



DEPARTMENT OF THE ARMY
HEADQUARTERS US ARMY COMMUNICATIONS-ELECTRONICS COMMAND
AND FORT MONMOUTH
FORT MONMOUTH, NEW JERSEY 07703-5301

REPLY TO
ATTENTION OF

August 15, 2003

Directorate for Safety

U.S. Nuclear Regulatory Commission
Region I
475 Allendale Road
King of Prussia, PA 19406-1415

Attention: Licensing Assistance Section

This refers to U.S. Nuclear Regulatory Commission License
(NRC) Number 29-01022-14, Docket 030-29741.

We are requesting this license be amended to authorize the
addition of the Science Applications International Corporation
(SAIC) Mobile Vehicle and Cargo Inspection Systems (VACIS)
containing

The
maximum amount requested is: No single source to exceed the
maximum activity specified in the certificate of registration
issued by the NRC or an Agreement State.

The above request is in addition to the SAIC Mobile VACIS
containing Cesium-137 currently authorized under this license.

NOTE: We have an immediate need to deploy one Mobile VACIS to
support current military operations and would appreciate your
expeditious processing of this amendment request as the fielding
of this device is a matter of national security and safety of
our military troops.

The Mobile VACIS will be used to monitor cargo containers
and vehicles for explosives and/or contraband at temporary job
sites under the control and supervision of the U.S. Army and
U.S. Army National Guard.

General Description: The Mobile VACIS is a vehicle-mounted
device designed to non-intrusively examine the contents of cargo
containers and vehicles. A fan beam of Cobalt-60 gamma rays and
an array of Sodium Iodide detectors are used to measure density
within cargo containers and vehicles. The gauge containing the

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in accordance with the Freedom of Information
Act, exemptions
2006-0236

NMSS/RGNI MATERIALS-002

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Cobalt-60 source is mounted to the end of a boom arm and the narrow beam is directed toward a 16-foot high detector tower. A complete description of the device with associated dose rates can be found in the Registry of Radioactive Sealed Sources and Device Registration (RSSDR) Number CA0215D107S (enclosure).

Radiation Safety Officer (RSO): The RSO will receive training specific to all operational safety requirements as defined in the RSSDR, pages 6-7. This training will be conducted by qualified instructors from SAIC, their authorized representative, and/or the U.S. Army.

Authorized Users: A minimum of two certified operators, fully trained by the manufacturer or a qualified instructor, are required during operation of the device. Training will be consistent with the requirements specified in the enclosed RSSDR and Appendix G, NUREG 1556, Volume 4, "Consolidated Guidance about Materials Licenses: Program-Specific Guidance about Fixed Gauge Licenses", dated October 1998. This training shall include emergency procedures to address shutter failures and environmental damage to the gauge.

Training: Operator and safety training shall be provided by the manufacturer or its authorized representative.

Facilities and Equipment: A complete description of the equipment can be found in the RSSDR. Sufficient equipment and signage, as required in the RSSDR, will be available for the safe operation of the device and to define required operation exclusion zones at 0.5 mrem/hr.

The RSO on-site will approve locations of use. While not in use, the gauge will be returned to its storage location in a locked and shielded storage box with the gauge shutter secured by locking pin and padlock. To ensure inadvertent exposure of the source, the shutter control box is key controlled, the vehicle must be started, and the hydraulic lift actuated. The vehicle will also be secured against unauthorized removal by means of constant surveillance and/or storing the vehicle in a secure enclosure.

During operation of the equipment, the manufacturer has measured dose rates of 0.100 mrem/hr at the operator's station. In addition, SAIC reports that a person inadvertently scanned by

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the device would receive not more than a deep dose equivalent of approximately 10 microrem.

Radiation Safety Program (RSP): Existing procedures outlined in our NRC license specify requirements for audits, survey instruments, material receipt and accountability, occupational dose, public dose, leak testing procedures, contamination control, and waste management. Safety requirements specified in the RSSDR will be implemented for use of the Mobile VACIS. Items specific to the use of the gauge are described below.

a. Operating and Emergency Procedures: Existing operating and emergency procedures that meet the Criteria in the section entitled "Radiation Safety Program - Operating and Emergency Procedures" in NUREG 1556, Volume 4 will be followed. Safety requirements of the RSSDR are incorporated into procedures and include preoperational tests, establishment of exclusion zones, shutter failure contingencies, inspection frequencies, survey and dosimetry requirements, lock out/tag out procedures and maintenance procedures.

b. Radiation Survey Instrumentation: Radiation Survey Instrumentation that meet the criteria in the section entitled "Radiation Safety Program-Instruments" in NUREG-1556, Volume 4, will be used. Each survey instrument will be calibrated by the manufacturer or other person authorized by the NRC or an Agreement State to perform such calibrations.

c. Maintenance: Routine maintenance procedures will be performed according to the manufacturer's recommendations. Such procedures include limited, non-technical routine activities such as cleaning and lubrication of the boom. Maintenance related to the initial set up of the device, gauge operations, and safety systems shall be performed by the manufacturer.

d. Transportation: In accordance with the RSSDR, the gauges utilized in the Mobile VACIS have passed all tests for Type A packaging and as a result can be safely transported with the vehicle. Existing transportation procedures shall be utilized for transfer of the Mobile VACIS.

e. Fixed Gauges at Temporary Job Sites: The device is mobile and designed to be used at temporary job sites. Existing

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operating procedures for use of the Mobile VACIS at such sites will be followed. Procedures meet the Criteria in the section entitled "Radiation Safety Program - Fixed Gauges Used at Temporary Job Sites, in NUREG-1556, Volume 4 and are consistent with the requirements specified in the RSSDR. Facilities and/or locations where the Mobile VACIS will operate, will not deliberately impact the safety or integrity of the device.

We have an immediate need to deploy one Mobile VACIS to support current military operations and would appreciate your expeditious processing of this amendment request as the fielding of this device is a matter of national security and safety of our military troops.

We trust you will find the information provided adequate to grant the requested amendment. In the event that you require additional information, our points of contact are Mr. Craig S. Goldberg, RSO, and Mr. Barry J. Silber, Health Physicist, at (732) 532-9723, extensions 6405 and 6440, respectively.

Sincerely,



Stephen G. LaPoint
Director
Directorate for Safety

Enclosure

Copy Furnished:

Commander, U.S. Army Materiel Command, ATTN: AMCSF-P, 5001
Eisenhower Avenue, Alexandria, Virginia 22333-0001