection in the place where the source is placed, to make groups with the similar for the same smoke detector models.
- j) Once the sources have been inspected, if they are accepted should be stored in the white lock box in the clean room, according to their sub-lot number and should be registered by sub-lot in the FORM-142 and should be registered according to the procedure QA-001 too.
- k) The rejected sources should be identified and separated by the inspector and will be inventoried as rejections. These sources should be kept in the white box until its returning to the supplier is programmed which will be done according to the radioactive or rejection material returning procedure. The radiological security responsible will be notified as soon as a shipment has been rejected in the visual and dimensional inspection and the Quality Assurance department will be notified to follow the step for rejected materials according to the procedure QA-001.

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- l) To storage the sources in the white box in the clean room, it will be done according to the sub-lot number in the big gray containers. Register the good material quantity that gets into the white box in the FORM-141.
- m) The entrance of virgin radioactive material to the clean room, should be registered in the FORM-173 and FORM-177, according to the explanation of procedure ING-015.
- n) The source inspection inventory and procedure, of radioactive sources, should be verified by the radiological security responsible every week.

Attachments:

- 1.- Radioactive material container's label.
- 2.- Plastic container's label of the source 451-009.

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NRD INC.

A Subsidiary of Mark IV Industries Inc.
2937 Alt Blvd. North
Grand Island, NY 14072
(716) 773-7634

COLEMAN SAFETY & SECURITY PRODUCTS

Certificate No. 056962-8 Purchase Order No. 36659

CERTIFICATE FOR SEALED RADIOACTIVE SOURCES

ISO Classification designated by Code No. ISO/C 32222

Model No. 451-009 ; Radionuclide Americium-241

Activity per unit 0.9 μ Ci ; Total activity 0.234 Ci

Chemical and physical form: Solid Metal Foil

Leak results, per ISO/RR 4826 < 0.0001 μ Ci ; Date 10-28-96

Total Units/sources tested 260,000

We certify that this sealed source complies with requirements of (ISO 1677 or relevant national standards) and the above information is correct.

We declare that we hold "IAE Certificate of Competent Authority" No. USA-0036-S, in respect to sealed sources of Special Form Non-dispersible Radioactive Material;

Issued on 8-25-82, by U.S. Department of Transportation
Office of Hazardous Materials Regulations.

Date 10-28-96

Signature *R. Jones*

Title *G.C.*