

**DOCUMENT REVISION STATUS**

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**APPROVALS**

APPROVED: PROCESS ENGINEERING: *Peter E. H. Gould* DATE: 4/30/2007

APPROVED: ENGINEERING MANAGER: *M. W. Allen* DATE: 4/30/07

APPROVED: MANUFACTURING MANAGER: *Ralph Quinn* DATE: 4-30-07

APPROVED: QUALITY ASSURANCE MANAGER: *B. H. Allen* DATE: 5/4/07

**1.0 PURPOSE:**

- 1.1 This document details when to carry-out urine collection for analysis on employees working with or exposed to radiation and how to properly respond to the results of that analysis.

**2.0 PROCEDURE:**

- 2.1 Urine samples will be collected from all radiation workers handling or exposed to 10 or more millicuries of 3-H (tritium) in any form on a bi-weekly basis.
- 2.2 Sample volumes to be collected will be approximately 50mL.
- 2.3 Analysis of urine samples will be conducted by a qualified outside vendor or consultant the results of which will be sent to the RSO for final review in a timely fashion.
- 2.3.1 If the results are greater than twice background and less than 10 percent of maximum permissible body burden:
- a. Subject(s) will be monitored by repeat urinalysis on a weekly basis until the levels have returned to less than twice background.
  - b. The RSO will conduct an investigation into the cause of the uptake and will correct the problem.
  - c. A log of the incident will be maintained by the RSO for review by outside agencies.
  - d. Records of all urinalysis will be maintained by the RSO for review by outside agencies.
- 2.3.2 If the results are greater than 10% maximum permissible body burden of tritium:
- a. Subject(s) will be monitored by repeat urinalysis on a weekly basis until the levels have returned to less than twice background.
  - b. The RSO will conduct an investigation into the cause of the uptake and will correct the problem.
  - c. A log of the incident will be maintained by the RSO for review by outside agencies.
  - d. A report of the incident will be maintained by the RSO for review by outside agencies.
  - e. All appropriate agencies will be contacted by the RSO within the required time frame of notification.
  - f. Records of all urinalysis will be maintained by the RSO for review by outside agencies.