

DCD

June 12, 1997

Stanley R. Smith
Radiation Safety Officer
Rollins Environmental, Inc.
3985 Research Park Drive
Ann Arbor, MI 48108

SUBJECT: NOTICE OF VIOLATION DATED APRIL 30, 1997

Dear Mr. Smith:

This acknowledges receipt of your letter dated May 30, 1997, in response to our letter dated April 30, 1997, transmitting a Notice of Violation.

We have reviewed your corrective actions, which appear to be adequate, and have no further questions at this time. These corrective actions will be examined during a future inspection.

Sincerely,

Original Signed by John R. Madera

Roy J. Caniano, Director
Division of Nuclear Materials Safety

License No.: 21-15470-02
Docket No.: 030-20817

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ENVIRONMENTAL, INC.

3985 RESEARCH PARK DRIVE
ANN ARBOR, MICHIGAN 48108
313/761-1389

May 30, 1997

Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

RE: Reply to a Notice of Violation, Docket No. 030-20817

In response to the Notice of Violation issued to Rollins Environmental, Inc./ENCOTEC on 4/30/97, this letter is submitted to address all four of the required items listed in the Notice of Violation. Much of the required information was presented in the Rollins Environmental, Inc./ENCOTEC letter of 3/20/97, notifying the NRC of the loss of the licensed material. A copy of this letter is enclosed.

As mentioned in the letter of 3/20/97, the reason for the violation was due to the uncontrolled loss of a nickel-63 sealed source from a Gas Chromatograph (GC) Electron Capture Detector (ECD). It has been concluded that the sealed source was accidentally discarded while mounted on a gas chromatograph which was discarded due to its age and state of disrepair. Further, it is believed that the root cause of the violation was due to a lack of information and/or communication provided to the individuals who work in the department where the sealed sources are used.

There are selected individuals in the gas chromatography department who are trained and authorized to handle and work with the ECDs containing nickel-63. No other personnel are allowed to handle the ECDs. However, this is not to say that other personnel can not operate the GCs containing the sealed source. Operation of the GC does not necessitate contact or exposure to the sealed source. In fact, there are several layers of shielding provided by the ECD and GC housings to protect the analysts. All analysts in the GC department have been informed of the restrictions concerning the handling of the ECDs.

However, the particular case which is believed to have been the cause for the loss of ECD #A5258 was unusual in the sense that rarely is an entire GC thrown away. Previous training and documentation did not specifically address discarding GCs or ECDs. It is believed that this lack of information was the root cause for the loss.

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Also, as mentioned in the Rollins Environmental, Inc./ENCOTEC letter, the corrective actions taken to prevent recurrence of this violation included distribution of a procedural memo to all staff members of the GC department and labeling of all GCs containing ECDs with nickel-63. A copy of the procedural memo and an example of the GC label are enclosed. All GC staff members were notified of the violation incident and have been made aware of the restrictive policy regarding the handling of ECDs both verbally and through the procedural memo. Additionally, each GC which contains ECD(s) is clearly labeled with a warning label per ECD to notify any staff member, GC department or otherwise, of the restrictions associated with the ECD(s) contained within. All of these corrective actions were completed by March 20, 1997.

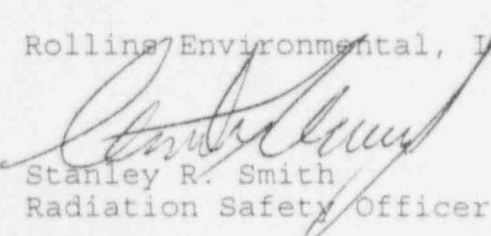
The results achieved through these corrective actions have been to further inform all Rollins Environmental, Inc./ENCOTEC employees of the need for restricted access to the ECDs containing nickel-63, to prevent the loss of any additional ECDs, and to minimize the potential for future loss of licensed material. At this time, no further corrective actions are planned, however, improvements to the Radiation Safety Program are always welcome and may be implemented at any time.

As of March 20, 1997, all corrective actions had been implemented. Assuming that these actions are deemed adequate, full compliance was achieved on this date. However, any further suggestions or recommendations are welcomed.

If there are any questions, please feel free to contact me.

Sincerely,

Rollins Environmental, Inc.\ENCOTEC



Stanley R. Smith
Radiation Safety Officer

cc: US NRC Region 3 Administrator
Jim Kuehn (Facility Manager, REI\ENCOTEC)
Walt Roudebush (Technical Director, REI\ENCOTEC)

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ENVIRONMENTAL, INC.

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ANN ARBOR, MICHIGAN 48108
313/761-1389

March 20, 1997

Administrator
United States Nuclear Regulatory Commission
Region III
801 Warrenville Road
Lisle, Illinois 60532

RE: Loss of licensed material

Dear Administrator,

Pursuant to 10 CFR Part 20.2201(b), this report is filed to provide written notification of the loss of licensed material. Rollins Environmental Inc./ENCOTEC telephoned the NRC Operations Center on February 28, 1997 to notify the NRC of the loss of one gas chromatography Electron Capture Detector (ECD) containing a sealed foil source of nickel-63 in an amount not to exceed 8 millicuries.

During the inventory process of January 31, 1997, ECD source serial number A5282 could not be located. An exhaustive search of both laboratory facilities was performed to locate the missing ECD with no success. The last Gas Chromatograph (GC) that this detector was mounted on was discarded due to its age and state of disrepair. The ECD was to have been removed to the ECD storage cabinet prior to disposal of the GC but no record of this transfer could be found in the ECD Activity Log for that source. It is therefore concluded that ECD source A5282 was accidentally discarded with the GC instrument.

Non-hazardous solid waste from Rollins Environmental Inc./ENCOTEC, including the discarded GC is handled by a local waste hauler and brought to one of several local landfills. Given the proposition that the ECD was discarded with the GC, the ECD would now be buried in a local landfill. Since the ECD was a sealed, solid, foil source, encased in the ECD, and housed within the GC itself, it is highly unlikely that anyone at any point of the ECD's disposition, came in contact with the source material. Further, given the activity level of the nickel-63 source and the nature of beta emissions, it is unlikely that exposure, if encountered, to the sealed source would result in any health threat. The last leak check performed on source A5282 did not indicate any unacceptable levels of activity.

As previously mentioned, exhaustive searches of both laboratory facilities have been performed to locate the missing source with no success. No further actions are planned at this time to recover

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the lost material. It would be wholly impractical to attempt to locate the sealed source, no less the entire GC, in a landfill. It is not even certain which landfill the GC was taken to.

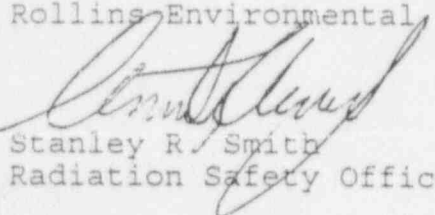
The six month inventory frequency alone does not appear to be a sufficient preventive to eliminate the possibility of the accidental loss of an ECD source. Therefore, an internal memo has been issued (see enclosure) alerting all applicable staff to the potential for accidental loss whenever a GC (to which an ECD is attached) has been moved from its location or whenever an ECD has been removed from an instrument. In either case, the Radiation Safety Officer (RSO) or his/her designee must be notified prior to the event. If this notification procedure is not followed, disciplinary action will be taken against the individual responsible for the unapproved movement.

Additionally, each GC which contains one or more ECDs has been labeled (see attached example). The label acts as a reminder to notify the RSO of any movement or servicing of the ECD. The labels also act as an additional tracking mechanism for the ECDs in use.

If you have any questions, please feel free to contact me.

Sincerely,

Rollins Environmental Inc. \ENCOTEC



Stanley R. Smith
Radiation Safety Officer

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cc: Walt Roudebush (REI/ENCOTEC)
John Schenk (REI/ENCOTEC)
George Massih (RESDE)



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PROCEDURAL MEMORANDUM

TO: All GC Personnel
(ENCOTEC I and II) cc: Jim Kuehn

FROM: Stan Smith *[Signature]*
Radiation Safety Officer

DATE: March 20, 1997

RE: Relocation and servicing of ECDs

The accidental loss of ECD A5282 has made it apparent that our current mechanisms to control the movement and servicing of ECDs are not effective enough. Completion of ECD Activity Logs is still required for any installation, removal, transfer, and servicing or wipe tests of ECDs. Handling of ECDs for any reason should be performed by trained and authorized personnel only. Additionally, the Radiation Safety Officer, or his/her designee, must be notified of any transfer, servicing, or disposal of any ECD prior to performing the event. Labels have been placed on all GCs equipped with ECDs as reminders of this new policy.

Improper handling of ECDs could result in exposure to the radioactive source, nickel-63, contained within the ECD. Exposure to such radiation could result in adverse health effects. The proper handling of the ECDs is also a requirement of REI/ENCOTEC's NRC material license. Violation of this license requirement could result in significant penalties or revocation of the license. It is imperative that personnel follow these guidelines. Disciplinary action will be taken against any employee found in violation of the above policy.



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WARNING
INTERNAL RADIOACTIVE SEALED SOURCE

This GC contains a radioactive sealed source in the ECD (Ni63). The servicing, transfer, or disposal of this source MUST be in accordance with all applicable regulatory requirements and/or REL/ENCOTEC's NRC Material License. This sealed source may ONLY be serviced by authorized and trained personnel.

Contact the Radiation Safety Officer PRIOR to the relocation, transfer, service, or disposal of this source.

Manufacturer _____ Serial No. _____

Actual size 3.5" x 4"