Department Correspondence
Environment, Health & Safety

Date: **September 12, 2011**

Subject: **Canton Plant**
Radiation Management Program

To: **Memo to EHSMS File**
Record of Decision

Periodically, Republic receives inquiries and/or requests from our customers and potential customers concerning the chemical and metallurgical makeup of our various grades of steel. These requests look for not only what is in our products (e.g., AISI specifications), but also what is not in them (e.g., free from mercury, cadmium, hexavalent chromium, radiation, etc.).

This Record of Decision is being issued in order to respond to third party inquiries seeking information regarding the potential for radiation contamination in our products. Republic has a Radiation Safety Officer (RSO) at the Canton Plant whose responsibilities include the proper management of our radioactive materials and sources. The Canton Plant maintains a State of Ohio Radioactive Materials License issued by the Ohio Department of Health as well as a Certificate of Registration pursuant to Chapter 3748 of the Ohio Revised Code.

There are two types of radiation contamination risks at our Canton Plant.

> First, there is a potential risk that contaminated scrap or other steelmaking consumables could be received from our suppliers. In that event, our goal is to assure that our shipped product is "free from radioactive contamination" using commercially available controls by preventing entry of radioactive scrap into the production process and verifying the absence of radioactivity through further testing.
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> Second, there is a potential risk that steels could be inadvertently contaminated from the mold level control systems (radiological sources) at our casters. Any failure of this equipment would result in stoppage of the casting process on the affected strand. A number of practices and procedures would be initiated to verify and identify the extent of radiological contamination, to isolate the material and, importantly, to decontaminate the process before returning to normal operation. Additionally, contractual arrangements have been made with the provider of our Cobalt 60 sources at our casters. Upon source depletion, rather than disposing of the units, they are returned to the provider for recycle/reuse of the spent radioactive materials.

We provide this document as a summary of the overall program in place at our Canton Plant. For commercially competitive reasons, specific procedures/practices are excluded and this will

be the extent of the detail provided in response to customer inquiries. The Canton Plant Radiation Management Program consists of the following key documents (numerous forms are not listed below):

Document Number	Document Name	Document Purpose and Scope
CAPCM1099	Purchased Scrap Management Plan – Melt Shop Consumables	This procedure outlines our purchasing policies for melt shop consumables, including scrap, and includes the following statement: "All grades of purchased scrap shall be free of radioactive contamination or radiation sources. Any inbound railcar or truck that sets off a radiation detection alarm must be processed following stringent procedures. If it is found that radioactive materials or contamination is present, the car will be rejected for return to the supplier. The rejected railcar or truck will be handled in accordance with applicable laws or rules of the Ohio Department of Health, Bureau of Radiation Protection."
SMS0503	Plant Procedure – Canton Radiation Plan	The document provides for: 1. Protection of plant personnel and the general public from exposure to radiological contamination, 2. Procedures to be followed in the event of a Radiological Contamination Event, including minimizing the extent and spread of radiological substances and notifying appropriate regulatory agencies, responders and the public, 3. Detection of radiological contamination in incoming scrap, and 4. Detection of radiological contamination of product resulting from accidental introduction of radioactive materials into the steel making process.
SMS0610	List of Radioactive Sources – Canton	This document lists each of the radioactive gauges present at the Canton Plant.
EHSMS.7.01.05	Canton Plant Scrap Management Program (SMP)	Developed pursuant to Clean Air Act requirements, this plan outlines procedures and practices for: 1. Minimizing the use of scrap that contains contaminants, 2. Establishing purchasing specifications for scrap, and 3. Providing a mechanism to return nonconformant materials (including radiation contamination) to the original supplier without taking receipt of such materials.

Primarily, as detailed in SMS0503, the Canton Plant currently has Exploranium Radiation Detectors at our inbound rail and truck gates to survey scrap shipments and all other steel making consumables for detectable levels of radioactive sources and/or contamination upon arrival and prior to delivery acceptance. The current detection system provides repetitive looks at the inbound scrap. In addition to the gate monitors, another Exploranium detection unit is staged at the inbound track to our melt shop. In this way, scrap is surveyed twice – once at the gates and again prior to being melted. If the detectors alarm, numerous procedures are followed to verify the contaminated materials and isolate them for return to the original supplier.

As another level of protection against radioactive contamination of our products, we have another radiation detector in the unlikely event that a source of radiation would not be detected at either the gates or prior to entry to our melt shop,. Steel heat samples are tested at this detector and, if radiation is detected, a number of practices and procedures would be initiated to verify and identify the extent of radiological contamination, to isolate the material and to decontaminate the process before returning to normal operation.

Republic has an extensive program in place with the goal of ensuring that our steel products are "free from radioactive contamination" using commercially available controls. While we cannot directly control shippers of steelmaking consumables, every practical step is taken to reject radioactive scrap at the gate and to then follow additional monitoring/detection practices within the plant to assure radioactive-free steel products.

This document serves as our Record of Decision for this topic.

/s/ WMLavey

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