



**UNIFORMED SERVICES UNIVERSITY OF THE HEALTH SCIENCES
ARMED FORCES RADIOBIOLOGY RESEARCH INSTITUTE
8901 WISCONSIN AVENUE, BUILDING 42
BETHESDA, MARYLAND 20889-5603**



24 January 17

MEMORANDUM FOR Licensing Assistance Team
Division of Nuclear Materials Safety
Attn: Mr. Dennis Lawyer
U.S. Nuclear Regulatory Commission, Region 1
2100 Renaissance Blvd, Suite 100
King of Prussia, PA 19406-2713

From: Director, Armed Forces Radiobiology Research Institute (AFRRI)
8901 Wisconsin Ave, Building 42
Bethesda, MD 20889-5603

Subject: Supplemental Information for Category IV Cobalt-60 Wet-Storage Irradiator Decommissioning
Funding Plan, License No. 19-08330-03, Docket No. 030-06931

1. The following supplemental information addressees your email inquiry dated 27 December 2016 (See Attachment 1). Your request for additional information was based on my office's Decommissioning Funding Plan (DFP) submitted 7 November 2016.

2. The following are responses to your specific questions.

a. Question. *The volume of onsite subsurface material containing residual radioactivity that will require remediation to meet the criteria for license termination?*

Response: The sources possessed under the subject license are sealed and historically have never been found to be leaking radioactive material. Therefore, no surface or subsurface material is expected to contain residual radioactivity. All surface levels are assumed to be at background activity levels and we believe we will thus inherently meet 10 CFR 20.1402, *Radiological Criteria for Unrestricted Use* limits of 25 mrem/yr.

b. Question. *The means for adjusting cost estimates and associated funding levels periodically over the life of the facility?*

Response: The means for adjusting cost estimates are based first and foremost on the amount of new activity acquired since the last DFP submission. A three-percent (3%) cost increase due to inflation is automatically added to the estimate from the prior submission. An inflation cost increase is recommended per NUREG 1757, Vol 3, Rev 1, Section A.3.2. Guidance per Section A.3.2 pertaining to soil contamination, increased waste, facility modifications, onsite disposal and settling pond are not applicable to the subject license.

c. Question. *The identification of and justification for using key assumptions contained in the decommissioning cost estimate?*

Response: The key decommissioning cost estimates are attributed to the removal and shipment of the sources. Since the subject licensable material is sealed, an in depth MARSSIM (NUREG 1575, Rev 1) survey would not be required. A "MARSSIM Appendix B" approach should be allowed to exhibit compliance to meet 10 CFR 20.1402 limits.

d. Question. *The rate of \$30 per hour for an independent contractor to provide security appears low for your area. Please provide evidence that this is an accurate estimate of the rate.*

Response: Per NUREG 1757, Vol 3, Rev 1, all labor costs should reflect those of a hired third-party contractor. The listed cost of \$30 per hour for independent contractor is a contingency fee in the event that local law enforcement agency (LLEA) is unable to support. LLEA is US Navy personnel from Naval Support Activities Bethesda (NSAB) who inherently have a background clearance and are personnel we would readily deem as trustworthy and reliable.

However, per our latest security contract award inquiry, general guard hourly rates from eight local entities averaged out to be \$31.44 per hour. See the below table for various security personnel wage rates. The rate of \$30 per hour is consistent with area rates.

Table: Contract Security Hourly Rates (2016)

Vendor	Response Date	Program Manager (\$/Hour)	Shift Supervisor (\$/Hour)	Guard I (\$/Hour)
Securemedy, Inc.	7/10/2016	\$ 64.39	\$ 40.86	\$ 23.01
We See You, LLC	7/19/2016	\$ 60.00	\$ 55.00	\$ 50.00
American Custom Private Security (ACPS)	7/20/2016	\$ 44.00	\$ 43.48	\$ 33.03
Statewide Protective Services, LLC (SWPS)	7/20/2016	\$ 24.00	\$ 20.00	\$ 16.00
Diversified Protection Corporation (DPC)	7/22/2016	\$ 47.96	\$ 35.96	\$ 31.96
Security 1 Solutions LLC (S1S)	7/22/2016	\$ 55.67	\$ 49.56	\$ 43.87
Taino Consulting Group LLC	7/22/2016	\$ 39.91	\$ 35.53	\$ 25.67
American Automation, Inc.	7/22/2016	\$ 60.30	\$ 45.71	\$ 28.00
			Mean rate	\$ 31.44

3. Please contact my Radiation Safety Officer, Mr. Daniel A. Shaw, at (310) 295-1285, or via Email at daniel.shaw@usuhs.edu with any additional questions and or concerns.

L. ANDREW HUFF
Colonel, USAF, MC, SFS
Director, AFRRI

Attachments

1. Request for Additional Information (Email)

From: [Lawyer, Dennis](#)
To: daniel.shaw@usuhs.edu
Subject: Uniformed Services University of the Health Sciences, Request for Additional Information Concerning Financial Assurance, Control 592450
Date: Tuesday, December 27, 2016 9:29:31 AM

Dear Mr. Shaw,

This is in reference to COL Huff's letter dated November 7, 2016, submitting financial assurance for Nuclear Regulatory Commission License No. 19-08330-03, Docket No. 03006931. In order to continue our review, we need the following additional information:

1. As stated in 10 CFR 30.35(e)(i), please provide:
 - a. The volume of onsite subsurface material containing residual radioactivity that will require remediation to meet the criteria for license termination
 - b. The means for adjusting cost estimates and associated funding levels periodically over the life of the facility; and
 - c. The identification of and justification for using the key assumptions contained in the decommissioning cost estimate.

These do not appear to be presented in the decommissioning funding plan.

2. The rate of \$30 per hour for an independent contractor to provide security appears low for your area. Please provide evidence that this is an accurate estimate of the rate.

We will continue our review upon receipt of this information. Please reply to my attention at the Region 1 Office (Address below) and refer to Mail Control No. 592450. If you have technical questions regarding this letter, please call me at (610) 337-5366.

Your reply must be an originally signed and dated letter. The letter may be scanned and submitted as a pdf document attached to an email; or it may be transmitted by facsimile to (610) 337-5269; or it may be sent by regular mail. If we do not receive a reply from you within 30 calendar days from the date of this e-mail, we will assume that you do not wish to pursue your application OR amendment request.

Please respond by e-mail to acknowledge that you have received the e-mail request for additional information.

Region 1 Office Mailing Address: Licensing Assistance Team, US Nuclear Regulatory Commission Region I, 2100 Renaissance Boulevard, Suite 100, King of Prussia, PA 19406-2713.

Dennis Lawyer
U.S. NRC Region 1
Health Physicist
610-337-5366