



GA Technologies

In Reply
Refer To: 67-7092

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12 August 1985

Dr. Cecil O. Thomas, Chief
Standardization & Special Projects Branch
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Subject: Docket 50-163: R-67; Application for License Amendment and
Technical Specification Change. (19 copies)

Dear Dr. Thomas:

GA Technologies Inc. (GA) has need to make a change in its subject reactor technical specification for reasons stated below. Accordingly, we request that our subject license reactor technical specifications, Section 6.2.3 (a), (b), and (c) and 10.2.6 (f)(2), both of which deal with radiation monitors, be amended to read:

6.2.3: The following monitoring systems shall be operable during reactor operation or when work is done on or around the reactor core.
(For periods of time for maintenance to the radiation monitoring systems, the intent of this specification will be satisfied if the installed system is replaced as needed with alternative or portable gamma-sensitive instruments having their own alarms or which shall be kept under visual observation).

- (a) An area radiation monitoring system capable of activating the evacuation alarm.
- (b) A continuous monitoring system for airborne radioactivity having a readout and audible alarm which can be heard in both the reactor and control rooms.
- (c) The monitoring systems in (a) and (b) shall be calibrated annually and their set points verified weekly.

10.2.6 (f)(2)

When devices are present in the core regardless of reactor power level:

- (i) Reactor scram if the reactor room continuous air monitor registers 50,000 counts per minute or more (scram bypass is permissible during scram test or maintenance operations).

Attached are the fees required to accompany this license amendment request.

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The purpose of this request is to seek authorization to perform routine calibration or maintenance on any of the radiation monitors including the continuous air monitor (CAM), during extended operations. According to Section 3.4, the reactor safety systems shall be verified to be operable at least once each day the reactor is operated, unless the operation extends continuously beyond one day, in which case the operability of the reactor safety system need only be verified prior to the extended run. Prudence suggests that provision should be made to verify operability of these systems at least weekly during a long continuous run. To check the CAM scram during operation it is necessary to use a scram bypass. In addition, a defective CAM may need to be replaced by an alternative CAM with scram. To permit these desirable surveillance and maintenance operations, we seek the additional wording in the applicable Technical Specifications suggested above.

Justification for providing scram bypass or temporary alternative instrumentation for the radiation monitors is the following:

1. The Mark III TRIGA reactor license (R-100) authorized the requested substitution of temporary, portable instrumentation under visual observation (Sections 3.2 Reactor Instrumentation).

For periods of time for maintenance to the radiation monitoring systems, the intent of this specification will be satisfied if the installed systems are replaced with portable gamma-sensitive instruments having their own alarms or which shall be kept under visual observation.

2. To instrument for the present continuous reactor operation, we have in operation a large number of radiation sensitive monitors: namely,

2 Area monitor detectors;

1 Continuous Air Monitor with a standby CAM in the immediate vicinity;

1 Radiation Monitor in the Absolute Air Filter (in stack exhaust line);

1 Cell top radiation monitor near the thermionic cells;

1 Stack monitor.

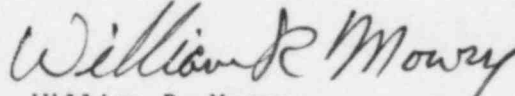
With such an array of radiation monitors, there is no credible possibility that dangerous release of radioactivity would be detected by only one of the above monitors. Release of such a quantity would be immediately detected by at least four of these detectors: the CAM, the absolute filter radiation monitor, the stack monitor, and the cell top monitor.

The desire both to test routinely the CAM scram and to provide maintenance during a long term test stems from our interest to assure continued long term operation of the safety circuits. The temporary replacement of any of the above radiation monitors does not decrease the system safety (because of the obvious redundancy) and does in fact actually increase the assurance of continued proper operation of these components of the safety system.

GA concludes that no safety considerations are altered by this request for ability to test and maintain the radiation monitors during a long reactor operation.

We would appreciate your assistance in expediting this request and look forward to receiving the requested license amendment at your earliest convenience. Should you have any questions in the matter, please promptly contact by telephone either Dr. W. L. Whittemore at (619) 455-3277 or me at (619) 455-2823.

Very truly yours,


William R. Mowry
Licensing Administration

WRM:WLW:hc

Attachment:
Check for \$150.