RI - DNMS Licensee Event Report Disposition

Licensee: Steri-Genics

Event Description: Brent Source

License No: 29-20900-01 | Docket No: 030-2307 | MLER-RI: 2005-032

Event Date: 5/23/05 | Report Date: 6-1-05 | HQ Ops Event #:

(1.) REPORTING REQUIREMENT

- [ ] 10 CFR 20.1906 Package Contamination
- [ ] 10 CFR 20.2201 Theft or Loss
- [ ] 10 CFR 20.2203 30 Day Report
- [X] Other Not required to be reported by PART 30 or 36 (no failure of source encapsulation)
- [ ] 10 CFR 30.50 Report
- [ ] 10 CFR 35.3045 Medical Event
- [ ] License Condition

2. REGION I RESPONSE

- [ ] Immediate Site Inspection — Inspector/Date
- [ ] Special Inspection — Inspector/Date
- [ ] Telephone Inquiry — Inspector/Date
- [ ] Preliminary Notification/Report
- [X] Information Entered in RI Log
- [ ] Report Referred To:
- [ ] Daily Report
- [X] Review at Next Inspection

(3.) REPORT EVALUATION

- [X] Description of Event
- [X] Levels of RAM Involved
- [ ] Cause of Event
- [X] Corrective Actions
- [ ] Calculations Adequate
- [ ] Additional Information Requested from Licensee

(4.) MANAGEMENT DIRECTIVE 8.3 EVALUATION

- [ ] Release w/Exposure > Limits
- [ ] Repeated Inadequate Control
- [ ] Exposure 5x Limits
- [ ] Potential Fatality
- [ ] Deliberate Misuse w/Exposure > Limits
- [ ] Pkging Failure>10 rads/hr or Contamination>1000x Limits
- [ ] Large# Indivs w/Exp>Limits or Medical Deterministic Effects
- [X] Unique Circumstances or Safeguards Concerns

If any of the above are involved:

- [ ] Considered Need for IIT
- [ ] Considered Need for AIT

Decision/Made By/Date:

(5.) MANAGEMENT DIRECTIVE 8.10 EVALUATION (additional evaluation for medical events only)

- [ ] Timeliness - Inspection Meets Requirements (5 days for overdose / 10 days for underdose)
- [ ] Medical Consultant Used-Name of Consultant/Date of Report:
- [ ] Medical Consultant Determined Event Directly Contributed to Fatality
- [ ] Device Failure with Possible Adverse Generic Implications
- [ ] HQ or Contractor Support Required to Evaluate Consequences

(6.) SPECIAL INSTRUCTIONS OR COMMENTS

discuss the brent source with the manufacturer as part of the Inspection

- [ ] Non-Public
- [X] Public-SISP REVIEW COMPLETE

Inspector Signature: Date: 6/8/05

Branch Chief Initials: Date: 6/16/05

Location of File: G:\Reference\Blank Forms\LER FORM.wpd

Rev. 02/25/05

Sterigenics.

June 1, 2005

Ms. Judith Joustra
Nuclear Materials Safety Branch
U. S. Nuclear Regulatory Commission, Region I
475 Allendale Road
King of Prussia, PA 19406-1415

Reference: Renewal Application, Material License Number 29-20900-01

Dear Ms. Joustra:

As you are probably aware, a source loading took place at the Sterigenics facility in Salem, New Jersey, last week. During the process of rearranging the sources in the rack to achieve the desired dose distribution patterns, one source was discovered that was significantly bent. The source, serial number 9279EE, was manufactured by Reviss Services, Puridec Irradiation Technologies. Our records indicate that it was originally installed in the irradiator in February 1999, with an initial activity of 10,700 Curies (activity as of May 27, 2005, was 4,692 Ci).

While it is not extremely unusual to observe some curvature to sources after several years of cycling in a wet source storage irradiator, this particular source was bent to such a degree that there was some concern that it might not be held in the source rack securely. The design of the Salem source rack is such that the sources are held in position by channels, approximately one-half inch deep, at the top and bottom of each module and by having the module completely full of either active sources or nonradioactive placeholders that ensure sources are held tightly within the module. Although we did not have specific evidence that this might be a problem, our concern was that the amount of curvature in this source could shorten the effective length of the source to such an extent that the channels in the module would not hold it securely in place, possibly leading to the source becoming dislodged from the rack.

Because the rearrangement of sources within the rack occurred after the shipping containers had already been secured and returned to the source supplier, it was not possible to return the source to the manufacturer at this loading. Instead, the source was removed from the rack and placed in storage at the bottom of the pool. We intend to leave it there until we have a chance to return it to the manufacturer. There was no indication of damage to the source's structural integrity.

If you believe that a license amendment is necessary to authorize this storage, please consider this letter a request for such an amendment. Should you need any further information, please call me.

Sincerely,

Mark A. Smith, CHP
Vice-President, Radiation Services

cc: S. Ferraro

Sterigenics International, Inc.
10811 Withers Cove Park Drive
Charlotte, NC 28278
Tel 704.588.6877• Fax 704.588.3667• www.sterigenics.com