



Advanced Medical Systems, Inc.

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July 23, 1990

Mr. Charles E. Norelius, Director
Division of Radiation Safety & Safeguards
U.S. Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, IL 60137

Dear Mr. Norelius:

RE: License No. 34-19089-01
Fire Protection Program

We have reviewed the seven (7) required fire protection measures as well as the recommendations and offer the following responses:

1. MEASURES

1. Expand the existing Emergency Pre-Plan to include those items/issues described in the January, 1990 inspection findings and delineated in 10 CFR 30.32, including the availability of emergency response training to offsite response organizations on at least a biennial basis.

AMS had contacted the Cleveland Fire Department in May to arrange for a facility tour and training, but the Fire Department cancelled their visit due to other commitments. AMS will attempt to procure a commitment from the Department by August 15, 1990 for their facility tour(s) and training. Concurrent with the tour(s) and training, AMS will conduct a review of its emergency pre-plan, 10 CFR 30.32 requirements and other civil codes to modify and/or improve the emergency pre-plan.

The final pre-plan will incorporate any suggestions made by the Fire Department and other local civil response agencies. Similarly, the training plan will be reviewed in light of any suggestions made by these agencies.

2. Extend fire detection sensors to the hot cell's ventilation system room (if not pre-existing) and those warehouse areas lacking detection systems.
4. Implement a formal program for testing fire/heat detection and sensing devices (as recommended by NFPA or device manufacturer) to verify system operability.
6. Replace or perform preventative maintenance on painted, loose and inoperable heat detectors and sensors. Also, implement a preventive maintenance program for these devices.

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July 20, 1990

Please note that with respect to Measure No. 2, the hot cell ventilation equipment room does contain a fire detector.

AMS' London Road personnel met with representatives from our security firm, ADT, to discuss the contents of Measure Nos. 2, 4, and 6. ADT has committed to performing a complete evaluation of the security and fire protection systems at the AMS London Road facility. This evaluation will allow ADT to develop proposals for the following:

- a.) Any necessary repair and/or replacement of heat detectors and sensing devices.
- b.) Extension of the existing system to provide coverage in the areas named in Measure No. 2 as well as recommendation No. 3 or replacement of the entire system with a new, larger system to provide coverage in areas presently covered as well as these areas named in Measure No. 2 and Recommendation No. 3.
- c.) Development of a testing and maintenance plan for all fire detection systems and the provision of these services by ADT for all detectors in unrestricted areas.
- d.) Provision of instruction for AMS personnel for the performance of maintenance and testing on detectors located in restricted areas.
- e.) Assistance to AMS in the development of formal written procedures and supporting documentation for fire protection system testing and maintenance.

NOTE: AMS expects to receive ADT's proposals by September 17, 1990, at which time a decision will be made as to the type of modifications necessary and a timetable will be developed.

3. Develop written procedures and implement a combustion and ignition source control program that includes: (a) the controls to minimize the amount of transient combustible fire hazard materials that a radiologically-controlled area may be exposed to; and (b) controls to ensure that fire safe practices will be implemented in controlling ignition sources.

AMS ISP Manual Section 1.6 deals with the control of fire hazards. AMS personnel are in the process of reviewing current procedures, industry standards, civil codes, and NRC guidelines so that additional written fire safety procedures may be developed.

5. Verify (or install as appropriate) that the HEPA exhaust filter is of a non-combustible type that complies with appropriate criteria (e.g., Underwriters Laboratories, Inc. Standard No. 58) or install a firescreen upstream of the HEPA exhaust filtration system or demonstrate by performing an engineering analysis that the filtration system would not become degraded if exposed to the maximum amount of potential ignitable combustibles.

Currently, AMS uses Cambridge Series E HEPA Filters. These filters are listed by the manufacturer as being fire resistant and operable at 200°F and 100% humidity. The Series E Filters meet UL 586 and UL 900 Class 2 requirements.

Additionally, AMS ordered new pre-filters from American Air Filter Corporation on July 5, 1990. These pre-filters, which will be installed upstream of the HEPA filters no later than December 31, 1990, are listed by the manufacturer as being fire resistant and operable to 500°F. These pre-filters are UL Class 1.

7. Maintain unencapsulated sources (i.e., cobalt metal) in the hot cell storage wells during off-hours and weekends when the facility is unattended.

It is AMS' policy to store bulk cobalt in the hot cell storage plugs. AMS has revised Section 4.0 of ISP-19 (Cobalt 60 Encapsulation) to commit the requirement that unencapsulated cobalt be kept in the storage plugs during non-business hours to writing. This revised procedure has been submitted under separate cover as part of a license amendment request.

II. RECOMMENDATIONS

AMS personnel are currently reviewing all of these recommendations, but offer the following responses:

2. Confirm (or modify as appropriate) that radiologically-controlled areas of the facility are separated from other facility areas by rated fire barriers (e.g., fire doors and fire dampers) in accordance with the applicable Ohio Building Code or local Fire Prevention Code criteria. Further, the radiologically-controlled areas should also be confirmed to be separated from each other by rated fire barriers in accordance with the applicable code criteria.

Following completion of the items set forth in the NRC Necessary Measures, AMS will undertake a review of the London Road facility blueprints and equipment files to determine the adequacy of fixtures currently in place.

3. Extend fire detection sensors to facility areas not presently covered by the fire detection system (in addition to Requirement No. 2 above) such as the Second Floor Mechanical Equipment Room and office areas, or install smoke detection devices instead of thermal detection devices in the office areas which would provide earlier notification.

July 20, 1990

Please see response to Measure Nos. 2, 4, and 6.

4. Repair the oil leak from the air sample pump.

The oil leak has been repaired and the pumps are inspected on a monthly basis.

5. Relocate the gas line in the First Floor Isotope Shop to outside of the building and the gas line in the First Floor Airlock to another area outside of the RCA, and install a thermal barrier around the gas line feeding the emergency generator in the Hot Cell Ventilation System Room. Otherwise, relocate the emergency generator and its fuel supply line to a non-RCA. Verify that the emergency generator system and its related natural gas line piping is in accordance with NFPA 54, National Fuel Gas Code; in particular, install excess flow devices or other approved devices to prevent an uncontrolled natural gas leak.

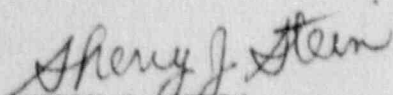
AMS personnel have been in contact with the local gas company to discuss changes in the metering system. The feasibility of relocating the gas line will be determined following the gas company inspection. During this inspection, verification that the emergency generator system and its related natural gas line piping is in accordance with NFPA 54, National Fuel Gas Code will be performed.

8. Maintain paint, thinner and other combustible liquids in fire resistant containers.

AMS stores all flammable materials in proper containers which, in turn, are stored in an NFPA 30 fire cabinet.

Should you have any questions regarding our responses, please do not hesitate to contact me.

Sincerely,


SHERRY J. STEIN

Director of Regulatory Affairs

SJS/mz