



DEPARTMENT OF THE ARMY  
UNITED STATES ARMY TANK - AUTOMOTIVE AND ARMAMENTS COMMAND  
1 ROCK ISLAND ARSENAL  
ROCK ISLAND, ILLINOIS 61299-7630

24 JUN 2004

REPLY TO  
ATTENTION OF

AMSTA-CS-CZR

U.S. Nuclear Regulatory Commission  
Attn: Anthony Kirkwood  
NMSS MAIL STOP T8F5  
Division of Industrial and Medical Nuclear Safety  
Office of Nuclear Materials and Safeguards  
Washington, DC 20555-0001

SUBJECT: Requested Additional Information Regarding Amendment  
to Registration No. NR-1129-D-103-S, SSD 04-23

Dear Mr. Kirkwood:

This letter is in response to your letter dated  
19 May 2004, requesting additional information pertaining to  
registration No. NR-1129-D-S for the model CAM detector.

a. Detail the schedule or normal frequency range of cell  
module level required maintenance.

Response: Maintenance on the CAM or ICAM cannot be performed  
by the user at the unit level. Internal maintenance on the  
CAM and ICAM can only be performed at direct support (DS) or  
depot level activities. Preventative maintenance checks or  
(PMCS) are to be performed on the CAM and ICAM at least  
monthly by the user. This PMCS check simply involves  
turning on the unit and having it go through a self-test.  
If the CAM or ICAM fails the PMCS test it will be sent to  
direct support or depot level maintenance activities for  
inspection and repair. It would be at this time where the  
drift tube cell module would be leak tested. The leak test  
of the cell module will be performed before any maintenance  
is performed on the CAM or ICAM.

b. Confirm that a leak test will be performed if  
accidental or negligent damage to the device occurs.

Response: A leak test will be performed on the CAM or ICAM

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whenever the device shows evidence of being damaged or is involved in an accident.

c. Confirm that provision is made for visual inspection of cell membranes integrity whenever disassembly allows.

Response: A visual inspection of the cell module membrane will be performed when repair of the CAM or ICAM involves the disassembly of the monitors.

d. Provide verification that engineering changes were made to the diffusion membrane to prevent damage, in Army letter Jan 11, 2000.

Response: An engineering change (revision E, no. Z16-1481-001) was made to the sieve breather assembly on January 10, 2000 which changed the configuration of the sieve breather assembly that does not allow direct access to the membrane or Ni63 sealed source.

e. State whether the ICAM is to be included in the request.

Response: Since both the CAM and ICAM are listed on the NRC registration certificate NR-1129-D-103-S, therefore we request the exemption for annual leak testing apply to the ICAM also.

f. Describe the history in terms of the two device models, total and effected inventory in use and in storage, and the length of time in service to the above normal leak test results.

Response: There are approximately 5,315 CAM's and 16,815 ICAMS issued to soldiers compared to approximately 16,400 GID-3 detectors. A relatively small percentage (< 3%) of CAM and ICAMS are held in long-term storage. The annual ICAM/CAM leak test results (65,000+) as referenced in the amendment request dated 12 February 2004 were from devices that were in use for at least 6 years. The length of time before service is performed on the CAM and ICAM does vary from user to user due to the fact some Army units are in a

more "ready mode" than others. Most of the CAMs (75%) contain the old version drift tube cell module which will require internal maintenance. Since the ICAM contains the newer version of the drift tube cell module, only approximately 20 % will require internal maintenance.

Nearly all (99%) of the GID-3 detectors have been issued to soldiers. The length of time before authorized maintenance is performed also varies among user as with the CAM and ICAM's. The GID-3 detector has been fielded for approximately 6 years (1998-2004). Authorized maintenance involving the two Ni63 cell assemblies is only performed when a GID-3 is non-operational. Since 1998 there have been approximately 600 GID-3 detectors that have required internal maintenance.

The POC for further information is Mr. Thomas Gizicki, Health Physicist/RSO, US Army, TACOM-RI, 309-782-2965.

Sincerely,



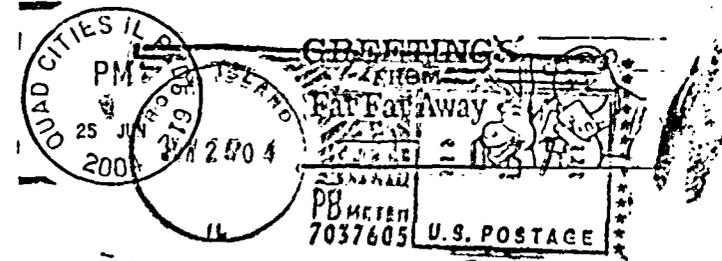
for Jeffery A. Havenner  
Chief, TACOM Safety Office

CF: Mr. George Jarvis  
Director, TACOM Safety

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