

Advanced Medical Systems, Inc.

121 North Eagle Street • Geneva, Ohio 44041
(216) 466-4671 FAX (216) 466-0186

June 15, 1995

Mr. John Madera
U. S. Nuclear Regulatory Commission
Region III
801 Warrenville Road
Lisle, Illinois 60532-9820

Dear Mr. Madera:

Enclosed are comments on Advanced Medical Systems, Inc.'s Emergency Plan from the following agencies:

State of Ohio Adjutant General's Department
Ohio State Emergency Response Commission
Cuyahoga Emergency Management Assistance Center

As of this letter, no other agencies have responded to our request for comments on our Emergency Plan. We will address the concerns of these three agencies when we respond to your June 7, 1995, letter for answers to comments on our Emergency Plan.

In addition, we will also respond to each of these agencies' concerns individually.

Sincerely,

David Cesar/cs

DAVID CESAR
Treasurer

DC/cs
Enclosures

RECEIVED

JUL 15 1995

REGION III

E/19

STATE OF OHIO
ADJUTANT GENERAL'S DEPARTMENT
2855 WEST DUBLIN GRANVILLE ROAD
COLUMBUS, OHIO 43235-2206

EMERGENCY MANAGEMENT AGENCY

AGOH-EM

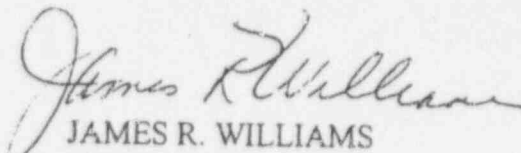
June 2, 1995

Mr. David Cesar, Treasurer
Advanced Medical Systems, Inc.
121 North Eagle Street
Geneva, Ohio 44041

Dear Mr. Cesar:

Thank you for the opportunity to review your onsite Emergency Plan. Our comments are attached. Most of Our comments relate to dose limits for emergency workers. We have also provided a copy of the Environmental Protection Agency's Manual of Protective Action Guides and Protective Actions for Nuclear Incidents (EPA 400-R-92-001). This document replaced the old EPA-520.

If you have any questions, please contact Darryl Walden, Radiological Planning Supervisor, at 614-799-3687.


JAMES R. WILLIAMS
Chief of Staff

DW:red

Enclosures as stated.

COMMENTS ON AMS EMERGENCY PLAN

Page 5-4, Section 5.5, second line

"In the event of an emergency, however, it may be necessary for members of the emergency response team to receive exposures up to the EPA guidelines: i.e., less than 75 Rem for either a lifesaving action or less than 25 Rem for entry into hazardous areas to protect the facility or control fire." EPA guidelines (table 202 on page 2-10 of EPA 400-R-92-001, Manual of Protective Action Guides and Protective Actions for Nuclear Incidents) states 25 Rem for life saving or protection of large populations and 10 Rem for protecting valuable property.

Page 5-4, Section 5.5.1

75 Rem is again used for lifesaving activities. EPA-400 guidelines state 25 Rem.

Page 9-1, Section 9.1

The second paragraph refers to EPA-520. EPA-400 is the applicable document.

Appendix A, Page 4, Section 2.g.

"The maximum dose allowable to save equipment is 25 Rem." The EPA-400 limit for protecting valuable property is 10 Rem. The limit for all other activities is 5 Rem.

Appendix A, Page 9, Section 13.1.3

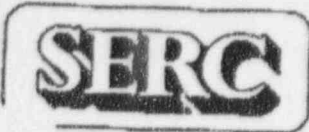
"The maximum dose allowable for lifesaving actions is 75 Rem." EPA-400 limit for lifesaving is 25 Rem. 25 Rem may be exceeded only on a voluntary basis to persons fully aware of the risks involved.

Appendix C

There are three agencies that play a primary role in radiological response and planning on the state level. They are Ohio Emergency Management Agency, Ohio Department of Health and Ohio Environmental Protection Agency. We recommend that you add ODH and OEPA to your distribution list. Their addresses are:

Robert Owens, Chief
Bureau of Radiological Health Services
Ohio Department of Health
P.O. Box 118, 246 North Street
Columbus, Ohio 43266-0118
Phone: (614) 644-2727

Jane Harf, Chairperson
State Emergency Response Commission
Ohio Environmental Protection Agency
LLRW Project
P.O. Box 1049, 1600 WaterMark Drive
Columbus, Ohio 43216-1049
Phone: (614) 644-2776



"Working to improve statewide preparedness and response to chemical emergencies and to improve public awareness of potential chemical hazards."

o State Emergency Response Commission

Emergency Planning and Community Right-to-Know
P.O. Box 163669, 1800 WaterMark Drive
Columbus, Ohio 43216-3669

George V. Voinovich
Governor

May 31, 1995

Advanced Medical Systems, Inc.
121 N. Eagle Street
Geneve, Ohio 44041

Dear Mr. Cesar:

The following comments were developed by Zack Clayton, a health physicist on my staff in the Ohio EPA Division of Emergency and Remedial Response, about Advanced Medical Systems, Inc.'s January, 1995 Emergency Plan for the 1020 London Road, Cleveland, Ohio facility.

1.1 Licensed Activity Description.

This section lists three forms of ⁶⁰Cobalt at the facility; 23,000 Ci of solid metal bulk, 75,000 Ci of sealed sources, and 15 mCi of sealed calibration sources. It goes on to mention 29 Ci of unspecified material in a location and form that would allow dispersal, most of which is in sealed 55 gallon drums or B-25 boxes. This may be the licensed material, but it fails to mention ⁶⁰Cobalt Oxide dust in the WHUT room of the basement. I realize this room is sealed, but in an emergency that may cause a breach of the room, this dust is in a readily dispersible form. This material was mentioned in a remedial actions report prepared in February 1988. From the quantities listed in that report about 230 Ci of ⁶⁰Cobalt should remain in the room, a significant amount and a hazard if the room were breached.

1.2 Area and Facility Description

The floor plans included shows the basement Dry Waste Storage Area and the WHUT room. There is no text in the emergency plan describing this area or any hazards associated with it. There is also no text in the plan describing what, if any hazards are associated with these areas. Specifically, there is no text warning response personnel that they may risk exposure to high radiation fields if they enter these areas.

It is my understanding that since this plan was submitted, the basement area including at least the dry waste storage room has flooded. It would be prudent to indicate in an

Mr. Cesar
Page 2

addendum what safety consequences this may have. Flooding was not one of the emergencies covered in the plan, but it now appears to require attention. It is our understanding that the water in the basement has been measured and found to contain 170,000 picocuries/liter. At a minimum, the plan should describe the notifications which would be made and the action plan, should the water from the basement be released in an uncontrolled manner.

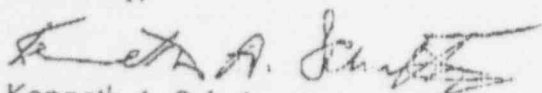
Attachment 1: CAP88-P- Summary Output

The scenario for this release uses the WHUT room, as mentioned earlier, an undescribed location. The estimate of release for this room is 15 curies. Calculation indicates this room has up to 230 curies of ⁶⁰Cobalt remaining. No explanation is given for a partial release of the activity in this room. If the model estimate is that not all of the material is available for release, an explanation should be included in the discussion.

Since there was an evaluation of "loose powdery material" on the floor of the WHUT room in 1988, and the room was sealed shut until the radiation levels are safe in the year 2004 to enter and clean up the room; if for some reason emergency workers entered the WHUT room today, what are the risks, and what precautions; if any, could be taken for safe entry?

Thank you for providing us a copy of the emergency plan and inviting our comments.

Sincerely,



Kenneth A. Schultz, Section Manager
Chemical Emergency Preparedness and Prevention

cc: Jane Harf, Chair, ST RC
John Grobe, NRC Region III
Larry Grove, Ohio EMA
Mike Kalstrom, Cuyahoga Co. LEPC
Kevin Zumbro, Ohio EPA



State of Ohio Environmental Protection Agency

STREET ADDRESS:

1800 WaterMark Drive
Columbus, OH 43215-1099

TEL: (614) 644-3020 FAX: (614) 644-2329

MAILING ADDRESS:

P.O. Box 1049
Columbus, OH 43216-1049

FACSIMILE INFORMATION

SEND TO: Mr. Cox PHONE #: _____

COMPANY NAME: _____

FACSIMILE NUMBER RECEIVING INFO: _____

FROM: Kon Schultz

- ☐ 614-644-3186 (ER)
☐ 614-644-3042 (SIU)
☐ 614-644-3063 (PCB)
☐ 614-644-2924 (DERR)
☐ 614-644-2260 (SERC/ETK)

FACSIMILE NUMBER SENDING INFO: 614-644-3250

NUMBER OF PAGES: 3 (INCLUDING THIS INSTRUCTION PAGE)

SPECIAL INSTRUCTIONS: _____

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RECEIVE POOR COPY, PLEASE NOTIFY US.NOTE TO RECEIVER:



COUNTY OF
CUYAHOGA

**Cuyahoga Emergency Management
Assistance Center (CEMAC)**

Commissioners

Mary O. Boyle
Timothy F. Hagan
Lee C. Weingart

June 2, 1995

VIA CERTIFIED U.S. MAIL
David Cesar, Treasurer
Advanced Medical Systems, Inc.
121 North Eagle St.
Geneva, Ohio 44041

Dear Mr. Cesar:

The Cuyahoga County Local Emergency Planning Committee (LEPC) is pleased to submit comments on the Emergency Plan for the Advanced Medical Systems, Inc. (AMS) facility located at 1020 London Rd., Cleveland, Ohio 44112. These comments are timely submitted pursuant to 10 CFR 30.32 (i)(4), which allows offsite response organizations expected to respond in case of an accident 60 days to comment.

We have carefully reviewed the document submitted and offer the following general comments and the attached page-referenced comments.

1. The Waste Hold-up Tank Room or WHUT room is not included in the Emergency Plan for this facility, save for a map with no supporting text or documentation. Emergency responders must be made aware of the response risks involved with the WHUT room and its current contents. The LEPC believes that the WHUT room must be included in the Emergency Plan for this facility.
2. The "Consultant's Report" following Section 3.4 makes no assessment of the contents of the WHUT room. The only materials discussed in the "Dose Assessment from a "Worst-Case" Release of ⁶⁰Co" are an undocumented 29 curies of materials (based upon the consultant's "understanding"), whose location is neither mapped nor specifically discussed. It is presumed that the assessment was meant to include "unsealed sources" of radioactive materials and that it excludes the WHUT room, though the only exclusion mentioned is the Hot Cell. The NRC presented a somewhat different inventory at recent public meetings in Columbus and offered a modeling approach using all materials (both sealed and unsealed). The LEPC believes that both of these approaches leave room for

David Cesar
Advanced Medical Systems, Inc.
June 2, 1995

further inquiry, that the WHUT room must be included in the "Dose Assessment," and that the assessment should examine possible exposures starting at the property line.

The LEPC also believes that the hazards for Cuyahoga County are not adequately represented. The risk of tornadic storms is virtually dismissed without documentation. Other hazards for this facility are not even discussed. For example, the facility's location adjacent to a railroad, and the planned installation of an evaporation unit inside the building suggest additional accident scenarios that should be examined. The LEPC believes that more work is necessary to complete and document a representative hazards analysis for this facility.

3. The Emergency Plan includes no detailed inventory of the radioactive materials stored at this facility. The LEPC believes that the specific locations and amounts of all radioactive materials on site should be included in the Emergency Plan. The inventory should also provide information to emergency responders regarding the physical condition of these materials. For example, emergency responders should know that the unsealed radioactive waste materials in the WHUT room may offer a higher respiratory risk than sealed sources stored elsewhere.
4. The "Emergency Pre-Plan Operating Procedures" included as Appendix A appear to be generic procedures. Have any of the officials referred to in various sections of Appendix A agreed to the procedures outlined? If so, they should be listed at least by title and agency. For example the emergency room for University Hospital has well established protocols which should be included (or referenced) in the Emergency Plan. Do they match the procedures outlined in the AMS plan? The plan should also include a reference to the Radiological Incident and HazMat Protocols for the Cuyahoga Major Emergency Incident Management System. These are the procedures which will be followed locally.
5. The Emergency Plan makes a reference to the authority of the Radiation Safety Officer in its "Statement of Policy." No similar reference is made to his alternates, listed as Secondary Contacts on the "Emergency Contact Personnel" summary. Are they authorized to make decisions in the event the Radiation Safety Officer is not available?
6. The LEPC believes that the following telephone numbers should be added to the list of "Emergency Civil Response Agencies:"

Cuyahoga County LEPC - 443-7597

Cuyahoga County LEPC Spill notifications - 771-1365 (see attached guidelines)

Cuyahoga County Emergency Management Division - 443-5700

COUNTY OF
CUYAHOGA

David Cesar
Advanced Medical Systems, Inc.
June 2, 1995

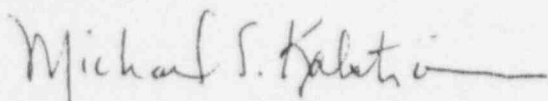
Northeast Ohio Regional Sewer District - 641-6000 (day) 641-3200 (evenings and weekends)

The LEPC believes that emergency numbers for all Cleveland public utility services, appropriate private utilities and environmental clean-up contractors should also be added.

7. The AMS Plan does not include procedures for reporting an emergency release of more than 10 curies of ⁶⁰Co. Such a release report must follow the attached guidelines by federal and state law. Agencies to be notified and the reportable amount should be made clear to the responsible officials and be included in the Plan.

The LEPC believes that the above issues must be addressed to provide the local involvement necessary for an effective emergency plan. Additional Section and page referenced comments are attached. If you have any questions please call me at 216-443-7597.

Sincerely,



Michael S. Kalstrom
Secretary, Cuyahoga County LEPC

encl.

cc: James L. Caldwell, Deputy Director, NRC Region III
Commander Robert Cermak, Cleveland Police Dept.
Lawrence English, NEORSD
Edmund Mecklenburg, Cuyahoga County Emergency Management
Edwin Price, Cuyahoga County Community Services
Dr. Rao, University Hospitals
Chief Thomas Root, Cleveland Fire Marshal
James Williams, Ohio Emergency Management Agency

Referenced Comments

Emergency Plan for Advanced Medical Systems, Inc.

Cuyahoga County LEPC

Page Section

		Is the plan available to employees for review?
	2	We are not convinced that the "absolute worst-case incident" referred to in paragraph one has been identified.
	2	In #1 WHUT room is excluded.
	2	In #2 where is the "emergency area?"
iv		Who is in charge if RSO is not available?
1-2	1.1	WHUT room is excluded from the general inventory discussion at the top of this page.
1-2	1.2	An effort to list schools, hospitals, extended care care facilities and fire stations by name and address would have added to the plan by illustrating a community evaluation in the context of this facility.
1-2	1.2	Population estimates would have added to the plan for the reasons listed above
1-2	1.2	The basement is listed as "restricted" without explanation.
1-3	1.2.1	Had trouble locating "heavy dashed line" listed in paragraph 3.
1-3	1.2.1	WHUT room excluded from list of "restricted areas" in paragraph 4.
1-4	1.2.3	Discussion about Hot Cell "window" does not mention lead bricks for shielding in the event of an accident.
1-4	1.2.3	The service life of the hot cell door is listed as "long." When was it installed and how much of its estimated life expectancy remains?

- | | | |
|---|-----------|--|
| 1-6 | 1.2.4 | Where is the emergency generator listed in paragraph 2? Is there a manual activating procedure? |
| 2-5 | A.9. | Where is the "clean side of the basement?" |
| 2-5 | 2.1.2.2 | Where is the "portable HEPA system?" |
| 3-1 | 3.2.1 | What are releases "permitted by 10 CFR Part 20?" |
| 3-2 | 3.3 | There are other accidents that could occur. For example, there could be an accident involving the evaporation unit that is to be installed inside the building, or there could be a rail accident. |
| 3-3 | 3.3 | The risk of a tornado should not be dismissed without documentation. There is a tornado risk for this area. We also have a risk of urban flooding, thunderstorms and winter storms. Earthquakes are possible. We have had Presidential declarations for federal disaster assistance twice in the last five years and required state assistance for a wind storm that caused widespread debris' damage and loss of electricity in 1993. |
| IEM letter | | The consultant's report needs further analysis (see cover letter). Some effort to review the possibility of soil and other types of collateral contamination should also be evaluated. |
| 4-1 | 4.2.1 | Who would report emergency release of more than 10 curies of ⁶⁰ Co to the Cleveland Fire Department, LEPC, SERC and the National Response Center? See attached guidelines. |
| 5-2 | 5.1.2 | Who is authorized to act in the absence of the RSO? |
| Contact Personnel | | List of contacts is incomplete (see cover letter). |
| Emergency Pre-Plan Operating Procedures seem rather generic (see cover letter). | | |
| 4 | 2.b. | Should there be any precautions (i.e. evacuation or shelter-in-place announcement) for residents and businesses? |
| 8 | 12.1(11.) | An accurate inventory would assist with the "theft" investigation. |
| Appendix C | | The Distribution List needs to be revised to reflect the additional local agencies reviewing this document by NRC order |

SUMMARY OF CURRENT & FUTURE AMS TASKS
JUNE 16, 1995

Items of Highest Priority

I Continue to closely scrutinize the water cleanup and excavation project. We have issued two amendments since 6/9/95 which expedite the project, as follows:

A. (1) Increased Co-60 concentration release criteria for pumping to the bladders from 200 to 1000 pCi/l

(2) Eliminated the requirement to determine the solubility of processed water prior to pumping to the bladders

B. Extended due date for completion of the project from 6/17/95, to various task specific dates in July

The mobile lab will be returned to RIII on Thursday July 6, 1995. The lab is required for confirmatory measurements at several reactor sites beginning July 10. AMS samples collected after July 5 will need to be analyzed in the RIII lab.

II Bob Shewmaker's visit to AMS to evaluate the structural integrity of the facility should take place in late July/early August. Bob will need to be accompanied by a RIII representative (e.g. Weber, House or Slawinski)

III Alaron should commence its milling operations to remove the stuck hot cell plug, after the water processing project is complete (late July perhaps). RIII site presence will be desirable during the critical portions of this job.

IV Continue to assist Kevin Null in expeditiously processing licensing actions. (A licensing action status summary is attached). In the near term, we will need to focus on reviewing AMS's response to our 4/17/95 radiation protection program deficiency letter and 6/7/95 emergency plan deficiency letter.

V An emergency plan exercise involving offsite response organizations is required to be conducted in July or August 1995. We will likely need to discuss what delays, if any, the agency will tolerate.

E/20

Letters and Other Correspondence

- I Violation retraction letter is expected to be issued under Caldwell's signature the week of June 19, 1995.
- II Will need to evaluate the licensee's response to the allegations we forwarded to them via letter dated 6/9/95. AMS's response is due 7/9/95.
- III The Cuyahoga County LEPC provided RIII with a copy of a letter it sent to the Ohio SERC, dated 6/9/95, regarding a request for a variance they are attempting to obtain. Although an NRC response is not required or requested, we may decide to respond so as to clarify erroneous information. Discuss the necessity for a response with Caldwell & NMSS.

NO OTHER LETTERS/CORRESPONDENCE ARE PENDING AT THIS TIME

Other Work Items

- I Continue to update "Strategy Plan" as the need arises. Last update was on May 25, 1995. Work with Joe DeCicco on these updates.
- II Provide status updates to Martha McCorkle as warranted. Biweekly updates are no longer requested by Martha. Last update to Martha was provided on June 16, 1995.

Update on AMS Licensing Issues as of 6/16/95

1. Renewal application

Deficiency letter mailed 4/17/95. Licensee given 45 days to respond. Response due June 1, 1995. Licensee FAXED a letter on 5/31 requesting an extension on their response to 6/16. Extension granted via letter dated June 7, 1995. Revised due date is June 16, 1995.

2. DFP/Cost Estimate

Deficiency letter mailed March 30, 1995. Licensee was given 30 days to respond. They requested an additional 30 days. Response due May 30, 1995 and received June 2, 1995. Licensee response inadequate; therefore, a TAR was submitted to HQ on 6/16/95 requesting contractor assistance.

3. Financial Instrument and Standby Trust Agreement

Technical Assistance Request submitted to HQ for contractor review on 4/14/95. A telephone call was made to HQ re: status. Was informed the package is in hands of contractor. HQ will do what they can to push through. Following HQ review it must go through OGC for concurrence. This typically takes 10 to 14 days.

Called Lou Bykoski on 6/1 to check on status of contractor's review. Lou stated that their review is complete and he expects to receive their comments on 6/2. He will then forward to OGC for concurrence. As noted above, this typically takes 10 - 14 days.

4. Amendment request to: 1) evaporate water in bladders, 2) install sampling device, 3) reconnect underdrain, and 4) discharge water to sewer with Co-60 < 200 pCi/liter.

This action was submitted to HQ for technical assistance on 4/7/95. NMSS response received 6/6/95 and supplemented with information from Bob Shewmaker on 6/7/95. Deficiency letter regarding 3 of the 4 above requests (excluding the evaporator request) sent to AMS on 6/14/95. The licensee's response to the deficiency letter is due 7/14/95. A second TAR was sent to NMSS on 6/14/95, regarding the evaporator request.

5. Emergency Plan

Deficiency letter issued 6/7/95. Response due 7/7/95. Comments on AMS's emergency plan received in early June from two offsite response organizations. Comments from other response organizations expected within next few weeks. The Region will wait until AMS forwards all the comments it receives from offsite response organizations, before the region will review them for appropriateness.

6. Amendment to change analytical labs

Was issued on May 18, 1995 via Amendment no. 33.

7. Amendment to extend due date of June 17 For Water Processing Project Completion as required by License Condition 19. (Amendment no. 32)

Amendment # 34 issued 6/16/95, tying-in interim milestone completion dates for various phases of the project. Amendment # 34 requires that the activities required by License Condition # 19 be completed by 7/7/95, with the exception of remediation of the London Road interceptor.

8. Amendment Request to Allow the RSO to Make Minor Changes as the Water Processing Project Continues

* AMS's request for this amendment received via letter dated 6/6/95, and supplemented by letter dated 6/14/95.

* RIII expects to issue limited authorization to the RSO via an amendment the week of 6/19/95.