

# APPENDIX A

## PURCHASE OF EQUIPMENT AND RADIOACTIVE SOURCES

Procedure 2600SEG270-001

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### I. PURPOSE

The purpose of this procedure is to establish the basic guidelines for all Panama Canal Authority (ACP) purchases of equipment with radioactive sources or radioactive material.

### II. SCOPE

Instruments used to evaluate and determine the level of heavy metals, such as in lead base painted surfaces and/or fixed replacement sources used as measurement elements on floating equipment, such as the Dredge MINDI, or in any substance or equipment being proposed for procurement to meet the needs of the organization.

### III. REFERENCES

Materials Safety Data Sheet (MSDS) Standard (2600SEG201)

ACP Radiological Protection Manual (ESS-2600SEG270)

ACP Procurement and Contracting Internal Regulations (Article 8, Annex # 3)

### IV. DEFINITIONS

1. See definitions in the ACP Radiological Protection Manual.
2. *Source or product activity*: Equivalent to the number of disintegrations per second of the nucleus of the radioactive material.
3. *Radioisotope*: An unstable isotope of an element that decays or disintegrates spontaneously, emitting radiation.

### V. RESPONSIBILITIES

This procedure directly involves the Supervisor of the Safety and Industrial Hygiene Unit, in charge of Radiological Protection in ACP by enforcing the provisions of this document, as well as the Managers of ACP Divisions acquiring radioactive sources.

### VI. TOOLS, EQUIPMENT, AND MATERIALS

The equipment and materials subject to this procedure include:

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- The radioactive source in the Production Monitor of Dredge MINDI.
- Sources for the calibration of ionizing radiation dosimeter pencils.
- Equipment to determine the lead content in coatings and paint.

#### VII. INSTRUCTIONS

**1.0** All purchases of radioactive sources shall be approved by the Supervisor of the Safety and Industrial Hygiene Unit (RSHS).

**2.0** Prior to any purchase, the Supervisor of RSHS shall evaluate the need to acquire the radioactive source by the concerned unit, which shall in turn submit a document justifying the purchase of the material, preferably of the equipment that causes the least radiation exposure, provided it complies with the requirements for its use.

**3.0** All purchases of radioactive sources or products shall have the following information on a list attached to the purchase order:

- Manufacturer
- Catalog number
- Radioisotope
- Activity of the material or radioactive source
- Physical shape
- Radiation profile (rate of exposure at a distance of one meter on maximum surface)
- Leak test of sealed capsule (wipe test)
- Delivery date

**4.0** Once the equipment or radioactive source has been procured, this information shall be included in the Inventory of Hazardous Materials according to Standard 2600SEG201 on Hazardous Materials.

