



DCD/DCB

Docket No. 40-3392

Allied-Signal Inc.
Engineered Materials Sector
Fluorine Products Division
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October 11, 1989

Certified Mail:
P-844-839-996

Mr. Charles E. Norelius, Director
Division of Radiation Safety & Safeguards
US NRC Region III
799 Roosevelt Road
Glen Ellyn, Illinois 60137

RE: US NRC Team Inspection Report No. 40-3392/89001

Dear Mr. Norelius:

We have enclosed as attachments Nos. 1, 2 and 3, our response to each open item, or concern listed by NRC, OSHA, and EPA during the Team Inspection of May 15-19, 1989.

We are also mailing copies of our OSHA and EPA responses directly to Mr. Golias and Mr. Fuhrer, respectively.

If you have any questions regarding this matter, please call.

Sincerely,


J. C. Bishop
Plant Manager

JCB/sm

cc: Mr. Emil Golias)
Occupational Safety & Health Adm.) Attachment No. 2
P. O. Box 65200)
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Mr. R. A. Fuhrer)
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USNRC TEAM INSPECTION
Report No. 40-3392/89001

ALLIED-SIGNAL INC., RESPONSE TO OPEN/UNRESOLVED ITEMS

01 - OPEN ITEM: Perform the tests on proportional (in-line) sampling in a timely manner.

Allied Response:

Tests on a prototype proportional sampling system for UF₆ product are presently scheduled to begin in mid to late September 1989, and will require 6 to 9 months of data collection prior to completion. Once the data have been assembled, a statistical evaluation of the data will be necessary prior to total acceptance of the sampling scheme. When the sampling scheme has been approved, an Appropriation Request to obtain the necessary funds for additional equipment and equipment installation must be submitted. The new equipment must be ordered and installed. The following timetable could be expected, assuming no major difficulties are determined in the testing process:

<u>Milestones:</u>	<u>Time Required</u>
1. Start-up & test equipment comparing cylinder analytical results with proportional sample analytical results.	6 mo.
2. Complete statistical evaluation.	1 mo.
3. Develop Appropriation Request and submit to corporate headquarters and obtain approvals.	6 mo.
4. Equipment purchase & installation.	9 mo.

The project is somewhat behind schedule because we were unable to promptly acquire the proper construction materials for safe operation of the system. It is very important that the unit not only collect a statistically equivalent product sample, but also be reliably and safely operated.

02 & 14 - OPEN ITEM: Conduct a study to eliminate lifting (UF₆ filled) heated cylinders.

Allied Response:

We are planning to conduct a study of this issue. A thorough study of alternate handling procedures for liquified UF₆ cylinders is estimated to take up to nine (9) months and must

consider the following:

1. The new method must not jeopardize safety.
2. The new method must be compatible with current operations.
3. The new method must have characteristics which allow installation and implementation while continuing operation of the UF₆ production process.

03 - OPEN ITEM: **Submit results of the HF Tests conducted in Nevada and show application for safety at Metropolis Works.**

Allied Response:

The results of the HF Tests conducted in Nevada have been presented to the NRC by Mr. William Hague. A presentation was given in Washington, D.C. on October 5, 1989.

The results of these tests were influential in the decision to install several safety related projects in the HF system at Metropolis. These projects are as follows:

1. Vent HF vaporizer relief line to HF scrubber.
2. Replace an old HF vaporizer.
3. Vent relief lines from HF storage tanks to a new "Dump Tank".
4. Install a new "Dump Tank" to function as an emergency receiver for HF.
5. Install a new HF scrubber.
6. Vent the relief line from the new "Dump Tank" to the new scrubber.
7. Install new automatic shut-off valves in the HF lines at the Tank Farm.
8. Install new automatic shut-off valves on the bottom of each HF storage tank.
9. Install automatic shut-off valves in the HF lines at the unloading station at the Tank Farm.
10. Evaluate water spray recommendations for possible application at Metropolis.

04 - OPEN ITEM: Submit results of probabilistic safety by analyses of F, HF and UF₆ bearing vessels.

Allied Response:

A Probabilistic Safety Review is planned for the HF system after the completion of the improvement projects that are presently planned or in progress. Review plans are not complete; however, it is anticipated that a contractor will be selected to conduct the review with the assistance of plant personnel. The results of that review will be available for inspection at the conclusion of the review and the issuance of a report.

05 - OPEN ITEM: Include the methodology recommended by Design Institute for Emergency Relief Systems (dump tank - two phase flow) in the modification of HF process system.

Allied Response:

The Design Institute for Emergency Relief Systems (DIERS) was not used for evaluating pressure drop, dump tank, or scrubber design in the HF process system modifications. Consultation with our Corporate Specialist revealed that application of these methods to the mentioned situations is inappropriate. The systems were designed based upon years of practical experience and sound engineering principles and judgment.

06 UNRESOLVED ITEM: Define operator responsibility in sustained operations with unattended equipment and uranium spillage incidents. Identify the Safety Council or committee charged with reviewing these accidents:

Allied Response:

A new check sheet is being initiated for the ore preparation operator or assistant to fill out at regular intervals when the ore preparation unit is operating. The check sheet will require the routine inspection of several key areas in the ore preparation process where ore spills could occur.

The plant initiated a formalized review process during 1985 to assure that chemical and uranium spills are documented, and reviewed by appropriate levels of supervision and management for possible corrective actions. These incidents are documented on a "Incident & Spill Report" which is prepared by the involved Shift Foreman. The report is reviewed and signed by the General Foreman, Health Physics Supervisor, Environmental Supervisor, Area Technical Supervisor, Department Manager, and Regulatory Affairs Manager. This broad spectrum review is effective in evaluating appropriate corrective actions, timely reporting to Regulatory Agencies (if necessary), and serves as a data base from which

undesirable trends may be analyzed.

This review process is not intended to replace the function of other plant safety committees, but does provide one source of significant safety information which may be highlighted for management, or reviewed with plant personnel.

07 - UNRESOLVED ITEM: **Review the communication required between operators handling the transfer of hazardous chemicals and improve the transfer procedure.**

Allied Response:

The routine transfer of hazardous chemicals in the plant is well covered in the area operating manuals. The procedure that resulted in the second degree acid burn to the fluorine plant operator was a non-routine procedure involving the purging of hydrofluoric acid (HF) piping from the consuming unit back to the main storage tanks at the Tank Farm. While the procedure was not the direct cause of the accident, the written procedure has been modified to strengthen the focus on safety and to more clearly define the role of the foreman. Classroom training for the gaseous fluorine plant personnel is scheduled to be completed by the end of 1989. This procedure is one of the items to be covered in the training sessions.

08 - OPEN ITEM: **Identify the Safety Committee charged with the safety review of proposed changes to equipment and procedures.**

Allied Response:

The group charged with the safety review of proposed changes to equipment and procedures is the group of personnel that approves each Process Modification submitted on a PT-101 form. Personnel that approve Process Modifications are as follows:

1. Area Technical Supervisor
2. Area Production General Foreman
3. Area Maintenance General Foreman
4. Environmental Supervisor
5. Safety Supervisor
6. Health Physics Supervisor
7. Manager Process Technology/QA
8. Manager Maintenance

9. Manager Production

10. Manager Regulatory Affairs

09 - OPEN ITEM: Redefine the training program for workers assigned to fire protection and for plant wide workers in general.

Allied Response:

Training for the Emergency Response Team (which has fire protection duties) is organized to comply with the requirements in CFR 29; 1910:156(c)(1) to provide team members with skills and information commensurate with their anticipated responsibilities. Since the Emergency Response Teams' duties are much broader than just fire protection in an environment with very light fire probability, their training must be much broader than that offered a private fire brigade.

Accordingly, the training provided the Emergency Response Team at Metropolis Works meets or exceeds NFPA 600, Private Fire Brigades (replaces NFPA 27) and, in addition, provides information and skills for hazardous spill control and personnel rescue including Cardio Pulmonary Resuscitation and First Aid.

Other employees are given annual training in identification of various classes of fire and in the selection and use of portable extinguishers.

10 - OPEN ITEM: Descote valve problem. Inform the NRC on valve part replacement.

Allied Response:

The NRC has been kept fully informed of the Descote valve situation throughout the entire event. Most recently, on July 18, 1989, the NRC was informed of the following:

1. Allied received 200 new packing nuts from Descote.
2. Martin Marietta examined two of the new nuts and found them to be satisfactory.
3. Allied intends to replace all of the original packing nuts with the new ones just received.
4. Allied intends to lift the ban on the use of Descote valves.

11 - OPEN ITEM: **Review Descote valve problem under the 10 CFR 21 requirement and report if required.**

Allied Response:

The Descote valve problem was reviewed by the Plant Manager and his staff with respect to reportability pursuant to 10 CFR Part 21. The result of that review was that the matter was determined not to be reportable under Part 21. The result of that review was made known to the NRC on several occasions, most notably, during the Team Inspection.

12 - UNRESOLVED ITEM: **Review the UF₆ process and determine the feasibility of using containment type of autoclaves.**

Allied Response:

Management has previously reviewed the UF₆ process with respect to the use of autoclaves and concluded that the use was not warranted. This matter has been reviewed again with the conclusion that the use of autoclaves is not warranted because the present system provides more than adequate safety margins.

13 - UNRESOLVED ITEM: **Investigate the possible use of release detectors that can actuate alarms and isolation valves, and automatic door openers in the probable areas of HF and UF₆ releases.**

Allied Response:

Plant operating philosophy has been, and continues to be, that in the event of a significant UF₆ release, our first priority is to protect the public and environment. Plant systems and procedures are designed to close doors and shut down exhaust systems to protect the public. Plant employees are properly trained and specifically equipped to protect themselves within the plant.

The UF₆ release detectors we are currently evaluating are connected to an audible and visual alarm in the control room. Although the detectors have not alarmed for very minor UF₆ releases, we are confident they would alarm during a significant UF₆ release. We fully expect that in this event, control procedures would have already been activated based upon visual observation of the UF₆. It should be noted that essentially all of the UF₆ releases which have occurred in the plant's history occur during maintenance work, or line breaking activities. Personnel are always present during these activities. It appears that reliance upon a smoke

detector system would produce a slower response for protecting employee health.

The enclosed stairwells have proven to be effective barriers in providing a contamination-free atmosphere for rapid employee egress from the building; however, we will evaluate pressurizing one stairwell with outside air to enhance employee egress.

We are currently evaluating an automatic closure device which would (via remote control) immediately close the valve of a UF₆ cylinder being filled, and an automatic closure valve for the product UF₆ filling manifold. These two devices will reduce the amount of UF₆ available for release if a cylinder filling accident should occur, to a level which would not be expected to produce any off-site effects.

14 - OPEN ITEM: Modification of load cell (cylinder fill station) to eliminate lifts of cylinders containing liquid UF₆. Review the feasibility of this modification and combine response with Open Item 89001-02.

Allied Response:

See 02 & 14 Open Item.

15 - OPEN ITEM: Investigate the possible use of a containment vessel for UF₆ liquid phase (vaporizers and in-line sampling device).

Allied Response:

The possible use of a containment vessel for equipment containing liquid UF₆ was reviewed by the Plant Manager and his staff with the conclusion that the present arrangement is considered to be adequate.

16 - OPEN ITEM: Review customers' program for hydrocarbon prevention in UF₆ cylinders.

Allied Response:

UF₆ cylinders that are routinely cycled from conversion to enrichment facilities are virtually exempt from hydrocarbon contamination during routine operations. This is due to safeguards that are imperative for the safe operation of the facilities. The only reasonable probability of contamination is for cylinders that have undergone the five year recertification process or some maintenance procedure that requires cleaning and hydrostatic testing. ORO-651 and ANSI N14.1 both require visual internal inspections following these procedures. Hydrocarbon contamination would be readily

apparent at that time. It is the intention of Metropolis Works to require all customer cylinders be certified free of hydrocarbon contamination (specifically oil) at the time of shipment and further require the cylinders be sealed with a tamper indicating device (TID).

It is understood that the most likely instance for hydrocarbon contamination would be in new cylinders received directly from the manufacturer. Specifications for construction of UF₆ cylinders call for degreasing of the cylinder prior to final internal inspection. ANSI N14.1 requires that "the manufacturer shall certify in writing that the cylinder(s) comply with all fabrication, test, and cleanliness requirements specified in the standard." It is the opinion of Metropolis Works that this certification of cleanliness followed by the affixation of a TID on new cylinders would be sufficient to assure the cleanliness of the cylinder. It is still the intention of Metropolis Works to subject new cylinders to visual internal inspection on a statistical sampling basis in addition to the requirements for a certification of cleanliness.

During the interim period, 100% of the new and clean cylinders received at Metropolis Works that are unsealed and are not accompanied by a certificate of cleanliness will be visually inspected internally for cleanliness (including hydrocarbon contamination).

17 - OPEN ITEM: **Identify ways to improve personnel egress during evacuation drills.**

Allied Response:

Plant Contingency Plan drills are held quarterly. Three drills per year are performed to exercise in-plant personnel accountability and communications. The fourth drill simulates a "General Emergency" and utilizes "smoke bombs" to simulate real life visibility conditions for employees. We have recently purchased a thermal smoke generator to enhance the quantity of smoke generated.

It should be noted that NRC final rules for "Emergency Preparedness for Fuel Cycle and other Radioactive Material Licensees" effective April 7, 1990, require "conducting quarterly communications checks with off-site response organizations and biennial on-site exercises to test response to simulated emergencies".

18 - OPEN ITEM: **Resolve the problems associated with potential spread of contamination by personnel exiting the plant.**

Allied Response:

We have reviewed contamination survey results from the most recent sixty (60) weeks of monitoring in the employee clock alley (exit area), and employee change rooms. These results indicate that of a total of 780 individual "smear" samples taken, none exceeded the plant action level of 200 dpm/100 cm² removable alpha. The maximum level found on any sample was 109 dpm/100 cm² or about 11% of the NRC unrestricted release limit.

The issue of demarcation between clean and possibly contaminated areas was an open item (40-3392/86003-07) from a team inspection conducted April 14-18, 1986. This open item was closed by a subsequent team inspection conducted November 3-7, 1986 (40-3392/86006). This report indicated there was no need for demarcation between entrance and exit areas because monitoring data indicated this area was less than 20% of the NRC unrestricted area release limits. We concur with these findings.

19 - OPEN ITEM: **Investigate the possible use of fire stops and barriers in the Feed Materials Building.**

Allied Response:

The Feed Materials Building is a six-story structure, with basement, of predominantly steel construction. The basement, first floor and first fourteen feet of exterior walls are concrete with the balance metal clad metal.

The floors are penetrated by a number of process vessels, pipes, elevators, hoist wells, manlift shafts and stairwells. There is also open communication with mezzanine decks between floors.

Since the processed material and product are non-combustible, fire loading in the building would be Class C (electrical) and minor Class A (trash containers) with the exception of the NH₃ dissociation process.

In the NH₃ dissociation process, NH₃ is thermally dissociated to produce nitrogen and hydrogen. The hydrogen is used in the uranium reduction process then passed to a fume incinerator along with the free nitrogen. Hydrogen is generated on a demand basis, and there is no storage.

The building is protected with three 1½" hose standpipes on each floor and a distribution of portable extinguishers in

accordance with NFPA 10 "Portable Fire Extinguishers" (1984). This matter has been reviewed by the Corporate Fire Prevention Specialist, and he concurs that in view of the minimal exposure, the necessarily open construction, and the difficulty in providing fire stopping in a building of this type, fire stopping is felt to be impractical and essentially unnecessary.

20 - OPEN ITEM: Re-examine the process of hydrogen generation as a potential source for fire hazard.

Allied Response:

After formation of the Hazard Review Committee in 1986, one of the original items on the Fluorination-Distillation Hazard Review Committee list was an evaluation of safety in the hydrogen generation area of the reduction process. It was recognized by the committee that the main safety concern was that of explosion potential, not fire. Past history has shown that the potential damage due to a hydrogen induced fire was nil compared to that of a hydrogen explosion. There are several other factors that make explosions of more concern than fires:

1. There is a lack of combustible material in the reduction area.
2. No chemicals are stored in large amounts in the reduction area of the Feed Materials Building. Even the hydrogen is not "stored" in the process, because it is consumed as it is generated.

Therefore, the most plausible safety concern is the accidental leakage and accumulation of hydrogen in a process vessel or plant area. The accumulated gas could come in contact with an ignition source and cause an explosion. Even this possibility is reduced because of inherent safeguards:

1. Because the hydrogen is present as a result of cracking ammonia, the hydrogen is present as a 75% by volume maximum concentration in an inert gas-nitrogen. So process gas leakage would need to mix with a larger quantity of air than pure hydrogen would in order to create a combustible mixture.
2. Much of the equipment in the reduction process is above the auto-ignition temperature of hydrogen so hydrogen leaks would tend to immediately ignite rather than accumulate in explosive quantities.

However, it was recognized that hydrogen detection was necessary in order to detect any potentially dangerous accumulation of hydrogen. The location of the hydrogen

detectors was evaluated again in 1986, and, based on this evaluation, one of the detectors was moved. The location of the detectors and the operation of the hydrogen analyzer was included in the updated Green Salt area operating manual and was covered in classroom training sessions given to all operating personnel in 1989.

It is the opinion of plant management that no additional evaluations of safety in this area need be done.

21 - OPEN ITEM: **Investigate the possible use of automatic fire and chemical leak detection systems.**

Allied Response:

Most areas of Metropolis Works are occupied on an around-the-clock basis either by Maintenance and/or Production employees or by Security personnel making clock rounds.

To our knowledge, there are no reliable chemical leak detection systems available.

In our opinion such detection systems, if available, would be unnecessary.

22 - OPEN ITEM: **Eliminate wooden pallets as a source of fire near UF₆ cylinder storage.**

Allied Response:

Efforts are being made to eliminate the inventory of damaged pallets at Metropolis works. So far in 1989, approximately four hundred pallets have been removed from this inventory and repaired for re-use in the plant. We have also continued to separate uncontaminated pallets that cannot be easily repaired from the inventory and dispose of these on-site. Early in 1989, testing was done on the contaminated wood to determine whether some of these pallets could be buried on-site pursuant to 20.302(a).

The test data was entered into the IMPACTS-BRC model and, based on those results, a license amendment was requested in June, 1989 for on-site burial of these contaminated pallets. Disposal as exempted material would facilitate the elimination of this inventory of contaminated pallets but, to date, the NRC has not taken action on this amendment request.

The full UF₆ cylinders that are nearest to the pallets are approximately 60 feet away. Management at MTW feels that this is a safe distance to minimize the effect on these cylinders of any fires around the pallet storage area.

23 - OPEN ITEM: **Review Standard NFPA 10, and determine appropriate distribution for portable extinguishers in the gaseous fluorine production buildings.**

Allied Response:

A survey was made of the extinguisher distribution in the Gaseous Fluorine building. Fire extinguishers were added to bring the South Gaseous Fluorine building into compliance with NFPA 10, Portable Fire Extinguishers.

24 - OPEN ITEM: **Investigate ways to improve housekeeping and the possible use of automatic fire detection in the main fluorine production location.**

Allied Response:

In order to improve housekeeping in the entire plant, routine "Safety and Housekeeping Inspections" have been instituted by both the Maintenance and Production departments. Follow-up on the completion of these items is provided by the General Foremen and results are reported to the respective department managers.

Metropolis Works' policy requires that good housekeeping standards be maintained in all areas. These standards will be reviewed with all personnel via the "C" Council Safety meetings and continued good housekeeping will be emphasized.

Considering the low probability of fire and the round-the-clock presence of plant personnel, it is felt that automatic fire detection systems are unnecessary.

25 - OPEN ITEM: **Stack release of hydrogen and the potential for ignition via electrical storm. Review this under the risk analyses assessment.**

Allied Response:

The production of fluorine by the electrolysis of hydrogen fluoride yields hydrogen as a byproduct. The hydrogen, having no current economic utility, is water scrubbed to remove traces of hydrogen fluoride and subsequently released to the atmosphere via hydrogen stacks.

The principle safety problem with hydrogen is the prevention of the formation of flammable mixtures of hydrogen with oxygen or air. Additionally, the relatively low auto-ignition temperature of hydrogen (~1100 F) requires avoidance of hot spots or electrical sparks where the gas is present in concentrations within its flammability limits.

At Metropolis Works, inert gases generated within powerhouse operations - with automatic gaseous nitrogen backup - is utilized to sweep the hydrogen zone of electrolytic cells,

hydrogen subheaders and hydrogen scrubber tanks. In this manner oxygen is excluded from the process. As the diluted hydrogen exits the stack and mixes with atmospheric oxygen, flammability limits may be exceeded. If a source of ignition is available burning may result, but the flame will not propagate through the oxygen deficient process system.

In the event of a hydrogen stack fire, electrolytic operations would be halted to stop the flow of hydrogen while maintaining inert gas sweeps.

This matter was reviewed by the Corporate Fire Prevention Specialist who noted that, for practical purposes, flame arrestors for hydrogen in this application are non-existent.

26 - OPEN ITEM: **Investigate the possible use of an automatic fire detection system in the maintenance and storage building.**

Allied Response:

This building is a one-story concrete block partially sprinklered structure. The building is occupied around-the-clock. Addition of an automatic detection system is considered unnecessary.

27 - OPEN ITEM: **Install a guard rail to protect the propane storage tank near the south gaseous fluorine production building.**

Allied Response:

A Maintenance work order has been written to install a barrier around this propane tank.

28 - OPEN ITEM: **Investigate need for repairs of equipment such as diesel engine to maintain churn pressure for the fire pump in the fire water system.**

Allied Response:

The governor of the diesel engine on the fire pump was adjusted to properly maintain the required speed. The pump was successfully flow tested by a Schirmer Engineering Company representative on August 18, 1989.

29 - OPEN ITEM: **Review and improve pre-fire plan to include all process fire hazards.**

Allied Response:

A fire Pre-Planning Manual has been written for Metropolis Works which covers process areas. This manual is considered to be in compliance with the applicable requirements.

30 - OPEN ITEM: Training for fire brigade members falls short of standard in NFPA 27. Complete the training requirement and maintain the required frequency.

Allied Response:

Emergency Response Team members fire training conforms to the standard set forth in NFPA 600 (replaces NFPA27). Additional training is provided to ensure that the brigades have the skills and knowledge required for the multiplicity of duties.

31 - OPEN ITEM: Improve housekeeping in several areas to guard against uncontrollable storage of ordinary combustible materials (paper, etc.). Should combine response with Open Item 89001-24.

Allied Response:

Management at Metropolis Works is always striving to improve housekeeping; it is an ongoing concern. In order to improve safety and housekeeping in the entire plant, routine "Safety and Housekeeping Inspections" have been instituted by both the Maintenance and Production departments. The inspections are performed and documented by the first line foremen, follow-up is provided by the general foremen, and the results are reported to the respective department managers.

The scrap pallets that had accumulated near the UF₆ cylinder cool-down area were scrap pallets that had been returned to MTW with empty SF₆ cylinders. To eliminate this potential hazard, an area has been designated on the SF₆ cylinder pad in which to store scrap SF₆ pallets until they can be hauled to the disposal area. The designated area for interim storage of these scrap pallets is a safe distance from the UF₆ cylinder cool-down area.

ALLIED-SIGNAL INC., RESPONSE TO OSHA ITEMS FROM
NRC TEAM INSPECTION #40-3392/89001

OSHA ITEM (II): Employee Access to 1910.20.

Allied Response:

The plant notice informing employees of their right to access certain regulatory information has been revised to inform employees of their right to review 1910.20. This item is complete.

OSHA ITEM (III): Guardrail height at empty drum removal platform.

Allied Response:

The broken chain fastener has been repaired. Operating personnel in the area have been instructed to keep the chains properly fastened when the platform is not in use. This item is complete.

OSHA ITEM (IV): Install additional exit signs.

Allied Response:

The appropriate signs have been installed. This item is complete.

OSHA ITEM VIII: Provide minimum of 24 hours training for Emergency Response Team.

Allied Response:

The training program for Emergency Response Teams has been revised to provide a minimum of 24 hours training by year end. Training sessions are held monthly. This item is complete.

OSHA ITEM IX: Respiratory Protection (1910.134).

Allied Response:

(A) The visitors observed in this item were not entering a posted area directly. The sixth floor of the process building was administratively posted for respirators at 40% of Maximum Permissible Concentration (MPC), and the visitors were entering the building on the first floor which was not posted for respirators. The inspector's comment does have merit, however, and the plant will implement a policy to require qualitative respirator fit testing of visitors before allowing them to enter airborne radioactivity areas > 40% of MPC.

(B) Some employees have acted irresponsibly in failing to

properly dispose of respirators. Employees are trained to wear only a fresh respirator when needed (one which is sealed in a contamination free plastic bag). This concern has been addressed with hourly employees during the June and September 1989 "C" Council Safety meetings. This item is considered complete.

- (C) A written procedure has been prepared addressing the use of Self-Contained Breathing Apparatus (SCBA) in accordance with 1910.134(e)(3). This item is complete.

OSHA ITEM X: Provide eye wash where battery acid exposure exists.

Response:

An eyewash fountain was placed in this area on May 19, 1989. This item is complete.

OSHA ITEM XII: Hazard Communication Program (1910.1200).

Allied Response:

- (A) This item is apparently a misunderstanding. Although color coding of containers is used extensively in the plant, our primary source of identifying container contents is through an equipment identification number painted on each container. The equipment number is cross-referenced to Material Safety Data Sheets which are provided for employee use in each operating area where hazardous chemicals are utilized.
- (B) The Hazard Communication Plan has been revised to instruct each employee "to contact his/her immediate supervisor to obtain the information to safely perform the task" in the event no Job Safety Analysis is available. This item is complete.
- (C) The plant administers an extensive and effective Hazard Communication Program, including documented employee training on identification, hazardous properties, and proper protection for hazardous chemicals. Employees are instructed to evacuate the area where a chemical container leak occurs, and report the incident to supervision. Properly equipped personnel then respond to correct the problem. Employee awareness may be enhanced by providing additional hazard communication information in the workplace. We will therefore implement an additional hazard warning system which will provide immediate employee access to the necessary information in each work area. Installation of this new system will be initiated immediately and will satisfy all eleven (11) discrepancies observed under 1910.1200(f)(4)(i) and (ii).

- (D) An updated MSDS for ethylene glycol has been obtained from the vendor which reflects the current OSHA TLV. This item is complete.
- (E) This item has been corrected by Item (D) above.
- (F) The short-term exposure limit (STEL) for hydrogen fluoride has been eliminated from the OSHA Z list. Please refer to the Federal Register dated January 19, 1989. This item is complete.
- (G) Plant employees will be retrained in Hazard Communication in accordance with the commitments made in response to this inspection. It should be noted that employee attendance at training sessions is documented, and a portion of the annual Health Physics quiz is devoted to hazard communication questions.

OSHA ITEM XVIII: Hydrogen Fluoride Leaks.

Allied Response:

Whenever any chemical is spilled at Metropolis Works, an "Incident & Spill Report" is completed by a supervisor in the plant. All of the details of the spill including time, duration, location, estimated quantity, samples taken, potential causes, and follow-up actions are included in the report. Each spill report is reviewed by the production area supervisor, the environmental supervisor, the technical area supervisor, the appropriate department manager, and the regulatory affairs manager at a minimum. The completed reports are then sent to the environmental supervisor. The environmental supervisor enters the spill into a master index and keeps the spill report on file. Periodically, the environmental supervisor will check the index for spill "patterns" and will notify the department managers when patterns or trends appear to be developing so that larger corrective actions, such as piping or equipment replacement, can be initiated.

OSHA ITEM XIX: Splash guards on Sulfuric Acid flanged joints.

Allied Response:

Flange covers and deflectors offer a false sense of security where the integrity of acid piping is concerned. Their value as a safety factor is questionable.

ALLIED-SIGNAL INC., RESPONSE TO USEPA ITEMS FROM
NRC TEAM INSPECTION #40-3392/89001

USEPA ITEM NO. 1: Height of roof over hazardous waste storage pad.

Allied Response:

The roof over the drum storage pad was built high enough to allow fork trucks to enter the pad for drum movement. This does allow rainfall to occasionally enter the storage pad. The possibility of rainfall entering the pad is addressed in the plant's RCRA permit. The permit requires removal of any rainfall within 24 hours and disposal of non-contaminated wastewater at the wastewater treatment plant. If the rainwater is contaminated, it will be disposed of as RCRA hazardous waste.

USEPA ITEM NO. 4: Differential Settling at Plant Landfill.

Allied Response:

The plant landfill cap is inspected twice yearly for integrity and repairs are made where necessary following these inspections. Contractor personnel who are responsible for placing the landfill cap will be instructed to cover the disposed material using maximum one foot lifts with sufficient compaction to reduce the incidence of subsidence.

A map showing the extent of the landfill has been completed.

USEPA ITEM NO. 5: Define Creosote kickback area.

Allied Response:

Allied-Signal agrees that the creosote kickback area needs to be further defined and intends to do so in accordance with its recent agreement to stay permit appeal proceedings with U.S. EPA, Region V. The extent of the area will be determined from the examination of aerial photographs and will be reviewed in detail in future settlement discussions with Region V EPA.

Examination of the groundwater beneath the former wood treating plant will be conducted in accordance with the Agreement to Stay during late 1989 or early 1990. As per section 4a of the Agreement, Allied-Signal will install a cap over the "Kickback area" if the groundwater in the vicinity of this area is "clean".

USEPA ITEM NO. 6: Mislabeled of rubber lined tank.

Allied Response:

The clarifier (F-901) at the Calcium Fluoride Recovery plant was incorrectly labeled as being rubber lined. This label has been removed from the clarifier.

The wastewaters at the Calcium Fluoride Recovery plant can be corrosive to concrete. The corrosion noted is limited to the concrete surface and has not affected the integrity of the diked area.

USEPA ITEM NO. 8: Diking at Tank Farm.

Allied Response:

The diked area at the Tank Farm was installed to contain leaks and spills from tank fittings, pipes, valves and pumps. All tank openings except those on top of the tanks, and the HF tank relief valves are within the diked area.

Because of the size and proximity of the tanks at the Tank Farm, it is impractical to provide individual diking for each tank. The calculated height of the dike walls would make entry difficult, and would preclude routine operation of the pump and tank valves.