



City of Cleveland

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DEPARTMENT OF PUBLIC HEALTH

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(216) 664-2324

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(216) 664-2300

1925 St. Clair Avenue
Cleveland, Ohio 44114
(216) 664-2324 Fax: (216) 664-2187

NOTICE

A SECOND MEETING OF THE AD HOC TASK FORCE ON ADVANCED MEDICAL SYSTEMS HAS BEEN SCHEDULED FOR:

DATE: FRIDAY DECEMBER 16, 1994
TIME: 1:00 PM TO 3:00 PM
LOCATION: FIRE TRAINING ACADEMY
3101 Lakeside Ave.
Cleveland, OH 44114
(Free parking available on site)

*No Eligibility
Schedule cannot
be assigned*

PLEASE MAKE NOTE OF THE MEETING LOCATION.

FOR MORE INFORMATION: Robert Stair
Commissioner of Environment
664-2359

DISTRIBUTION:

Law Department
Division of Water Pollution Control
EMS - Emergency Medical Services
Fire Prevention
Police
Division of Streets
Toxic Sweep Task Force
County Emergency Management
Northeast Ohio Regional Sewer District (NEORSO)
OEPA
NOACA - North Coast Ohio Area Coordinating Agency
Ohio Department of Health
Ohio Emergency Management Agency
Nuclear Regulatory Commission, Region III
Advanced Medical Systems

cc: Diane Downing, Executive Assistant
Mike Konicek, Director, Public Utilities
William Denihan, Director, Public Safety
Sharon Sobel Jordan, Director, Law Department
Henry Guzman, Director, Public Service

An Equal Opportunity Employer

DC/mz
Attachments

cc: Jack Grobe

Advanced Medical Systems, II

121 12th Eagle Street • Geneva, Ohio 44041
(2) 5-4671 FAX (216) 466-0186

FILED
3:23 pm
12-28-94

December 28, 1994

VIA FAX #(708) 515-1259

Mr. W.L. Axelson, Director
Division of Radiation Safety and Safeguards
U.S. Nuclear Regulatory Commission
Region III
801 Warrenville Road
Lisle, IL 60523-4351

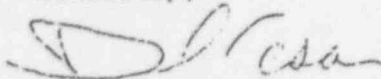
RE: CONFIRMATORY ACTION LETTER NO. RIII-94-0008

Dear Mr. Axelson:

As set forth in Confirmatory Action Letter No. RIII-94-008 (CAL RIII-94-0008), the purpose of this letter is to transmit Advanced Medical System's (AMS) Action Plan in response to CAL RIII-94-0008. Attached is a summary of agreed-upon items, the action taken to date, the current status of each item (open or closed), and a description of pending action. An implementation plan, where applicable, has also been provided.

Please contact me at (216) 466-4671 if you have any questions or if I can provide you with additional information. We will continue to keep you informed of the status of our efforts regarding CAL RIII-94-0008.

Sincerely,



DAVID CESAR
Treasurer

DC/mz

Enclosures

NOTE: Originals to be mailed

✓ cc: Jack Grobe, USNRC Region III

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ADVANCED MEDICAL SYSTEMS, INC.
ACTION PLAN FOR CONFIRMATORY ACTION LETTER NO. RIII-94-0008
December 22, 1994

Item 1: Monitor the water level in the manhole on AMS property and take prompt action to reduce or maintain the water level to allow the foundation drainage system to function. Water removed from the manhole shall be tested for compliance with 10 CFR 20.2003 which permits only the discharge of licensed material that is readily soluble or readily dispersible biological material in water. Should water begin to intrude into the basement, the NRC will be notified immediately.

Action Taken: AMS is pursuing legal relief from the NEORSO Temporary Restraining Order prohibiting the discharge of wastewater into the sanitary sewer system. Once flow is restored, the concern about hydrostatic pressure will decrease. Water entering the manhole during rainfall is currently being collected in tanks to relieve the hydrostatic pressure. The Cobalt-60 concentration will be verified to be undetectable (e.g., less than MDA) prior to discharge.

Current Status: Open

Pending Action: A protocol will be developed for sampling/discharge of all wastewater into the sanitary sewer system pursuant to 10 CFR 20.2003. The AMS Radiation Safety Officer will visually inspect the basement for water accumulations every business day and report to the USNRC if water is intruding into the basement. The results of this inspection will be documented. If an increase is indicated, the Radiation Safety Officer will investigate the cause of water intrusion (e.g., excessive rainfall) and begin pumping water from the manhole into storage tanks. In the interim, the water intruding into the basement will be collected and sampled to determine if treatment is necessary to meet the requirements of 10 CFR 20.2003 before discharge.

Implementation Plan:

Item	Scheduled Completion Date
Finalize analytical protocol for characterizing wastewater and surface deposits (sludge).	December 23, 1994
Obtain access to manholes, collect samples and submit samples to the laboratory for analysis.	January 2, 1995**
Receive analytical results and develop draft protocol for sampling/discharge of wastewater currently in tanks.	January 27, 1995
Submit draft protocol to USNRC for review.	January 30, 1995
Receive USNRC approval to implement protocol.	February 3, 1995**
Finalize and implement protocol.	February 4, 1995
Develop and implement protocol for daily inspection of basement and notification of the USNRC of water intrusion.	December 31, 1994

**Estimated completion date only. Actual completion date subject to factors outside of AMS control. Delays in implementing this item will result in comparable delays in implementing subsequent items.

Item 2: Provide a plan to address the radioactively contaminated water that has been removed from the facility manhole and is in the facility basement.

Action Taken: All water collected from the AMS manhole is currently being collected in the above-ground tanks located on the AMS property. Water in the facility basement will be collected into a containment vessel and stored in the basement. The Cobalt-60 concentration of the water will be verified to be undetectable (e.g., less than MDA) prior to discharge.

Current Status: Open

Implementation Plan:

Item	Scheduled Completion Date
Collect basement water.	January 31, 1995

Item 3: Describe plans to discharge waste and storm water from the AMS facility without violating 10 CFR 20.2003. These plans should include the isolation and remediation of the radioactively contaminated manhole and sewer line exiting the facility to the London Road interceptor.

Action Taken: AMS has been and continues to pursue legal relief from the N.E.O.R.S.D.'s Temporary Restraining Order prohibiting discharge of wastewater from AMS into the sanitary sewer system.¹ AMS has solicited the NEORS's approval to access the AMS manhole and the NEORS's interceptor manhole in order to acquire and characterize samples of wastewater and residual surface deposits of radiological materials. Biological and chemical laboratories have been asked to provide a recommended analytical protocol for water/sludge that will reveal (1) the elemental composition of the water/sludge, (2) the compound (chemical form) of cobalt present in the water/sludge, (3) the biology of the solid/suspended material (e.g., total plate count and coliform) and (4) solubility characteristics. A cursory evaluation of remediation methodologies for the sewer line has been performed, resulting in selection of a preferred alternative.² The USNRC was notified of this selection during a conference call on December 20, 1994.

Current Status: Open

¹ Until relief is obtained, waste and storm water will continue to be pumped into above-ground holding tanks.

² The preferred remediation methodology for the sewer lines that run between Advanced Medical Systems, Inc.'s (AMS) facility on London Road and the Northeast Ohio Regional Sewer District (NEORS) interceptor is the Insituform process (see Attachment 1, "Description of the Insituform Process"). The preferred remediation methodology for the AMS and the NEORS manholes is conventional decontamination (i.e., hydrolasing, scouring, scrubbing, etc.). Prior to the eventual release of the AMS facility for unrestricted use, the contamination status of the sewer lines and the manholes will be addressed in light of radiological conditions that are present in these locations at the time of decommissioning.

Pending Action: Once the analytical protocol is finalized and access to the sampling points has been granted, samples of water from the AMS manhole and samples of residual solid materials from the NEORSD manhole will be collected and forwarded to the analytical laboratories for analysis. After results are received, a protocol for sampling/discharge of storm/wastewater into the sanitary sewer system, pursuant to 10 CFR 20.2003, will be developed and submitted to the USNRC for review and approval. Once approved, the protocol will be implemented for the water that currently exists in tanks and the water in the sewer line between AMS and NEORSD compression plug.

A formal alternatives (cost/benefit) analysis for remediation of the sewer line will be performed, and findings will be provided to the USNRC in the form of a written report. Once the preferred methodology is approved by the USNRC, AMS will pursue removal of the NEORSD compression plug so that remediation can be performed. Once removed, the radiological and physical character of the inside of the sewer lines on the AMS property will be determined,¹ and remedial action will proceed.

A device for measuring the flow rate and the Cobalt-60 concentration, if any, in wastewater will be installed in the remediated lateral (between the AMS manhole and the NEORSD manhole). Weekly reports of total volume and mean Cobalt-60 concentration, if any, will be generated and maintained by the AMS Radiation Safety Officer.

A final release survey of the sewer line and its surroundings will be performed as part of the site-wide decommissioning effort. If residual contamination in excess of the release criteria contained in the decommissioning plan exist, additional remedial action will be taken in order to secure release of the entire AMS site for unrestricted use.

¹ This information will be used as input to the site-wide decommissioning plan.

Implementation Plan:

Item	Scheduled Completion Date
Finalize analytical protocol for characterizing wastewater and surface deposits (sludge).	December 23, 1994
Obtain access to manholes, collect samples and submit samples to the laboratory for analysis.	January 2, 1995**
Receive analytical results and develop draft protocol for sampling/discharge of wastewater currently in tanks.	January 27, 1995
Submit draft protocol to USNRC for review.	January 30, 1995
Receive USNRC approval to implement protocol.	February 3, 1995**
Finalize and implement protocol.	February 4, 1995
Complete remedial alternatives analysis for the sewer line between AMS and the NEORSD interceptor and generate a draft report.	January 6, 1995
Submit draft alternatives analysis report to the USNRC for review.	January 9, 1995**
Receive USNRC approval to implement the preferred alternative.	January 20, 1995
Contract remediation vendor(s).	January 27, 1995
Perform visual and radiological inspection of the inside diameter of the sewer lines between AMS and the NEORSD interceptor to determine the magnitude of residual contamination.	February 20, 1995
Complete remedial action.	March 3, 1995
Purchase and install continuous sampler in the remediated sewer line.	March 3, 1995
Revise protocol for sampling/discharge of wastewater through the remediated sewer line.	March 3, 1995
Implement revised protocol.	March 4, 1995
Perform final release survey of the sewer line and its surroundings as part of the side-wide decommissioning effort, with additional remedial action taken as necessary.	To be determined

**Estimated completion date only. Actual completion date subject to factors outside of AMS control. Delays in implementing this item will result in comparable delays in implementing subsequent items.

ATTACHMENT 1: DESCRIPTION OF THE INSITUFORM PROCESS

INSITUFORM®

The Proven Leader In Trenchless Pipeline Reconstruction

THE ENVIRONMENT Leaking, deteriorated pipes create environmental problems and affect plant efficiency. Tougher laws and tighter government enforcement add to plant costs and concern. Now there is a cost-effective environmentally responsible way to rebuild pipe systems with little or no digging... the Insituform process.

Insituform's jointless construction provides total containment in the pipe being rebuilt. It is corrosion resistant to a wide range of chemicals from acids to caustics... and it's fast. The Insituform technology lets you rebuild damaged pipe during scheduled plant shutdowns. Your project can be completed in a matter of hours.

The Insituform process is the preferred trenchless method for reconstructing deteriorated pipelines worldwide and has been used in several EPA Superfund sites.

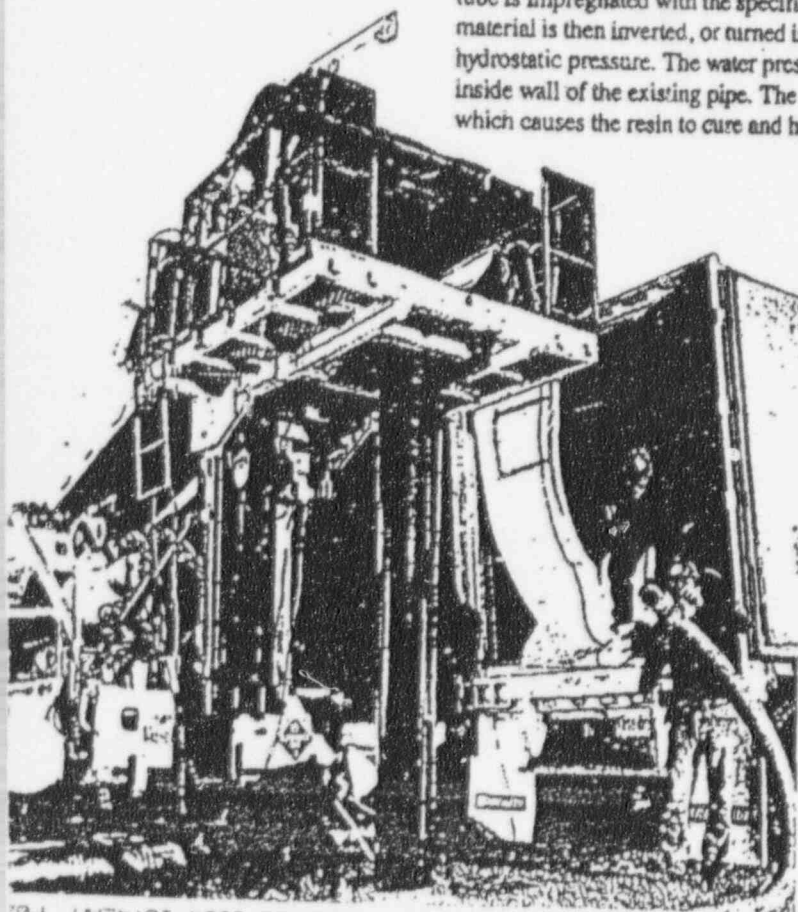
THE PROCESS Since the first installation in 1971, millions of feet of pipeline and sewers have been reconstructed using the Insituform process. The process begins with a thorough investigation of the problem pipeline. The structural condition is examined using a closed circuit video system to determine the nature and severity of the problems with the pipe to be reconstructed. All fluids to be carried by the pipe are analyzed to determine the proper resin system for each application.

The Insituform process, using liquid thermosetting resin technology, can be engineered to withstand the corrosive effects of a wide range of chemicals. Using standard, proven engineering equations, the Insituform pipe is designed to meet the structural needs of each specific project. Soil loadings, groundwater, pipe condition, and size are some of the factors that determine the final design. The Insituform reconstruction material is custom manufactured from polyester felt and formed into a tube that fits the pipe to be rebuilt. Prior to installation, the tube is impregnated with the specified thermosetting resin. The resin saturated material is then inverted, or turned inside out, within the damaged pipeline using hydrostatic pressure. The water pressure holds the material firmly against the inside wall of the existing pipe. The water used to invert the tube is then heated, which causes the resin to cure and harden into a structurally sound pipe.

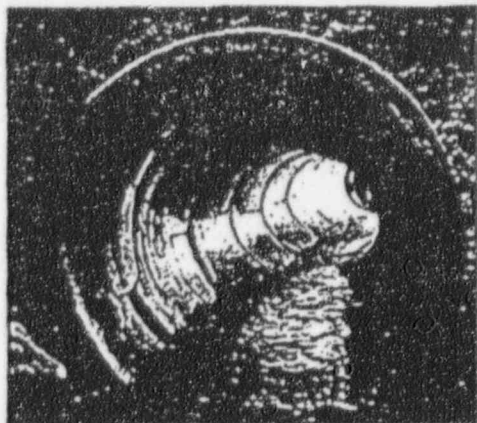
Reconstruction is accomplished with little or no excavation or disturbance. The project is completed in a fraction of the time it would take using conventional methods.

The jointless, leakproof "pipe within a pipe" provides total containment by preventing both exfiltration of pollutants into the soil or groundwater, and infiltration of contaminants or groundwater into the pipeline. *In virtually every case, the reconstructed pipeline is stronger and has greater flow capacity than the existing pipeline.*

Insituform has reconstructed over 15 million feet of pipeline without digging, danger or disruption.



ADVANTAGES



Before

TRENCHLESS: The Insituform process is completed without excavation using existing access points. No digging avoids plant disruption, safety concerns, and eliminates possible exposure to hazardous material and disposal problems.

FAST: The Insituform process is installed quickly, in hours. Installations can be scheduled to coincide with a regular maintenance program, with little or no impact on production.

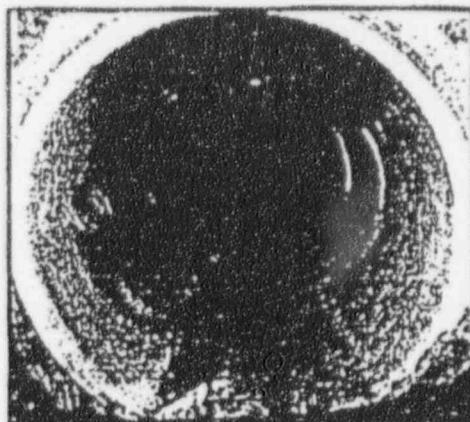
CONTAINMENT: The finished product is jointless and leakproof. No leaks mean no soil or groundwater contamination... and no infiltration of water or contaminants into sewers, process lines, or stormwater pipelines.

STRONG: The Insituform® product has been tested and proven to be up to 50% stronger than the existing pipe. Each pipe is custom designed and manufactured to meet your specific needs.

VERSATILE: The Insituform process has been installed in pipelines with up to 90 degree bends, as well as variations in elevation and diameter. Missing pipe sections, offset joints, and other pipeline problems can be accommodated easily. The Insituform process has been installed in pipes from 4" to 96" in diameter, in continuous lengths of up to 2,700 feet, and can be used in both pressure and gravity flow pipelines. DuPont Kevlar® Aramid fabric is used for reinforcement in some pressure pipe applications.

PROVEN: In 1971 the first Insituform process was installed in London, England. Samples cut in 1991 from the installation were tested for strength and deterioration. After 20 years of exposure to a mixture of domestic and industrial sewage, the pipe exceeded current industry standards for physical strength and showed no signs of corrosion or deterioration.

CHEMICAL RESISTANCE: Polyester, vinyl ester, and epoxy resin systems from leading resin manufacturers are used to accommodate a wide range of chemicals. Effluent is analyzed to determine which resin system provides the required strength, corrosion resistance, and longevity.



After

FLOW CAPACITY: The Insituform product's smooth interior surface typically enhances flow capacity in reconstructed pipelines. Tests on in-service Insituform product proved a Manning's factor of "n" = 0.010 for gravity flow, and a Hazen-Williams factor of C=140 for pressure flow.

RESEARCH AND DEVELOPMENT: Our process is continually improved and enhanced through extensive research and development. Our 20,000 square foot R&D facility keeps Insituform on the leading edge of the trenchless pipeline reconstruction industry. R&D is continually performed and updated in conjunction with leading national resin and material suppliers.

MANUFACTURING: Made in the U.S.A. Insituform tubes are constructed in the 90,000 square foot state-of-the-art Insituform facility. Twenty-one quality control tests are performed to ensure all material meets our stringent requirements.

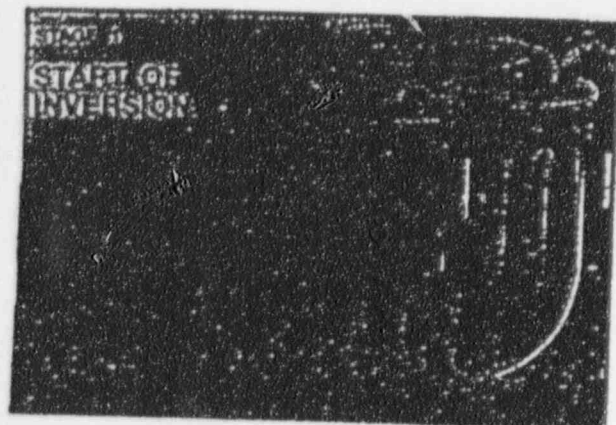
TESTING: Extensive testing has been performed on the Insituform process by third parties such as Utah State University and Sverdrup Corporation. Testing has included such items as structural performance, flow capacity, and longevity.

EXPERIENCE: With over 20 years of field experience, the Insituform process has been successfully installed in over 15 million feet of pipeline worldwide. Insituform understands plant safety and OSHA regulations. The Insituform process has been used in chemical and petrochemical plants, petroleum refineries, pulp and paper mills, and food processing and power plants.

QUALITY: The Insituform process quality control standards are the toughest in the industry. You can depend on these high standards through each step of the process. Each employee is highly trained and dedicated to the product excellence that Insituform is known for, and that you expect.

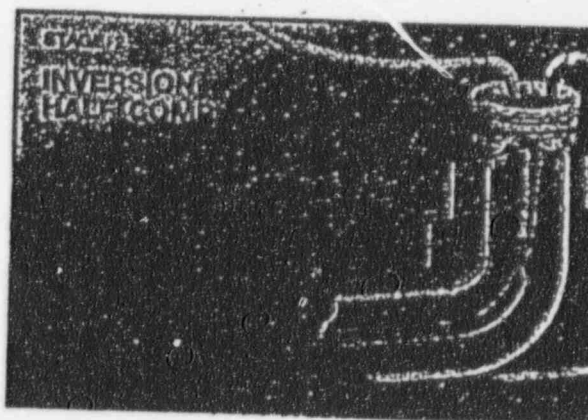
INSTALLATION

The Product



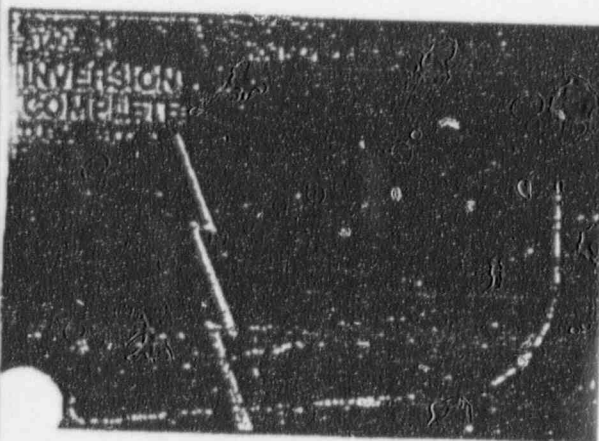
The Insitutube® product is custom manufactured from an elastomeric coated, flexible, fiber felt material to the specified diameter, length, and thickness required for a project. The Insitutube material is then saturated with a liquid thermosetting resin. Next, the tube is inverted, (stage 1) or turned inside out, using hydrostatic pressure, into the damaged pipeline through an access point.

The water used for inversion pushes the tube through the damaged pipeline (stage 2). The hydrostatic force turns the tube inside out and holds the resin saturated side firmly against the inside wall of the old pipe. As the tube moves forward, it pushes any fluids standing in the pipeline ahead of it. Because the Insitutube material is flexible, it can negotiate changes in elevation, bends, and offset joints, and conform to the size and shape of the old pipe. The smooth coated side of the Insitutube material becomes the new interior pipe wall.



When the tube is fully inverted over the length of the pipe to be repaired, (stage 3) the water in the pipe is heated to cure the thermosetting resin system, creating the Insitupipe, a pipe within a pipe. The resulting pipe is structurally sound and jointless... and because the new interior wall is smoother than the original, the flow capacity can typically be increased.

In gravity flow applications, lateral lines are reopened without digging from the inside of the new pipe by an Insitucutter®, a remote controlled robotic cutting device. A final inspection is made via closed circuit video. The entire procedure, start to finish, can be completed in hours without excavation, and without disruption.



CHEMICAL RESISTANCE

Wide Range of Effectiveness

A wide range of effluents can be handled by the Insituform process by varying the resin system used to make the finished pipe product. The resin systems used with the Insituform process are liquid thermosetting resins which, during cure, change from liquids into strong cross-linked solids. The resulting material is stable to heat and cannot be made to melt or flow again, in contrast to thermoplastics, which can be made to soften by the application of heat or pressure. The resins used in the Insituform process are one of three general classes: unsaturated polyester, vinyl ester or epoxy. These types of resin systems have been used extensively in the reinforced plastics industry for many years in the manufacture of corrosion resistant and high strength, lightweight structures.

Each resin system offers unique resistance. Polyester resin is the recommended choice for typical sanitary sewer applications, providing excellent corrosion resistance to acidic effluents.

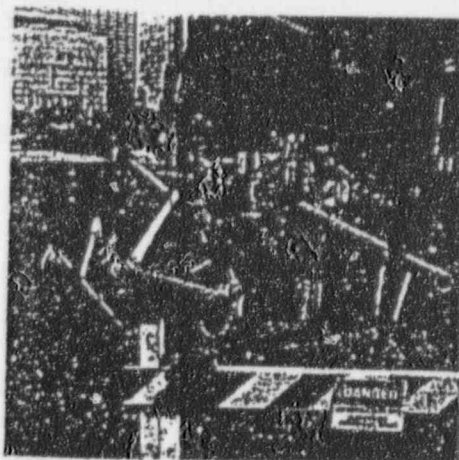
Where added corrosion or solvent resistance is needed, and for higher temperature applications such as industrial sewage and process lines, vinyl esters are often the choice. Vinyl esters offer a good balance between polyesters and epoxies. For pressure applications, high composite elongation is essential, as well as good adhesive properties. These characteristics are found in selected epoxies and vinyl esters. Epoxy resins offer superior chemical resistance, especially to caustics and solvents.

Listed below are a few common compounds, including acids, alkaline solutions, bleaches, metal salts, and solvents to which a typical cured resin system could be subjected. For specific corrosive effluents or environments, or for elevated temperatures and pressures, contact Insituform of North America, Inc. or its licensees prior to specification.

Chemical Resistance Chart*

Acetone	Esters	Paper mill effluent
Alcohol	Ethyl ether	Phosphoric acid
Ammonia	Fatty acids	Silver nitrate
Benzene	Flyash slurry	Sulfuric acid
Bleaches	Gasoline	Toluene
Brine	Herbicides	Urea
Chlorine dioxide, wet	Hydrochloric acid	Vinegar
Crude oil sweet/sour	Jet fuel	Xylene
Domestic sewage	Kerosene	Zinc nitrate

*Not to be construed as specifications or warranties.
Service conditions may limit applications.



Your best choice.

With the Insituform no-dig process, you avoid disruption to your community. You dramatically reduce public outcry about blocked streets, congested traffic, detours and private property infringement. You eliminate damage to nearby structures and utilities and dangerous open trenches. With Insituform reconstruction, the city doesn't get complaints from voters. Public services don't get interrupted — and neither do tax revenues from business sales.

INSITUFORM

PIPE RECONSTRUCTION. NO DIGGING. NO DISRUPTION. NO PROBLEM.

When you choose Insituform® pipe reconstruction, you get the most reliable and cost-effective solution to your pipe problems with the added reinforcement of over 20 years experience from one of the pioneers of trenchless technology. The Insituform process is a no-dig, no-disruption technology that provides a permanent, structurally sound, cost-effective solution.

Takes less time to install.

So you spend less.

Installing Insituform cured-in-place-pipe (CIPP) takes a fraction of the time it takes to dig and replace pipe — typically in days instead of weeks or months. So you can expect jobs to be done on time, on budget. Without change orders. Without community disruption costs. You will find that Insituform CIPP is the most cost-effective pipe reconstruction solution available. With the Insituform process, you can rely on the world's most

experienced network of trenchless pipe reconstruction experts.

Provides a solution that isn't just for special problems.

The Insituform process is your solution in a wide range of applications. Sanitary or storm sewers, Mainlines or laterals. Most anywhere your pipes go. Under streets, fields, runways, buildings, easements or railroads. The unique inversion process for inserting the tube is the most flexible solution available in a wide variety of shapes and diameters. It also adapts to

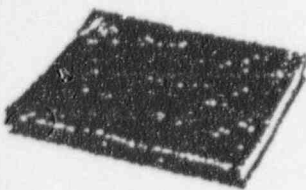
changes in pipe size. Negotiates bends as much as 90°. Spans missing pipe sections and offset joints. And the new Insituform point repair system provides a fast means of rebuilding small sections of pipe. So no matter what your pipe problem is — or what it's under — chances are you can solve it with the Insituform process.

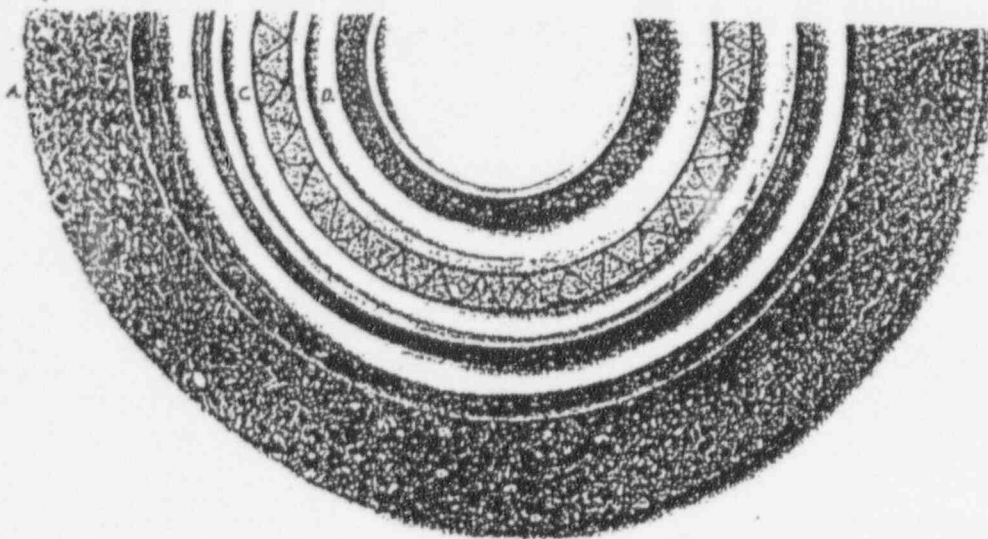
Stops infiltration, exfiltration and frustration.

Jointless Insituform CIPP stops existing pipe leaks immediately, preventing infiltration, exfiltration and future root intrusion. So you reduce the expensive burden of groundwater infiltration on your treatment plant. Stop pollution resulting from exfiltration and sewer

The first installation: 1971.

Since 1971, the Insituform process has provided you with the best solution to your pipe problems. That first installation was tested by an independent lab in 1991 and it was found that this 20-year old reconstructed pipe still met today's stringent specifications. With the Insituform process, you can rely on the world's most experienced network of trenchless pipe reconstruction experts.





Existing materials
which can be reconstructed
with the Insituform process:

- A. Concrete
- B. Steel
- C. Plastic/Composite
- D. Clay

Others (not pictured): Brick,
Asbestos Cement, Cast Iron,
Corrugated Metal and Ductile Iron

overflows. Avoid mandates
restricting growth caused by an
overloaded sewer system. With
our resin migration and tight fit,
our reconstructed pipe is better
than new. The Insituform process
also offers compatible reconstruc-
tion of service laterals, including
a unique mainline seal even
without above ground access.

Studies show that Insituform
CIPP can reduce infiltration and
inflow in mainlines by more than
50%, and by more than 75%
when service laterals are reha-
bilitated as well.

Inhibits corrosion and abrasion.

Proven ideal for long-term san-
itary and storm sewer applications,
polyester resin formulations
resist the effects of municipal
sanitary sewage and storm water.

With the widest selection of
approved resin systems, special
formulations are available for
more demanding applications.
Increases flow capacity.

Though you might think that
putting a pipe within a pipe would
decrease flow capacity, it doesn't.
In fact, with Insituform CIPP, flow
capacity often increases — thanks
to a smoothing over of existing
pipeline irregularities. Indepen-
dent flow studies document that
in-service sewers reconstructed
with Insituform CIPP provide
better flow characteristics than in-
service clay and concrete sewers.

Reduces maintenance costs.

The smooth, jointless inner
surface of Insituform CIPP gives
you a substantial reduction in
slime and sediment buildup.

Combine this with the elimina-
tion of root intrusion, and you
decrease maintenance.
Nothing's put through your
pipe until it's been put
through our wringer.

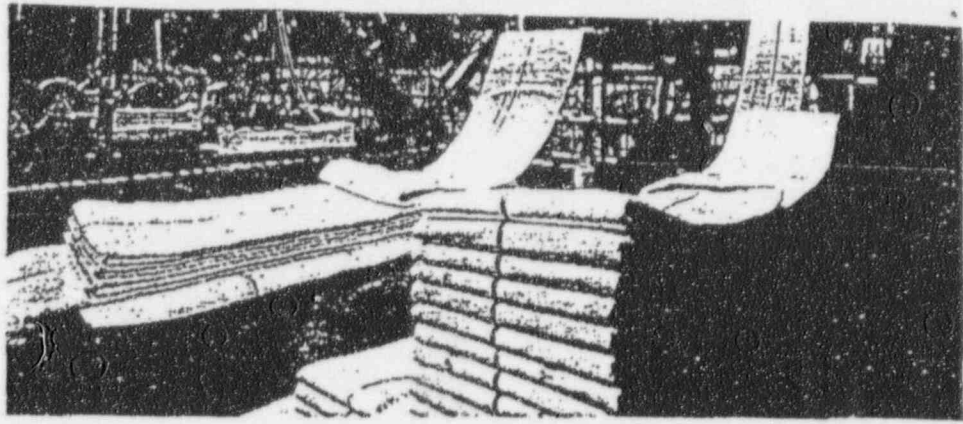
No Insituform CIPP eludes
our uncompromising quality
control. For every installation,
we take raw material samples,
then subject them to extensive
evaluation. (To give you an idea
of how extensive, the tube mate-
rial alone is tested not once but
21 times.) Why do we go to such
lengths? If an Insituform CIPP
meets our specifications, we
know it will exceed yours.

Many independent labora-
tories have conducted their own
tests of Insituform CIPP perfor-
mance. Among these are the 20-



Before and after: a dramatic difference
Even the most deteriorated pipes
(such as the one pictured above top),
filled with cracks or missing sections,
can be completely reconstructed with the
structurally sound walls of Insituform CIPP
(above bottom). The new pipe's smooth
interior increases flow, and there are no
joints to leak, weaken or break. Leakage
and seepage are totally eliminated,
thereby avoiding exfiltration pollution
and greatly reducing expensive
groundwater flowing to your
wastewater treatment plant.

7/84



Over 4,000 miles of reconstructed pipes. Since the first installation in 1971, the Insituform process has been used to reconstruct more than 22 million feet (6.6 million meters) of pipe in more than 40 different countries. Many of those miles of Insituform material were custom designed and manufactured at our Batesville, Miss., plant, pictured above.

year evaluation by a leading London testing lab, structural tests by Utah State University, Infiltration/Inflow reduction analysis by several consulting engineers, and flow capacity by Sverdrup Corporation. The results are yours for the asking. The long-term structural solution.

With Insituform CIPP, you automatically eliminate potential long-term reliability problems. With no digging and no joints, there's no settling of bedding and backfill. No uneven sagging of pipe segments. No opening up of joints.

What's more, where the application requires, Insituform CIPP can provide enough strength to stand on its own, resisting both

soil loads and high groundwater conditions, even after the host pipe has completely deteriorated. So its minimum 50-year design life is one that you can count on as demonstrated through long-term structural testing by Louisiana Tech University. The most experienced pipe reconstruction process.

The Insituform process pioneered no-dig, cured-in-place pipe reconstruction with the first installation in 1971. Since then, we've reconstructed more than 22 million feet (6.6 million meters) of pipe in more than 40 different countries. And have become internationally recognized as a leader in the field.

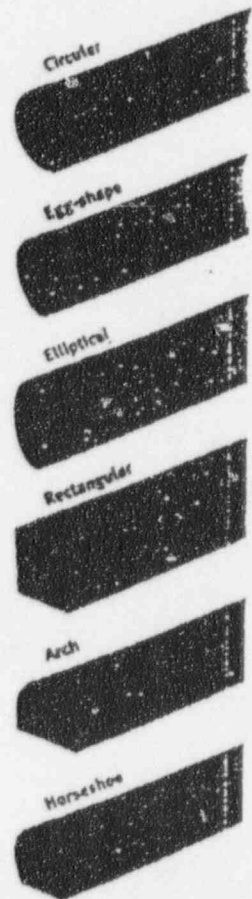
Our rate of feet installed continues to increase annually.

To you, this means a financially stable organization that can quickly respond to your needs and will be around to support you for years to come.

Your best choice: Insituform CIPP. The trenchless technology proven to solve widely varying piping problems. Single-source responsibility. Technical support from an experienced staff of engineers and scientists. A worldwide interactive network of expert licensed installers. Plus personnel eager to give you test results, technical information, or the name of the installer nearest you.

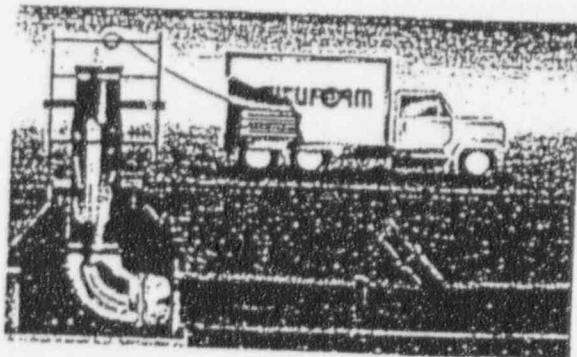
The next time you need a reliable, non-disruptive, cost-effective pipe solution, just call

1-800-234-2992.

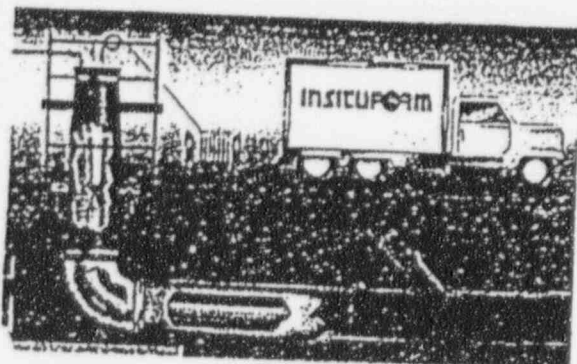


A wide range of applications. Insituform CIPP conforms to pipes of various shapes and sizes from 4 inches to 100 inches in diameter (100mm to 2,500mm). Types of systems which can be reconstructed include: Sanitary Sewers, Storm Sewers, Combined Sewers, Sewage Force Mains, Culverts, Siphons and Raw Water Lines.

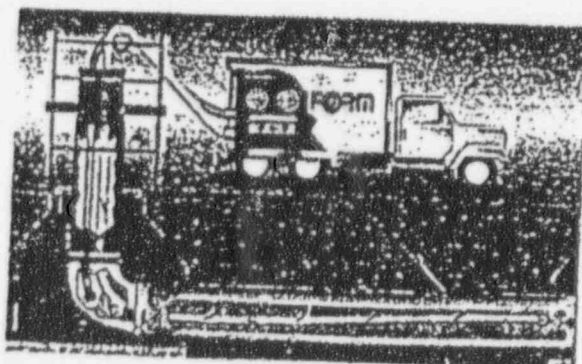
HOW THE INSITUFORM PROCESS WORKS



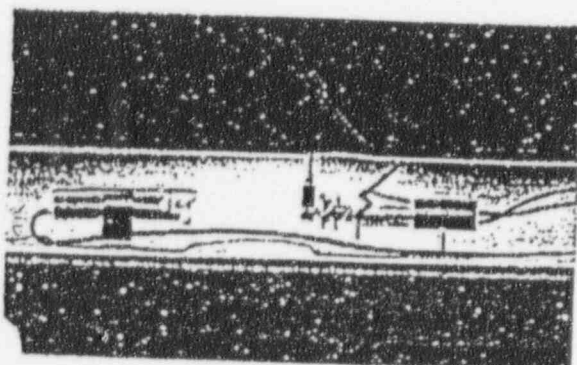
STAGE ONE
 The first step in the Insituform process is the installation of the pipe. The pipe is lowered into the trench and is then connected to the pump. The pump is then used to pump the resin into the pipe.



STAGE TWO
 The second step in the process is the inflation of the pipe. The resin is pumped into the pipe, causing it to expand and form a tight seal around the existing pipe. The truck then moves forward, pulling the pipe along with it.



STAGE THREE
 The third step in the process is the completion of the pipe. The resin is pumped into the pipe until it is fully inflated. The truck then moves forward, pulling the pipe along with it.



STAGE FOUR
 The final step in the process is the removal of the truck. The truck is moved away from the trench, leaving the newly installed pipe in place.

Advanced Medical Systems, Inc.

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

DCD

December 29, 1994

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VIA FAX #(708) 515-1259

Mr. John A. Grobe, Chief
Nuclear Materials Inspection Section 2
U.S. Nuclear Regulatory Commission
Region III
801 Warrenville Road
Lisle, IL 60532-4351

[Handwritten mark]

RE: REPLY TO A NOTICE OF VIOLATION

Dear Jack:

The following is in response to your correspondence dated November 29, 1994 which listed three (3) violations and four (4) concerns.

Violation A: No biennial full-scale exercise involving off-site emergency response personnel has been conducted.

Reason for Violation: Change in personnel and subsequent unfamiliarity with the Onsite Radiological Contingency Plan resulted in the biennial exercise not being conducted in a timely manner.

Corrective Action: The RSO will conduct a review session with all members of the Management Team and Emergency Contact Personnel as well as all employees based at the London Road facility to make them familiar with the Radiological Contingency Plan. The review session will also be used to inform key personnel of their responsibilities. In addition, a full-scale exercise with off-site emergency personnel will be scheduled and conducted.

Implementation Plan:

Item	Scheduled Completion Date
Conduct review sessions with Management Team Emergency Response Personnel and London Road personnel.	February 28, 1995
Schedule full-scale biennial exercise with off-site emergency response personnel.	February 28, 1995
Conduct full-scale biennial exercise with off-site emergency response personnel.	August 31, 1995**

**Estimated completion date only. Actual completion date subject to factors outside of AMS' control.

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December 29, 1994

Violation B: Annual audits to review Emergency Response Program, Emergency Plan Procedures, training, equipment and supplies were not conducted.

Reason for Violation: Change in personnel and subsequent unfamiliarity with the annual audit requirements resulted in the audits not being conducted in a timely manner.

Corrective Action: The RSO will conduct a review session with all members of the Management Team and Emergency Contact Personnel as well as all employees based at the London Road facility to make them familiar with the audit requirements.

Implementation Plan:

Item	Scheduled Completion Date
Conduct an annual audit to review Emergency Response Program, Emergency Plan Procedures, training, equipment and supplies.	March 31, 1995

Violation C: Fire pumphouse emergency equipment and supplies are to be inventoried and checked quarterly, inoperable or missing equipment be repaired or replaced as soon as possible. Inspections were not accomplished.

Reason for Violation: Change in personnel and subsequent unfamiliarity with the quarterly inspection requirement resulted in the quarterly inspections not being conducted in a timely manner.

Corrective Action: The RSO is now aware of the quarterly inspection requirement as are all personnel at London Road. The quarterly inspections have been scheduled in the same manner as the regular facility surveys to insure the inspections are accomplished. All missing items have been replaced in the fire pumphouse. Updated call sheets have also been placed in the fire pumphouse as of December 28, 1994.

In addition to the three (3) violations, your letter also discusses four (4) concerns as follows:

Concern #1: The only available emergency contact person listed in the Radiological Contingency Plan who provides backup to the RSO is not sufficiently familiar with the Plan.

As addressed in Violations A and B, review sessions will be conducted to provide with the Management Team, Emergency Response Personnel and London Road personnel with the knowledge of the Radiological Contingency Plan. This will insure that all key individuals are aware of their responsibilities.

Concern #2: The Director of Regulatory Affairs has key responsibilities in the implementation of Radiological Contingency Plan including being listed as a backup emergency contact. However, this individual has been on leave for more than one (1) year and no other individual has fulfilled the Director's role under this Plan.

Mr. Jack Grobe

-3-

December 29, 1994

The absence of the Director of Regulatory Affairs has been for less than one (1) year. As the Director of Regulatory Affairs will not be returning to work, the position has been eliminated. Compliance with the implementation of the Radiological Contingency Plan is now the responsibility of the Radiation Safety Officer.

Concern #3: AMS' staff is not interfaced efficiently with the Cleveland Fire Department and other response organizations to insure they have an adequate understanding of the Radiological Contingency Plan and the facility.

As you are aware, we participated in the AD HOC Task Force Meeting December 16th conducted by the City of Cleveland's Environmental Director. At this meeting, the Cleveland Fire Department addressed this concern directly with me. We are cooperating with the Task Force and an additional meeting is scheduled for January 3rd. We are making every attempt possible to cooperate with the Fire Department, Police and EMS personnel. I am confident this is a short-term misunderstanding and our long-term relationships with the first responders will improve.

In addition, three (3) shifts of the local fire department have toured the facility in October, 1994.

Concern #4: While routine radiation and contamination surveys are conducted in the vicinity of the WHUT Room Area, in specific, WHUT Room surveillances and radiation surveys described in the February 8, 1988 letter to the NRC, have not been conducted.

This was discussed with Wayne Slawinski during his visit. He agreed that the frequency of surveys outlined in the 1988 letter were not conducive to maintaining exposure ALARA. Also, the placement of shield blocks against the walls prevented the observations suggested in the 1988 letter. He also agreed that contamination levels in the basement would mask any contamination that may "leak" from the WHUT Room at the wall/floor joints. It was agreed to make physical observations of WHUT Room walls part of the monthly restricted area surveys to satisfy the 1988 letter.

Revised WHUT Room surveillance and radiation surveys will be submitted with the license renewal information due January 31, 1995.

If you have any questions regarding our response to this Notice of Violation, please do not hesitate to contact me.

Sincerely,



DAVID CESAR
Treasurer

DC/mz

cc: H. Billingsley, Esq.
D.A. Miller, Esq.

Advanced Medical Systems, inc.

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

PUBLIC

34-19089-01

030-116055

December 20, 1994

Ⓟ A

Mr. John R. Madera
Materials Licensing Section
U.S. Nuclear Regulatory Commission
801 Warrenville Road
Lisle, Illinois 60532-4351

RE: Advanced Medical Systems, Inc.
Onsite Radiological Contingency Plan Biennial Exercise

Dear Mr. Madera:

In accordance with Section 7.3, Drills, Exercises and Communication Checks, AMS is in the process of preparing for its biennial, full-scale exercise. In initial preparation for this exercise, please confirm that you are still our contact at the U.S. NRC.

Please advise of any changes by JANUARY 20, 1995. Your cooperation and assistance will enable us to properly provide your agency with information regarding the preparation and planning of this exercise.

Please submit changes in writing to: Bob Meschter, RSO, Advanced Medical Systems, Inc., 1020 London Road, Cleveland, Ohio 44110. If you have any questions regarding this matter please call me at (216) 692-3269.

Sincerely,


Robert Meschter
Radiation Safety Officer

RM:jmb

cc: Edward Svigel
John Madera, Region III

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CSA

November 29, 1994

Advanced Medical Systems, Inc.
ATTN: David Cesar
Treasurer
121 North Eagle Street
Geneva, OH 44041

Dear Mr. Cesar:

This refers to the routine safety inspection conducted by Mr. Wayne Slawinski of the NRC Region III office and Mr. Robert Shewmaker of our headquarters office on October 11-12, 1994, to review certain aspects of your NRC licensed activities authorized by NRC Byproduct Material License No. 34-19089-01. This also refers to the discussion of our findings with Robert Meschter at the conclusion of the site inspection on October 12, 1994 and to the telecon with you on October 21, 1994.

The inspection was limited in scope and included a review of: (1) the implementation of your Radiological Emergency Contingency Plan; (2) information relative to assessing the Waste Holdup Tank (WHUT) room's structural integrity; and (3) recent facility water usage practices. The inspectors also met with Cleveland Fire Department representatives at your facility to discuss their readiness to respond to an event at your facility.

The enclosed copy of our inspection report identifies areas examined during the inspection. Within these areas, the inspection consisted of a selective examination of procedures and representative records, observations, and interviews with personnel. Our assessment of the WHUT room's structural integrity is continuing. Assessment results will be provided under separate cover upon completion of our review.

During this inspection, certain of your activities were found to be in violation of NRC requirements, as specified in the enclosed Notice. In addition to the violations, we also identified the following other concerns during the inspection.

- (1) The only available emergency contact person listed in your Radiological Contingency Plan who provides backup to the RSO is not sufficiently familiar with the plan.
- (2) The Director of Regulatory Affairs has key responsibilities in the implementation of the Radiological Contingency Plan, including being listed as a backup emergency contact; however, this individual has been on leave for more than one year and no other individual has fulfilled the director's role under this plan.
- (3) Your staff has not interfaced sufficiently with the Cleveland Fire Department and other response organizations, to ensure they have an adequate understanding of your Radiological Contingency Plan and the facility.

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- (4) While routine radiation and contamination surveys are conducted in the vicinity of the WHUT room area, the specific WHUT room surveillances and radiation surveys described in your February 8, 1988 letter to the NRC have not been conducted.

In addition to your response to the violations, please also respond to the four concerns noted above, indicating your corrective action and actions to prevent recurrence. Of particular concern is the status of your readiness to respond to an emergency. While we believe that your RSO is competent to respond to and support emergency response activities, the available backup for the RSO listed in your contingency plan is not fully cognizant of the plan. It appears that your management oversight of this important aspect of your program has been ineffective. This area requires your prompt attention to ensure you have: (1) a properly trained staff in emergency response positions; (2) appropriate equipment and supplies available; (3) effective audits and exercises to assess emergency response readiness; and (4) a productive relationship with offsite emergency response organizations. Please ensure your response addresses these areas.

In accordance with 10 CFR 2.790 of the Commission's regulations, a copy of this letter, the enclosures, and your response to this letter will be placed in the NRC Public Document Room.

The response directed by this letter and the accompanying Notice are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, PL 96-511.

We will gladly discuss any questions you have concerning this inspection.

Sincerely,

Original signed by John A. Grobe

John A. Grobe, Chief

Nuclear Materials Inspection Section 2

License No. 34-19089-01

Docket No. 030-16055

- Enclosures: 1. Notice of Violation
2. Inspection Report No. 030-16055/94004

bcc w/encls: Robert Meschter, AMS
Capt. Thomas Root, Fire Marshal
Cleveland Fire Department
PUBLIC IE07

bcc w/encls: C. Jones, NRCSS
J. D. Liles, NRCSS
W. Aradson, RTH

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NAME	POWLSLAWINSKI:jaw	JMADERA	JAGROBE			
DATE	11/11/94	11/13/94	11/19/94			

NOTICE OF VIOLATION

Advanced Medical Systems, Inc.
Cleveland, Ohio

License No. 34-19089-01
Docket No. 030-16055

During an NRC inspection conducted on October 11-12, 1994, violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1994), the violations are listed below:

License Condition 18 requires that the licensee maintain and execute the response measures of their Emergency Plan dated October 25, 1991 and revised January 1992, May 27, 1992 and April 26, 1993.

- A. Item 7.3 of the "Onsite Radiological Contingency Plan For The Cleveland, Ohio Facility," revised May 27, 1992 and April 26, 1993, requires that the licensee conduct a full scale biennial exercise with offsite emergency response personnel.

Contrary to the above, from inception of this requirement in July 1992 to the date of this inspection on October 12, 1994, no full scale exercise involving offsite emergency response personnel has been conducted.

This is a Severity Level IV violation (Supplement VI).

- B. Item 7.5 of the "Onsite Radiological Contingency Plan For The Cleveland, Ohio Facility," revised May 27, 1992 and April 26, 1993, requires that the licensee conduct an annual audit to review the emergency response program, emergency plan procedures, training, equipment and supplies.

Contrary to the above, from inception of this requirement in July 1992 to the date of this inspection on October 12, 1994, no licensee audits of the emergency response program, emergency plan procedures or training has been performed.

This is a Severity Level IV violation (Supplement VI).

- C. Items 6.3 and 6.4 of the "Onsite Radiological Contingency Plan For The Cleveland, Ohio Facility," revised May 27, 1992 and April 26, 1993, list the emergency response equipment and supplies located in the fire pumphouse. Item 7.6 requires that fire pumphouse emergency equipment and supplies be inventoried and checked quarterly, and that inoperable or missing equipment be repaired/replaced as soon as possible.

Contrary to the above, on October 12, 1994, certain emergency response supplies required to be located in the fire pumphouse were not available. Specifically, supplies absent included building keys, a current listing of emergency response personnel and corresponding telephone numbers, and \$3.00 in quarters for pay phone usage.

This is a Severity Level IV violation (Supplement VI).

Notice of Violation

2

Pursuant to the provisions of 10 CFR 2.201, Advanced Medical Systems, Inc. is hereby required to submit a written statement or explanation to the U.S. Nuclear Regulatory Commission, Region III, 801 Warrenville Road, Lisle, Illinois, 60532-4351, within 30 days of the date of the letter transmitting this Notice of Violation (Notice). This reply should be clearly marked as a "Reply to a Notice of Violation" and should include for each violation: (1) the reason for the violation, or, if contested, the basis for disputing the violation, (2) the corrective steps that have been taken and the results achieved, (3) the corrective steps that will be taken to avoid further violations, and (4) the date when full compliance will be achieved. If an adequate reply is not received within the time specified in this Notice, an order or a demand for information may be issued as to why the license should not be modified, suspended, or revoked, or why such other action as may be proper should not be taken. Where good cause is shown, consideration will be given to extending the response time.

Dated at Lisle, Illinois
this 29th day of November 1994



Northeast Ohio Regional Sewer District

3826 Euclid Avenue • Cleveland, Ohio 44115-2504

216 • 881 • 6600

FAX: 216 • 881 • 9709

December 29, 1994

VIA REGULAR U.S. MAIL

Executive Director for Operations
U.S. Nuclear Regulatory Commission
Washington, D.C.

✓ VIA DELIVERY

Executive Director for Operations
U.S. Nuclear Regulatory Commission
One White Flint North
11555 Rockville Pike
Rockville, MD 20852

Re: 10 C.F.R. 2.1205 Request For A Hearing
On License Number 34-19089-01

Dear Executive Director:

The operating license held by the Advanced Medical Systems, Inc. ("AMS") for possession of radioactive materials, including Cobalt-60, at the facility at 1020 London Road, Cleveland, Ohio ("Facility") expires on December 31, 1994. It is our understanding that AMS filed an application for renewal of this license, NRC number 34-19089-01 ("License"), sometime after December 1, 1994.

The Northeast Ohio Regional Sewer District ("District") has previously requested a copy of all renewal related documents under the Freedom Of Information Act. Although the District has not received the requested documents as of the date of this letter, the District hereby requests that a public hearing be held regarding the renewal of the License.

This petition for a hearing is being filed in accordance with 10 C.F.R. 2.1205 and is being filed within thirty days of the District receiving actual notice of a pending application. This petition is therefor timely filed. Upon receipt of a copy of the renewal application pursuant to our pending request therefor, the District may amend this Request For a Hearing if a review of the actual application shows such amendment is appropriate.

The following information is provided by the District in accordance with 10 C.F.R. 2.1205(c):

Interest Of The Requester

The Facility is within the service area of the District's wastewater collection and treatment system. Prior discharges of Cobalt-60 to the

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sanitary sewer system from the Facility have resulted in radioactive contamination of District facilities and are the subject of ongoing litigation between AMS and the District. These discharges of Cobalt-60 occurred as recently as November 22, 1994.

The District therefore has an interest in any possible future releases of radioactive material from the Facility that could reach the wastewater collection system. These releases could be the result of intentional acts or be the result of accidents or natural disasters at the Facility.

The District has already incurred well in excess of one million dollars in costs associated with the previous discharges from the Facility and therefor has a significant financial interest in the future regulation and control of radioactive material at this Facility. In addition, large tracts of the District's property are no longer available for unrestricted use. The current Cobalt-60 contamination at the District's Southerly Wastewater Treatment Plant is proof of the prior failure to control this material under the current license.

Prior releases of Cobalt-60 to the District's system have apparently not resulted in health and safety risks to District employees or the public. The District is very concerned, however, that an accident or natural disaster at the Facility may result in a release of radioactive material of sufficient magnitude to threaten the safety of its employees as well as the public. Legal counsel for AMS has agreed in court proceedings that accidents at the Facility would present a threat to the public. In sworn testimony, Carol Berger, Certified Health Physicist, has also stated that accidental releases from this Facility could present a public threat.

Radioactive material discharged to the wastewater collection system may also ultimately be discharged into Lake Erie (from the Easterly Treatment Facility) or into the Cuyahoga River (from the Southerly Treatment Facility). The District therefor has an interest in the protection of the environment from releases of the radioactive material in the possession of AMS under the License.

For the above stated reasons, the District has very significant and broad-based interests in the license renewal process as it relates to the AMS License.

How That Interest May Be Affected

The District is entitled to a hearing, as a party, on any NRC proceedings relating to the renewal of the AMS License pursuant to the Atomic Energy Act (42 U.S.C. 2239) and regulations promulgated thereunder as set forth in 10 C.F.R. 2.1205. The District is an interested party as

defined in such Statute and Regulation for the reasons set forth above.

The property interest of the District in this matter is substantial. The London Road interceptor sewer, into which the Facility formerly discharged sanitary, storm and process water, is owned and operated by the District. This interceptor sewer is already contaminated with Cobalt-60 from the Facility.

The London Road sewer is tributary to the Easterly Wastewater Treatment Plant. The possibility of future discharges contaminating this plant are very real, and the District is in the process of installing a detection system to alert employees if a major release reaches the plant.

Solids removed from the wastewater at the Easterly plant are pumped via an underground pipeline to the Southerly plant for further treatment. Radioactive material that reaches the Easterly plant thus also has the potential to contaminate the Southerly plant.

The Southerly plant was in fact contaminated by Cobalt-60 on an on-going basis throughout much of AMS's operating history. As indicated above, the District has already expended well over one million dollars as a result of this contamination. If off-site disposal of the estimated four million cubic feet of contaminated material is required, the cost is expected to rise to over 40 million dollars.

As described above, the majority of the District's property is directly affected by the release of radioactive material from the Facility. In addition to the large financial burden already incurred by the District's ratepayers as a result of AMS discharges, large areas within the Southerly facility are now radiologically restricted areas and are thus not available for future plant expansions that may be necessary to meet the needs of wastewater treatment for the Cleveland area. The nature of the District's property interest as related to the License renewal proceeding clearly justifies the right of the District to be a party to a public hearing regarding such renewal.

The District's financial interest in the License renewal proceedings is at least as great as the property interest. As stated above, the District has already incurred costs of well over a million dollars as the result of prior AMS discharges. These costs continue and ultimately could exceed 40 million dollars if off-site disposal is required by a regulatory authority or becomes necessary to make the currently restricted areas available for wastewater treatment operations. These costs have all been incurred as the result of the discharge of a small amount of Cobalt-60 estimated to be around a curie. A release of much larger amounts of radioactive material could contaminate the collection system, Easterly and Southerly, and the sludge line between the two plants. This devastating financial burden, based upon current NRC stated policy, would fall

entirely on the District and its ratepayers.

Unlike the prior AMS releases of Cobalt-60 to the District, a sudden large release, such as may occur during a fire at the Facility, would cause a major concern regarding the health and safety of District employees at the treatment plants and in the collection system. To the extent that a major release of radioactive material passes through the wastewater treatment process and is discharged in the effluent, the public and the environment may also be impacted.

In summary, the District's property, financial, and health and safety interests in the License proceedings overwhelmingly support the District's right to a hearing on this matter.

The effect of granting a renewal of the License (or issuing a new license to replace the expired License) without including appropriate terms and conditions to adequately safeguard the District's interests should be obvious to the NRC. The District's Southerly facility is on the NRC's Site Decommissioning Management Plan due to Cobalt-60 contamination resulting from prior failures to control material at the AMS Facility. Failure to correct these problems at AMS may lead to additional multi-million dollar cleanups of District property, or worse.

Areas Of Concern

In accordance with the requirements of 10 C.F.R. 2.1205, the District's areas of concern regarding the License renewal are identified below in a general nature. As stated previously, the actual application has yet to be forwarded to the District by the NRC. Specific deficiencies in the License will be set forth, along with documentary evidence and such other evidence as is authorized under 10 C.F.R. 2.1233, as part of the District's written presentation to the presiding officer.

The District's primary concern is the control of radioactive material at the Facility. AMS has consistently demonstrated an inability to maintain proper control over its radioactive material at the Facility. There is no reason to believe that AMS will maintain control in the future unless forced to do so.

For example, the NRC has previously determined that radioactive materials will be flushed into the sewers in the event of a Facility fire. As a result of this determination, the NRC recommended that AMS construct a water runoff and collection system to prevent such an off-site release. AMS has refused to take such action. Construction of such a collection system is one of but many requirements that must be built into an acceptable license for this Facility.

Closely related to the issue of control of radioactive material is

the matter of a lack of realistic emergency planning by AMS and the NRC. In addition to threatening the health and safety of the residents living near the Facility, much of the radioactive material that may be released in a fire or other disaster would ultimately be washed into the sewer system. Therefor, a realistic assessment of the potential for release from all parts of the Facility presently harboring radioactive materials under various scenarios must be completed.

A third major concern of the District is the failure of AMS to post adequate financial assurance for decommissioning. AMS was previously placed on the NRC's Site Decommissioning Management Plan for this very reason. Until recently, the amount set aside to decontaminate the Facility in the event AMS ceased to be a licensee was the ridiculous sum of \$20,000. The NRC has already indicated that AMS must increase this amount to \$750,000. Based on the District's experience with the cost of radiological decontamination and controls, and based on the information in the District's possession regarding the condition of the Facility, it is apparent that even \$750,000 is grossly inadequate to accomplish proper decommissioning.

If the Facility is abandoned, the District is concerned that the possibility of releases of material to the sewer will be even greater than at present. Without an adequate decommissioning fund, the only alternative in such a case will be the use of public funds, under a program such as Superfund, to remediate the site. Such an expenditure of public funds would be outrageous.

AMS has also not been required by the NRC to maintain financial protection to cover public liability claims. The NRC has explicit authority to make such requirement a license condition under 42 U.S.C. 2210. The NRC has made this decision to forego requiring AMS to secure and maintain financial protection despite its own statements that a public liability action, such as the District has filed against AMS, is an injured party's only recourse to recover damages in the event of an off-site release from the Facility. In fact, in a Director's Decision on a District petition on this subject, the NRC has admitted that this Facility poses an on-going threat of an off-site release. This risk, however, (according to the NRC) is not as great as the risk posed by a nuclear power plant. Neither the District nor the residents living near the Facility can take much comfort in such assurances. Clearly a mechanism to provide for remediation of off-site releases must be included in any license renewal. The current NRC policy of holding the unlucky landowner of contaminated property fully responsible is absolutely unacceptable.

Timeliness Of Petition

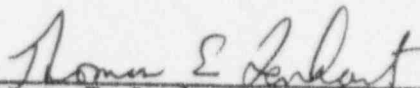
This Petition For A Hearing, filed in accordance with 10 C.F.R.

Executive Director for Operations
U.S. Nuclear Regulatory Commission
December 29, 1994
Page Six

2.1205 has been filed within 30 days of the submission of an application for the renewal of the License by AMS. This filing is therefor timely under any and all of the scenarios presented in such regulation.

Please contact the undersigned at 216-881-6600 with any questions or comments regarding this Petition.

A true and accurate copy of this Request for Hearing has been duly served by U.S. Mail this 29th day of December, 1994, upon the licensee and applicant, Advanced Medical Systems, Inc., 1020 London Road, Cleveland, Ohio 44110, pursuant to 10 C.F.R. 2.0205(e)(1).



Thomas E. Lenhart
Assistant General Counsel

cc: David Cesar, AMS
Mayor Michael White, City of Cleveland
Mike Kalstrom, Local Emergency Planning Commission
Chris Trepal, Earth Day Coalition
Betty Long, NEO Sierra Club
Erwin Odeal, NEORS
William Schatz, NEORS

(licpet)

Advanced Medical Systems, Inc.

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

December 29, 1994

VIA FAX #(708) 515-1259

Mr. Jack Grobe
Nuclear Materials Inspection, Section 2
U.S. Nuclear Regulatory Commission
Region III
801 Warrenville Road
Lisle, IL 60532-4351

Dear Jack:

I am in receipt of your letter dated December 22, 1994 which I received today, December 28th. Your letter contains the information John Madera discussed with me during our conversation of December 14th.

The renewal process was discussed between Roy Caniano, John Madera and myself. The majority of this discussion concerned an evaluation of the WHUT Room and the information the NRC was looking for and why. You are aware that an in-depth evaluation has been conducted and we are awaiting receipt of the report. Additional evaluation work was done at the request of the NRC which extended the field work.

The license renewal was completed in accordance with the guidelines I received with the Application for License Renewal. These instructions stated that in order to simplify the license renewal procedures and save paperwork, the Licensee may identify any additions, deletions or other changes to the license. John Madera explained, and you verified in your letter, that the NRC prefer that we re-submit an entire new application without any reference to previous correspondence. I agreed with John that this would simplify working with our license and would provide long-term benefits.

There are, however, two items in your letter which contradict the conversation I had with John Madera. When John informed me that we would have thirty (30) days to submit the information the NRC was requesting, I asked that this include the Decommissioning Funding Plan as the WHUT Room evaluation field work was just winding down and the report still needed to be issued, the findings of which would impact the Decommissioning Funding Plan. This would allow us to accurately and fully address the WHUT Room and Decommissioning Funding Plan. John did not see a problem with this and it was my understanding that the extension at that time was granted to submit the Decommissioning Funding Plan along with the other information contained in your December 22 letter. Accordingly, I informed SEG, who was preparing the Decommissioning Funding Plan, that we would not require a final report until early January. I also informed Bank One, who is issuing a Standby Letter of Credit, that the document was not needed until early January, 1995.

D/S1

Mr. Jack Grobe

-2-

December 29, 1994

In addition, on December 20th, during the Conference Call, you stated that if we used the Insituform process on the lateral, we would have to take into account the possible removal at the time of decommissioning and this would have to be included in our Decommissioning Funding Plan. I have provided the information to SEG and they are making the appropriate amendment.

As John Madera made the representation that it was acceptable to submit the Decommissioning Funding Plan at the same time the other renewal information was due and I, in turn, relayed the information to our contractor and bank, I disagree with your statement under Item No. 8 that the Plan be submitted by December 31, 1994.

In addition, when John told me that we would have thirty (30) days to respond, I asked for an even cutoff of January 31, 1995. He informed me he did not see a problem. Your letter simply states to reply in duplicate within thirty (30) days. I am assuming that this is thirty (30) days from receipt, which would be January 28th.

Therefore, based on the above, I am requesting clarification that the Decommissioning Funding Plan, financial assurance, WHUT Room Report and renewal information will be submitted by not later than January 31, 1995.

Your cooperation is greatly appreciated.

Sincerely,



DAVID CESAR
Treasurer

DC/mz

cc: H. Billingsley, Esq.
D.A. Miller, Esq.

Advanced Medical Systems, Inc.

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

December 29, 1994

VIA FAX #(708) 515-1259

Post-It® Fax Note 7671		Date 12-29	# of Pages 3
To Jack Grobe		From David Cress	
Co. Dept. VSNRC-Region III		Co. AMS	
Phone #		Phone #	
Fax #		Fax #	

Mr. John A. Grobe, Chief
Nuclear Materials Inspection Section 2
U.S. Nuclear Regulatory Commission
Region III
801 Warrenville Road
Lisle, IL 60532-4351

RE: REPLY TO A NOTICE OF VIOLATION

Dear Jack:

The following is in response to your correspondence dated November 29, 1994 which listed three (3) violations and four (4) concerns.

Violation A: No biennial full-scale exercise involving off-site emergency response personnel has been conducted.

Reason for Violation: Change in personnel and subsequent unfamiliarity with the Onsite Radiological Contingency Plan resulted in the biennial exercise not being conducted in a timely manner.

Corrective Action: The RSO will conduct a review session with all members of the Management Team and Emergency Contact Personnel as well as all employees based at the London Road facility to make them familiar with the Radiological Contingency Plan. The review session will also be used to inform key personnel of their responsibilities. In addition, a full-scale exercise with off-site emergency personnel will be scheduled and conducted.

Implementation Plan:

Item	Scheduled Completion Date
Conduct review sessions with Management Team Emergency Response Personnel and London Road personnel.	February 28, 1995
Schedule full-scale biennial exercise with off-site emergency response personnel.	February 28, 1995
Conduct full-scale biennial exercise with off-site emergency response personnel.	August 31, 1995**

**Estimated completion date only. Actual completion date subject to factors outside of AMS' control.

0152

Mr. John A. Grobe

-2-

December 29, 1994

Violation B: Annual audits to review Emergency Response Program, Emergency Plan Procedures, training, equipment and supplies were not conducted.

Reason for Violation: Change in personnel and subsequent unfamiliarity with the annual audit requirements resulted in the audits not being conducted in a timely manner.

Corrective Action: The RSO will conduct a review session with all members of the Management Team and Emergency Contact Personnel as well as all employees based at the London Road facility to make them familiar with the audit requirements.

Implementation Plan:

Item	Scheduled Completion Date
Conduct an annual audit to review Emergency Response Program, Emergency Plan Procedures, training, equipment and supplies.	March 31, 1995

Violation C: Fire pumphouse emergency equipment and supplies are to be inventoried and checked quarterly, inoperable or missing equipment be repaired or replaced as soon as possible. Inspections were not accomplished.

Reason for Violation: Change in personnel and subsequent unfamiliarity with the quarterly inspection requirement resulted in the quarterly inspections not being conducted in a timely manner.

Corrective Action: The RSO is now aware of the quarterly inspection requirement as are all personnel at London Road. The quarterly inspections have been scheduled in the same manner as the regular facility surveys to insure the inspections are accomplished. All missing items have been replaced in the fire pumphouse. Updated call sheets have also been placed in the fire pumphouse as of December 28, 1994.

In addition to the three (3) violations, your letter also discusses four (4) concerns as follows:

Concern #1: The only available emergency contact person listed in the Radiological Contingency Plan who provides backup to the RSO is not sufficiently familiar with the Plan.

As addressed in Violations A and B, review sessions will be conducted to provide with the Management Team, Emergency Response Personnel and London Road personnel with the knowledge of the Radiological Contingency Plan. This will insure that all key individuals are aware of their responsibilities.

Concern #2: The Director of Regulatory Affairs has key responsibilities in the implementation of Radiological Contingency Plan including being listed as a backup emergency contact. However, this individual has been on leave for more than one (1) year and no other individual has fulfilled the Director's role under this Plan.

Mr. Jack Grobe

-3-

December 29, 1994

The absence of the Director of Regulatory Affairs has been for less than one (1) year. As the Director of Regulatory Affairs will not be returning to work, the position has been eliminated. Compliance with the implementation of the Radiological Contingency Plan is now the responsibility of the Radiation Safety Officer.

Concern #3: AMS' staff is not interfaced efficiently with the Cleveland Fire Department and other response organizations to insure they have an adequate understanding of the Radiological Contingency Plan and the facility.

As you are aware, we participated in the AD HOC Task Force Meeting December 16th conducted by the City of Cleveland's Environmental Director. At this meeting, the Cleveland Fire Department addressed this concern directly with me. We are cooperating with the Task Force and an additional meeting is scheduled for January 3rd. We are making every attempt possible to cooperate with the Fire Department, Police and EMS personnel. I am confident this is a short-term misunderstanding and our long-term relationships with the first responders will improve.

In addition, three (3) shifts of the local fire department have toured the facility in October, 1994.

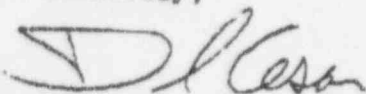
Concern #4: While routine radiation and contamination surveys are conducted in the vicinity of the WHUT Room Area, in specific, WHUT Room surveillances and radiation surveys described in the February 8, 1988 letter to the NRC, have not been conducted.

This was discussed with Wayne Slawinski during his visit. He agreed that the frequency of surveys outlined in the 1988 letter were not conducive to maintaining exposure ALARA. Also, the placement of shield blocks against the walls prevented the observations suggested in the 1988 letter. He also agreed that contamination levels in the basement would mask any contamination that may "leak" from the WHUT Room at the wall/floor joints. It was agreed to make physical observations of WHUT Room walls part of the monthly restricted area surveys to satisfy the 1988 letter.

Revised WHUT Room surveillance and radiation surveys will be submitted with the license renewal information due January 31, 1995.

If you have any questions regarding our response to this Notice of Violation, please do not hesitate to contact me.

Sincerely,



DAVID CESAR
Treasurer

DC/mz

cc: H. Billingsley, Esq.
D.A. Miller, Esq.



COUNTY OF
CUYAHOGA

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

Commissioners

Mary O. Boyle
Timothy F. Hagan
James M. Petro

December 29, 1994

John A. Grobe, Chief
Nuclear Materials Safety Branch
U.S. Nuclear Regulatory Commission
801 Warrensville Rd.
Lisle, Illinois 60532-4351

Dear Mr. Grobe:

I am the Secretary of the Cuyahoga County Local Emergency Planning Committee (LEPC), and the Committee has directed me to express some serious concerns regarding the Advanced Medical Systems (AMS) facility at 1020 London Road, Cleveland, Ohio.

The LEPC is very concerned that the emergency plan for this facility is not adequate and that the plan's implementation scope of work has not been adequately fulfilled by AMS personnel. These considerations are important factors that serve to protect the public from unnecessary risk. Members of the LEPC have reviewed various documents regarding this situation, including the AMS Onsite Radiological Contingency Plan (RPC), the NRC's fire safety evaluation report, and related correspondence between AMS and the NRC. The facility has been inspected by Captain Thomas Root of the Cleveland Fire Department, who is also a member of the LEPC. Finally, I have represented the LEPC at two recent meetings of a task force initiated by the City of Cleveland to address the aforementioned issues.

In the safety evaluation report (SER), the NRC states that up to two curies of Cobalt-60 may be released to the air if burning embers reach the HEPA filtration system. The SER does not discuss, however, potential releases in the event of a major fire, explosion, tornado or other disaster. There is no discussion regarding the vulnerability of either the hot cell or the waste hold-up room to such scenarios, and, as a result, no hazards analysis regarding any possible community impacts from such events.

On page 12 of the SER there is the following puzzling statement: "No significant release of radioactive effluents to the environment expected from basement fire; however, water from fire fighting activities could be contaminated and runoff into the sanitary sewer system through the basement floor drains." Due to the presence of the waste hold-up room in the basement and other contamination apparently present, it is essential that the potential release of radioactive material via this pathway be quantified. The LEPC does not believe that an indirect release to the environment via the sewers is any less significant than a direct release.

DSZ

4503300181 3 pp

CECOMS CENTER 443-3196

CRIS CENTER 443-7940

EMERGENCY MANAGEMENT 443-5700

Cleveland, Ohio 44115-1807

John A. Grobe, Chief
December 29, 1994
Page 2

The Radiological Contingency Plan also has deficiencies. For example, on page 3-2 the Range of Postulated Accidents assumes that a radioactive material spill as a result of a fire, earthquake, or tornado will occur in the hot cell only and ventilation system will continue to operate normally. Given the quantities of Cobalt-60 stored in locations other than the hot cell and structural damage that can occur in severe disasters, both of the above assumptions appear to be insupportable. In addition the LEPC has found no documented attempt by AMS personnel to conduct the off-site exercise and communication checks with emergency response personnel specified on pages 7-1 and 7-2 of the RPC. These steps are required implementation steps outlined in the RPC.

The above are but a few examples of weaknesses in the emergency planning and implementation for this facility. As you may know the LEPC is locally responsible for emergency planning for facilities within its jurisdiction that possess specified quantities of Extremely Hazardous Substances, as defined by Section 3750.01(B) of the Ohio Revised Code. Although the LEPC has not previously addressed emergency planning for nuclear material licenses, AMS appears to be a unique case in that the facility presents a greater than normal risk for which the current plan appears inadequate. The LEPC therefore requests that the NRC conduct a thorough review of the risks posed by the facility, including a survivability assessment and a hazards analysis of the hot cell, waste hold-up room, and other contaminated areas. A review of the RPC and its implementation should also be completed. The LEPC and the Cuyahoga County Emergency Management Division appreciate the opportunity offered by the City of Cleveland the NRC and AMS to participate in this process and would be pleased to discuss our future mutual efforts with you.

In addition to working with the NRC and others as described above, the LEPC, as authorized by a vote of its members, will file a written request with the Ohio State Emergency Response Commission for a variance under Division (B) of Section 3750.11 of the Ohio Revised Code to authorize requests to AMS for emergency planning information under Division (C) of Section 3750.05 of the Ohio Revised Code. This information would be included in the LEPC's comprehensive plan for emergency response to hazardous materials incidents and updated annually.

While the LEPC would prefer that an adequate emergency plan be developed with the full cooperation of AMS and the NRC, these actions are being taken at this time to assure that these matters are addressed promptly. Please call me at (216) 443-7597 to discuss how these matters can be most effectively addressed.

Sincerely,



Michael S. Kalstrom, Secretary
Cuyahoga County LEPC

cc: Edmund M. Mecklenburg, Manager, Emergency Management
Robert J. Patton, Chairman, Cuyahoga County LEPC
Captain Thomas Root, Cleveland Fire Marshal



Northeast Ohio Regional Sewer District

3826 E. 1st Avenue, Cleveland, Ohio 44115-1201

May 2, 1995

FREEDOM OF INFORMATION
ACT REQUEST

FOIA-95-220
Rec'd 5-15-95

Director, Division of Freedom of Information
and Publications Services
Office of Administration
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Re: FOIA Request for Documents

Dear Director:

The Northeast Ohio Regional Sewer District (NEORSD) hereby requests copies of all testing, investigation, analysis, modeling, study or discussion or reports of or relating to the structural integrity of the Advanced Medical Systems, Inc. facility located at 1020 London Road, Cleveland, Ohio, or any part thereof, including without limitation the facility's basement, Waste Hold-up Tank Room, and Hot Cell.

The above request is made pursuant to the Freedom of Information Act and 10 CFR Sec. 9.15. The NEORSD is a political subdivision of the State of Ohio; the NEORSD therefore has no commercial interest in the requested documents and requests a waiver of all fees pursuant to 10 CFR Sec. 9.41.

Please call me at (216) 881-6600, ext 826, if you have any questions about the foregoing. Thank you in advance for your assistance.

Very truly yours,

Lawrence K. English
Assistant General Counsel



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604 3590

JUN 01 1995

REPLY TO THE ATTENTION OF

(AT-18J)

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

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

RE: Approval of Application to Construct or Modify
for Advanced Medical Systems, Inc. Facility
Located at 1020 Lorain Road, Cleveland, Ohio,
to Install and Operate an Evaporator System

Dear Mr. Cesar:

In accordance with Section 112 of the Clean Air Act, as amended (42 U.S.C. § 7412) and the National Emission Standards for Hazardous Air Pollutants (NESHAPs), 40 CFR Part 61, Subparts A and I, the United States Environmental Protection Agency (USEPA) hereby approves your application to proceed with the installation and operation of an evaporator system at the facility. This approval is granted based upon, and limited to the scope of, the plans and materials and equipment listing submitted with Advanced Medical System's March 23, 1995, application sent to the City of Cleveland, and forwarded to the USEPA.

This approval to construct or modify grants no relief from the responsibility for compliance with other applicable provisions of Federal, State or local requirements and is immediately effective.

If you should have any further questions or need additional information regarding this approval, please contact Michael Murphy, of my staff, at (312) 353-6686.

Sincerely yours,

A handwritten signature in dark ink, appearing to read "David Kee", is written over the "Sincerely yours," line.

David Kee, Director
Air and Radiation Division

EH

2

cc: Martha McCordle, Attorney
City of Cleveland, Ohio

Dwight Miller, AMS Attorney
Cleveland, Ohio

Frank J. Talbot, Health Physicist
Ohio Department of Health

Michael Miller, USNRC Region III
Lisle, Illinois