

# EARLHAM COLLEGE

Office of the Academic Dean

April 2, 2010

Nuclear Regulatory Commission  
Region III  
2443 Warrenville Rd, Suite 210  
Lisle, IL 60532-4352

Response to notice of violation:  
Docket No. 030-00599  
Licence No. 13-05737-01

On February 11, 2010, an NRC inspection at our school (Earlham college, NRC Licence No. 13-05737-01) identified three Security Level IV violations. Formal notice of these violation was sent to Dean Gregory Mahler in a letter dated March 17, 2010. The docket number for the notice is 030-00599. This letter is Earlham's formal response to that notice.

(1) Earlham was cited for failure to "adequately calibrate a radiation monitoring device."

**The root cause of this violation was that the orientation for the present RSO was inadequate; it included detailed instructions as to how to test our sources for leaks, using some "standard" sources that Earlham keeps in-house in its secure radiation storage area. Both the previous and the present RSO were under the impression that these sources were adequate for our leak-tests, and previous cite inspections by NRC had not noted that these sources were not acceptable under current NRC regulations. Earlham consequently has an up-to-date set of (what we thought were) timely tests for all sources [except one; see item 3, below]; however, the tests are not valid because the "standards" we used for comparison were not properly calibrated.**

**Our corrective action has been to have an outside firm perform the tests. Solvent Technologies (6616 Promway Ave NW; North Canton, OH 44720) tested all of our sources and found them to be leak-free. Until we inform the NRC otherwise, we will continue to have an external firm (probably Solvent) perform these tests.**

Thus corrective action has been taken, and **full compliance** has been achieved.

(2) Earlham was cited for failure to "perform semi-annual inventories of possessed radioactive sources."

**The root cause of this violation is that the present RSO didn't realize such semi-annual inventories were necessary. Corrective action has been taken, and they will now be performed as required. The RSO has also re-read our licence agreement with the NRC to**

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be sure there are not other obligations which he has forgotten, and will make a check-list of those obligations and a schedule on which they are to be performed. The Academic Dean will receive a copy of that list and schedule.

Thus corrective action has been taken, and **full compliance** has been achieved.

(3) Earlham was cited for failure to “perform leak tests at the proper intervals.”

As noted in item (1), the RSO has been performing most leak tests at proper intervals, though the tests have turned out to be invalid.

However, one source had not been tested at the proper intervals. That is a source that has been in storage. Despite the fact that we haven’t used the source, we are obliged to leak-test it every ten years. We did not do so.

The **root cause** of this violation is again that the RSO was not sufficiently aware of his obligations. The ten-year cycle on which the source should have been checked was 1990 (when it was last checked), 2000, and 2010. There is no record of the source being checked in the year 2000, and since the present RSO has only held that position since 2005, he hadn’t had occasion yet to make the every-ten-year check during this year’s cycle of leak tests (usually performed at the beginning of September). When the present RSO assumed the role of RSO, he should have check past records to be sure that we were in compliance, but he did not do so. **Corrective action has been taken**, and that source has now been checked (by Solvent Technologies, see above), and regular checking of the source will be part of the check-list and schedule given to the Academic Dean.

Thus corrective action has been taken, and **full compliance** has been achieved.

We appreciate your efforts on our behalf.

Sincerely,



Gregory Mahler  
Academic Dean

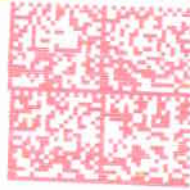
**CERTIFIED MAIL**

**EARLHAM**  
COLLEGE

Office of the Academic Dean  
801 National Road West  
Richmond, Indiana 47374-4095



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