

# **Exhibit 1**



The Special Counsel

June 27, 2001

The Honorable Christine Todd Whitman  
Administrator  
U.S. Environmental Protection Agency  
Arlie Rios Building  
1200 Pennsylvania Avenue, N.W.  
Washington, DC 20460

2501 JUN 19 10 11:52

Re: OSC File No. DI-01-1150

Dear Ms. Whitman:

The U. S. Office of Special Counsel is authorized by law to receive disclosures of information from federal employees alleging violations of law, rule or regulation, gross mismanagement, gross waste of funds, an abuse of authority, or a substantial and specific danger to public health or safety. 5 U.S.C. §§ 1213(a) and (b). As Special Counsel, if I find, on the basis of the information disclosed, that there is a substantial likelihood that one of these conditions exists, I am required to advise the appropriate agency head of my findings, and the agency head is required to conduct an investigation of the allegations and prepare a report. 5 U.S.C. §§ 1213(c) and (g).

For the reasons set forth below, I have concluded that there is a substantial likelihood that information provided to the Office of Special Counsel by Mr. Christopher A. Militscher, an EPA On-Scene Coordinator, discloses violations of law, rule or regulation, abuses of authority, and substantial and specific dangers to the public health and safety, arising out of actions by EPA officials at the Flura Chemical Removal Action Site (Flura) in Newport, Tennessee. Accordingly, I am referring this information to you for an investigation of the allegations described below and a report of your findings within 60 days of your receipt of this letter.

The Information Disclosed

As noted, the relevant information was provided to the Office of Special Counsel by Mr. Christopher A. Militscher, an EPA On-Scene Coordinator, who has consented to the release of his name. Mr. Militscher has been employed by EPA for over 19 years, including nine years in EPA Region IV. He has extensive experience in the technical and legal issues surrounding the clean up of hazardous waste sites.

As an On-Scene Coordinator, Mr. Militscher has served as the supervisor in charge of EPA sites and as the technical lead for clean-ups. He also directs EPA contractors, ensures that the sites and EPA cleanups are in compliance with the

Occupational Health and Safety Act and applicable regulations of the Department of Transportation (DOT), directs chemical sampling and clean up, responds to hazardous materials spills or releases on sites, enforces the site-specific safety plans, ensures compliance with other EPA regulations, and conducts outreach activities to local and state groups.

The Flura site, which is the subject of Mr. Militscher's disclosures, is currently under the jurisdiction of the Emergency Response and Removal Branch, EPA Region IV, Atlanta, Georgia. Mr. Militscher alleges that Mr. Dean Ullock, the present lead On-Scene Coordinator at the Flura site, has acted in a reckless manner in the management and handling of hazardous substances and CERCLA wastes. He also alleges that Mr. Ullock has violated laws, rules and regulations governing the treatment and transportation of such substances. In addition, Mr. Militscher alleges that Mr. Ullock has abused his authority and that his actions have caused a substantial and specific danger to the health and safety of individuals working at the Flura site and the general public.

The background of Mr. Militscher's allegations is as follows: In March 2000, an assessment of the Flura site by Mr. Michael R. Taylor, an EPA On-Scene Coordinator, concluded that Flura constituted an imminent threat to the public health, welfare and environment arising out of the potential or actual release of hazardous substances into the environment. EPA subsequently issued a cease and desist order to Flura's owner under the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. § 6901 *et. seq.* In April 2000, EPA took over control and *de facto* ownership of the facility, chemical substances, and hazardous wastes at the site. Thereafter, EPA began an emergency response and removal action.

According to Mr. Militscher, the Flura site is a large, complex site of over 34 acres with thousands of badly-deteriorated chemicals. EPA has, in fact, recognized that Flura is a nationally-significant site. In March 2001, it was identified by EPA's Acting Director for the Office of Solid Waste and Emergency Response as the "Site of the Year" from among EPA's worst sites. EPA has approved an estimated \$15 million for removal action cleanup at Flura.

Mr. Militscher served as an On-Scene Coordinator at Flura from April 2000 to mid-March 2001. During that time, he worked with Mr. Michael Taylor, the previous Lead On-Scene Coordinator. He also served as the Lead On-Scene Coordinator in Mr. Taylor's absence. Mr. Taylor was reassigned in October 2000, and in January 2001, Mr. Dean Ullock was appointed by EPA as the new Lead On-Scene Coordinator.

Given Mr. Militscher's expertise and Mr. Ullock's inexperience with technical and regulatory issues and complex, hazardous sites, Mr. Militscher's supervisor requested that he continue working at Flura after Mr. Ullock's appointment.

Mr. Militscher continued at Flura as a mentor for Mr. Ullock on technical, financial and regulatory issues until mid-March. He also trained personnel on the identification, sampling and treatment of the substances at the site.

EPA's responsibilities at Flura are to respond to the dangers posed by the substances at the site, manage the site, and identify and sample the substances on-site. EPA's duties also include arranging for substances to be recycled to the manufacturer where appropriate and consistent with RCRA and CERCLA, and treating and disposing of hazardous and non-hazardous substances and waste.

Of the estimated 7,000 containers on-site at Flura, Mr. Militscher estimates that 4,800 have been consolidated, treated and or properly transported to facilities authorized to handle hazardous wastes. Nonetheless, Mr. Militscher has identified a number of instances in which, allegedly because of the actions of Mr. Ullock, the substances on site have not been properly handled, creating dangers to the public health and safety. He has also identified instances in which laws, rules and regulations have been violated. Mr. Militscher alleges that Mr. Ullock is unqualified to hold the key position of Lead On-Scene Coordinator at Flura, that he has engaged in actions which demonstrate a lack of the necessary expertise or due care, resulting in a threat to the health and safety of persons at the Flura site and in the surrounding communities. His specific allegations are set forth below:

L. Violations of Safety Regulations at the Flura Facility

Mr. Militscher alleges that, on three separate occasions during February of 2001, Mr. Ullock violated the Flura Chemical Site Health and Safety Plan (Safety Plan) issued pursuant to 29 C.F.R. § 1910.120, as well as other provisions of the Code of Federal Regulations, including, but not limited to, 40 C.F.R. §§ 300.150 and 300.400. He also alleges that Mr. Ullock engaged in reckless or negligent behavior inconsistent with the level of expertise and care that is expected of an individual holding the position of Lead On-Scene Coordinator at a site like Flura.

a. According to Mr. Militscher, the first incident occurred on February 7, 2001. On that day, Mr. Militscher was working with other employees on chemical consolidation in the main building. He asked Mr. Ullock and Mr. Dave Andrews, a contractor, to transport 20 specific containers from Laboratory No. 10 to the former lunchroom for further characterization. When they did not return after approximately 15 minutes, Mr. Militscher provided the junior On-Scene Coordinator with a radio in case of an emergency and left the area to find Mr. Ullock and Mr. Andrews.

According to Mr. Militscher, he found Messrs. Ullock and Andrews in Laboratory No. 7 moving a very large, heavy, glass container in a wheelbarrow. The 100-pound container was labeled perchloromethyl mercaptan, which is a malodorous,

toxic, fuming liquid. Mr. Militscher states that he was alarmed that the drum was being moved, unsecured, in a wheelbarrow. According to Mr. Militscher, in general, in order to comply with proper safety procedures, toxic and hazardous substances like perchloromethyl mercaptan must be firmly secured and stable when moved. In addition, the movement of such substances must be done on a scheduled, rather than impromptu basis.

Mr. Militscher has stated that, notwithstanding his concerns, he assisted Msrs. Ullock and Andrews in order to ensure that a spill did not occur. In addition, pursuant to the Safety Plan, Mr. Militscher notified other on-site personnel by radio of the unplanned and unscheduled movement of perchloromethyl mercaptan. According to Mr. Militscher, the failure to properly secure the drum created a danger to the public health and safety. He has observed that a spill of this substance would have required evacuation of the site, the nearby community and several miles downwind from the facility.

b. The second incident occurred on February 20, 2001. Mr. Militscher was mentoring Mr. Ullock and three junior On-Scene Coordinators. The four men were divided into two teams. Mr. Ullock and Mr. Andrew were bulking inorganic solids in Laboratory No. 22. Mr. Militscher states that he instructed them to proceed with caution and to verify the chemical compounds before bulking them into 55-gallon drums. He states that sampling data and other chemical references must be used to identify the chemicals and determine how they should be bulked or treated.

Mr. Militscher left Laboratory No. 2 to oversee additional bulking operations. He periodically returned to check on Mr. Ullock and Mr. Andrews. He states that he cautioned them repeatedly to advise him if they were unsure about any compound. Mr. Ullock and Mr. Andrews assured him that the bulking was being conducted properly.

At the end of the day, Mr. Andrews informed Mr. Militscher that a mistake might have been made in the bulking process. According to Mr. Militscher, Mr. Andrews stated that he had forgotten that barium was a hazardous waste under RCRA.

The RCRA regulations, at 40 C.F.R. § 260 *et seq.*, prohibit mixing hazardous substances, such as barium, with non-hazardous materials, for treatment or disposal. Mr. Militscher later learned from Mr. Ullock and Mr. Andrews that six one-pound containers of this hazardous waste had been improperly bulked for disposal and added to a drum of non-hazardous waste. As a result, the entire drum was contaminated. Thus, these actions created 500 lbs. of hazardous waste for treatment and disposal, rather than 6 pounds. In short, rather than decrease the amount of hazardous waste, Msrs. Ullock and Andrews had increased it.

c. On February 22, 2001, a third serious incident occurred involving the chemical treatment of five pesticide/herbicides and toxic compounds.<sup>1</sup> Mr. Militscher wanted to provide the junior On Scene Coordinators the opportunity to conduct a chemical treatment. To that end, he held a lengthy safety and instruction meeting on the specific procedures for treating the chemicals, including explanations of their chemistry, physical states, colors, how to treat the chemicals, and the tasks assigned to each individual. Mr. Militscher explained in detail why only five chemicals were being treated. He also provided a demonstration of the treatment and explained why only hydrogen peroxide was used in the process. The day before, Mr. Militscher had treated small amounts of the same chemicals without incident.

Mr. Militscher left the area briefly to retrieve some additional testing materials. Upon his return, he observed Mr. Ullock pouring a substance consisting of bright, orange crystals into the drums. Mr. Militscher was alarmed because none of the chemicals that he had arranged to have treated during the instruction session had this appearance. He quickly approached Mr. Ullock and asked him to identify the orange compound.

Before Mr. Militscher could use a test strip to identify the substance, the drum exploded, spewing forth a heavy brown liquid. Although no one was hurt in the incident, Mr. Militscher reported that the heavy brown liquid spewed within one foot of his face.

When Mr. Militscher asked Mr. Ullock what the unidentified orange compound was, Mr. Ullock reportedly responded that he was not sure but that it might be "dichromate." Later, it was learned that the compound was potassium dichromate (a rocket fuel). Moreover, Mr. Ullock had also added lead chloride, a toxic substance, which was not scheduled for treatment at that time.

According to Mr. Militscher, despite his repeated warnings, Mr. Ullock did not know what the chemical was, had not recognized it as different from those being treated, and had created a dangerous situation for the employees. In addition, the cleanup of the area delayed other planned site operations and caused a partial evacuation of other on-site personnel.

## 2. Violations of the Off-Site Rule, 40 C.F.R. § 300.440

The purpose of the Off-Site Rule is to prevent substances classified as waste under the Comprehensive Environmental Response, Compensation and Liability Act

The compounds involved were hexamethylphosphoramide, benzo(a)pyrene, sodium fluoroacetate, paraformaldehyde and malathion.

(CERCLA), 42 U.S.C. § 9601 *et. seq.*, from contributing to present or future environmental problems. To that end, wastes from CERCLA funded response actions may only be shipped to and handled by waste management facilities that operate in compliance with RCRA or applicable federal and state requirements. Pursuant to the Off-Site Rule, CERCLA wastes must be shipped to facilities that are authorized by the EPA to receive and treat such substances. In this case, Mr. Militscher alleges that Mr. Ullock has violated the Off-Site Rule in several respects, with the result that hazardous wastes are being transferred to facilities that lack the necessary EPA certification to safely dispose of them.

Thus, Mr. Militscher alleges that in April 2001, Mr. Ullock ordered six cylinders of fluorine, a CERCLA hazardous waste, to be shipped to the Texla Gas Company (Texla) facility in Sulphur, Louisiana. The fluorine had been sold to Fluora by its manufacturer, the Air Products Company. BOC Gas Group (BOC) later acquired Air Products and Texla is a BOC contractor. According to Mr. Militscher, neither BOC nor Texla are approved by EPA for the receipt and treatment of CERCLA hazardous wastes.

Mr. Militscher alleges that Mr. Ullock improperly characterized the fluorine cylinders (and possibly other hazardous materials) as recyclable in order to avoid having to comply with the regulations on treatment and disposal of hazardous materials. According to Mr. Militscher, at least two criteria must be met in order to characterize waste materials, such as fluorine, as recyclable, and return them to the manufacturer for re-use. First, the manufacturer must be willing to take the material and must have the capability to handle it. Moreover, the product must have some value.

In this case, Mr. Militscher alleges, neither condition was met. Thus, the fluorine cylinders were considered waste by EPA when it took over Fluora. In fact, prior to Mr. Ullock's intervention, the fluorine gas was scheduled for treatment as waste at Fluora.

Mr. Militscher alleges that BOC was not willing to take the cylinders back and that it had no use for them. He states that Mr. Ullock pressured BOC during discussions in March and April 2001 to accept the fluorine cylinders so that they could be characterized as recyclable. Mr. Militscher alleges that Mr. Ullock warned BOC that if it did not take the fluorine the company would be named as a potentially responsible party in a legal action brought by EPA for recovery of the cost of treating and disposing of the fluorine.

BOC is not authorized to handle hazardous substances, such as fluorine, under the Off-Site Rule. Thus, according to Mr. Militscher, the result of Mr. Ullock's course of conduct is that the fluorine cylinders were put in the possession of a company that

would not put them to productive use, and which had not been approved as qualified to dispose of them in a safe, approved manner.

Similarly, Mr. Militscher alleges that Mr. Ullock is currently planning to ship 29 large cylinders of hydrogen flouride, a compressed gas to Spectra Gases (Spectra) in New Jersey. Hydrogen flouride is also a hazardous substance under CERCLA. Spectra is not an authorized treatment or disposal facility and Mr. Militscher alleges that the gas cylinders do not meet the criteria for being considered recyclable. Thus, this shipment may constitute another violation of the Off-Site Rule.

According to Mr. Militscher, by improperly characterizing hazardous materials as recyclable, Mr. Ullock is expending CERCLA funds to ship hazardous materials to facilities that have no commercial use for them, do not want to receive them, and are not authorized to treat or dispose of them. Shipping hazardous materials in this manner appears to violate and subvert the Off-Site Rule and the Flura safety plan at a minimum, and may violate additional laws, rules and regulations governing the handling of hazardous substances. According to Mr. Militscher, these shipments result in hazardous materials merely being moved around the country from facility to facility instead of being treated and rendered inert.

The facts and circumstances described above suggest that, in addition to violating the Off-Site Rule and laws, rules and regulations regarding the handling and treatment CERCLA wastes, Mr. Ullock may be abusing his authority by improperly pressuring companies to take receipt of hazardous substances and wastes. Further, these facts suggest the creation of a substantial and specific danger to public health and safety in that hazardous substances are being transferred to companies that are not authorized to treat and dispose of them.

### 3. Violations of Transportation Regulations

Mr. Militscher also alleges that Mr. Ullock's actions violate Department of Transportation regulations governing the shipment of hazardous materials and or toxic substances. These regulations set forth specific rules for the manner in which such substances are to be transported. Regulations applicable in this case include, but are not limited to, 49 C.F.R. §§ 173.301, 173.302 and 40 C.F.R. § 263.

The reference material provided by Mr. Militscher on the nature of flourine gas, the Material Safety Data Sheet, states that it is extremely toxic, corrosive and reactive.<sup>2</sup>

<sup>2</sup>In the event of a leak or a spill, the materials note that an area approximately .4-1.7 miles would need to be evacuated. Flourine can cause severe burns upon contact or if inhaled. Exposure to elevated concentrations of this gas may lead to conditions such as blindness or pulmonary hemorrhage; fatal systemic reactions are also possible.

As noted above, in April 2001, Mr. Ullock approved the shipment of six cylinders of fluorine gas in early April 2001 to Texla, the BOC contractor. The fluorine was shipped from the Fluva facility in Newport, Tennessee, to the Texla facility in Sulphur, Louisiana, via truck over the interstate highway system under a straight Bill of Lading. The shipment traveled from Newport, Tennessee, to Knoxville, Tennessee (approximately 45 miles), from Knoxville, Tennessee, to Chattanooga, Tennessee (approximately 90 miles) and then from Chattanooga, Tennessee to Sulphur, Louisiana (approximately 500 miles).

Mr. Militscher has alleged that the fluorine was not packaged or shipped under the regulations applicable to the transportation of hazardous substances, nor was it specifically listed as a hazardous substance on the Bill of Lading. In addition, safety precautions, such as overpacking the cylinders with helium blankets, were not taken. It is also unclear whether the drivers of the trucks were aware of the hazardous nature of the cargo, whether the fluorine is being stored at Texla indefinitely, whether or not it has been properly treated, or whether it will be transported to yet another facility.

Mr. Militscher's second allegation involves the condition of cylinders prior to shipment. Under 40 C.F.R. § 173.34, the transportation regulations require, among other things, that the pressure of cylinders be measured, that cylinders be properly marked and that records be kept of who measured the cylindrical pressure and when the measurement was taken. In addition, the regulations require that the pressure on the cylinders be retested periodically and that visual inspections of the cylinders be made to ensure no leaking is occurring.

In this case, Mr. Militscher states that some of the hydrostatic test dates on the fluorine cylinders had expired.<sup>3</sup> Mr. Militscher also alleges that the cylinders were not sampled to confirm their contents. Moreover, Mr. Militscher states that the Fluva site did not have the equipment necessary to test the pressure in the cylinders so no regular testing took place. As a result, no determination was made of whether the fluorine cylinders, or the cylinders of other hazardous substances, are properly pressurized for shipment prior to the actual shipment. Thus, the shipping of cylinders with expired hydrostatic dates and the failure to properly test the cylinder pressure of the fluorine,

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Further, the products of fluorine combustion are toxic. However, water and other traditional firefighting measures cannot extinguish an explosion generated by fluorine. In fact, Mr. Militscher noted that the Newport, Tennessee, fire department would not respond to the Fluva site in the event of a fluorine spill because of the danger posed by this and other chemicals present. EPA has been required to contract for its "independent" fire-fighting capabilities.

<sup>3</sup>The hydrostatic test date is the last date the valve was inspected to ensure valve safety and cylinder integrity for movement or shipping.

and other cylinders, appears to be another way in which EPA officials may be violating laws, rules and regulations and creating a substantial and specific danger to public health and safety.

As previously noted, Mr. Militscher also alleges that Mr. Ullock is currently in the process of planning a shipment of 29 cylinders of the compressed gas, hydrogen flouride; each weighing approximately 100 pounds. The Material Safety Data Sheet on hydrogen flouride states that it is a toxic, corrosive, non-flammable liquefied gas.<sup>4</sup> DOT regulations also apply to the shipment of this gas. Mr. Militscher believes that as many as two-thirds of the cylinders are beyond the hydrostatic test date. He also contends that Mr. Ullock intends to transport the hydrogen flouride to Spectra Gases in a manner that violates those regulations and causes a substantial and specific danger to public health and safety.

Finally, Mr. Militscher alleges that Mr. Ullock has not followed EPA's approved scope of work contained in the two action memoranda for this site. He contends that the cylinders in question as well as other cylinders on-site are and can be safely and efficiently treated at Flura.

#### The Special Counsel's Findings

As noted above, if I find that there is a substantial likelihood that information disclosed to my Office reveals violations of law, rule or regulation, an abuse of authority, or a substantial and specific danger to public health or safety, I am required to send that information to the appropriate agency head for an investigation and report. 5 U.S.C. § 1213. Given Mr. Militscher's apparent expertise regarding the matters he has disclosed, the detail he has provided, and his first hand knowledge of many of the incidents he has described, I have concluded that there is a substantial likelihood that he has disclosed violations of law, rule, or regulation, abuses of authority and a substantial and specific danger to the public health and safety at the Flura site.

Accordingly, I am referring this information to you for an investigation of the allegations described above and a report of your findings within 60 days of your receipt of this letter. By law, the report must be reviewed and signed by you personally. Should you decide to delegate authority to another official to review and sign the report, your delegation must be specifically stated. The requirements of the report are set forth at 5 U.S.C. §§ 1213(c) and (d). A summary of 1213(d) is enclosed.

*Decide w. delegation*

<sup>4</sup>Skim contact can lead to severe burns, inhalation can cause inflammation of the lungs or circulatory collapse, ingestion can cause burns and systemic effects that can be fatal. If hydrogen flouride is released or spilled, the affected area must be evacuated.

In the event it is not possible to report on the matter within the 60-day time limit, as the statute requires, you may request in writing an extension of time not to exceed 60 days. Please be advised that an extension of time will not be granted automatically, but only upon a showing of good cause. Accordingly, in the written request for an extension of time, please state specifically the reasons the additional time is needed.

After making the determinations required by 5 U.S.C. § 1213(e)(2), copies of the report, along with any comments on the report from the person making the disclosure and any comments or recommendations by me will be sent to the President and the appropriate oversight committees in the Senate and House of Representatives.  
5 U.S.C. § 1213(e)(3).

A copy of the report and any comments will be placed in a public file in accordance with 5 U.S.C. § 1219(a).

Please refer to our file number in any correspondence on this matter. If you need further information, please contact Catherine A. McMullen, Chief, Disclosure Unit, at (202) 653-6005. I am also available to you for any questions you may have.

Sincerely,



Elaine Kaplan

Enclosure

Requirements of 5 U.S.C. § 1213(d)

Any report required under subsection (c) shall be reviewed and signed by the head of the agency<sup>1</sup> and shall include:

- (1) a summary of the information with respect to which the investigation was initiated;
- (2) a description of the conduct of the investigation;
- (3) a summary of any evidence obtained from the investigation;
- (4) a listing of any violation or apparent violation of law, rule or regulation; and
- (5) a description of any action taken or planned as a result of the investigation, such as:
  - (A) changes in agency rules, regulations or practices;
  - (B) the restoration of any aggrieved employee;
  - (C) disciplinary action against any employee; and
  - (D) referral to the Attorney General of any evidence of criminal violation.

In addition, we are interested in learning of any dollar savings, or projected savings, and any management initiatives that may result from this review.

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<sup>1</sup> Should you decide to delegate authority to another official to review and sign the report, your delegation must be specifically stated.

# **Exhibit 2**



OFFICE OF THE INSPECTOR GENERAL  
OFFICE OF INVESTIGATIONS

Interview of CHRISTOPHER MILITSCHER

CHRISTOPHER A. MILITSCHER, On Scene Coordinator (OSC), Emergency Response and Removal Branch (ERRB), EPA, Region 4, Atlanta, Georgia, was interviewed concerning his allegations that DEAN ULLOCK, the lead OSC at the Flura Chemical Site, Newport, Tennessee, made decisions and implemented actions which violated laws, rules or regulations, abused his authority, and caused substantial dangers to public health and safety. MILITSCHER provided the following information:

MILITSCHER was an EPA-OSC for over fifteen years. Nine of these years have been at Region 4. He is currently on a temporary detail to another division. His supervisors were DOUG LAIR, Chief, ERRB, DON RIGGER and SHANE HITCHCOCK, section chiefs. He was assigned to the Flura Site from April 2000 to June 2001. He worked with the first lead OSC, MIKE TAYLOR, from April 2000 to August 2000. He worked as the alternate lead OSC with TAYLOR until November 2000 when TAYLOR was replaced by ULLOCK. He advised RIGGER and HITCHCOCK that he felt ULLOCK was not competent to supervise the cleanup of the Flura Site. RIGGER advised him that he was to "mentor" ULLOCK at the site.

MILITSCHER expressed concerns related to instances on specific dates.

On February 7, 2001, he, DAVE ANDREWS, SIGNAL CORPORATION, ULLOCK and JOSE NAGRON, new OSC, were bulking chemicals on site. Bulking is the consolidation of like compounds and is cost effective. He requested that ULLOCK and ANDREWS go obtain additional chemicals from another area. After they did not return in a reasonable amount of time, he went to look for them. He found them in another area where they were attempting to move a 100 pound glass container containing Perchloro Methyl Mercaptan, a very dangerous and possibly deadly chemical. A description of this chemical is listed in the site safety plan which both men had signed as reading and understanding.

Investigation Conducted on August 1, 2001		Conducted at Atlanta, Georgia
Conducted by S/A's Gene Mullis & Mike Hill		OI File Number 2001-1429
Date Dictated 8/01/01	Date Transcribed 8/01/01	By epm

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Although he felt this function was unnecessary, he assisted them in relocating this and another identical container. MILITSCHER did not report this incident to his manager. He considered this incident as a mistake due to inexperience, however, he did instruct MONICA ALLISON or TODD WOLPERT, US Coast Guard (USCG) to document the incident in their site log.

On or about February 20, 2001, he was "mentoring" ULLOCK, CARTER WILLIAMSON, OSC, BEN FRANCO, OSC, and RICK JARDINE, OSC. There were two operations taking place at the same time. He, CARTER and FRANCO, were bulking hazardous materials and ULLOCK and ANDREWS were bulking nonhazardous materials. MONICA ALLISON, USCG, was also present. He instructed them not to rush and to be sure of what they were doing. After they quit work ANDREWS approached him and told him that they made a mistake. They (ANDREWS and ULLOCK) may have mixed barium carbonate, a heavy metal salt, with the nonhazardous chemical. He asked ANDREWS to check the data base Drumtrack, to determine the severity of the problem. Drumtek is used to record the activities on the site. When chemicals are bulked in 55 gallon drums they are labeled as to content and a tracking tag is attached. This information is then entered into Drumtrack. ANDREWS informed him that six one pound containers were placed in one drum. Due to this, the drum had to be labeled as hazardous and several thousand additional dollars may be incurred. When he discussed this incident with ULLOCK and ANDREWS they blamed each other. He did not discuss this with Region 4 management, however, it was entered in the USCG site log. A Hazardous Duty Form was submitted to the Region 4, Safety Officer, WALTER DIPIETRIO. These reports should go to LAIR.

On or about February 22, 2001, MILITSCHER was overseeing the conversion of Pesticides and Herbicides to a non hazardous substance. Before this task began he gave a demonstration on how it should be accomplished. Fourteen containers were to be treated by CARTER, ULLOCK, JARDINE and one USCG employee, BRUCE (LNU) possibly ELLIOT. (Note: Later identified as BAKER). This process is accomplished by mixing the hazardous chemicals with hydrogen peroxide. After the task began he had to leave the area for approximately five minutes. When he returned he observe ULLOCK pouring orange crystals into one of the containers. He approached ULLOCK and asked him to identify the orange substance. ULLOCK stated that he did not know then the chemical erupted. He did hear ULLOCK say something about dichromate. He later determined that the orange substance was potassium chromate, rocket fuel. This incident resulted in the contamination of a larger area which is still contaminated. He did report this to DON RIGGER., and it was listed in the USCG log. According to MILITSCHER, RIGGER did not seem to care about the incident. MILITSCHER did accept responsibility for this incident.

At this point MILITSCHER, stated that ULLOCK had accepted a scuba diving trip from a contractor in Pascagoula, Mississippi, during the methylparathion cleanup. The contractor was CHRIS KLINE, FOUR SEASONS.

He further alleged that Region 4 was playing games with the money for the site. ULLOCK is inviting employees to the site who do not work with hazardous materials. The name provided were SHERRYL CARBONARO, KERRI RASNICK and RUTH DAVIDSON, all from EPA, Region 4.

MILITSCHER made allegations concerning violations of off site rules. While cleaning up this site they have returned several cylinders to the original owners. The hazardous materials must be properly labeled for shipping and the company must be willing to receive and capable of handling the material. MILITSCHER had a discussion with ULLOCK concerning six cylinders of fluorine. AIR PRODUCTS COMPANY made the fluorine. They were not willing and did not want the material. According to MILITSCHER, there was a treatment site there for the cylinders. There is a scope of work document and an action memo on file addressing these cylinders. AIR PRODUCTS originally supplied the fluorine to the FLURA Site. ULLOCK directed the two superfund contractors at the site, EARTH TECH and CMC, CORPORATION to track the history of the cylinders. This assignment was issued in a work order. ULLOCK also contacted BOC GAS GROUP, the owners of AIR PRODUCTS. BOC did not want the cylinders either. BOC ultimately agreed to take the cylinders but wanted them shipped to TEXLA, one of their contractors, in Sulphur, Louisiana. According to MILITSCHER, ULLOCK threatened to charge BOC as a potentially responsible party and file suit against them if they did not take the cylinders. ULLOCK ordered EARTH TECH to send the cylinders to BOC.

The cylinders were shipped to Knoxville, TN and then to Chattanooga, TN to the BOC facilities. Neither BOC nor TEXLA are permitted to receive or treat fluorine. The cylinders were shipped via truck under a straight Bill of Lading not listed as hazardous material. TEXLA ultimately signed a receipt for the cylinders. RAY WILLIS, Project Manager, EARTH TECH, told MILITSCHER that BOBBY HEBERT, TEXLA had stated that they were going to treat the cylinders. WILLIS should have notes regarding this matter. To ship the fluorine cylinders they are required to be maintained under 400 pounds per square inch and under 70 degrees Fahrenheit. 40 CFR determines that fluorine can not be determined as a product after it has been discarded as a hazardous waste. The project managers on the site had the impression that TEXLA had been coerced by ULLOCK.

MILITSCHER also discussed 29 cylinders of hydrogen fluoride. They were labeled as AMERICAN GAS GROUP, 610 Rockhill Road, Newport, Tennessee. AMERICAN GAS GROUP is located in Toledo, OH. The cylinder manufacturer is identified as SPECTRA GAS in New Jersey. Originally SPECTRA did not want the cylinders back. ULLOCK talked to SPECTRA and now they are going to take the cylinders. They are not permitted to treat or transport these cylinders. ULLOCK is now identifying the hydrogen fluoride cylinders as a product and has ordered CMC to ship them to SPECTRA. GEORGE MICK, CMC is trying to delay the shipment. 60% if these cylinders are not packaged properly to ship under the Department of Transportation Regulations.

22 FEB 01 (THURS)

0630 - 4ST ALLISON O/S

0645 - 6ST HARRIS + BAKER O/S

0700 - ATTENDED MORNING SAFETY MTG.

0720 - TREATMENT TEAM MEETS WITH OSC MILITSCHER.

0800 - 3 ERRS IN LEVEL D AT SCRAP METAL PILE EXIT HOT ZONE DUE TO PID HITS.

0830 - 2 ERRS ENTER BLDG LEVEL B, TO EMPTY RAIN BUCKETS

0900 - 3 ERRS ENTER HOTZONE, LEVEL B, TO CONTINUE WORK ON SCRAP METAL PILE.

0930 - 2 ERRS ENTER ROOM 53, LEVEL B

0955 - 1 REAC ENTERS LAB 11, LEVEL D.

1000 - 3 ERRS EXIT MAIN BLDG + ENTER ~~LEVEL~~ 53, LEVEL B

1030 - 4 OSC / 1 GST ENTER BLDG, LEVEL B FOR OXIDATION PROCESS BETWEEN BLDG + CHAPEL IN POLY DRUM.

REAC PERSONNEL EXIT HOT ZONE

1 ERRS AT SCRAP METAL PILE ENTERS PILOT

HOUSE TO ASSIST OTHERS, ~~GSA ANDREWS ALSO~~

R

1045 - 4 OSC / 1 GST EXIT HOT ZONE, CLOUD FROM OXIDATION PROCESS OBSERVED BY ERRS PERSONNEL

OXIDATION PROCESS PRODUCED RUNAWAY CHEMICAL REACTION.

1100 - RM MICK INSTRUCTS ALL PERSONNEL TO EXIT HOT ZONE.

1115 - 6 ERRS PERSONNEL EXIT HOT ZONE

1130 - OSC MILITSCHER HOLDS DEBRIEF ON OXIDATION PROCESS, PROCESSES INVOLVED OXIDIZING PRACTICES

22 FEB 01 (CONT)

1214 cont - WITH 35% HYDROGEN PEROXIDE. PESTICIDES WERE PRE-STAGED. A CONTAINER OF POTASSIUM DICHROMATE WAS ACCIDENTLY STAGED WITH PESTICIDES WHEN THE POTASSIUM DICHROMATE WAS MIXED WITH HYDROGEN PEROXIDE, CREATING A RUNAWAY CHEMICAL REACTION. THE REACTION WAS VIOLENT & QUICK, RESULTING IN CHROMIUM MATERIAL BEING DISTRIBUTED OVER A 20 FT SURROUNDING AREA & PERSONNEL ON ENTRY. ENTRY TEAM IMMEDIATELY DECONNED WITH SCRUB BRUSHES & SHOWER & EXITED HOT ZONE. NO INJURIES TO ANY PERSONNEL. 4 GST & 1 EPA SCBA HARNESSES DISCARDED DUE TO CONTAMINATION.

1115 - 3 ERRS & 1 EPA ENTER HOT ZONE, LEVEL B, TO CLEAN UP FROM POTASSIUM DICHROMATE REACTION.

1300 - 3 ERRS & 1 EPA EXIT HOT ZONE. 3 ERRS ON DECON LINE EXIT CRZ.

1440 - 2 ERRS ENTER CRZ, LEVEL C, TO MAN DECON LINE

1450 - 6 ERRS ENTER HOT ZONE, LEVEL B, TO COMPLETE VARIOUS TASKS

1520 - 1 ERRS ENTERS HOT ZONE, LEVEL B, TO ASSIST OTHERS

1659 - 2 ERRS EXIT PILOT HOUSE BUT REMAIN IN HOT ZONE.

1703 - 2 ERRS EXIT HOT ZONE.

1710 - 3 ERRS EXIT HOT ZONE.

1820 - 4 ERRS EXIT HOT ZONE. HOT ZONE CLEAR OF ALL PERSONNEL.

*DMH*  
DAVE DM HARRIS, MST, USCG

# **Exhibit 3**



OFFICE OF THE INSPECTOR GENERAL  
OFFICE OF INVESTIGATIONS

Review of Records at Flura Superfund Site

On August 6, 2001 a review of the records at the Flura Superfund Site, Newport, Tennessee, was performed. The following documents were reviewed and copies are attached:

Information pertaining to the shipment of Fluorine from the site to TEXLA GASES, INC., Sulphur, Louisiana.

1. Description of Fluorine (F<sub>2</sub>) from AIR PRODUCTS AND CHEMICAL COMPANY.
2. Hand written notes dated 3-22-01 regarding contacts with BRITISH OXYGEN COMPANY( BOC) and AIRCO. (These were later attributed to RAY WILLIS).
3. Typed notes from the desk of RAY WILLIS concerning Fluorine (disposition options).
4. Hand written notes dated 4-03 and referring to BOC GASES. (WILLIS)
5. Draft memo from WILLIS to ED HENNEY, BOC GASES dated 4-11-00.
6. FAX from WILLIS to ED HENNEY, with example of acceptance letter.
7. Hand written notes re: CHARLES QUINLIN of BOC GASES.
8. Bill of Lading from EPA to BOC GASES, shipping 6 cylinders of Fluorine, dated 4-12-01.
9. FAX from BOC GASES to WILLIS providing a HAZARDOUS MATERIALS SHIPPING MANIFEST, dated 4-12-01.
10. Copy of note indicating that "Yellow Truck delivered to TEXLA on 4-23-01. According to WILLIS this is when the F<sub>2</sub> arrived at the TEXLA Facility, Sulphur, LA. via BOC.
11. FAX of Straight Bill of Lading, dated 4-18-01, to TEXLA GASES, INC. to the attention of JIMMY HEBERT.
12. FAX to TEXLA GASES, Subject: ACCEPTANCE OF OWNERSHIP OF LIQUID AND/OR COMPRESSED GAS CYLINDERS AND THEIR CONTENT.  
(Note: Does not list description of product.)
13. 12 pages from CYLINDER LOG-Flura Chemical Site. Six cylinders are listed on July 27, 2000. A second entry is listed on December 7, 2000.

Investigation Conducted on August 6, 2001		Conducted at Newport, Tennessee	
Conducted by S/A Gene Mullis <i>EPM</i>		OI File Number 2001-1429 <i>mm</i>	
Date Dictated 8/10/01	Date Transcribed 8/10/01	By epm	

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14. Letter from DEAN A. ULLOCK, Federal On-Scene Coordinator, to Edward Mazzullo, Director, OHMS, USDOT/RSPA (DHM-10) asking for clarification of 49 CFR 173.34 (e) 1, General Requirements, concerning the shipment of cylinders containing Fluorine and Hydrogen Fluoride. Dated March 27, 2001.
15. FAX response to ULLOCK letter also dated March 27, 2001, from ARTHUR POLLACK, USDOT, regarding reinspection/retesting of cylinders under hazardous materials Regulations(HMR; 49 CFR Parts 171-180. (Note: Letter appears to be DOT file copy addressing issue on June 4, 1997.)
16. FAX to ULLOCK from CAMERON SATTERWAITE, dated April 3, 2001. Letter dated November 6, 2000, addressing transportation requirements, appears to be DOT file copy.
17. Memorandum to Flura File dated April 1, 2001, from DEAN ULLOCK, titled Off Site shipment of recyclable materials found at FLURA.

Information pertaining to the proposed shipment Hydrogen Fluoride from the site to SPECTRA GASES, INC., Branchburg, NJ

1. Letter from US EPA Flura Chemical Superfund Site Attn:GEORGE MICK, to SPECTRA GASES, INC.
2. Letter dated May 17, 2001 from ULLOCK to ANDREW DIETZ, President, SPECTRA GASES, INC., Subject: Return of #29 Hydrogen Fluoride Cylinders to Spectra Gases, Inc.
3. Copy of acceptance letter from ULLOCK to SPECTRA GASES, INC., for signature.
4. Copy of letter of acceptance letter for 29 "H" cylinders signed by ANDREW DIETZ and ULLOCK.
5. Memorandum to Flura File dated April 1, 2001, from DEAN ULLOCK, titled Off Site shipment of recyclable materials found at FLURA.

## Fluorine

After making additional calls to determine if BOC/Airco would be interested or willing to recover the six cylinders of Fluorine found on site, I have been informed they are willing to reobtain the cylinders.

The new contact for finalizing the arrangements is:

Charles Quillian  
(888)-427-2269 EXT. 1460

I have told him that prior to finalization of the pick-up I would get back in touch with him. The conversation was left at the fact that the EPA OSC's might have some formal questions or requirements attached to the pick-up (ie FINAL Disposition questions; letters of recycle/reuse/destruction; determination of shippability per CFR 49 PART 173.34 etc.).

The conversation was left at that point:

- a) I would check on any EPA requirements/questions
- b) He would discuss regulations & disposition with a BOC regulatory person

FACTS learned: ① BOC/Airco (BOC Group) have been involved together for 20 years.

② The local distributor of the Fluorine (? Knoxville Welding or Knoxville Oxygen) now belongs to Air Products

③ As per last update BOC/Air products has successfully attempted to merge. Air Products is the filler / BOC is the owner of the cylinders



**SPECIALTY GASES & EQUIPMENT CATALOG**

PURE GASES	SPECIAL APPL.	GAS MIXTURES	SCOTTY TRANSPORTABLES	EQUIPMENT
FAQ ANALYTICAL	ORDERING	TECH. QUESTIONS	CYLINDERS	APPENDIX
				SEARCH CATALOG

Pure Gases

Fluorine (F<sub>2</sub>)

Choose Another Pure Gas  

A pale yellow, extremely reactive compressed gas with a choking, ozone-like odor. Strongest oxidizing agent known. Reacts violently with water, organic materials, and most inorganic materials.

Toxicity: Highly toxic. Extremely irritating and corrosive to tissues.

Fire Potential: Strong Oxidizer

TWA: 1 ppm (ACGIH), 0.1 ppm (OSHA PEL)

Compatible Materials: At room temp and atmospheric pressure, F<sub>2</sub> reacts with brass, iron, aluminum, copper, and certain other alloys to form a protective, metal fluoride film. At high temp and pressure, nickel & Monel metal are recommended. All equipment must be clean, dried, & passivated (with fluorine) before use.

Molecular Weight: 38

Specific Volume at 70°F and 1 atm: 10.18 ft<sup>3</sup>/lb

DOT Hazard Class: Poison Gas (2.3)

DOT Label: Poison Gas and Oxidizer

DOT ID No.: UN 1045

CAS No.: 7782-41-4

Cylinder Size	Cylinder Dimension (in.)	Cylinder Pressure at 70°F (psig)
A	9 x 55	400
C	7 x 33	400

Specifications	Ordering Information				Recommended Equipment	
	Cylinder Size	Contents lbs (kgs)	Standard Valve Outlet (CGA)	Product Number	Description/ Product Number	Delivery Pressure Range (psig)
TECHNICAL 97.0%	A	4.9 (2.23)	679	A01-K-17503	GASGUARD® 100,250,500 Gas Cabinet with 6-valve panel design / <u>GG6</u> Fluorine Service Regulators / <u>E11-F3321679</u>	0-50
	C	1.6 (0.73)	679	A03-D-17503		
F.O.B. Hometown, PA						

From the Desk of Ray Willis  
(Telephone Log)

**Subject – Fluorine (disposition options)**

**Telephone conversation with Dennis Croll of Air Products (Corporate HQ in Allentown, Pa.)**  
3-19-01 (Approx. 1400-1430)

**Background:** I had originally called Air Products and Chemical Company on Friday 3-16-01 at (610)-481-4911 and, after leaving a message for Dennis Croll to call me, spoke with Scott in customer services. He did confirm that Air Products was a fluorine producer and that cylinders of Fluorine were not filled beyond 5 lbs. of product. He did refer me to their emergency number but, after I told him I had left a message at Dennis Croll's number, he let me know that Dennis Croll was from their emergency response group. \* note - I have spoken with Dennis Croll on multiple occasions in the past and have found him to be knowledgeable, so he was a logical first contact point given that for the past X number of years (? 10, ? 15+) he has been available and willing to answer questions related to the gas industry, and has been reachable at the same location for at least 7 or 8 years.

\*\*\*\*\*

**Dennis Croll conversation "highlights" (not to the word, or in order, and only as I remember them):**

- 1). The tare wt. of an empty A cylinder by their catalog is 137 lbs.. This weight is not inclusive of the valve or cylinder cap, which could add enough weight to bring the empty weight up to potentially 140, 141, or even 142 lbs.. (\* note- the Air Products "A" cylinder is the same size and type as the ones we refer to on-site as an H cylinders. Air Products has changed their terminology for this type of container).
- 2). He verified that Air Products is the only producer of Fluorine in the U.S.. For a short period of time Air Products and BOC Gases (British Oxygen Company) were combined together in what later became an unsuccessful merger. During that period BOC may have also appeared to be a producer. \*Note - He may also have mentioned that BOC Gases might be another producer overseas.
- 3). He stated although the cylinders may say Airco the cylinders would have been filled by Air Products, and that Air Products does fill Fluorine cylinders for all other companies such as Airco, Scott Specialty Gases, etc.. All fluorine cylinders filled in the U.S. would have come from Air Products.
- 4). Air Products does not except product back in cylinders not owned by them, for they are not a permitted facility and cannot accept materials from another company. Suggested I call Airco for these cylinders. He believed Airco might take them back, even if they didn't want to since they did have their name on them.
- 5). Stated that Fluorine was sold in cylinders with only 4.9 lb. of product in a vapor state. The vapor would be packaged at 400 PSI. He also added that even though you could place up to 6 lbs. of fluorine cylinder by DOT specs they would not exceed 4.9 lbs..
- 6). Suggested that Fluorine would be easy to treat as long as the scrubber solution was at greater than 5%. Don't let it fall below 5%. (\*note - we did not discuss type of scrubber solution. I assumed he was talking about sodium hydroxide since it is the industry standard for neutralizing acid gases).
- 7). We also discussed hydrogen fluoride, which Air Products also sells. Typically the cylinders would contain no greater than a 10% vapor layer over liquified product.
- 8). Stated that cylinders could be transported if out of hydrostatic test date, but not refilled without proper testing and inspection to make the cylinder DOT compliant. He referenced DOT regulation 173.34 in Code of Federal Regulations (CFR) 49, for testing and inspection requirements, and also as the regulation covering the filling and shipment of cylinders.

9). Discussed methods for the safe sampling of Fluorine cylinders, and methods for the remote actuation of the valves.

10). Discussed treatment of hydrogen fluoride.

11). Discussed potential recycling and disposal options for the HF and F cylinders.

12). Discussed potential recycling of freons, and whether any fractional distillation facilities existed for mixtures of freons. (\*note\* - he was not aware of any company capable of taking mixed freons, or that mixed freons (i.e. mixed halocarbons, mixed refrigerants, mixed fluoro carbons, etc.) for the purpose of fractional distillation (separation) of the freons into usable recoverable products.

\*\*\*\*\*

\* Note - Items 6 and 10 referring to treatment of fluorine and hydrogen fluoride was suggested by Dennis Croll as a way for handling of the cylinder contents, and not solicited during the conversation, which hinged primarily on potential off-site disposal or recycling options. He did, in the course of the conversation, mention BDT as a possible treatment facility, stated that he had not heard of SET Environmental / Treatment One, and said that he had heard MG Industries (an industrial gas company) had opened a facility in Fairless Hills, PA., under their new name of Messer. I have performed work for MG Industries in the past in the Conshohocken, Pa. area and will further explore this potential new facility and it's capabilities.

4-0-23

Ed Henney

(215) - 396-1570

New Jersey

1-800-ED-AIRCO

MIKE MCCAIN

SAN MARCOS, CALIF.

BOC Gases

Ed Henney → Emergency response

MIKE MCCAIN → set in on a call but I did not list his title

- FAX -

4-11-00

To: ED HENNEY  
BOC GASES

From: RAY WILLIS  
EARTH TECH  
RESPONSE MANAGER (FLURA CHEM SUPERFUND REMOVAL SITE)

SUBJECT: CYLINDER RETURN LETTER

PLEASE review the attached letter (as per our phone conversation of 4-11-00) and call me with either approval of its use or to let me know of any concerns you may have in its use to document the off-site removal of the six fluorine cylinders.



P.S. This is as fancy as my fax cover sheet can be at this time.

# FAX

To: Ed Henney  
Company: BOC Gas Group

Date: 4-11-01  
Fax #: (215)-396-1577

From: Ahmed El-Kaddah, Ray Willis

Phone #: (423) 625-5970 0717

Location: Earth Tech  
C/o Flura Corp.  
610 Rock Hill Rd.  
Newport, TN 37821

Sending from Fax #:  
(423) 625-5974

Project #: 35395-01

Subject: CYLINDER ACCEPTANCE LETTER FOR THE FLUORINE

Comments: THIS IS HOW THE LETTER WILL LOOK IN ITS  
COMPLETED STATE, MINUS THE SIGNATURES. THE ORIGINAL  
ON EPA LETTER HEAD WILL BE FORWARDED TO WHATEVER  
ADDRESS YOU SPECIFY. IF YOU WISH TO CHANGE THE  
"TO:" INFORMATION JUST LET ME KNOW, IF YOU WISH TO  
HAVE EACH CYLINDER RECORDED BY SERIAL NUMBER IT CAN BE  
ARRANGED.

If you do not receive 2 pages (including cover page)  
please call us as soon as possible @ 423.625.5970



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 REGION 4  
 ATLANTA FEDERAL CENTER  
 100 ALABAMA STREET, S.W.  
 ATLANTA, GEORGIA 30303-3104

DATE:

TO: Ed Henney  
BOC Gas Group / AIRCO  
MURRAY HILL, NEW JERSEY

SUBJECT: ACCEPTANCE OF OWNERSHIP OF LIQUID AND/OR COMPRESSED GAS CYLINDERS AND THEIR CONTENTS.

Based upon a determination by the U.S. Environmental Protection Agency (EPA) the following liquid and/or compressed gases were found on the Flura Chemical Superfund Site within specialty containers (cylinders) owned by the accepting Company.

The outside surfaces of the cylinders have been properly decontaminated and the containers, and their contents, deemed returnable to the cylinder owner for recycling/reuse. Proper recycling and reuse of the these materials has been determined to be the most beneficial and environmentally sound alternative to treatment and/or disposal.

By accepting these materials, as signified by your signature below, you hereby agree to properly recycle and/or reuse the container, and its contents, in accordance with applicable Federal and state requirements. Should the material/product contained within the cylinder be deemed unsuitable for recycle/reuse the accepting party agrees to process/dispose of the contents in accordance with all applicable State, and Federal regulations, and ensures that these materials will not be discarded, abandoned, disposed of, or accumulated and stored, in a manner in which violates any of the provisions within 40 CFR.

Cylinders out of hydrostatic test date will be properly inspected and tested utilizing standard practices and methods of the Compressed Gas Association and applicable Federal Department of Transportation Regulations (49 CFR) prior to returning the containers for use in commerce.

Description of the recyclable/reusable/returnable materials/products:	Quantity	Type Container
FLUORINE GAS	6	CYLINDERS
*NOTE - ALL SIX CYLINDERS HAVE NECK RINGS MARKED AIRCO. THEY ARE 3AA2400 "A" SIZE CYLINDERS.		

These cylinders and their contents have originated from the USEPA Flura Chemical Superfund Site, 610 Rock Hill Road, Newport, Tennessee, 37821.

A bill of lading will be utilized to properly document the pickup/delivery of the cylinders and to accompany the load to its destination. It should be verified for consistency with the information supplied above.

Acceptance by: \_\_\_\_\_  
 Signature \_\_\_\_\_  
 Print Name \_\_\_\_\_  
 Representing \_\_\_\_\_  
 Date \_\_\_\_\_

Determination by: \_\_\_\_\_  
 Signature \_\_\_\_\_  
 DEAN ULLOCK, USEPA OSC  
 Print Name \_\_\_\_\_  
 USEPA REGION IV (ERRB)  
 Representing \_\_\_\_\_  
 Date \_\_\_\_\_

Charles Quinlan of BOC Gases  
informed me on Monday 4-02-01  
that BOC could not track  
these cylinders by serial number  
and that BOC/Airco had not  
filled (or had filled) cylinders of  
Fluorine in about 15 years.

~~At the~~ He was turning over  
the return/recovery of the Fluorine  
to their HIRT team, and was  
no longer the point of contact.



**BOC GASES**

ADDRESS: 2300 Sycamore Drive  
 (at Here) Knoxville, TN 37921

SHIPPING \_\_\_\_\_  
 ORDER(S) \_\_\_\_\_  
 NUMBER(S) \_\_\_\_\_

**HAZARDOUS MATERIALS SHIPPING MANIFEST**

Date: 4-12-01

Vehicle No.: \_\_\_\_\_

Driver: \_\_\_\_\_

TRIP STATUS NO. CONTAINERS	HM	TYPE	PROPER SHIPPING NAME	HAZARD CLASS	IDENTI- FICATION NUMBER	PACKING GROUP	EXEMPTION DOT-E	WEIGHT OR VOLUME
			Acetylene, Dissolved	2.1	UN1001			
			Compressed Gas, Flammable, N.O.S. ( )	2.1	UN1954			
			Ethylene, Compressed	2.1	UN1662			
			Hydrogen, Compressed	2.1	UN1049			
			Methane, Compressed	2.1	UN1971			
			Air, Compressed	2.2	UN1002			
			Ammonia, Anhydrous Inhalation Hazard	2.2	UN1005			
			Argon, Compressed	2.2	UN1006			
			Carbon Dioxide	2.2	UN1013			
			Compressed Gas, N.O.S. ( )	2.2	UN1958			
			Helium, Compressed	2.2	UN1048			
			Nitrogen, Compressed	2.2	UN1066			
			Oxygen, Compressed	2.2	UN1072			
			Argon, Refrigerated Liquid	2.2	UN1951			
			Carbon Dioxide, Refrigerated Liquid	2.2	UN2187			
			Helium, Refrigerated Liquid	2.2	UN1963			
			Nitrogen, Refrigerated Liquid	2.2	UN1977			
			Oxygen, Refrigerated Liquid	2.2	UN1073			
			Carbon Monoxide, Compressed Poison-Inhalation Hazard, Zone D	2.3	UN1016			
			Compressed Gas, Toxic, Flammable, N.O.S. Poison-Inhalation Hazard, Zone _____ ( )	2.3	UN1953		"E - 7835 special stowage Authorized"	
			Compressed Gas, Toxic, N.O.S. Poison-Inhalation Hazard, Zone _____ ( )	2.3	UN1955		"T - 7836 special stowage Authorized"	
			Hydrogen Chloride, Anhydrous Poison-Inhalation Hazard, Zone C	2.3	UN1050			
		<u>6 X CYL</u>	<u>RO Fluorine, Compressed</u> <u>Poison - Inhalation Hazard Zone A</u>	<u>2.3</u>	<u>various</u>			<u>870 lb</u>

**INSTRUCTIONS:**

1. Placard for all classes carried except Radioactive material.
2. Enter materials covered by a DOT Exemption on separate lines.
3. Do not abbreviate or use trade names.
4. Check compatibility chart before loading.

This is to certify that the above named materials are properly classified, described, packed, marked, labeled/placarded and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

Signature: [Handwritten Signature]

IN EVENT OF ANY EMERGENCY CONCERNING THE CHEMICALS IN THIS SHIPMENT, CALL CHEMTREC TOLL FREE NUMBER 800-424-9300, DAY OR NIGHT.

OR 404-562-8900



BOC Gases  
2300 Sycamore Drive  
Knoxville, Tenn. 37921

Phone: 865-524-2784  
Fax: 865-673-0454

Fax Cover

Date: 4-12-01

Page 1 of 2

To: Ray Willis

From: Eddie Stone

Company: \_\_\_\_\_

BOC Gases

Phone: \_\_\_\_\_

Phone: (865) 524-2784

Fax: 423-625-5974

FAX: (865) 673-0454

Message:

Yellow Truck -

Delivered to TEXA

on 4-23-01

Hertz Equipment Rental

1-888-777-2700

ARRIVED AT TEXA FACILITY VIA BOL

04/23/01 14:38 FAX 919 549 0827  
04/23/01 14:10

BOC GASES  
BOC GASES

002

002

BOC GASES

STRAIGHT BILL OF LADING - SHORT FORM - ORIGINAL - NOT NEGOTIABLE

THIS NUMBER  
CARRIER

SHIPPING COPY  
111 CHT 052 080412 9

THANK YOU FOR SHIPPING YELLOW  
1-800-610-6500

Delivered to beneficiary for terms and conditions of the Uniform Storage Bill of Lading included in the BOC Yellow Paper

BILL OF LADING NO. 267085

SHIPPING ORDER NO.

SHIPPED VIA	1. AIR	2. RAIL	3. COLLECT	4. FREIGHT COLLECT	5. ADDITIONAL

RECEIVED, subject to the conditions and liability hereon, is dated on the date of this Bill of Lading.

At 455 W. Access Rd. Chatham, TN 37945

4-18-01

From BOC GASES

The property described herein is transported under contract, subject to the usual conditions and liabilities of carriers of passengers, property, equipment, and containers as indicated below, which shall control the usual carrier liability under the terms of such contracts. It is hereby agreed, as to each party, that the carrier shall not be liable for any loss or damage to the property or equipment or containers, and no party shall be liable for any loss or damage to the property or equipment or containers, except as provided in the contract. The carrier shall not be liable for any loss or damage to the property or equipment or containers, except as provided in the contract. The carrier shall not be liable for any loss or damage to the property or equipment or containers, except as provided in the contract.

CONSIGNEE TO Tex-LA Gases Inc.

DESTINATION Sulphur STATE LA 70065

DELIVERY ADDRESS 3201 Petro Drive

ROUTE

SPECIAL INSTRUCTIONS ATTN: Jimmy Hebert

CITY	SIZE	HM	QTY	PROPER DOT SHIPPING NAME	HAZARD CLASS	HAZARD GROUP	HAZARD LABEL	NET WEIGHT	NET VOLUME	CLASS OR RATE
				Acetylene, Dissolved	2.1	UN1950				
				Compressed Gas, Flammable, N.O.S.	2.1	UN1950				
				Hydrogen, Compressed	2.1	UN1950				
				Methane, Compressed	2.1	UN1950				
				Air, Compressed	2.8	UN1950				
				Acetylene, Dissolved	2.1	UN1950				
				Acetylene, Dissolved	2.1	UN1950				
				Carbon Dioxide	2.2	UN1950				
				Compressed Gas, N.O.S.	2.1	UN1950				
				Methane, Compressed	2.1	UN1950				
				Hydrogen, Compressed	2.1	UN1950				
				Hydrogen, Compressed	2.1	UN1950				
				Carbon Monoxide, Compressed	2.3	UN1950				
				Compressed Gas, Toxic, Flammable, N.O.S.	2.3	UN1950				
				Compressed Gas, Toxic, Flammable, N.O.S.	2.3	UN1950				
				Compressed Gas, Toxic, Flammable, N.O.S.	2.3	UN1950				
				Hydrogen Chloride, Anhydrous	2.3	UN1950				
6	300	20	00	Hydrogen, Compressed	2.1	UN1950		1250 lbs		

TOTAL NET WEIGHT 1250 lbs

BOC GASES  
FAC. [Signature] Shipper  
Per [Signature] Agent

IN EVENT OF ANY EMERGENCY CONCERNING THE CHEMICALS IN THIS SHIPMENT, CALL CHEMTREC TOLL FREE NUMBER 800-424-9300, DAY OR NIGHT.

SHIPPING POINT ORIGINAL



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 4  
ATLANTA FEDERAL CENTER  
100 ALABAMA STREET, S.W.  
ATLANTA, GEORGIA 30303-3106

*Handwritten notes and signatures:*  
TO: [scribble]  
DATE: [scribble]  
2/15/01 [scribble]

DATE:

TO: TEX-LA Gases  
1201 Park Drive  
Sulphur LA 70665

SUBJECT: ACCEPTANCE OF OWNERSHIP OF LIQUID AND/OR COMPRESSED GAS CYLINDERS AND THEIR CONTENTS.

Based upon a determination by the U.S. Environmental Protection Agency (EPA) the following liquid and/or compressed gases were found on the Fluor Chemical Superfund Site within specialty containers (cylinders) owned by the sampling Company.

The outside surfaces of the cylinders have been properly decontaminated and the containers, and their contents, allowed return to the cylinder owner for recycling/reuse. Proper recycling and reuse of the same materials has been determined to be the most beneficial and environmentally sound alternative to treatment and/or disposal.

By accepting these materials, as signified by your signature below, you hereby agree to properly recycle and/or reuse the container, and its contents, in accordance with applicable Federal and state requirements. Should the material/product contained within the cylinder be deemed unusable for reuse/reuse the sampling party agrees to process/dispose of the container in accordance with all applicable State, and Federal regulations, and ensure that these materials will not be discarded, abandoned, disposed of, or accumulated and stored, in a manner in which violates any of the provisions within 40 CFR.

Cylinders out of hydrostatic test date will be properly inspected and tested utilizing standard practices and methods of the Compressed Gas Association and applicable Federal Department of Transportation Regulations (49 CFR) prior to returning the containers for use in containers.

Description of the material/product/contents in the container	Quantity	Type Container

These cylinders and their contents have originated from the USEPA Fluor Chemical Superfund Site, 610 Rock Hill Road, Newport, Tennessee, 37621.

A bill of lading will be utilized to properly document the pickup/delivery of the cylinders and to accompany the load to its destination. It should be verified for consistency with the information supplied above.

Accepted by: Michael Anker Determination by: \_\_\_\_\_  
 Signature: \_\_\_\_\_  
 Title: TEX-LA Gases Inc Representative: \_\_\_\_\_  
 Date: 4/16/01 Date: \_\_\_\_\_

Recycling/Reuseable - Plastics and Vegetable Oil Based Inks on EPA Approved Paper (40% Postconsumer)

ANNEX - CL

CYLINDER LOG - Flura Chemical Site

CYLINDER No. 57-004-

JOB # 35395

GP: \_\_\_\_\_

DATE: 7/27/2000

CYLINDER SPECIALIST: George F. Mick, HHTL

CYLINDER RECORDER: C. Minzchen

CYLINDER INFORMATION:

LENGTH: 54" DIAMETER: 9"

(length of cylinder from base to valve seat less valve)

COLOR(s) GRAY

Condition: BAD / POOR / FAIR / GOOD / PITTED / LEAKING / HOLES

NECK}	/	/	<u>X</u>	/	/	/
BODY}	/	/	<u>X</u>	/	/	/
BASE}	/	<u>X</u>	/	/	/	/

CYLINDER IDENTIFICATION:

ICC/SPEC No: DOT 3AA-2400 NONE ( )

RATED PRESSURE: (VHP) (HP) (LP) NONE ( )

SN: EE220 W-284279 NONE ( )

SYMBOLS/INSP/MFG. AIRCO / NONE ( )

NECKRING (YES/NO) NONE ( )

LABELS: YES NONE ( )

BODY MARKINGS: YES NONE ( )

PLUGS: #/LOCATION NONE

FIRST TEST DATE: 3/80 NONE ( )

LAST TEST DATE: \_\_\_\_\_ NONE

TARE WEIGHT: \_\_\_\_\_ ABS. WEIGHT: \_\_\_\_\_

CONTENTS IDENTIFICATION:

LABELED: FLUORINE, COMPRESSED UNIONS NONE ( )

SUSPECTED: same MT ( )

GAS  LIQUID ( ) UNK ( )

COMMENTS:

Repainted

ANNEX - CL

CYLINDER LOG - Flura Chemical Site

519

CYLINDER No. 57-004-519

JOB # 35395

GP:

DATE: 12/7/00

CYLINDER SPECIALIST: George F. Mick, HHTL

CYLINDER RECORDER: 11

CYLINDER INFORMATION:

LENGTH: H cyl DIAMETER:

(length of cylinder from base to valve seat less valve)

COLOR(s) Silver

Condition: BAD / POOR / FAIR / GOOD / PITTED / LEAKING / HOLES

NECK}	/	/	/	/	/	/
BODY}	/	/	/	/	/	/
BASE}	/	/	/	/	/	/

CYLINDER IDENTIFICATION:

ICC/SPEC No: DOT 3AA 2400 NONE ( )  
 RATED PRESSURE: (VHP) (HP) (LP) NONE ( )  
 SN: W 284279 NONE ( )  
 SYMBOLS/INSP/MFG. ARCO 1 NONE ( )  
 NECKRING (YES) (NO) NONE ( )  
 LABELS: NONE ( )  
 BODY MARKINGS: NONE ( )

PLUGS: #/LOCATION NONE (X)

FIRST TEST DATE: 3/8/ NONE ( )

LAST TEST DATE: NONE ( )

TARE WEIGHT: ABS. WEIGHT: 147.4

CONTENTS IDENTIFICATION:

LABELED: F1 NONE ( )  
 SUSPECTED: F1 MT ( )  
 GAS ( ) LIQUID (X) UNK ( )

COMMENTS:

ANNEX - CL

CYLINDER LOG - Flura Chemical

JOB # 35395

CYLINDER No. 57-1005

GP:

DATE: 7/27/2000

CYLINDER SPECIALIST: George F. Mick, HHTL

CYLINDER RECORDER: M. ALLISON

CYLINDER INFORMATION:

LENGTH: 54"

DIAMETER: 9"

(length of cylinder from base to valve seat less valve)

COLOR(s) GRAY

	BAD	POOR	FAIR	GOOD	PITTED	LEAKING	HOLES
NECK}	/	/	X	/	/	/	/
BODY}	/	/	/	X	/	/	/
BASE}	/	/	X	/	/	/	/

CYLINDER IDENTIFICATION:

ICC/SPEC No: DOT 3AA-2400

RATED PRESSURE: (VHP) (HP) (LP)

SN: EE 217 W178266

SYMBOLS/INSP/MFG: [ARCO]

NECKRING (YES/NO) YES

LABELS: YES

BODY MARKINGS: YES

PLUGS: #/LOCATION

FIRST TEST DATE: 6/76

LAST TEST DATE: 4/86

TARE WEIGHT:

ABS. WEIGHT:

CONTENTS IDENTIFICATION:

LABELED: FLOURWE (COMPRESSED) W1045

SUSPECTED: SAME

GAS (X)

LIQUID ( )

COMMENTS: Repainted

ANNEX - CL

CYLINDER LOG - Flura Chemical Site

520

CYLINDER No. 59-005-520

JOB # 35395

GP:

DATE: 12/7/00

CYLINDER SPECIALIST: George F. Mick, HHTL

CYLINDER RECORDER: sl

CYLINDER INFORMATION:

LENGTH: H cy /

DIAMETER:

(length of cylinder from base to valve seat less valve)

COLOR(s) Silver

Condition: BAD / POOR / FAIR / GOOD / PITTED / LEAKING / HOLES

NECK}	/	/	/	/	/	/
BODY}	/	/	/	/	/	/
BASE}	/	/	/	/	/	/

CYLINDER IDENTIFICATION:

ICC/SPEC No: DOT 3AA 2400 NONE ( )

RATED PRESSURE: (VHP) (HP) (LP) NONE ( )

SN: W 178266 NONE ( )

SYMBOLS/INSP / MFG. ARCO 1 NONE ( )

NECKRING (YES/NO) NONE ( )

LABELS: NONE ( )

BODY MARKINGS: NONE ( )

PLUGS: #/LOCATION NONE (X)

FIRST TEST DATE: 6/76 NONE ( )

LAST TEST DATE: 4/86 NONE ( )

TARE WEIGHT: ABS. WEIGHT: 143.5

CONTENTS IDENTIFICATION:

LABELED: F2 NONE ( )

SUSPECTED: F2 MT ( )

GAS ( ) LIQUID (X) UNK ( )

COMMENTS:

ANNEX - CL

CYLINDER LOG - Flura Chemical Site

CYLINDER No. 57 - 0006

JOB # 35395

GP: \_\_\_\_\_

DATE: 7/27/2000

CYLINDER SPECIALIST: George F. Mick, HHTL

CYLINDER RECORDER: M. Allison

CYLINDER INFORMATION:

LENGTH: 54" DIAMETER: 9"

(length of cylinder from base to valve seat less valve)

COLOR(s) GRAY

Condition: BAD / POOR / FAIR / GOOD / PITTED / LEAKING / HOLES

NECK}	/	/	X	/	/	/	/
BODY}	/	/	/	X	/	/	/
BASE}	/	/	X	/	/	/	/

CYLINDER IDENTIFICATION:

ICC/SPEC No: DOT 3AA-2400 NONE ( )

RATED PRESSURE: (VHP) (HP) (LP) NONE ( )

SN: ER 220 W 290362 NONE ( )

SYMBOLS/INSR / MFG. ARCO / NONE ( )

NECKRING (YES / NO) NONE ( )

LABELS: yes NONE ( )

BODY MARKINGS: yes NONE ( )

PLUGS: #/LOCATION NONE ( )

FIRST TEST DATE: 4/81 NONE ( )

LAST TEST DATE: 4/86 NONE ( )

TARE WEIGHT: \_\_\_\_\_ ABS. WEIGHT: \_\_\_\_\_

CONTENTS IDENTIFICATION:

LABELED: FLUORINE COMPRESSED UN1045 NONE ( )

SUSPECTED: SAME MT ( )

GAS ( ) LIQUID ( ) UNK ( )

COMMENTS: Repainted

ANNEX - CL

CYLINDER LOG - Flura Chemical Site

521

CYLINDER No. 57-006-521

JOB # 35395

GP: \_\_\_\_\_

DATE: 12/7/00

CYLINDER SPECIALIST: George F. Mick, HHTL

CYLINDER RECORDER: //

CYLINDER INFORMATION:

LENGTH: Hayl DIAMETER: \_\_\_\_\_

(length of cylinder from base to valve seat less valve)

COLOR(s) Silver

Condition: BAD / POOR / FAIR / GOOD / PITTED / LEAKING / HOLES

NECK}	/	/	/	✓	/	/	/
BODY}	/	/	/	✓	/	/	/
BASE}	/	/	/	✓	/	/	/

CYLINDER IDENTIFICATION:

ICC/SPEC No: POT 3 AA 2400 NONE ( )

RATED PRESSURE: (VHP) (HP) (LP) NONE ( )

SN: W 290362 NONE ( )

SYMBOLS/INSP/MFG. ARCO / NONE ( )

NECKRING (YES) NO) NONE ( )

LABELS: NONE ( )

BODY MARKINGS: NONE ( )

PLUGS: #/LOCATION NONE ( )

FIRST TEST DATE: 4/81 NONE ( )

LAST TEST DATE: 9/86 NONE ( )

TARE WEIGHT: \_\_\_\_\_ ABS. WEIGHT: 146.5

CONTENTS IDENTIFICATION:

LABELED: F2 NONE ( )

SUSPECTED: F2 MT ( )

GAS ( ) LIQUID ( ) UNK ( )

COMMENTS:

\_\_\_\_\_  
\_\_\_\_\_

ANNEX - CL

CYLINDER LOG - Flura Chemical Site

CYLINDER No. 57-007

JOB # 35395

GP: \_\_\_\_\_

DATE: 07/27/2000

CYLINDER SPECIALIST: George F. Mick, HHTL

CYLINDER RECORDER: M. ALLEN

CYLINDER INFORMATION:

LENGTH: 54" DIAMETER: 9"

(length of cylinder from base to valve seat less valve)

COLOR(s) GRAY

Condition: BAD / POOR / FAIR / GOOD / PITTED / LEAKING / HOLES

NECK}	/	/	<u>Y</u>	/	/	/	/
BODY}	/	/	/	<u>X</u>	/	/	/
BASE}	/	/	<u>X</u>	/	/	/	/

CYLINDER IDENTIFICATION:

ICC/SPEC No: DOT 3AA-2400 NONE ( )

RATED PRESSURE: (VHP) (HP) (LP) NONE ( )

SN: FE 224 W 284329 (W 284329) NONE ( )

SYMBOLS/INSPY MFG. AIRCO / NONE ( )

NECKRING (YES / NO) NONE ( )

LABELS: yes NONE ( )

BODY MARKINGS: yes NONE ( )

PLUGS: #/LOCATION NONE

FIRST TEST DATE: 3/81 NONE ( )

LAST TEST DATE: NONE

TARE WEIGHT: \_\_\_\_\_ ABS. WEIGHT: \_\_\_\_\_

CONTENTS IDENTIFICATION:

LABELED: Flourine compressed UN 1045 NONE ( )

SUSPECTED: SAME MT ( )

GAS  LIQUID ( ) UNK ( )

COMMENTS: Repainted

ANNEX - CL

CYLINDER LOG - Flura Chemical Site

522

CYLINDER No. 57-007-522

JOB # 35395

GP: \_\_\_\_\_

DATE: 12/7/00

CYLINDER SPECIALIST: George F. Mick, HHTL

CYLINDER RECORDER: li

CYLINDER INFORMATION:

LENGTH: H cyl DIAMETER: \_\_\_\_\_

(length of cylinder from base to valve seat less valve)

COLOR(s) Silver

Condition: BAD / POOR / FAIR / GOOD / PITTED / LEAKING / HOLES

NECK}	/	/	/	/	/	/
BODY}	/	/	/	/	/	/
BASE}	/	/	/	/	/	/

CYLINDER IDENTIFICATION:

ICC/SPEC No: DOT 3AA 2400 NONE ( )

RATED PRESSURE: (VHP) (HP) (LP) NONE ( )

SN: W 284329 NONE ( )

SYMBOLS/INSP/MFG. ARCO 1 NONE ( )

NECKRING (YES) NO NONE ( )

LABELS: NONE ( )

BODY MARKINGS: NONE ( )

PLUGS: #/LOCATION NONE

FIRST TEST DATE: 3/81 NONE ( )

LAST TEST DATE: NONE ( )

TARE WEIGHT: \_\_\_\_\_ ABS. WEIGHT: 146.8

CONTENTS IDENTIFICATION:

LABELED: F2 NONE ( )

SUSPECTED: F2 MT ( )

GAS ( ) LIQUID  UNK ( )

COMMENTS:

\_\_\_\_\_

\_\_\_\_\_

ANNEX - CL

CYLINDER LOG - Flura Chemical Site

CYLINDER No. 57-008

JOB # 35395

GP: \_\_\_\_\_

DATE: 7/27/00

CYLINDER SPECIALIST: George F. Mick, HHTL

CYLINDER RECORDER: M. ALLISON

CYLINDER INFORMATION:

LENGTH: 54" DIAMETER: 9"

(length of cylinder from base to valve seat less valve)

COLOR(s) GRAY

Condition: BAD / POOR / FAIR / GOOD / PITTED / LEAKING / HOLES

NECK}	/	/	/	/	/	/
BODY}	/	/	/	/	/	/
BASE}	/	/	/	/	/	/

CYLINDER IDENTIFICATION:

ICC/SPEC No: DOT 3AA-2400 NONE ( )

RATED PRESSURE: (VHP) (HP) (LP) NONE ( )

SN: EE225 W279703 NONE ( )

SYMBOLS/INSB/MFG. [AREO] / NONE ( )

NECKRING (YES/NO) NONE ( )

LABELS: yes NONE ( )

BODY MARKINGS: yes NONE ( )

PLUGS: #/LOCATION NONE ( )

FIRST TEST DATE: 2/81 NONE ( )

LAST TEST DATE: NONE ( )

TARE WEIGHT: \_\_\_\_\_ ABS. WEIGHT: \_\_\_\_\_

CONTENTS IDENTIFICATION:

LABELED: FLUORINE & COMPRESSED LW 1045 NONE ( )

SUSPECTED: SAME MT ( )

GAS  LIQUID ( ) UNK ( )

COMMENTS: Repainted

ANNEX - CL

CYLINDER LOG - Flura Chemical Site

523

CYLINDER No. 57-008-523

JOB # 35395

GP: \_\_\_\_\_

DATE: \_\_\_\_\_

CYLINDER SPECIALIST: George F. Mick, HHTL

CYLINDER RECORDER: //

CYLINDER INFORMATION:

LENGTH: H cyl

DIAMETER: \_\_\_\_\_

(length of cylinder from base to valve seat less valve)

COLOR(s) Silver

Condition: BAD / POOR / FAIR / GOOD / PITTED / LEAKING / HOLES

NECK}	/	/	/	/	/	/
BODY}	/	/	/	/	/	/
BASE}	/	/	/	/	/	/

CYLINDER IDENTIFICATION:

ICC/SPEC No: DOT 3AA 2400 NONE ( )

RATED PRESSURE: (VHP) (HP) (LP) NONE ( )

SN: W-279703 NONE ( )

SYMBOLS/INSP/MFG. ARCO 1 NONE ( )

NECKRING (YES) (NO) NONE ( )

LABELS: NONE ( )

BODY MARKINGS: NONE ( )

PLUGS: #/LOCATION NONE ( )

FIRST TEST DATE: 2/81 NONE ( )

LAST TEST DATE: NONE ( )

TARE WEIGHT: ABS. WEIGHT: 149.2

CONTENTS IDENTIFICATION:

LABELED: F2 NONE ( )

SUSPECTED: F2 MT ( )

GAS ( ) LIQUID (X) UNK ( )

COMMENTS:

ANNEX - CL

CYLINDER LOG - Flura Chemical Site

CYLINDER No. 57-009

JOB # 35395

GP: \_\_\_\_\_

DATE: 7/27/2000

CYLINDER SPECIALIST: George F. Mick, HHTL

CYLINDER RECORDER: M. ALLISON

CYLINDER INFORMATION:

LENGTH: 54" DIAMETER: 9"

(length of cylinder from base to valve seat less valve)

COLOR(s) GRAY

Condition: BAD / POOR / FAIR / GOOD / PITTED / LEAKING / HOLES

NECK}	/	/	X	/	/	/	/
BODY}	/	/	/	X	/	/	/
BASE}	/	/	X	/	/	/	/

CYLINDER IDENTIFICATION:

ICC/SPEC No: DOT 3AA-2400 NONE ( )

RATED PRESSURE: (VHP) (HP) (LP) NONE ( )

SN: FE 225 W 284317 NONE ( )

SYMBOLS/INSP/MFG. [ARCO] / NONE ( )

NECKRING (YES/NO) NONE ( )

LABELS: yes NONE ( )

BODY MARKINGS: yes NONE ( )

PLUGS: #/LOCATION NONE ( )

FIRST TEST DATE: 3/81 NONE ( )

LAST TEST DATE: 4/86 NONE ( )

TARE WEIGHT: \_\_\_\_\_ ABS. WEIGHT: \_\_\_\_\_

CONTENTS IDENTIFICATION:

LABELED: FLOWER, COMPRESSED UN 1045 NONE ( )

SUSPECTED: SAME MT ( )

GAS LIQUID ( ) UNK ( )

COMMENTS: Repainted

ANNEX - CL

CYLINDER LOG - Flura Chemical Site

524

CYLINDER No. 57-009-524

JOB # 35395

GP:

DATE: 12/7/00

CYLINDER SPECIALIST: George F. Mick, HHTL

CYLINDER RECORDER: //

CYLINDER INFORMATION:

LENGTH: H cyl.

DIAMETER:

(length of cylinder from base to valve seat less valve)

COLOR(s) Silver

Condition: BAD / POOR / FAIR / GOOD / PITTED / LEAKING / HOLES

NECK}	/	/	✓	/	/	/
BODY}	/	/	/	✓	/	/
BASE}	/	/	/	✓	/	/

CYLINDER IDENTIFICATION:

ICC/SPEC No: DOT 3AA 2400 (P) 2 NONE ( )

RATED PRESSURE: (VHP) (HP) (LP) 2400+ NONE ( )

SN: W-284317 NONE ( )

SYMBOLS/INSP/MFG. ARCO 1 NONE ( )

NECKRING (YES/NO) NONE ( )

LABELS: NONE ( )

BODY MARKINGS: NONE ( )

PLUGS: #/LOCATION NONE

FIRST TEST DATE: NONE ( )

LAST TEST DATE: NONE ( )

TARE WEIGHT: ABS. WEIGHT: 140.5

CONTENTS IDENTIFICATION:

LABELED: Fluorine, Compressed NONE ( )

SUSPECTED: " MT ( )

GAS ( ) LIQUID  UNK ( )

COMMENTS:



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 4  
ATLANTA FEDERAL CENTER  
61 FORSYTH STREET  
ATLANTA, GEORGIA 30303-8960

March 27, 2001

Director Edward Mazzullo  
Director OHMS  
USDOT/RSPA (DHM-10)  
400 Seventh St SW  
Washington D.C. 20590

Dear Director Mazzullo;

I'm an On-Scene Coordinator with the United States Environmental Protection Agency(EPA), tasked with the clean up of the FLURA, Chemical Superfund Site, located in Newport, Tennessee.

I seek timely confirmation of my interpretation and the requirements of 49 CFR 173.34 (e) 1, General Requirements, concerning the shipment of cylinders containing a hazardous material (fluorine and hydrogen fluoride) whereby the inspection and testing dates for these cylinders have expired.

My goal is to send these cylinders, which are in good condition and not leaking, to either their original place of origin and/or to a certified recycling or treatment facility. This would preclude expensive, time consuming and potentially dangerous treatment of these materials on site.

My interpretation of 173.34 and discussions with your hotline, confirm that the cylinders may indeed be properly shipped and need not be emptied to meet a testing schedule, however they may not be re-charged or shipped again for commerce without being properly retested.

Would you please clarify my understanding in writing? Your prompt response will facilitate the clean up of this Superfund site tremendously. You may send you correspondence to me directly by mailing it to:

Dean A. Ullock, OSC  
Flura Chemical Superfund Site  
610 Rock Hill Rd.  
Newport, Tennessee 37821

Sincerely,

A handwritten signature in black ink, appearing to read "Dean A. Ullock".

Dean A. Ullock, Federal On-Scene Coordinator  
United States Environmental Protection Agency  
Emergency Response and Removal Branch  
Region IV

*Ullock*



Research and  
Special Programs  
Administration

RETURN FAX NUMBER (202) 366-3012

NUMBER OF PAGES (INCLUDING COVER) \_\_\_\_\_

DATE 3/27/2001 TIME 11:20 AM

ADDRESSEE Dean Ullock

FAX NUMBER 423-625-5999

INITIATOR Arthur Pollack

PHONE 404-582-8757

PHONE 1-800-467-4922

MESSAGE \_\_\_\_\_

YOU ARE RECEIVING A TELEFAX  
FROM  
THE HAZARDOUS MATERIALS INFORMATION CENTER  
OFFICE OF HAZARDOUS MATERIALS STANDARDS

FOR INFORMATION ON HAZARDOUS MATERIALS TRANSPORTATION  
PLEASE VISIT OUR WEBSITE  
AT

<http://hazmat.dot.gov>



U.S. Department  
of Transportation

Research and  
Special Programs  
Administration

## INTERPRETATION

400 Seventh Street, S.W.  
Washington, D.C. 20590

JUN = 4 1997

Mr. Chris S. Leason  
McKenna & Cuneo, L.L.P.  
1900 K Street, N.W.  
Washington, D.C. 20006

Dear Mr. Leason:

This is in response to your letter of May 6, 1997, requesting clarification of the requirements for the reinspection/retesting of cylinders under the Hazardous Materials Regulations (HMR, 49 CFR Parts 171-180). Specifically, you asked whether your client has an obligation to ensure that DOT 4BW cylinders are returned from its customers, inspected and pressure tested by June 30, 1997. The cylinders initially were inspected and tested on June 30, 1991.

The answer is no. Sections 173.34(e)(1)(ii) and 173.301(c) states that a cylinder may not be charged or filled with a hazardous material and transported in commerce unless that cylinder has been inspected and retested. A DOT specification cylinder containing a hazardous material for which the retest date has become due need not be emptied to meet a testing schedule. The charged cylinder may remain in service. After the cylinder has been emptied, it may not be refilled and offered for transportation until it has been properly retested in accordance with § 173.34(e).

This is consistent with your understanding regarding § 173.34(e)(1)(ii) that a violation occurs when a cylinder for which a retest is required is charged and shipped without being properly retested.

I hope this information is helpful. Should you have further questions, do not hesitate to contact us.

Sincerely,

Hattie L. Mitchell, Chief  
Exemptions and Regulations Termination  
Office of Hazardous Materials Standards



Research and  
Special Programs  
Administration

RETURN FAX NUMBER (202) 366-3012

NUMBER OF PAGES (INCLUDING COVER) 2

DATE 4/3/2001 TIME 3:51 PM

ADDRESSEE Dean A. Ullock

FAX NUMBER 423-625-5999

INITIATOR Cameron Satterthwaite

PHONE 404-229-9497 (cell)

PHONE 1-800-467-4922

MESSAGE If you do not need further action on your Interpretation request, please contact this office at (800) 467-4922 ext. 1 and ask for me.

Cameron

M-F 9am-5pm est

YOU ARE RECEIVING A TELEFAX  
FROM  
THE HAZARDOUS MATERIALS INFORMATION CENTER  
OFFICE OF HAZARDOUS MATERIALS STANDARDS

FOR INFORMATION ON HAZARDOUS MATERIALS TRANSPORTATION  
PLEASE VISIT OUR WEBSITE  
AT

<http://hazmat.dot.gov>



U.S. Department  
of Transportation  
**Research and  
Special Programs  
Administration**

400 Seventh Street, S.W.  
Washington, D.C. 20580

NOV - 6 2000

Mr. Timothy J. Gaffney  
Senior Vice President  
Jones Chemicals, Inc.  
100 Sunny Sol Boulevard  
Caledonia, NY 14423

Reference No.: 00-0212

Dear Mr. Gaffney:

This is in response to your July 26, 2000 letter concerning the periodic requalification requirements in 49 CFR 173.34(e) and 49 CFR 180.519(a). You asked if a cylinder or a multi-unit tank car tank that was filled prior to the retest due date may be offered for transportation or continued in transportation after the retest due date, without being retested.

The answer is yes, provided the cylinder or multi-unit tank car tank is in proper condition for transportation. See §§ 173.301(c) and 173.31(a)(3). You are also correct in your understanding that a cylinder may not be refilled after the last date of the month of the calendar year during which the retest is due unless it has been retested. That is, using your example, a cylinder with a July 1995 test date and on a five-year retest schedule may not be refilled after July 31, 2000, unless the retest has been performed.

You are also correct in your understanding that a multi-unit tank car tank may be retested anytime during the calendar year the retest falls due. See § 180.519(a). Again, using your example, a multi-unit tank car tank with a July 1995 test date and on a five-year retest schedule may not be refilled and offered for transportation after December 31, 2000, unless the retest has been performed.

I hope this information is helpful.

Sincerely,

Hattie L. Mitchell  
Chief, Regulatory Review and Reinvention  
Office of Hazardous Materials Standards

MEMORANDUM

DATE: April 1, 2001

TO: FLURA FILE

FROM: Dean A. Ullock, On-Scene Coordinator



SUBJECT: Off-Site shipment of recyclable materials found at FLURA

The purpose of this memo is to record the justification, purpose and movement offsite of particular materials found at the FLURA CHEMICAL SUPERFUND SITE. As of the posted date of this memo, six cylinders of Fluorine(F), and two cylinders of halogenated organic gas (GENETRON) refrigerants are in the process of being shipped back to their original origin/vendor. An additional twenty-nine cylinders of Hydrogen Fluoride Cylinders (HF) will also be shipped back to their original vendor in the coming weeks. Other cylinders may be shipped in the future if they are deemed appropriate for shipment and recycling.

The primary reason for the shipment of the fluorine compounds is one of safety. Fluorine and Hydrogen Fluoride are extremely strong, reactive acid gases. Their handling and treatment on-site would be most dangerous to the clean up crews and could potentially expose the surrounding community to a catastrophic release.

Another reason for off-site shipment is cost savings. The cost in time, materials and personnel to treat these materials on site have been analyzed. The cost benefit has been calculated to save over \$300,000.00 in clean up expenses and many additional months of treatment time.

After a thorough investigation into the background, physical condition and the definite origin of these materials as well as consultation with EPA Attorneys and the DOT as to the legality of shipment, this shipment of materials offsite has been deemed by EPA to be the most beneficial (safety) and the most environmentally sound alternative (recycling) to treatment and or disposal onsite. These materials will be either recycled or recontainerized by their original owners. The original owners of these materials have been informed of their responsibilities regarding the proper handling of these materials and have agreed by signing an acceptance of ownership stating their acceptance and willingness to comply with all provisions within 40 CFR.

These and any future materials which may be shipped off-site will be meticulously documented for future reference and review.

TO: Spectra Gases, Inc., Headquarters  
Attn: Ms. Rebecca  
3434 Route 22 West  
Branchburg, NJ 08876

Tel: 800-932-0624  
Fax: 908-252-0811

FROM: U.S. EPA Flura Chemical Superfund Site  
Attn: George F. Mick, RM/PM, CMC  
610 Rock Hill Rd.  
Newport, TN 37821

Tel: 423-625-5967  
Fax: 423-625-0570

DATE: March 29, 2001

SUBJECT: Request for information & return of Spectra Gas cylinders

The U.S. EPA, Region IV is currently conducting a response and removal action at the former business location of a specialty chemical manufacture, (dba) Flura Corp. This facility is located at 610 Rock Hill Rd. just outside the town of Newport, TN.

During removal activities, 29 cylinders have been identified as potentially belonging to Spectra Gases. These cylinders have Spectra Gases neck-rings and Spectra Gases labeling. The label address indicates 80 Industrial Drive, Alpha, NJ 08865. Markings and labels indicate the cylinders contain Hydrogen Fluoride. Results of our on-site analysis was consistent with the labeling. "American Gas Group, 610 Rock Hill Rd. Newport, TN" has been stenciled on the side of the cylinders in black spray paint.

Request the following information:

1. Are the cylinders, described on the attached cylinder logs, the property of Spectra Gases?
2. On what date were these cylinders filled with the Hydrogen Fluoride?
3. On what date were these cylinders shipped and to whom?
4. If the cylinders are released for return, will Spectra Gases retrieve the cylinders from this location?

Thank you for your timely attention to this matter, Please contact me at the numbers listed above, if you have any questions pertaining to this matter.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 4  
ATLANTA FEDERAL CENTER  
100 ALABAMA STREET, S.W.  
ATLANTA, GEORGIA 30303-3104

Date: May 17, 2001

From: Dean A. Ullock, On-Scene Coordinator  
FLURA Chemical Superfund Site  
611 Rock Hill Rd.  
Newport, Tennessee 37821

To: Andrew Dietz, President  
Spectra Gases, Inc.  
3434 Route 22 West  
Branchburg, NJ 08876

**Subject: Return of #29 Hydrogen Fluoride Cylinders to Spectra Gases, Inc..**

Dear Mr. Dietz,

Thank you for your company's cooperation regarding the accepted return of the 29 HF cylinders found at the ongoing FLURA Chemical Superfund Site clean up in Newport, Tennessee.

I wanted to follow up with our brief conversation of April 24, 2001. The attached Acceptance Letter is being sent to you in advance of the cylinders. Please review, sign and return the letter back to me at the above address.

The letter states that you (Spectra Gases, Inc.), intend and agree to comply with all State and Federal regulations regarding the recycle/reuse of the HF within the cylinders, as well as the emptied cylinders themselves. This is done so that the cylinders and their contents are properly handled and will not be shipped or forwarded to another location. As you know, once the cylinders have been emptied, they must be properly inspected and retested as required by DOT regulations before they (cylinders) may be re-introduced into commerce.

Once you've had a chance to review, please sign the letter and mail the letter back to me at the above address. In the meantime, I will instruct George Mick, my Project Manager at FLURA to contact Mr. Martin Rattigen, your shipping manager, to arrange for delivery of the cylinders back to your facility. As discussed, we will arrange shipment of the cylinders back to Spectra, Inc.

Please contact myself at 423/625-5991 or Mr. George Mick at 423/625-5967 if you have any questions. Thanks again for your cooperation and assistance regarding this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "Dean A. Ullock".

DATE:

TO: Spectra Gases, Inc.  
3434 Route 22 West  
Branchburg, NJ 08876

SUBJECT: ACCEPTANCE OF OWNERSHIP OF LIQUID AND/OR COMPRESSED GAS  
CYLINDERS AND THEIR CONTENTS.

Based upon a determination by the U.S. Environmental Protection Agency (EPA) the following liquid and/or compressed gases have been identified on the Flura Chemical Superfund Site within specialty containers (cylinders) owned by the accepting Company.

The exterior surfaces of the cylinders have been properly decontaminated and the containers, with their contents, deemed returnable to the cylinder owner for recycling/reuse. Proper recycling and reuse of the materials has been determined to be the most beneficial and environmentally sound alternative to treatment and/or disposal.

By accepting these materials, as signified by your signature below, you hereby agree to properly recycle and/or reuse the container, and its contents, in accordance with applicable Federal and state requirements. Should the material/product contained within the cylinder be deemed unsuitable for recycle/reuse the accepting party agrees to process/dispose of the contents in accordance with all applicable State, and Federal regulations, and ensures that these materials will not be discarded, abandoned, disposed of, or accumulated and stored, in a manner in which violates any of the provisions within 40 CFR.

Cylinders out of hydrostatic test date must be properly inspected and tested utilizing standard practices and methods of the Compressed Gas Association and applicable Federal Department of Transportation Regulations (49 CFR) prior to returning the containers for use in commerce.

Description of the recyclable/reusable/returnable materials/products: Quantity Type Container:  
Cylinders of HF with SPECTRA GASES neck-rings and SPECTRA GASES shipping labels. 29 "H" cyls.  
The address on shipping labels is 80 Industrial Dr. Alpha, NJ 0885

These cylinders and their contents were inventoried on the USEPA Flura Chemical Superfund Site, 610 Rock Hill Road, Newport, Tennessee, 37821. Tel: 423-625-5967 Fax: 423-625-0570

A bill of lading will be utilized to properly document the pickup/delivery of the cylinders and will accompany the load to its destination. It should be verified for consistency with the information supplied above.

Acceptance by: \_\_\_\_\_  
Signature

Determination by: Alan A. [Signature]  
Signature

Rejection by: \_\_\_\_\_  
Signature

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Representing

\_\_\_\_\_  
Date

DEAN A. [Signature]

\_\_\_\_\_  
Print Name

U.S.E.P.A

\_\_\_\_\_  
Representing

5/17/01  
Date

DATE:

TO: Spectra Gases, Inc.  
3434 Route 22 West  
Branchburg, NJ 08876

SUBJECT: ACCEPTANCE OF OWNERSHIP OF LIQUID AND/OR COMPRESSED GAS  
CYLINDERS AND THEIR CONTENTS.

Based upon a determination by the U.S. Environmental Protection Agency (EPA) the following liquid and/or compressed gases have been identified on the Flura Chemical Superfund Site within specialty containers (cylinders) owned by the accepting Company.

The exterior surfaces of the cylinders have been properly decontaminated and the containers, with their contents, deemed returnable to the cylinder owner for recycling/reuse. Proper recycling and reuse of the materials has been determined to be the most beneficial and environmentally sound alternative to treatment and/or disposal.

By accepting these materials, as signified by your signature below, you hereby agree to properly recycle and/or reuse the container, and its contents, in accordance with applicable Federal and state requirements. Should the material/product contained within the cylinder be deemed unsuitable for recycle/reuse the accepting party agrees to process/dispose of the contents in accordance with all applicable State, and Federal regulations, and ensures that these materials will not be discarded, abandoned, disposed of, or accumulated and stored, in a manner in which violates any of the provisions within 40 CFR.

Cylinders out of hydrostatic test date must be properly inspected and tested utilizing standard practices and methods of the Compressed Gas Association and applicable Federal Department of Transportation Regulations (49 CFR) prior to returning the containers for use in commerce.

Description of the recyclable/reusable/returnable materials/products: Quantity Type Container:  
Cylinders of HF with SPECTRA GASES neck-rings and SPECTRA GASES shipping labels. 29 "H" cyls.  
The address on shipping labels is 80 Industrial Dr. Alpha, NJ 0885

These cylinders and their contents were inventoried on the USEPA Flura Chemical Superfund Site, 610 Rock Hill Road, Newport, Tennessee, 37821. Tel: 423-625-5967 Fax: 423-625-0570

A bill of lading will be utilized to properly document the pickup/delivery of the cylinders and will accompany the load to its destination. It should be verified for consistency with the information supplied above.

Acceptance by: [Signature]  
Signature

Determination by: [Signature]  
Signature

Rejection by: \_\_\_\_\_  
Signature  
Andrew E. Dietz  
Print Name  
Spectra Gases Inc.  
Representing  
5/29/01  
Date

DEAN A. UHOCK  
Print Name  
U.S.E.P.A.  
Representing  
5/17/01  
Date

Mr. D. A. Ullock  
FLURA Chemical Superfund Site  
611 Rockhill Rd.  
Newport, Tennessee 37821



37821-5512 04

Postnet barcode

MEMORANDUM

DATE: April 1, 2001

TO: FLURA FILE

FROM: Dean A. Ullock, On-Scene Coordinator



SUBJECT: Off-Site shipment of recyclable materials found at FLURA

The purpose of this memo is to record the justification, purpose and movement offsite of particular materials found at the FLURA CHEMICAL SUPERFUND SITE. As of the posted date of this memo, six cylinders of Fluorine(F), and two cylinders of halogenated organic gas (GENETRON) refrigerants are in the process of being shipped back to their original origin/vendor. An additional twenty-nine cylinders of Hydrogen Fluoride Cylinders (HF) will also be shipped back to their original vendor in the coming weeks. Other cylinders may be shipped in the future if they are deemed appropriate for shipment and recycling.

The primary reason for the shipment of the fluorine compounds is one of safety. Fluorine and Hydrogen Fluoride are extremely strong, reactive acid gases. Their handling and treatment onsite would be most dangerous to the clean up crews and could potentially expose the surrounding community to a catastrophic release.

Another reason for off-site shipment is cost savings. The cost in time, materials and personnel to treat these materials on site have been analyzed. The cost benefit has been calculated to save over \$300,000.00 in clean up expenses and many additional months of treatment time.

After a thorough investigation into the background, physical condition and the definite origin of these materials as well as consultation with EPA Attorneys and the DOT as to the legality of shipment, this shipment of materials offsite has been deemed by EPA to be the most beneficial (safety) and the most environmentally sound alternative (recycling) to treatment and or disposal onsite. These materials will be either recycled or recontainerized by their original owners. The original owners of these materials have been informed of their responsibilities regarding the proper handling of these materials and have agreed by signing an acceptance of ownership stating their acceptance and willingness to comply with all provisions within 40 CFR.

These and any future materials which may be shipped off-site will be meticulously documented for future reference and review.

# **Exhibit 4**



OFFICE OF THE INSPECTOR GENERAL  
OFFICE OF INVESTIGATIONS

Interview of MICHAEL RAY TAYLOR

MICHAEL RAY TAYLOR, former On Scene Coordinator (OSC), Emergency Response and Removal Branch (ERRB), EPA, Region 4, Atlanta, Georgia, was interviewed concerning the Flura Superfund site, Newport, Tennessee. TAYLOR was interviewed concerning allegations of unsafe clean up practices and the illegal shipping of hazardous material beginning in February 2001. Also present during the interview was MIKE HILL, Team Leader, EPA/OIG, Office of Investigations, Atlanta, Georgia. TAYLOR provided the following information:

TAYLOR has been an OSC since January 1991. He was initially assigned to the Flura site in 1999, however, the actual removal started in March 2000. He was on site from April 2000 to January 2001. During this time he requested and received assistance from CHRIS MILITSCHER, EPA, OSC, Region 4. This request was due to MILITSCHER's chemical knowledge. In January 2001 he was reassigned to the Emergency Response section.

Note: TAYLOR was reassigned prior to the dates listed in the allegations.

There were many dangerous chemical at the Flura site. Fluorine(F<sub>2</sub>) and Hydrogen Fluoride(HF) were the main waste stream at the site and were contained in cylinders. While he was assigned to the site, he had the contractors, EARTH TECH (ET) and CMC, trying to locate any owners of the chemicals. When he left, no owners had been identified for the F<sub>2</sub> or the HF cylinders. When he left, all of the cylinders were identified and the HF was to be treated on site, however, these plans were not finalized. If the cylinders were treated on site, the actual hands on work would have been performed by RAY WILLIS, ET and GEORGE MICK, CMC. Other personnel would have been involved also, but MILITSCHER would not have been there on a daily basis. There should be a preliminary plan for handling the cylinder in the site file. They could not find any off site places to deal with the HF or the F<sub>2</sub>. Also, when he left the cylinders had not been tested to determine what they actually contained.

Investigation Conducted on August 27, 2001		Conducted at Atlanta, Georgia	
Conducted by S/A's Mike Hill & Gene Mullis <i>EM</i>		OI File Number 2001-1429 <i>EM</i>	
Date Dictated 8/30/01	Date Transcribed 8/30/01	By epm	

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The owner of the site, EDWARD A. TYCZKOWSKI, told him that he had filled the cylinders on the site, however, TAYLOR did not know what specific cylinders TYCZKOWSKI filled. He had no knowledge of any paperwork connecting the cylinders and BOC GASES.

TAYLOR was shown pictures of the F<sub>2</sub> cylinders. He said that they looked familiar. He did not know if these cylinders are within the specifications for shipping and doesn't know if they were shipped or not. Most of the cylinders on site were identified as waste. They should be listed in the site database DRUMTRAK. TAYLOR feels that 90% of the chemicals found at the Flura site were hazardous waste.

# **Exhibit 5**



OFFICE OF THE INSPECTOR GENERAL  
OFFICE OF INVESTIGATIONS

Interview of DAVID LEMAR ANDREWS

DAVID LAMAR ANDREWS, Senior Project Chemist, SIGNAL CORPORATION, was interviewed at the Flura Superfund site, in Newport, Tennessee. The interview concerned allegations of unsafe cleanup activity by site personnel and illegal shipping of hazardous material. Also present during the interview was BARRY STOLL, Engineer, Environmental Protection Agency (EPA), Office of Inspector General (OIG). ANDREWS provided the following information:

He has been assigned to the Flura site since April 14, 2000. He provides chemical technical assistance to the Emergency Response and Removal Service (ERRS) personnel. ANDREWS was asked about instances alleged to have taken place on specific dates.

February 7, 2001 incident. On February 7, 2001, site personnel were performing multiple tasks in the hot zone. The team was separating chemicals to prepare a bulking (mixing) operation. This is mixing like compounds together in 55 gallon drums. Prior to beginning the bulking, he was in lab # 12 which contained two glass containers of Perchloro Methyl Mercaptan (Mercaptan). He asked DEAN ULLOCK, On Scene Coordinator, EPA, to assist him in moving the containers from lab #12 to lab #7 where other containers of Mercaptan were stored. He had never received instructions not to move these containers and was returning them to the proper lab. The bulking team was approximately 60 feet away and were dressed out in level "B" attire consisting of a Self Controlled Breathing Apparatus, skin protection, gloves and hard hats. He and ULLOCK loaded the Mercaptan into a wheel barrel lined with an absorbent and rolled the containers to lab #7. They did not come close to dropping the Mercaptan and were not struggling. They were not approached by anyone while moving the containers and no one had to assist them. Mercaptan is low acid corrosive and is toxic to fish. It has a foul odor if released, but is not harmful to people.

Investigation Conducted on August 8, 2001		Conducted at Newport, Tennessee	
Conducted by S/A Gene Mullis <i>EPM</i>		OI File Number 2001-1429 <i>mm</i>	
Date Dictated 8/14/01	Date Transcribed 8/14/01	By	

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After moving the Mercaptan, he and ULLOCK joined the bulking team and waited to begin the bulking operation.

Sometime in April 2001, MILITSCHER approached him and brought up the subject of the Mercaptan. Nothing had been said prior to this conversation. MILITSCHER had some concerns about ANDREWS' performance in the zone and according to MILITSCHER other employees thought he was "unbridled" and a "live wire". However, MILITSCHER wanted him to stay on the site and respected him as a chemist.

February 20, 2001 incident. A team was bulking (mixing) neutral organic and inorganic solids. ANDREWS accidentally mixed approximately 6 containers of Barium Carbonate (BC) in with the solids. After he realized what he had done, he notified MILITSCHER. He and MILITSCHER joked about the incident. MILITSCHER's only concern was a cost issue. There was no increase in the cost because the drum containing the BC was to be listed as hazardous regardless. ANDREWS never had any discussions with MILITSCHER about this incident costing several thousand dollars.

February 22, 2001 incident. ANDREWS was not involved.

ANDREWS was not involved with the decisions regarding the shipping of Fluorine and Hydrogen Fluoride.

# **Exhibit 6**



OFFICE OF THE INSPECTOR GENERAL  
OFFICE OF INVESTIGATIONS

INTERVIEW OF DEAN ANTHONY ULLOCK

On August 17, 2001, Special Agents Michael A. Hill and Eugene P. Mullis interviewed DEAN ANTHONY ULLOCK, On Scene Coordinator (OSC), EPA Region 4, Atlanta, GA regarding various allegations of mismanagement, waste of federal funds, abuse of authority and a causing a substantial and specific danger to the public health and safety. Prior to being interviewed, ULLOCK was advised of the nature of the interview and advised of his rights utilizing EPA Form 2720-18, dated 8-17-01 (Attached). ULLOCK provided the following information:

He has been employed with EPA since 1991 and is currently assigned to the Flura Chemical Removal Action Site (Flura) as the Lead OSC. His duties as Lead OSC include the oversight and management of hazardous waste sites within Region 4.

He specifically recalled moving the container of perchloromethyl mercaptain with the assistance of DAVE ANDREWS, the on site Chemist. He and ANDREWS only moved one container and put it with another container containing the same substance. He and ANDREWS were aware that if the container was spilled, it would have been a problem. That was the reason two people were moving it instead of one and the container was packed in Styrofoam. CHRIS MILITSCHER walked by when he and ANDREWS were moving the container. MILITSCHER smiled and said not to drop the container as it would "stink from here to Knoxville." MILITSCHER never assisted them in moving the container. He was not aware that MILITSCHER considered this an incident until this investigation. He did not recall MILITSCHER "having a fit" about the movement of the container.

He also remembered the incident of February 20, 2001, when Barium, a hazardous material was accidently mixed with some nonhazardous chemicals. The incident was an accident and not a result of incompetence. ANDREWS actually did the mixing.

Investigation Conducted on <b>August 17, 2001</b>		Conducted at <b>Atlanta, GA</b>
Conducted by <b>Michael A. Hill &amp; Eugene P. Mullis</b>		OI File Number <b>2001-1429</b>
Date Dictated <b>8-17-01</b>	Date Transcribed <b>8-27-01</b>	By <b>mah</b>

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The team was in the process of mixing approximately 6000 various sized containers of various into drums. He was not present when the mixing occurred.

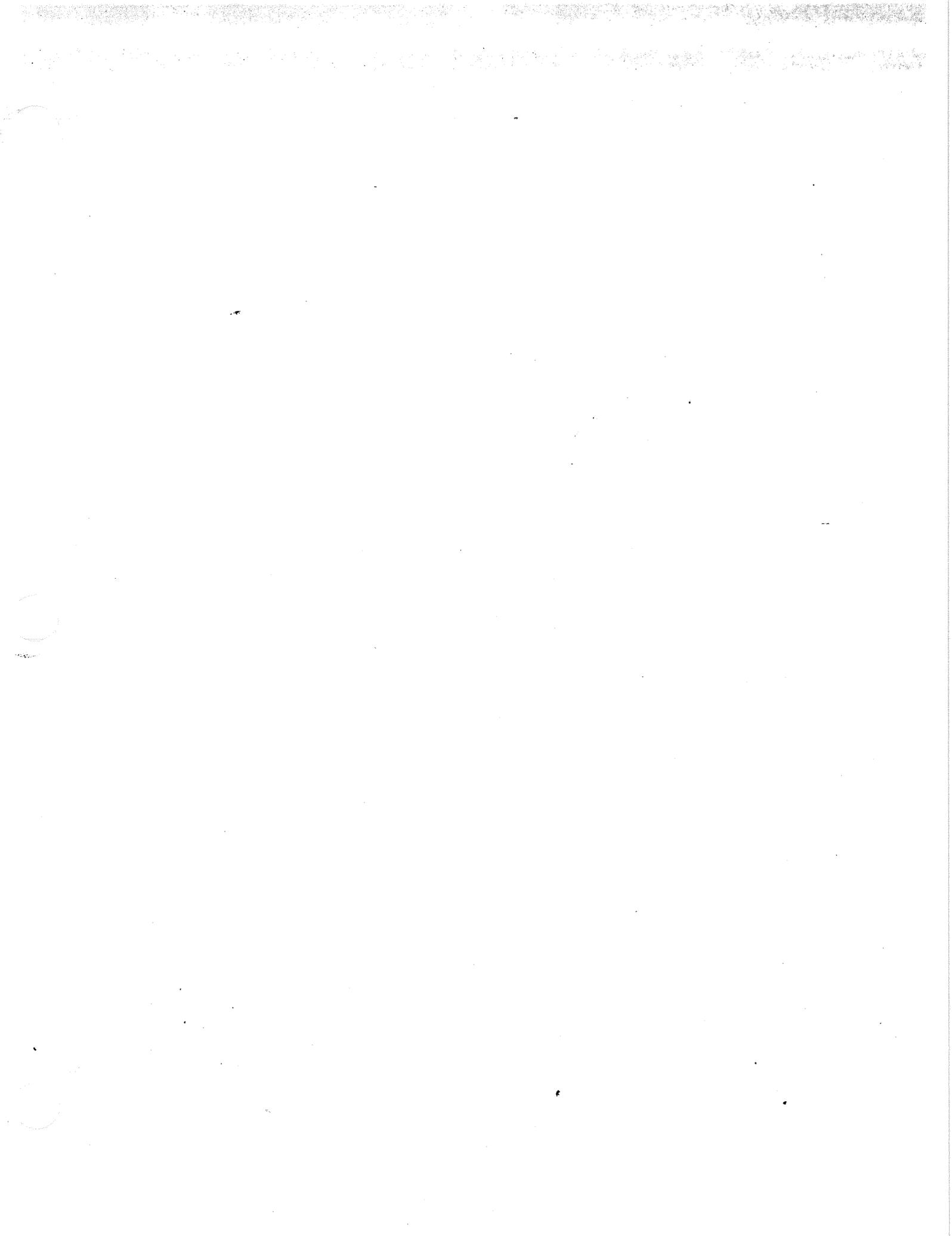
He specifically remembered the incident of February 22, 2001, because he was the person pouring the substance in the drum when the reaction occurred. CHRIS MILITSCHER developed, designed and directed an exercise to treat Pesticides using peroxide. MILITSCHER wanted to use this situation as a training opportunity for other OSCs and MILITSCHER's intentions were good. The evening prior to the training exercise, the Coast Guard was solidifying metals using cement near the area where the treating of the pesticides exercise took place. The pesticides were already staged and ready to go for the exercise; however, a can of Potassium Dichromate was accidentally left over from the night before and staged with the pesticides. He does not know who was responsible for staging the pesticides as this exercise was under the control of MILITSCHER. MILITSCHER was in charge of the entire process and provided limited instruction on who would do what during the exercise. He (ULLOCK) and CARTER WILLIAMS, OSC arrived after the line to treat the pesticides was formed because WILLIAMS had to replace some equipment that was malfunctioning. MILITSCHER got the process started and then left the area. He (ULLOCK) felt that MILITSCHER should have been the person handing him the chemicals but MILITSCHER left the area. Since the chemicals had been previously staged, he believed that the chemicals being handed to him had already been checked and were okay to pour in the drum. When he poured the substance (later identified as potassium dicromate) into the drum the mixture changed colors. When MILITSCHER returned, he asked MILITSCHER if the mixture looked right and MILITSCHER said no. MILITSCHER left to retrieve some oxidation tape and while he was gone, the drum reacted. MILITSCHER returned and was irrate. The team had to evacuate the lab. ULLOCK was upset about the incident because it made EPA personnel look like idiots and there was a contract in place for contractors to be doing the work. After everyone went through the decontamination process, MILITSCHER was upset and said it was his fault. The team held an impromptu meeting and tried to console MILITSCHER who was visibly upset. MILITSCHER said he (MILITSCHER) should have done a better job.

He and MILITSCHER did not agree on how to handle the cylinders of Flourine (F2). MILITSCHER made it very clear that he (MILITSCHER) wanted to be the "first field OSC to successfully treat F2 in the field". He documented this statement in his log book on April 2, 2001 (page attached) MILITSCHER became upset with him when he (ULLOCK) decided to look into other options of dealing with the F2. MILITSCHER said the cylinders did not meet DOT shipping requirements; however, ULLOCK checked with DOT and was informed that the cylinders could be shipped even though the hydrostatic test dates had expired. He was informed that the cylinders could not be refilled until the cylinders were retested, but they could be shipped. He kept everyone in the loop on this decision, including the EPA legal staff, EPA Management, Cost Recovery, DOT, and the contractor personnel. The cylinders were returned to BOC, the original owner of the cylinders. He did not have

Interview of ULLOCK continued.

Page 3

direct contact with BOC on this matter. He contacted RAY WILLIS at Earth Tech who arranged the pick up of the cylinders by BOC. MILITSCHER was the only person involved in the matter who disagreed with his decision. Through his research, he was able to prove MLLITSCHER wrong and MILITSCHER did not like that. In addition, ULLOCK's method saved the government an estimated \$275,750. He has emails of his communications with the EPA lawyers and MILLITSCHER which he will provide.



OFFICE OF INSPECTOR GENERAL  
U.S. ENVIRONMENTAL PROTECTION AGENCY

ADVICE OF RIGHTS  
FOR A FEDERAL EMPLOYEE

WARNING:

Before you are asked any questions, you must understand your rights:

- o You have a right to remain silent if your answers may tend to incriminate you.
- o Anything you say may be used as evidence either in an administrative proceeding or in any future criminal proceeding involving you.
- o If you refuse to answer the questions posed to you on the grounds that the answers may tend to incriminate you, you cannot be discharged solely for remaining silent. However, your silence can be considered in an administrative proceeding for its evidentiary value that is warranted by the facts surrounding the case.

I have had the above statement of my rights read and explained to me, and I fully understand my rights.

Date <i>8/17/01</i>	Signature <i>[Handwritten Signature]</i>
------------------------	---

WAIVER

I waive my rights freely and voluntarily, without threat or intimidation, and without any promise of reward or immunity.

Date <i>8/17/01</i>	Signature <i>[Handwritten Signature]</i>
Witnessed by <i>[Handwritten Signature]</i>	Title <i>SPECIAL AGENT</i>
Witnessed by <i>[Handwritten Signature]</i>	Title <i>Special Agent</i>

Place  
*ATLANTA, GA*

Case Number  
*2001-1429*

3/2/01  
Mon  
ATLANTA/AZE

0800 - AZE 0915 Chris - "raincheck"  
0940 - Shu speaker in library.  
1400 - Shu computer time completed.  
- met w/ Chris - agreed he would stop calling behind.  
Chris: "I want to be the first OSE to successfully treat 'E' in the field."

4/3/01  
Tues

1000 hrs Health & Safety refreshers w/ Walter D. Johnson.

Medical surveillance program

Ergonomics standards Shu Ford

1600 - Depart for Memphis, TN via bus  
2030 - Arrive Memphis, TN  
4.5 hrs to FEUSA account 3.5 OT

4/4/01  
Wed

0700 hrs - arrive at safety mtg.

4/4/01  
Wed  
Flora

- catch up w/ site personnel on recent and current site activities.  
- set up next of 4/30 to 4/30 treatment.  
- work in lab containers.  
- reviewed work notes for next two weeks - expires 4/15/01 (CMC/ETD)  
LAB reorganization continues.

1150 - had our suits zone.  
1800 offsite 107

Thurs  
4/5/01  
Thurs

\* Chris called ETI to inquire about sending AP and filter(?) to FEUSA!

0700 hrs - onsite  
0800 hrs - Don Rigger - Section Chief arrives for site visit.  
- lunch

~~0700~~  
~~0800~~

0700 - onsite  
0800 - Don Rigger arrives for site tour/brief  
- core treat refrigerants  
- Lab Chem. Bulking (glass, etc.) continue  
1600 - Depart site  
2000 - Arrive ATL  
#

*Dean*

Materials for fabrication of 20 ppd Elvira II:

04/23/01

<u>Item</u>	<u>Qty.</u>	<u>Cost</u>
1. Gas manifold	5 ea.	<u>n/a on-site</u>
2. Percolators, 2-3 gallon	5 ea.	<u>\$ 700.00</u>
3. Hot Plates	5 ea.	<u>\$ 150.00</u>
4. Glass diffusers, 1/8"	8 cf	<u>\$ 1,000.00</u>
5. Tygon tubing, 1/4"	25'	<u>\$ 100.00</u>
6. Nickel 200 tubing, 1"	40'	<u>\$ ,000.00</u>
7. Tube furnace, 1200° c	10 ea.	<u>\$ 14,000.00</u>
8. Poly tank, 2.2 SG, w/mods. 1,250 - 1,500 gallon	2	<u>\$ 6,000.00</u>
9. Poly tank, 2.2 SG, 5,000 gallon	1	<u>\$ 6,000.00</u>
10. Columns, SS, 8" X 20'	2	<u>\$ 2,500.00</u>
11. Column packing, diffusers, teflon,	24 cf	<u>\$ 8,000.00</u>
12. Pumps, SS, 1.5" X 1.25" 110 gpm	2	<u>\$ 4,000.00</u>
13. Pumps, SS, 1" X 1" 45 gpm	2	<u>\$ 1,600.00</u>
14. Carbon polishing units, 55 gallon	8	<u>\$ 4,800.00</u>
15. Pumps, Air, vac =>80"Hg	6	<u>\$ 6,400.00</u>
16. Plumbing materials, assorted	-	<u>\$ 5,000.00</u>
17. Swagelock fittings, assorted	-	<u>\$ 2,500.00</u>
18. Electrical system installation	-	<u>\$ 4,000.00</u>
19. Labor to fabricate	-	<u>\$ 40,000.00</u>
20. Subtotal:	-	<u>\$ 108,750.00</u>
21. 15% Contingency		<u>\$ 16,312.50</u>
22. ESTIMATED TOTAL:		<u>\$ 125,062.50</u>

**Daily Cost for Elvira & Elvira II dedicated personnel:**

04/23/01

<b>Position</b>	<b>Rate</b>	<b>Qty</b>	<b>PerDiem</b>	<b>PPE</b>	<b>TOTAL</b>
PM II	78.00	2 hrs.	n/a	n/a	\$156.00
Foreman	36.00	11 hrs.	60.00	40.00	\$496.00
Technician	29.00	11 hrs.	60.00	40.00	\$419.00
Technician	29.00	11 hrs.	60.00	40.00	\$419.00
Technician	29.00	11 hrs.	60.00	40.00	\$419.00

---

Daily total for personnel: \$ 1,909.00

Anticipated treatment days: X 80

---

Total estimated labor for treatment: \$ 152,720.00

**Materials for fabrication of Acid Gas Treatment System (No large F2 or HF) :** 04/23/01

<u>Item</u>	<u>Qty.</u>	<u>Cost</u>
1. Gas manifold	5 ea.	\$ 1,300.00
2. SS tank, 5,000 gallon & delivery	1	\$ 17,000.00
3. Scrubber (Fabricated On-site)	1	\$ 4,500.00
4. Pumps, SS, 3" X 2" _____ gpm	3	\$ 3,700.00
5. Plumbing materials, assorted	-	\$ 2,500.00
6. Swagelock fittings, assorted	-	\$ 2,000.00
7. Concrete base for system	-	\$ 2,500.00
8. Electrical system installation	-	\$ 5,000.00
9. Labor to fabricate system	-	\$ 20,000.00
10. Subtotal:		\$ 58,500.00
11. 15% Contingency		\$ 8,775.00
12. ESTIMATED TOTAL:		\$ 67,275.00

**Daily Cost for Acid Gas Treatment System dedicated personnel (Level A):**

<u>Position</u>	<u>Rate</u>	<u>Qty</u>	<u>PerDiem</u>	<u>PPE</u>	<u>TOTAL</u>
PM II	78.00	6 hrs.	60.00	80.00	\$608.00
Foreman	36.00	11 hrs.	60.00	80.00	\$536.00
Technician	29.00	11 hrs.	60.00	80.00	\$459.00
Technician	29.00	11 hrs.	60.00	80.00	\$459.00
Technician	29.00	11 hrs.	60.00	80.00	\$459.00
Daily Total for personnel:				\$	2,521.00
Anticipated treatment days:					X 12
Total estimated labor for treatment:				\$	30,252.00

**Materials for fabrication of Acid Gas Treatment System:**

04/23/01

<u>Item</u>	<u>Qty.</u>	<u>Cost</u>
1. Gas manifold	5 ea.	<u>\$ 1,300.00</u>
2. SS tank, 5,000 gallon & delivery	1	<u>\$ 17,000.00</u>
3. Tanks, Fiberglass 20K	2	<u>\$ 56,000.00</u>
4. Pool liners	2	<u>\$ 1,000.00</u>
5. Scrubber (Fabricated On-site)	1	<u>\$ 4,500.00</u>
6. Pumps, SS, 3" X 3" _____ gpm	2	<u>\$ 9,700.00</u>
7. Plumbing materials, assorted	-	<u>\$ 9,500.00</u>
8. Swagelock fittings, assorted	-	<u>\$ 4,500.00</u>
9. Concrete base for system	-	<u>\$ 7,500.00</u>
10. Electrical system installation	-	<u>\$ 6,500.00</u>
11. Labor to fabricate system	-	<u>\$ 60,000.00</u>
12. Subtotal:		<u>\$ 177,500.00</u>
13. 15% Contingency		<u>\$ 26,625.00</u>
14. ESTIMATED TOTAL:		<u>\$ 204,125.00</u>

**Daily Cost for Acid Gas Treatment System dedicated personnel (Level A):**

<u>Position</u>	<u>Rate</u>	<u>Qty</u>	<u>PerDiem</u>	<u>PPE</u>	<u>TOTAL</u>
PM II	78.00	6 hrs.	60.00	80.00	\$608.00
Foreman	36.00	11 hrs.	60.00	80.00	\$536.00
Technician	29.00	11 hrs.	60.00	80.00	\$459.00
Technician	29.00	11 hrs.	60.00	80.00	\$459.00
Technician	29.00	11 hrs.	60.00	80.00	\$459.00
Daily Total for personnel:				\$	2,521.00
Anticipated treatment days:					X 30
Total estimated labor for treatment:				\$	75,630.00

# **Exhibit 7**

## Pure Gases

### **Methyl Mercaptan (CH<sub>3</sub>SH)**

Used in the synthesis of amino acids and other pharmaceutical products. It is also used as an odorizing agent in propane and other flammable gases.

Molecular Weight: 48.11

Specific Volume: 8.0 CF/lb

Flammable Limits: 3.9-21.8% in Air

CGA Valve: 330

DOT Name: Methyl Mercaptan

UN No.: UN1064

DOT Class: 2.3

DOT Label: Poison Gas, Flammable Gas

CAS Registry: 74-93-1

Materials Compatibility

Physical Properties

Explosive Limits

Threshold Limit Values

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# **Exhibit 8**

# REQUEST FOR AUTHORIZATION TO PAY A HAZARDOUS DUTY PAY DIFFERENTIAL

## A. INITIATION BY FIRST-LINE SUPERVISOR

In accordance with Section 5545(d) of Title 5 of the U.S. Code, and Subpart I Chapter 550 of the Code of Federal Regulations, I request that the employee designated below be paid the appropriate Hazard Duty Pay Differential for the specific days worked.

Name: CHRISTOPHER A. MILITSCHER Position/Title: ENV. SCIENTIST / ON-SCENE COORDINATOR

Series/Grade: GS 1301/1319 Salary: ~ \$78,000/yr.

Regularly Scheduled Tour of Duty: m-F 6:30 AM - 3:00 PM

Organization: 4ERRB-WD Location of Haz. Duty: Flura Chemical Site Newport, TN Acct # A468

Description of duty performed. Express your justification for requesting HDP differential.

OSC (Employee) performed numerous entries over three day period in LEVEL B. OSC supervised the bulking of cyanide compounds, the QA inserting of heavy metal compounds, the bulking of organic acids, the chemical oxidation treatability of pesticides/rodenticides, etc. (SEE ATTACHED).

List the dates that the Hazardous Duty will be, or was performed, and any hours or overtime worked.

- |   |  |
|---|--|
| 1. <u>February 20, 2001 Reg. hrs. 5.30-2:00 (8)</u> | Hours OT: <u>2:00-7:30 PM (5.5) = 13.5</u> |
| 2. <u>February 21, 2001 Reg. hrs. 7-3:30 (8)</u>    | Hours OT: <u>3:30-7:30 PM (4) = 12</u>     |
| 3. <u>February 22, 2001 Reg. hrs. 7-3.30 (8)</u>    | Hours OT: <u>3:30-7:30 PM (4) = 12</u>     |
|   | TOTAL: <u>37.5 hrs.</u>                    |



SIGNATURE OF FIRST-LINE SUPERVISOR

2/26/01

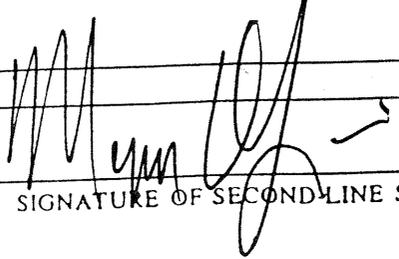
DATE

## B. REVIEW BY THE SECOND-LINE SUPERVISOR

I have reviewed the information in Section A. and I

a.  agree that the information is valid and that the payment of this differential will be appropriate, or

b.  disagree with request, and return it to the originator for the following reasons:



SIGNATURE OF SECOND-LINE SUPERVISOR

2/28/2001

DATE

# **Exhibit 9**



OFFICE OF THE INSPECTOR GENERAL  
OFFICE OF INVESTIGATIONS

Interview of MONICA L. ALLISON

MONICA L. ALLISON, Marine Science Technician, National Strike Force, Atlantic Strike Team, US Coast Guard (USCG), was interviewed at the Flura Superfund site, Newport, Tennessee. ALLISON was interviewed concerning allegations of unsafe clean up practices and the illegal shipping of hazardous material. Also present during the interview was BARRY STOLL, Engineer, Environmental Protection Agency (EPA), Office of Inspector General(OIG). ALLISON provided the following information:

She has been a member of the USCG for seven years and has five years experience in the environmental health and safety field. She arrived at the Flura site in April 2000 and works alternating rotations averaging three to five weeks. ALLISON was asked about instances alleged to have taken place on specific dates.

February 7, 2001 incident. ALLISON was not present on February 7, 2001. She returned to the site on February 12, 2001. However, CHRIS MILITSCHER, EPA, On Scene Coordinator (OSC) told her about the incident. According to MILITSCHER, DEAN ULLOCK, EPA, OSC, and DAVE ANDREWS, Senior Project Chemist, SIGNAL CORPORATION moved two large containers containing Perchloro Methyl Mercaptan. ALLISON stated that all of the Mercaptans were stored in lab #7. She provided a document titled, ANTICIPATED WASTE GROUPS, listing the chemical group, group name, and location. She did not remember MILITSCHER asking her to make an entry in the site log. She reviewed the site log for February 7, 2001 and determined that no entry was made regarding this issue. She only enters information in the log at the OSC's direction.

Investigation Conducted on <b>August 7, 2001</b>		Conducted at <b>Newport, Tennessee</b>
Conducted by S/A Gene Mullis <i>EPM</i>		OI File Number 2001-1429
Date Dictated 8/13/01	Date Transcribed 8/13/01	By epm

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February 20, 2001 incident. ALLISON was present on February 20, 2001, and was bulking hazardous materials. She was not in the nonhazardous area. She did hear that barium, a hazardous material, was mixed into a nonhazardous drum containing organic solids. She did not know if this contaminated the organic solids drum. A chemist could detect this mistake, however, an OSC, who is not a chemist would not. RAY WILLIS, Project Manager, EARTH TECH CORPORATION, would know how this affected the drum. ALLISON reviewed the USCG log for February 20, 2001 and surrounding dates. No entry was found concerning this issue. MILITSCHER has a temper and if he was just "venting" she would not have made a log entry concerning this incident. Drums are tagged at the site and the information is entered into their database, Drumtrack. (Note: ALLISON will provide this Drumtrack entry.)

February 22, 2001 incident. ALLISON was at the site when the February 22, 2001 incident occurred. During this week (February 19-23, 2001) five OSC's reported to the site. MILITSCHER and DEAN ULLOCK, were senior OSC's. CARTER WILLIAMSON, RICK JARDINE, and BEN FRANCO, were new OSC's. MILITSCHER wanted to get a lot of work accomplished this week and train the new OSC's at the same time.

On February 21, 2001, ALLISON and another team were mixing metals with concrete, solidifying. On the evening of February 21<sup>st</sup> they ran out of concrete and had to stop, however, they did stage (set up) more containers of metals to resume solidification on February 22<sup>nd</sup>. All scheduled work for the week had been prestaged. This included metal cyanides, pesticides, liquids, and one group of halogenated organic.

The morning of February 22<sup>nd</sup>, MILITSCHER changed the plan from solidifying metals to oxidizing pesticides and herbicides and gave a safety briefing to explain the process. The team was ultimately comprised of MILITSCHER, ULLOCK, WILLIAMSON, JARDINE, ALLISON, BRUCE BAKER, USCG, and DAVE ANDREWS, Senior Project Chemist, SIGNAL CORPORATION. FRANCO did not enter the area. No work assignments were given to the team by MILITSCHER. Prior to entering the hot zone she asked BAKER to check the area where they had been solidifying metals the day before. She also requested that he set these materials aside so they would not get mixed in with the oxidizing process. The pesticides had been set out on a table in the area identified as the lunch room. The solidification performed the day before was also in this area. She and ANDREWS were not with the initial entry team. The area where they change into the suits to enter the hazardous zone was too small for everyone. She and ANDREWS let the others go first. While they were getting ready, one of the OSC's had a problem with his air pack and had to exit the zone with his work partner. They work on a buddy system in case of emergencies. She gave the OSC, ANDREWS' air pack which precluded her and ANDREWS from entering.

Ultimately they obtained an additional air pack. Just as they were entering the zone she heard over the radio that the team was exiting the area. She was not aware that there was a problem and no evacuation notice had been given. As the team left the decontamination trailer she and ANDREWS met them.

MILITSCHER was very angry. After MILITSCHER calmed down he told her that a metal had gotten mixed with the pesticides causing a reaction. At that time BAKER informed her that he had moved the metals from the area as she had instructed. She later verified the metals had been moved. Subsequently, a container was found which contained metals and pesticides. Potassium dichromate, a bright orange metal, was mixed with the pesticides and caused the reaction. She had been solidifying potassium dichromate the day before. She thinks ULLOCK was the person who dumped the potassium dichromate in with the pesticide but, someone handed it to him.

She feels that this process was rushed and that no quality control was in effect. OSC MILITSCHER was in charge of the operation. After the incident MILITSCHER was very concerned that "this was all his fault" and did not give any indication that he felt ULLOCK was responsible. ALLISON feels that this was a chain of errors and no one person could be held responsible.

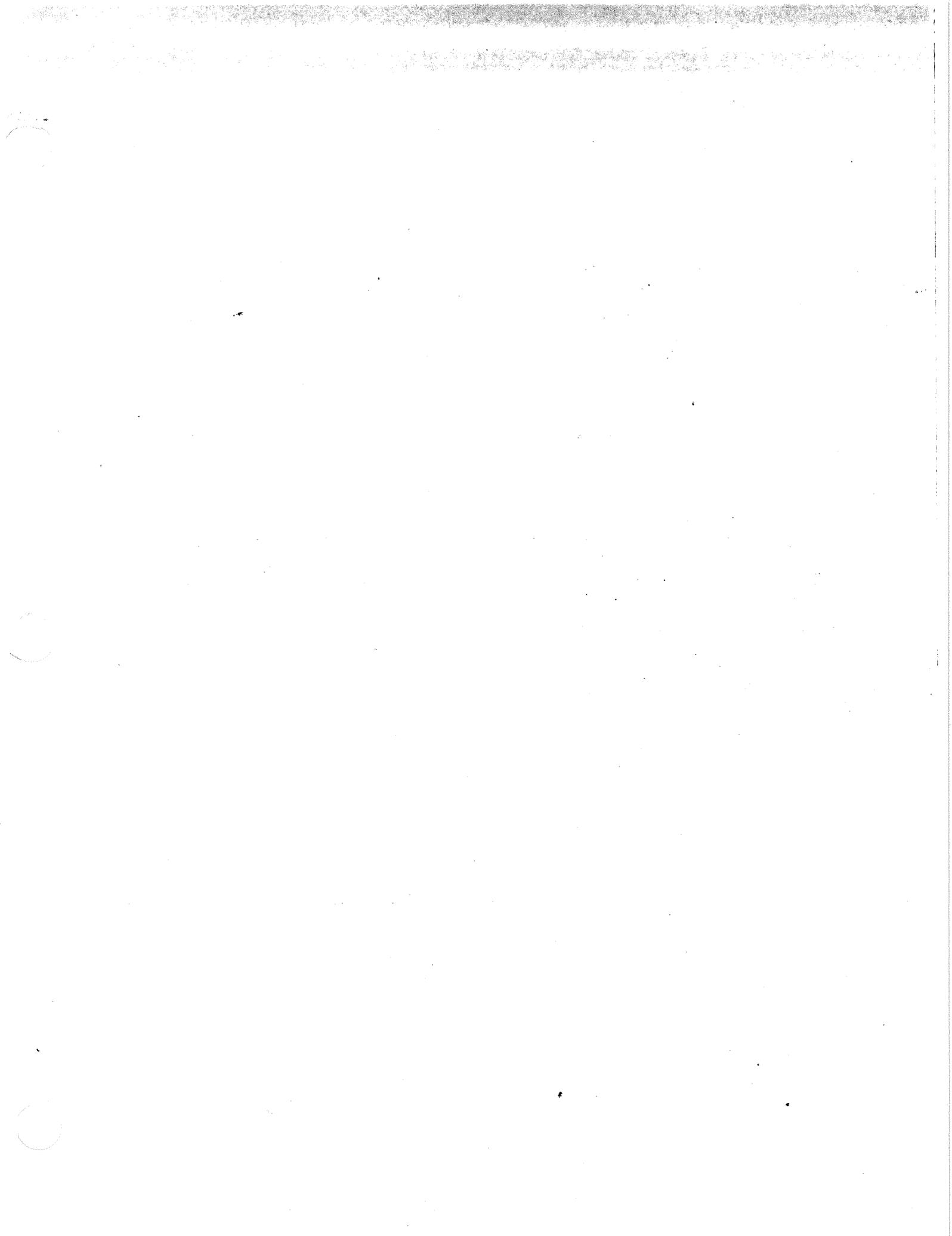
ALLISON did participate in the inventory of cylinders on site which contained Fluorine( $F_2$ ) and Hydrogen Fluoride(HF). She was present during discussions on how to deal with them. She did not have a decision making role, however, she did have safety concerns. MILITSCHER and RAY WILLIS, Project Manager, EARTH TECH CORPORATION, wanted to treat the cylinders on site. She was not comfortable with the possibility of releasing  $F_2$  or HF but she did not have any input in the decision regarding their treatment. She was very pleased when ULLOCK made the decision to ship the cylinders off site. ALLISON feels that MILITSCHER and WILLIS wanted to be the first to treat  $F_2$  and HF on site and write a paper concerning the treatment.

# Anticipated Waste Groups

Date: 9/19/00

<u>GP</u>	<u>Group Name</u>	<u>Location</u>
FU-1	Radioactive Material	<u>Lab 12</u>
FU-2	Explosive/Peroxide Forming/shock-sensitive	<u>Lab 9</u>
FU-3 (Acid)	Water & Air Reactive / Pyrophoric	<u>Lab 1</u>
FU-3 (Base)	Water & Air Reactive / Pyrophoric	<u>Lab 2 hood</u>
FU-4	Flammable Liquids (Non-Halogen)	<u>Lab 1</u>
FU-5	Flammable Liquids (Halogen)	<u>Lunchroom</u>
FU-6	Flammable Solids (Non-Halogen)	<u>Lab 6</u>
FU-7	Flammable Solids (Halogen)	<u>Lunchroom</u>
FU-8	Flammable (Amines)	<u>Secretary</u>
FU-9	Combustible Liquids (Non-Halogen)	<u>Lab 1</u>
FU-10	Combustible Liquids (Halogen)	<u>Lunchroom</u>
FU-11	Combustible Solids (Non-Halogen)	<u>Lab 6</u>
FU-12	Combustible Solids (Halogen)	<u>Lunchroom</u>
FU-13	Perfluoroisobutylene (PFIB)	<u>Kilroy</u>
FU-14	RCRA Metals (excluding Hg)	<u>Lab 10</u>
FU-15	Mercury (Elemental)	<u>Lab 10</u>
FU-16	Poisons	<u>Lab 12</u>
FU-17	Cyanides	<u>Secretary</u>
FU-18	Sulfides	<u>Lab 7 hood</u>
FU-19	Organic Acids	<u>Labs 2, 2-office &amp; 10</u>
FU-20	Inorganic Acids / Acid Salts	<u>Ice room</u>
FU-21	Inorganic Bases / Base Salts	<u>Lab 7</u>
FU-22	Inorganic Peroxides	<u>Lab 8</u>
FU-23	Oxidizing Liquids	<u>Lab 8</u>
FU-24	Oxidizing Solids	<u>Lab 8</u>
FU-25	Mercaptans	<u>Lab 7 Hood</u>
FU-26	Non Haz Debris "D"	
FU-27	Non Haz Debris "C"	<u>Library</u>
FU-28	Non Haz Soils	
FU-29	BN Liquids	<u>Room 20</u>
FU-30	Haz Debris	<u>Library</u>
FU-31	Haz Soil	
FU-32	Small container crush	<u>Library</u>
FU-33	Non Haz Soil	
FU-34	Compressed Gas Cylinders	<u>Lab 3 &amp; 4</u>
FU-35	Organic Solid, Halogen (Other)	<u>Lunchroom</u>
FU-36	Organic Liquid, Halogen (Other)	<u>Lunchroom</u>
FU-37	Neutral Inorganic Solids	<u>Room 21 &amp; Lab 10</u>
FU-38	Neutral Organic Solids	<u>Room 21 &amp; Lab 10</u>
FU-39	Organic Base (Flammable)	<u>Lab 12</u>
	LAB USE	
	EMPTY CONTAINER-BROKEN	

022101BUL	100612	SODIUM PHOSPHATE PRIMARY	FU-37 NEUT INORG SOLID	400 ML	GLASS (AMBER)
022101BUL	100613	REXYM 101 (H)	FU-38 NEUT ORG SOLID	400 ML	GLASS (AMBER)
022101BUL	100620	SODIUM BROMIDE	FU-37 NEUT INORG SOLID	400 ML	GLASS (AMBER)
022101BUL	100623	SODIUM BROMIDE	FU-37 NEUT INORG SOLID	1 L/1000 ML	POLY
022101BUL	100632	SODIUM ACETATE TRIHYDRATE	FU-37 NEUT INORG SOLID	250 G	GLASS (AMBER)
022101BUL	100641	SODIUM CHLORIDE	FU-37 NEUT INORG SOLID	400 ML	GLASS (AMBER)
022101BUL	100654	1,2,4,5-TETRAMETHYLBENZENE	FU-38 NEUT ORG SOLID	500 ML/0.5 L	GLASS (AMBER)
022101BUL	100684	SULFUR	FU-37 NEUT INORG SOLID	2 L	POLY
022101BUL	100674	PURE TEREPHTHALIC ACID	FU-38 NEUT ORG SOLID	250 ML	GLASS (AMBER)
022101BUL	100675	NAPHTHALENE FLAKES	FU-38 NEUT ORG SOLID	18 OZ/1 PT	GLASS (AMBER)
022101BUL	100676	NAPHTHALENE RECRYSTALIZED	FU-38 NEUT ORG SOLID	750 ML	GLASS (AMBER)
022101BUL	100677	TRIPHENYLSMITH DICP AMINO BENZOATE	FU-38 NEUT ORG SOLID	50 ML	POLY
022101BUL	100691	1,10-PHENANTHROLINE MONOHYDRATE	FU-38 NEUT ORG SOLID	50 ML	POLY
022101BUL	100698	P-ROSANILINE HYDROCHLORIDE	FU-38 NEUT ORG SOLID	50 ML	GLASS (AMBER)
022101BUL	100700	PHENOL RED	FU-38 NEUT ORG SOLID	100 ML	POLY
022101BUL	100702	4,4 - TETRAMETHYLDIAMINO TRIPHENYLMETHANE	FU-38 NEUT ORG SOLID	75 ML	GLASS (AMBER)
022101BUL	100720	2-NAPHTOL-3,6-DISULFURIC ACID DISODIUM SALT	FU-37 NEUT INORG SOLID	8 OZ	GLASS (AMBER)
022101BUL	100721	2-NAPHTOL-3,6-DISULFURIC ACID DISODIUM SALT	FU-38 NEUT ORG SOLID	100 G	GLASS (AMBER)
022101BUL	100733	PERFLUOROOCTONAMIDE	FU-19 ORGANIC ACIDS	100 G	GLASS (AMBER)
022101BUL	100762	PIPERNAL	FU-38 NEUT ORG SOLID	1 L/1000 ML	GLASS (AMBER)
022101BUL	100773	NICKEL (II) 2,4 - PENTANEDIONATE	FU-38 NEUT ORG SOLID	64 OZ/0.5 GAL	POLY
022101BUL	100811	LITHIUM FLOURIDE	FU-37 NEUT INORG SOLID	500 ML/0.5 L	GLASS (AMBER)
022101BUL	100817	LITHIUM SULFATE	FU-37 NEUT INORG SOLID	500 ML/0.5 L	GLASS (AMBER)
022101BUL	100818	LITHIUM FLOURIDE	FU-37 NEUT INORG SOLID	500 G	POLY
022101BUL	100820	LITHIUM SULFATE	FU-37 NEUT INORG SOLID	500 ML/0.5 L	GLASS (AMBER)
022101BUL	100821	LITHIUM FLOURIDE	FU-37 NEUT INORG SOLID	500 ML/0.5 L	GLASS (AMBER)
022101BUL	100822	LITHIUM FLOURIDE	FU-37 NEUT INORG SOLID	500 ML/0.5 L	GLASS (AMBER)
022101BUL	100823	LITHIUM FLOURIDE	FU-37 NEUT INORG SOLID	500 ML/0.5 L	GLASS (AMBER)
022101BUL	100824	LITHIUM FLOURIDE	FU-37 NEUT INORG SOLID	500 ML/0.5 L	GLASS (AMBER)
022101BUL	100826	LITHIUM SULFATE	FU-37 NEUT INORG SOLID	500 ML/0.5 L	GLASS (AMBER)
022101BUL	100830	ANHYDROUS LITHIUM CHLORIDE	FU-37 NEUT INORG SOLID	1.5L	POLY
022101BUL	100831	LITHIUM FLOURIDE	FU-37 NEUT INORG SOLID	1 L/1000 ML	GLASS (AMBER)
022101BUL	100841	NOT INDICATED	FU-38 NEUT ORG SOLID	2 OZ	POLY
022101BUL	100842	METHYLENE BLUE	FU-38 NEUT ORG SOLID	50 ML	GLASS (AMBER)
022101BUL	100843	NEUTRAL RED	FU-38 NEUT ORG SOLID	25 ML	GLASS (AMBER)
022101BUL	100862	CALCIUM CHLORIDE	FU-37 NEUT INORG SOLID	2 L	GLASS (AMBER)



FROM : USEPA QYD POST

4	X022101BUL	100866	PUMICE GRAN	FU-37 NEUT INORG SOLID	2 L	GLASS (AMBER)
4	X022101BUL	100874	3-METHYLDIOLE(SM-TALE)	FU-38 NEUT ORG SOLID	50 G	GLASS (AMBER)
1	X022101BUL	100879	POTASSIUM IODIDE CRYSTAL	FU-37 NEUT INORG SOLID	500 G	GLASS (AMBER)
0	X022101BUL	100889	1,10-PHENANTHROLINE	FU-38 NEUT ORG SOLID	25 G	GLASS (AMBER)
2	X022101BUL	100909	POTASSIUM BROMIDE	FU-37 NEUT INORG SOLID	250 ML	GLASS (CLEAR)
2	X022101BUL	100915	POTASSIUM IODIDE CRYSTALS	FU-37 NEUT INORG SOLID	5 LBS	GLASS (AMBER)
2	X022101BUL	100938	POTASSIUM BROMIDE CRYSTALS	FU-37 NEUT INORG SOLID	1 LB	POLY
2	X022101BUL	100944	POTASSIUM BROMIDE CRYSTALS	FU-37 NEUT INORG SOLID	64 OZ/0.5 GAL	GLASS (AMBER)
2	X022101BUL	100946	POTASSIUM BROMIDE CRYSTALS	FU-37 NEUT INORG SOLID	500 G	POLY
2	X022101BUL	100950	PONCEAUS	FU-37 NEUT INORG SOLID	10 G	GLASS (AMBER)
2	X022101BUL	100952	POTASSIUM BROMIDE CRYSTALS	FU-37 NEUT INORG SOLID	1 LB	POLY
2	X022101BUL	100953	POTASSIUM BROMIDE	FU-37 NEUT INORG SOLID	100 G	GLASS (AMBER)
2	X022101BUL	100956	POTASSIUM BROMIDE CRYSTALS	FU-37 NEUT INORG SOLID	1 LB	POLY
2	X022101BUL	100958	POTASSIUM BROMIDE CRYSTALS	FU-37 NEUT INORG SOLID	1 LB	POLY
2	X022101BUL	100959	POTASSIUM BROMIDE	FU-37 NEUT INORG SOLID	1 LB	POLY
2	X022101BUL	100962	POTASSIUM BROMIDE CRYSTALS	FU-37 NEUT INORG SOLID	2 L	GLASS (AMBER)
2	X022101BUL	100963	POTASSIUM BROMIDE	FU-37 NEUT INORG SOLID	2 L	GLASS (AMBER)
2	X022101BUL	100967	POTASSIUM BROMIDE CRYSTALS	FU-37 NEUT INORG SOLID	1 LB	POLY
2	X022101BUL	100989	POTASSIUM OXALATE	FU-37 NEUT INORG SOLID	1 LB	GLASS (AMBER)
2	X022101BUL	100971	POTASSIUM BROMIDE CRYSTALS	FU-37 NEUT INORG SOLID	1 LB	POLY
2	X022101BUL	100981	POTASSIUM BROMIDE CRYSTALS	FU-37 NEUT INORG SOLID	2 L	GLASS (AMBER)
2	X022101BUL	100996	POTASSIUM BROMIDE CRYSTALS	FU-37 NEUT INORG SOLID	64 OZ/0.5 GAL	GLASS (AMBER)
2	X022101BUL	101021	POTASSIUM PHOSPHATE MONOBASIC	FU-37 NEUT INORG SOLID	300 ML	GLASS (AMBER)
2	X022101BUL	101052	METHYL ORANGE	FU-38 NEUT ORG SOLID	250 ML	GLASS (AMBER)
2	X022101BUL	101053	MAGNESIUM ACETATE	FU-37 NEUT INORG SOLID	300 ML	GLASS (AMBER)
2	X022101BUL	101056	MAGNESIUM CHLORIDE	FU-37 NEUT INORG SOLID	500 ML/0.5 L	GLASS (AMBER)
2	X022101BUL	101108	METHYL ORANGE CERTIFIED A.C.S. FISHER	FU-38 NEUT ORG SOLID	250 G	GLASS (AMBER)
2	X022101BUL	101110	MANGANESE CARBONATE	FU-37 NEUT INORG SOLID	2 L	GLASS (AMBER)
2	X022101BUL	101112	METHYL ORANGE	FU-38 NEUT ORG SOLID	50 ML	GLASS (AMBER)
2	X022101BUL	101113	MAGNESIUM SULFATE CRYSTAL	FU-37 NEUT INORG SOLID	450 G	GLASS (AMBER)
2	X022101BUL	101120	HEXAHYDROCYCLO HEXANE	FU-38 NEUT ORG SOLID	50 ML	GLASS (AMBER)
2	X022101BUL	101122	INOSITOL (ASHFREE)	FU-38 NEUT ORG SOLID	4 OZ	GLASS (AMBER)
2	X022101BUL	101160	MANGANESE ACETATE	FU-38 NEUT ORG SOLID	250 ML	GLASS (AMBER)
2	X022101BUL	101171	MANGANESE SULFATE	FU-37 NEUT INORG SOLID	500 ML/0.5 L	GLASS (AMBER)
2	X022101BUL	101175	2-METHYL-3-TRIFLUOROMETHYL ANILINE	FU-38 NEUT ORG SOLID	50 ML	GLASS (CLEAR)
2	X022101BUL	101190	MANNITOL N.F.	FU-38 NEUT ORG SOLID	250 G	GLASS (CLEAR)

1001	101197	METHYL PURPLE INDICATOR	FU-38 NEUT ORG SOLID	2 OZ	GLASS (AMBER)
2	101199	METHYL PURPLE INDICATOR	FU-38 NEUT ORG SOLID	2 OZ	GLASS (AMBER)
4	101200	METHYL PURPLE INDICATOR	FU-38 NEUT ORG SOLID	2 OZ	GLASS (AMBER)
1	101201	METHYL BLUE INDICATOR	FU-38 NEUT ORG SOLID	2 OZ	GLASS (AMBER)
2	101202	METHYL PURPLE INDICATOR	FU-38 NEUT ORG SOLID	2 OZ	GLASS (AMBER)
1	101203	METHYL PURPLE INDICATOR	FU-38 NEUT ORG SOLID	2 OZ	GLASS (AMBER)
2	101204	METALLO GRAPHIC POLISHING COMPOUND	FU-29 NEUTRAL LIQUIDS	12 OZ	POLY
1	101205	METHYL PURPLE INDICATOR	FU-38 NEUT ORG SOLID	2 OZ	GLASS (AMBER)
1	101206	METHYL PURPLE INDICATOR	FU-38 NEUT ORG SOLID	2 OZ	GLASS (AMBER)
1	101207	METHYL PURPLE INDICATOR	FU-38 NEUT ORG SOLID	2 OZ	GLASS (AMBER)
1	101257	IODOHIPPURATE SODIUM	FU-37 NEUT INORG SOLID	500 ML/0.5 L	GLASS (AMBER)
1	101291	ISONIPECOTIC ACID	FU-38 NEUT ORG SOLID	200 ML	GLASS (AMBER)
1	101311	3,5-DI-O-BENZOYL-2-CHLORODEOXY-DURIDINE	FU-38 NEUT ORG SOLID	50 ML	GLASS (AMBER)
1	101319	CALCIUM CARBONATE	FU-37 NEUT INORG SOLID	500 ML/0.5 L	GLASS (AMBER)
1	101329	FC-128	FU-38 NEUT ORG SOLID	2 OZ	GLASS (CLEAR)
1	101332	GLYCINE	FU-38 NEUT ORG SOLID	100 ML	GLASS (AMBER)
1	101333	NOT INDICATED	FU-38 NEUT ORG SOLID	100 ML	GLASS (AMBER)
1	101334	GLYCINE	FU-38 NEUT ORG SOLID	100 ML	GLASS (AMBER)
1	101335	GLYCINE	FU-38 NEUT ORG SOLID	100 ML	GLASS (AMBER)
1	101336	GLYCINE	FU-38 NEUT ORG SOLID	100 ML	GLASS (AMBER)
1	101343	GLYCINE	FU-38 NEUT ORG SOLID	10 OZ	POLY
1	101345	BARIUM CARBONATE POWDER	FU-14 RCRA METALS	16 OZ/1 PT	STEEL
1	101346	BARIUM CARBONATE POWDER	FU-14 RCRA METALS	16 OZ/1 PT	STEEL
1	101347	BARIUM CARBONATE POWDER	FU-14 RCRA METALS	16 OZ/1 PT	STEEL
1	101349	AMMONIUM SULFATE GRANULES	FU-18 SULFIDES/ATES/ THIOS	16 OZ/1 PT	STEEL
1	101352	2,2-ANHYDRO-O-URIDINE	FU-38 NEUT ORG SOLID	50 G	GLASS (AMBER)
1	101401	FERROCENE ACETONE TRILEBYPROD. A-398	FU-38 NEUT ORG SOLID	100 G	GLASS (AMBER)
1	101412	ETHYL CARBAMATE	FU-38 NEUT ORG SOLID	200 ML	GLASS (AMBER)
1	101429	HEXATRIACONTANE	FU-37 NEUT INORG SOLID	150 ML	GLASS (AMBER)
1	101509	3-HYDOXY-2-QUINONALYL ANILINE	FU-38 NEUT ORG SOLID	2 OZ	GLASS (CLEAR)
1	101549	GLYCINE	FU-38 NEUT ORG SOLID	100 ML	GLASS (AMBER)
1	101550	GLYCINE	FU-38 NEUT ORG SOLID	100 ML	GLASS (AMBER)
1	101563	GRAPHITE	FU-37 NEUT INORG SOLID	100 G	POLY
1	101566	GLYCINE (AMINOACETIC ACID)	FU-38 NEUT ORG SOLID	100 G	GLASS (AMBER)
1	101567	GLYCINE (AMINOACETIC ACID)	FU-38 NEUT ORG SOLID	100 G	GLASS (AMBER)
1	101568	GLYCINE (AMINO ACETIC ACID)	FU-38 NEUT ORG SOLID	100 G	GLASS (AMBER)

x022101BUL	101569	GLYCINE (AMINOACETIC ACID)	FU-38 NEUT ORG SOLID	100 G	GLASS (AMBER)
x022101BUL	101570	GLYCINE	FU-38 NEUT ORG SOLID	2 L	GLASS (AMBER)
x022101BUL	101587	GELATIN PRACTICAL LOT#D58	FU-38 NEUT ORG SOLID	250 G	GLASS (AMBER)
x022101BUL	101588	GYPSUM CRYSTALS	FU-37 NEUT INORG SOLID	500 G	GLASS (AMBER)
x022101BUL	101589	GRAPHITE	FU-37 NEUT INORG SOLID	1 U/1000 ML	UNKNOWN
x022101BUL	101621	CARBON (ACTIVATED OR CHARCOAL)	FU-37 NEUT INORG SOLID	1 U/1000 ML	POLY
x022101BUL	101622	ACTIVATED CARBON	FU-37 NEUT INORG SOLID	1-GAL/4 L	GLASS (CLEAR)
x022101BUL	101638	ARABINOFURANOXAZOLINE	FU-38 NEUT ORG SOLID	25 G	GLASS (AMBER)
x022101BUL	101647	AMMONIUM MOLYBDATE	FU-37 NEUT INORG SOLID	250 ML	POLY
x022101BUL	101655	DARABINOSE 99%	FU-38 NEUT ORG SOLID	100 ML	POLY
x022101BUL	101657	AMMONIUM CARBONATE NF SAMPLE FROM EBONEX	FU-37 NEUT INORG SOLID	16 OZ/1 PT	STEEL
x022101BUL	101662	ALGINIC ACID, SODIUM SALT	FU-38 NEUT ORG SOLID	100 ML	POLY
x022101BUL	101663	ALUMINUM METAL	FU-37 NEUT INORG SOLID	500 G	GLASS (AMBER)
x022101BUL	101691	PARANDSANILINE HYDROCHLORIDE	FU-38 NEUT ORG SOLID	100 ML	GLASS (AMBER)
x022101BUL	101685	ALUMINUM HYDROXIDE	FU-37 NEUT INORG SOLID	300 ML	GLASS (AMBER)
x022101BUL	101698	AMMONIUM SULFAMATE	FU-18 SULFIDES/ATES/ THIOS	300 ML	GLASS (AMBER)
x022101BUL	101709	BARIUM CHLORIDE CRYSTAL	FU-14 RCRA METALS	500 G	GLASS (AMBER)
x022101BUL	101720	AMMONIUM CHLORIDE GRANULAR	FU-37 NEUT INORG SOLID	450 G	GLASS (AMBER)
x022101BUL	101726	4-BIPHENYL CARBOXYLIC ACID	FU-38 NEUT ORG SOLID	4 OZ	GLASS (CLEAR)
x022101BUL	101728	CUPROUS OXIDE RED, REAGENT POWDER CU2O	FU-37 NEUT INORG SOLID	4 OZ	GLASS (AMBER)
x022101BUL	101729	COBALT OXIDE C-382	FU-37 NEUT INORG SOLID	4 OZ	GLASS (AMBER)
x022101BUL	101731	AMMONIUM MOLYBDATE	FU-37 NEUT INORG SOLID	150 ML	GLASS (AMBER)
x022101BUL	101738	p-AMINO-N-CAPROIC ACID	FU-38 NEUT ORG SOLID	100 ML	GLASS (AMBER)
x022101BUL	101741	AMMONIUM OXALATE	FU-37 NEUT INORG SOLID	200 ML	GLASS (AMBER)
x022101BUL	101743	BENZIDINE	FU-38 NEUT ORG SOLID	100 ML	GLASS (AMBER)
x022101BUL	101750	3-AMINOPYRIDINE	FU-38 NEUT ORG SOLID	200 ML	POLY
x022101BUL	101766	m-AMINOPHENOL NH2C6H4OH	FU-38 NEUT ORG SOLID	260 G	GLASS (AMBER)
x022101BUL	101768	AMMONIUM CHLORIDE	FU-37 NEUT INORG SOLID	600 ML/0.5 L	POLY
x022101BUL	101780	ASBURY GRAPHITE	FU-37 NEUT INORG SOLID	200 ML	GLASS (CLEAR)
x022101BUL	101785	ASBURY GRAPHITE	FU-37 NEUT INORG SOLID	200 ML	GLASS (CLEAR)
x022101BUL	101823	AMINOQUANIDINE BICARBONATE	FU-37 NEUT INORG SOLID	150 ML	GLASS (AMBER)
x022101BUL	101843	AMBERLYST/AMBERLYTE ION EXCHANGE RESIN	FU-38 NEUT ORG SOLID	500 ML/0.5 L	GLASS (AMBER)
x022101BUL	101849	AMBERLYST/AMBERLYTE ION EXCHANGE RESIN	FU-38 NEUT ORG SOLID	500 ML/0.5 L	GLASS (AMBER)
x022101BUL	101853	AMBERLYST/AMBERLYTE ION EXCHANGE RESIN	FU-38 NEUT ORG SOLID	500 G	GLASS (AMBER)
x022101BUL	101857	AMMONIUM MOLYBDATE	FU-37 NEUT INORG SOLID	450 G	GLASS (AMBER)
x022101BUL	101861	AMMONIUM SULFATE LOT #040588	FU-18 SULFIDES/ATES/ THIOS	500 G	GLASS (AMBER)

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X022101BUL	101863	ACETAMIDE	FU-38 NEUT ORG SOLID	450 G	GLASS (AMBER)
X022101BUL	101867	AMMONIUM MOLYBDATE 'FU'	FU-37 NEUT INORG SOLID	500 G	GLASS (AMBER)
X022101BUL	101870	BORAX	FU-37 NEUT INORG SOLID	1 LB	GLASS (AMBER)
X022101BUL	101871	BENZOPHENONE	FU-38 NEUT ORG SOLID	500 G	POLY
X022101BUL	101873	AMMONIUM META-VANADATE	FU-37 NEUT INORG SOLID	200 ML	GLASS (AMBER)
X022101BUL	101881	AMBERLYST/AMBERLYTE ION EXCHANGE RESIN	FU-38 NEUT ORG SOLID	1 LB	GLASS (AMBER)
X022101BUL	101883	DIAMINOPHOSPHORIC ACID	FU-38 NEUT ORG SOLID	2 OZ	GLASS (AMBER)
X022101BUL	101885	AMMONIUM ACETATE CRYSTALS	FU-38 NEUT ORG SOLID	125 G	GLASS (AMBER)
X022101BUL	101885	AMMONIUM ACETATE CRYSTALS	FU-38 NEUT ORG SOLID	125 G	POLY
X022101BUL	101892	6-AMINO-CAPROIC ACID	FU-38 NEUT ORG SOLID	200 ML	POLY
X022101BUL	101893	AMMONIUM ACETATE CRYSTALS	FU-38 NEUT ORG SOLID	125 G	POLY
X022101BUL	101894	AMMONIUM ACETATE CRYSTALS	FU-38 NEUT ORG SOLID	125 G	POLY
X022101BUL	101901	AMMONIUM ACETATE CRYSTALS	FU-38 NEUT ORG SOLID	125 G	POLY
X022101BUL	101903	AMMONIUM VANADATE (META-)	FU-33 NON-RCRA METALS	10 OZ	GLASS (AMBER)
X022101BUL	101904	ETHYL CARBAMATE	FU-38 NEUT ORG SOLID	250 G	GLASS (AMBER)
X022101BUL	101905	CALCIUM CHLORIDE	FU-37 NEUT INORG SOLID	500 G	GLASS (AMBER)
X022101BUL	101914	P-AMINOPHENOL LOT #CL5J	FU-38 NEUT ORG SOLID	250 G	GLASS (AMBER)
X022101BUL	101915	AMMONIUM ACETATE CRYSTALS	FU-38 NEUT ORG SOLID	250 G	GLASS (AMBER)
X022101BUL	101918	AMMONIUM ACETATE CRYSTALS	FU-38 NEUT ORG SOLID	125 G	GLASS (AMBER)
X022101BUL	101917	AMMONIUM ACETATE CRYSTALS	FU-38 NEUT ORG SOLID	125 G	POLY
X022101BUL	101919	ETHYL CARBAMATE	FU-38 NEUT ORG SOLID	125 G	POLY
X022101BUL	101920	AMMONIUM ACETATE CRYSTALS	FU-38 NEUT ORG SOLID	250 G	GLASS (AMBER)
X022101BUL	101921	AMMONIUM ACETATE CRYSTALS	FU-37 NEUT INORG SOLID	125 G	POLY
X022101BUL	101922	AMMONIUM ACETATE CRYSTALS	FU-38 NEUT ORG SOLID	125 G	POLY
X022101BUL	101923	AMMONIUM ACETATE CRYSTALS	FU-38 NEUT ORG SOLID	125 G	POLY
X022101BUL	101934	AMMONIUM ACETATE CRYSTALS	FU-38 NEUT ORG SOLID	125 G	POLY
X022101BUL	101938	AMMONIUM ACETATE CRYSTALS	FU-38 NEUT ORG SOLID	125 G	POLY
X022101BUL	101941	AMMONIUM ACETATE CRYSTALS	FU-38 NEUT ORG SOLID	125 G	POLY
X022101BUL	101942	AMMONIUM ACETATE CRYSTALS	FU-38 NEUT ORG SOLID	125 G	POLY
X022101BUL	101977	5L-CHOLESTANE	FU-38 NEUT ORG SOLID	125 G	POLY
X022101BUL	101979	CUPROUS OXIDE	FU-37 NEUT INORG SOLID	1 OZ OR SMALL	GLASS (AMBER)
X022101BUL	101980	COPPER CARBONATE	FU-37 NEUT INORG SOLID	200 ML	GLASS (AMBER)
X022101BUL	101991	COPPER (I)IODIDE	FU-37 NEUT INORG SOLID	150 ML	GLASS (CLEAR)
X022101BUL	102016	USFD CaCl2	FU-37 NEUT INORG SOLID	300 ML	GLASS (AMBER)
X022101BUL	102019	BLUESTONE DIAMOND COPPER SULFATE	FU-37 NEUT INORG SOLID	250 G	POLY
X022101BUL	102032	CINCHONINE	FU-38 NEUT ORG SOLID	1 L/1000 ML	GLASS (AMBER)
X022101BUL	102032	CINCHONINE	FU-38 NEUT ORG SOLID	250 G	GLASS (AMBER)

IDENTIFICATION NUMBER	DESCRIPTION	QUANTITY	UNIT	CONTAINER
x022101BUL	IODINE	250 G	G	GLASS (AMBER)
x022101BUL	IODINE	250 G	G	GLASS (AMBER)
x022101BUL	IODINE-RECOVERED	500 G	G	GLASS (AMBER)
x022101BUL	POTASSIUM BROMIDE	100 G	G	GLASS (AMBER)
x022101BUL	SODIUM IODIDE CRYSTAL	500 G	G	GLASS (AMBER)
x022101BUL	NOT INDICATED	500 G	G	GLASS (AMBER)
x022101BUL	SODIUM IODIDE CHEM. PURE	500 G	G	POLY
x022101BUL	NOT INDICATED	55 GAL	GAL	STEEL
x022101BUL	HYDRATED SILICA	3.5L	L	POLY
x022101BUL	ORGANOSILICONE EMULSION	150 ML	ML	GLASS (CLEAR)

X022001BUL	10037	SODIUM FLUORIDE	FU-37 NEUT INORG SOLID	1/2 GAL	POLY
X022001BUL	10085	NOT INDICATED	FU-37 NEUT INORG SOLID	UNKNOWN	GLASS (CLEAR)
X022001BUL	10089	IODINE	FU-24 OXIDIZING SOLID	1-GAL/4 L	POLY
X022001BUL	10103	POTASSIUM CHLORIDE	FU-37 NEUT INORG SOLID	84 OZ/0.5 GAL	POLY
X022001BUL	10111	SODIUM BROMIDE	FU-37 NEUT INORG SOLID	64 OZ/0.5 GAL	POLY
X022001BUL	10122	ANTIMONY TRIFLUORIDE	FU-20 INORG ACIDS	1-GAL/4 L	POLY
X022001BUL	20006	NOT INDICATED	FU-37 NEUT INORG SOLID	25 LBS	POLY
X022001BUL	20007	NOT INDICATED	FU-37 NEUT INORG SOLID	5 LBS	POLY
X022001BUL	20014	NOT INDICATED	FU-38 NEUT ORG SOLID	5 LBS	POLY
X022001BUL	20094	CALCIUM CHLORIDE	FU-37 NEUT INORG SOLID	1-GAL/4 L	POLY
X022001BUL	20098	MAGNESIUM SULFATE	FU-37 NEUT INORG SOLID	1-GAL/4 L	POLY
X022001BUL	20099	ZINC CHLORIDE	FU-37 NEUT INORG SOLID	84 OZ/0.5 GAL	POLY
X022001BUL	20100	POTASSIUM FLUORIDE	FU-37 NEUT INORG SOLID	84 OZ/0.5 GAL	POLY
X022001BUL	20102	SODIUM CHLORIDE	FU-37 NEUT INORG SOLID	84 OZ/0.5 GAL	GLASS (CLEAR)
X022001BUL	30044	SODIUM IODIDE	FU-37 NEUT INORG SOLID	250 ML	POLY
X022001BUL	80008	NOT INDICATED	FU-37 NEUT INORG SOLID	4 L	GLASS (CLEAR)
X022001BUL	80018	NOT INDICATED	FU-37 NEUT INORG SOLID	113 G	POLY
X022001BUL	80079	9-FLUORNYN/COMPLETE RXN	FU-38 NEUT ORG SOLID	8 OZ	POLY
X022001BUL	80119	ALUMINUM FLUORIDE, CHARCOAL, DRIERITE	FU-37 NEUT INORG SOLID	5-GAL	POLY
X022001BUL	80279	ALUMINUM SULFATE GROND ALUMINUM	FU-20 INORG ACIDS	125 ML	CARDBOARD
X022001BUL	90060	MISC LAB ITEMS	FU-27 MISC DEBRIS/LABWARE	10-GAL	POLY
X022001BUL	90084	ZINC OXIDE	FU-37 NEUT INORG SOLID	1-GAL/4 L	POLY
X022001BUL	90096	DIPHENYL CARBONATE	FU-37 NEUT INORG SOLID	5 LBS	POLY
X022001BUL	90101	PHENYLPROPANOLAMINE HCL	FU-20 INORG ACIDS	500 G	POLY
X022001BUL	90119	SUCCINAMIC ACID	FU-38 NEUT ORG SOLID	150 OZ	POLY
X022001BUL	90173	NOT INDICATED	FU-37 NEUT INORG SOLID	12 OZ	GLASS (CLEAR)
X022001BUL	100189	ZINC IODIDE	FU-37 NEUT INORG SOLID	64 OZ/0.5 GAL	POLY
X022001BUL	100190	ZINC IODIDE/POTASSIUM IODIDE	FU-37 NEUT INORG SOLID	1-GAL/4 L	POLY
X022001BUL	100192	ZINC SULFATE	FU-37 NEUT INORG SOLID	1-GAL/4 L	GLASS (AMBER)
X022001BUL	100362	MN-KIESELGEL (MN SILICA GEL)	FU-37 NEUT INORG SOLID	500 G	GLASS (AMBER)
X022001BUL	100409	SODIUM ACETATE, ANHYDROUS	FU-37 NEUT INORG SOLID	5 LBS	GLASS (AMBER)
X022001BUL	100412	SODIUM ACETATE, ANHYDROUS	FU-38 NEUT ORG SOLID	5 LBS	GLASS (AMBER)
X022001BUL	100418	SULFUR	FU-37 NEUT INORG SOLID	1 L/1000 ML	GLASS (CLEAR)
X022001BUL	100502	SALICYLANIDE	FU-38 NEUT ORG SOLID	18 OZ/1 PT	POLY
X022001BUL	100508	SCREED WS	FU-37 NEUT INORG SOLID	1 L/1000 ML	OTHER
X022001BUL	100512	SULFANILAMIDE	FU-38 NEUT ORG SOLID	500 ML/0.5 L	GLASS (AMBER)

X022001BUL	100525	SODIUM ACETATE ANHYDROUS POWDER	FU-37 NEUT INORG SOLID	5 LBS	POLY
X022001BUL	100546	SODIUM ACETATE ANHYDROUS	FU-38 NEUT ORG SOLID	113 G	GLASS (AMBER)
X022001BUL	100549	SODIUM ACETATE ANHYDROUS	FU-37 NEUT INORG SOLID	1 L/1000 ML	GLASS (AMBER)
X022001BUL	100593	SODIUM ACETATE ANHYDROUS POWDER	FU-37 NEUT INORG SOLID	400 ML	GLASS (AMBER)
X022001BUL	100597	NICKELACETYLACETONATE	FU-38 NEUT ORG SOLID	20 LBS	POLY
X022001BUL	100610	SODIUM SULFATE	FU-18 SULFIDES/ATES/THIOS	400 ML	GLASS (AMBER)
X022001BUL	100672	SULFUR	FU-37 NEUT INORG SOLID	5 LBS	FIBER
X022001BUL	100785	POTASSIUM FLUORIDE	FU-37 NEUT INORG SOLID	4.4 KG	POLY
X022001BUL	100807	ANHYDROUS LITHIUM CHLORIDE	FU-37 NEUT INORG SOLID	2 L	UNKNOWN
X022001BUL	100808	LITHIUM CHLORIDE	FU-37 NEUT INORG SOLID	1 L/1000 ML	POLY
X022001BUL	100987	L-PROLINE	FU-37 NEUT INORG SOLID	500 G	GLASS (AMBER)
X022001BUL	100996	POTASSIUM CHLORIDE	FU-37 NEUT INORG SOLID	2 L	GLASS (AMBER)
X022001BUL	101034	NOT INDICATED	FU-38 NEUT ORG SOLID	2 L	GLASS (CLEAR)
X022001BUL	101151	DIMETHYL TEREPHTHALATE	FU-38 NEUT ORG SOLID	5 LBS	POLY
X022001BUL	101241	LAURIC ACID	FU-36 NEUT ORG SOLID	3 L	GLASS (AMBER)
X022001BUL	101348	DI-2-β-7-BUTYL-P-CRESOL	FU-36 NEUT ORG SOLID	3 L	GLASS (CLEAR)
X022001BUL	101360	IODOFORM/DISTRESS	FU-35 HAL ORG SOLID (NON-FLAM)	100 G	GLASS (AMBER)
X022001BUL	101361	IODOFORM/DISTRESS	FU-35 HAL ORG SOLID (NON-FLAM)	250 G	GLASS (AMBER)
X022001BUL	101362	IODOFORM/DISTRESS	FU-35 HAL ORG SOLID (NON-FLAM)	250 G	GLASS (AMBER)
X022001BUL	101363	IODOFORM/DISTRESS	FU-35 HAL ORG SOLID (NON-FLAM)	250 G	GLASS (AMBER)
X022001BUL	101364	IODOFORM/DISTRESS	FU-35 HAL ORG SOLID (NON-FLAM)	250 G	GLASS (AMBER)
X022001BUL	101365	IODOFORM/DISTRESS	FU-35 HAL ORG SOLID (NON-FLAM)	250 G	GLASS (AMBER)
X022001BUL	101368	IODOFORM/DISTRESS	FU-35 HAL ORG SOLID (NON-FLAM)	250 G	GLASS (AMBER)
X022001BUL	101357	IODOFORM/DISTRESS	FU-35 HAL ORG SOLID (NON-FLAM)	250 G	GLASS (AMBER)
X022001BUL	101368	IODOFORM/DISTRESS	FU-35 HAL ORG SOLID (NON-FLAM)	250 G	GLASS (AMBER)
X022001BUL	101369	IODOFORM/DISTRESS	FU-35 HAL ORG SOLID (NON-FLAM)	250 G	GLASS (AMBER)
X022001BUL	101370	IODOFORM/DISTRESS	FU-35 HAL ORG SOLID (NON-FLAM)	250 G	GLASS (AMBER)
X022001BUL	101371	IODOFORM/DISTRESS	FU-35 HAL ORG SOLID (NON-FLAM)	250 G	GLASS (AMBER)
X022001BUL	101372	IODOFORM/DISTRESS	FU-35 HAL ORG SOLID (NON-FLAM)	250 G	GLASS (AMBER)
X022001BUL	101373	IODOFORM/DISTRESS	FU-35 HAL ORG SOLID (NON-FLAM)	250 G	GLASS (AMBER)
X022001BUL	101374	IODOFORM/DISTRESS	FU-35 HAL ORG SOLID (NON-FLAM)	250 G	GLASS (AMBER)
X022001BUL	101375	IODOFORM/DISTRESS	FU-35 HAL ORG SOLID (NON-FLAM)	250 G	GLASS (AMBER)
X022001BUL	101376	IODOFORM/DISTRESS	FU-35 HAL ORG SOLID (NON-FLAM)	250 G	GLASS (AMBER)
X022001BUL	101377	IODOFORM/DISTRESS	FU-35 HAL ORG SOLID (NON-FLAM)	250 G	GLASS (AMBER)
X022001BUL	101378	IODOFORM/DISTRESS	FU-35 HAL ORG SOLID (NON-FLAM)	250 G	GLASS (AMBER)
X022001BUL	101379	IODOFORM/DISTRESS	FU-35 HAL ORG SOLID (NON-FLAM)	250 G	GLASS (AMBER)

Item ID	Material Name	Quantity	Unit	Material Description
x022001BUL	101390	250 G	GLASS (AMBER)	IODOFORM/DISTRESS
x022001BUL	101381	250 G	GLASS (AMBER)	IODOFORM/DISTRESS
x022001BUL	101382	250 G	GLASS (AMBER)	IODOFORM/DISTRESS
x022001BUL	101383	250 G	GLASS (AMBER)	IODOFORM/DISTRESS
x022001BUL	101384	250 G	GLASS (AMBER)	IODOFORM/DISTRESS
x022001BUL	101385	250 G	GLASS (AMBER)	IODOFORM/DISTRESS
x022001BUL	101386	250 G	GLASS (AMBER)	IODOFORM/DISTRESS
x022001BUL	101387	250 G	GLASS (AMBER)	IODOFORM/DISTRESS
x022001BUL	101388	250 G	GLASS (AMBER)	IODOFORM/DISTRESS
x022001BUL	101389	250 G	GLASS (AMBER)	IODOFORM/DISTRESS
x022001BUL	101390	250 G	GLASS (AMBER)	IODOFORM/DISTRESS
x022001BUL	101391	250 G	GLASS (AMBER)	IODOFORM/DISTRESS
x022001BUL	101392	250 G	GLASS (AMBER)	IODOFORM/DISTRESS
x022001BUL	101393	250 G	GLASS (AMBER)	IODOFORM/DISTRESS
x022001BUL	101458	3 L	GLASS (AMBER)	DRIERITE
x022001BUL	101554	2-GAL	POLY	BIPHENYL
x022001BUL	101564	2-GAL	POLY	GUM
x022001BUL	101582	500 G	GLASS (AMBER)	CALCIUM ACETATE
x022001BUL	102169	2-GAL	POLY	CARBON (ACTIVATED OR CHARCOAL)
x022001BUL	102169	1 L/1000 ML	STEEL	ACTIVATED CARBON
x022001BUL	102328			NOT INDICATED
x022001BUL	102404	1-GAL/4 L	POLY	CALCIUM CARBONATE PURIFIED POWDER REAGENSIN
x022001BUL	102407	3-GAL	POLY	CALCIUM CHLORIDE
x022001BUL	110005	2.5 KG	POLY/PLASTIC	FERROUS SULFATE
x022001BUL	120035	1.5-GAL	POLY	CHLOROHYDROQUINONE
x022001BUL	120095	64 OZ/0.5 GAL	POLY	MAGNESIUM SULFATE
x022001BUL	120139	1-GAL/4 L	GLASS (CLEAR)	COPPER ACETATE

X022101BUL	100351	1,1,3,3-TETRACYANOPROPENE	FU-38 NEUT ORG SOLID	1 L/1000 ML	GLASS (AMBER)
X022101BUL	100374	TRIFLUORORO A ETHAMIDE	FU-35 HAL ORG SOLID (NON-FLAM)	500 ML/0.5 L	GLASS (AMBER)
X022101BUL	100400	SODIUM FLUORIDE	FU-37 NEUT INORG SOLID	113 G	OTHER
X022101BUL	100401	SODIUM FLUORIDE	FU-37 NEUT INORG SOLID	113 G	GLASS (AMBER)
X022101BUL	100403	SODIUM FLUORIDE	FU-37 NEUT INORG SOLID	113 G	GLASS (AMBER)
X022101BUL	100421	DOWEIDE G. BEADS, SODIUM PENTACHLOROPHENATE	FU-38 NEUT ORG SOLID	250 ML	POLY
X022101BUL	100444	SODIUM METABISULFATE	FU-37 NEUT INORG SOLID	84 OZ/0.5 GAL	GLASS (AMBER)
X022101BUL	100452	L-(-)-TYROSINE	FU-38 NEUT ORG SOLID	100 G	GLASS (AMBER)
X022101BUL	100455	SODIUM TETRAPHENYL BORON,	FU-38 NEUT ORG SOLID	100 ML	POLY
X022101BUL	100462	TRIS (HYDROXY METHYL) AMINOMETHANE	FU-38 NEUT ORG SOLID	100 G	GLASS (AMBER)
X022101BUL	100466	SODIUM TRIFLUOROACETATE	FU-37 NEUT INORG SOLID	100 G	GLASS (CLEAR)
X022101BUL	100470	QUINONE SULFATE NF	FU-37 NEUT INORG SOLID	160 ML	GLASS (AMBER)
X022101BUL	100475	QUININE SULFATE	FU-37 NEUT INORG SOLID	160 ML	GLASS (AMBER)
X022101BUL	100477	SODIUM CARBOXYMETHYL CELLULOSE	FU-38 NEUT ORG SOLID	100 G	POLY
X022101BUL	100480	SODIUM SULFATE	FU-18 SULFIDES/ATES/ THIOS	250 ML	GLASS (AMBER)
X022101BUL	100484	SULFANILAMIDE	FU-37 NEUT INORG SOLID	500 ML/0.5 L	GLASS (AMBER)
X022101BUL	100494	RESAZURIN	FU-37 NEUT INORG SOLID	20 ML	GLASS (AMBER)
X022101BUL	100496	SULFANILAMIDE (P-AMINO BENZENESSULFONYLAMIDE)	FU-37 NEUT INORG SOLID	100 G	GLASS (AMBER)
X022101BUL	100501	TRIPHENYLBISMUTHDICTRICHOROACETATE)	FU-38 NEUT ORG SOLID	113 G	GLASS (CLEAR)
X022101BUL	100503	SULFANILAMIDE	FU-38 NEUT ORG SOLID	500 ML/0.5 L	GLASS (AMBER)
X022101BUL	100511	REILLEX 402 POLYMER	FU-38 NEUT ORG SOLID	250 ML	POLY
X022101BUL	100526	1,3,5-TRI-TERT-BUTYL BENZENE	FU-38 NEUT ORG SOLID	113 G	POLY
X022101BUL	100527	RESORCINOL	FU-38 NEUT ORG SOLID	1 L/1000 ML	GLASS (AMBER)
X022101BUL	100542	POTASSIUM FLUORIDE ANHYDROUS	FU-37 NEUT INORG SOLID	113 G	POLY
X022101BUL	100545	SODIUM ACETATE ANHYDROUS	FU-38 NEUT ORG SOLID	113 G	GLASS (AMBER)
X022101BUL	100547	TRIS (HYDROXY METHYL) AMINOMETHANE	FU-38 NEUT ORG SOLID	500 ML/0.5 L	GLASS (AMBER)
X022101BUL	100565	TEREPHTHALIC ACID	FU-38 NEUT ORG SOLID	1 L/1000 ML	GLASS (AMBER)
X022101BUL	100568	1,2,4,5-TETRAMETHYLBENZENE	FU-38 NEUT ORG SOLID	500 G	GLASS (AMBER)
X022101BUL	100579	SOLUBLE STARCH	FU-37 NEUT INORG SOLID	150 ML	GLASS (AMBER)
X022101BUL	100580	REILLEX 425 POLYMER	FU-38 NEUT ORG SOLID	150 ML	POLY
X022101BUL	100581	SULFUR TECH	FU-37 NEUT INORG SOLID	400 ML	GLASS (AMBER)
X022101BUL	100587	REILLEX 402 I POLYMER	FU-38 NEUT ORG SOLID	200 ML	POLY
X022101BUL	100589	SODIUM ACETATE ANHYDROUS	FU-37 NEUT INORG SOLID	1 L/1000 ML	GLASS (AMBER)
X022101BUL	100590	SODIUM ACETATE ANHYDROUS	FU-37 NEUT INORG SOLID	1 L/1000 ML	GLASS (AMBER)
X022101BUL	100596	SODIUM ACETATE ANHYDROUS	FU-37 NEUT INORG SOLID	1 L/1000 ML	GLASS (AMBER)
X022101BUL	100611	SODIUM SULFATE	FU-18 SULFIDES/ATES/ THIOS	400 ML	GLASS (AMBER)

022101BUL	10027	COBALT DIFLUORIDE-RECYCLE	FU-37 NEUT INORG SOLID	750 ML	GLASS (CLEAR)
022101BUL	10061	IODINE, 99.5%	FU-37 NEUT INORG SOLID	5-GAL	CARDBOARD
022101BUL	10110	SODIUM IODIDE CRYSTAL	FU-37 NEUT INORG SOLID	500 ML/0.5 L	GLASS (AMBER)
022101BUL	10116	POTASSIUM FLUORIDE	FU-37 NEUT INORG SOLID	500 ML/0.5 L	GLASS (AMBER)
022101BUL	10117	POTASSIUM FLUORIDE	FU-37 NEUT INORG SOLID	500 ML/0.5 L	GLASS (AMBER)
022101BUL	20081	NOT INDICATED	FU-29 NEUTRAL LIQUIDS	1 U/1000 ML	GLASS (CLEAR)
022101BUL	20098	POTASSIUM TRIFLUOROACETATE	FU-37 NEUT INORG SOLID	64 OZ/0.5 GAL	POLY
022101BUL	30035	ZINC CHLORIDE	FU-37 NEUT INORG SOLID	500 ML/0.5 L	GLASS (AMBER)
022101BUL	30045	SODIUM IODIDE	FU-37 NEUT INORG SOLID	250 ML	POLY
022101BUL	30046	SODIUM IODIDE	FU-37 NEUT INORG SOLID	250 ML	POLY
022101BUL	30047	SODIUM IODIDE	FU-37 NEUT INORG SOLID	250 ML	POLY
022101BUL	30048	SODIUM IODIDE	FU-37 NEUT INORG SOLID	250 ML	POLY
022101BUL	30049	SODIUM IODIDE	FU-37 NEUT INORG SOLID	250 ML	POLY
022101BUL	30050	SODIUM IODIDE	FU-37 NEUT INORG SOLID	250 ML	POLY
022101BUL	30051	SODIUM IODIDE	FU-37 NEUT INORG SOLID	250 ML	POLY
022101BUL	30056	PALLADIUM ON BARIUM SULFATE	FU-37 NEUT INORG SOLID	10 ML	GLASS (AMBER)
022101BUL	30064	NOT INDICATED	FU-37 NEUT INORG SOLID	1-GAL/4 L	POLY
022101BUL	30067	ZINC CHLORIDE	FU-37 NEUT INORG SOLID	64 OZ/0.5 GAL	POLY
022101BUL	30068	POTASSIUM IODIDE	FU-37 NEUT INORG SOLID	84 OZ/0.5 GAL	POLY
022101BUL	30101	NOT INDICATED	FU-37 NEUT INORG SOLID	0.8-TBS	OTHER
022101BUL	30102	MAGNESIUM SULFATE	FU-37 NEUT INORG SOLID	500 ML/0.5 L	POLY
022101BUL	70048	UNKNOWN CATALYST *POSSIBLY CONTAINING CHROMIUM	FU-38 NEUT ORG SOLID	50-GAL	POLY
022101BUL	70052	POTASSIUM TRIFLUOROACETATE	FU-37 NEUT INORG SOLID	50-GAL	FIBER
022101BUL	70055	CALCIUM CHLORIDE DIHYDRATE	FU-37 NEUT INORG SOLID	30-GAL	STEEL
022101BUL	70056	LITHIUM BROMIDE ANHYDROUS	FU-37 NEUT INORG SOLID	30-GAL	FIBER
022101BUL	70061	N-OCTADECYLAMINE	FU-38 NEUT ORG SOLID	30-GAL	FIBER
022101BUL	70062	N-OCTADECYLAMINE	FU-38 NEUT ORG SOLID	30-GAL	FIBER
022101BUL	70068	SODIUM BROMIDE	FU-37 NEUT INORG SOLID	42-GAL	FIBER
022101BUL	80013	L-8 UNKNOWN #57	FU-38 NEUT ORG SOLID	59-ML	GLASS (AMBER)
022101BUL	80027	BENZIDINE	FU-37 NEUT INORG SOLID	100 ML	GLASS (AMBER)
022101BUL	80048	NOT INDICATED	FU-37 NEUT INORG SOLID	250 ML	GLASS (AMBER)
022101BUL	80173	WS NEUT 73	FU-37 NEUT INORG SOLID	8 OZ	GLASS (CLEAR)
022101BUL	80181	120	FU-37 NEUT INORG SOLID	4 OZ	GLASS (AMBER)
022101BUL	80188	74	FU-11 COMB SOLID	4 OZ	GLASS (AMBER)
022101BUL	80193	NOT INDICATED	FU-37 NEUT INORG SOLID	4 OZ	GLASS (AMBER)
022101BUL	80196	NOT INDICATED	FU-37 NEUT INORG SOLID	4 OZ	GLASS (AMBER)

022101BUL	80208	55 WS NEUT	FU-37 NEUT INORG SOLID	4 OZ	GLASS (AMBER)
022101BUL	80215	WS NEUT	FU-37 NEUT INORG SOLID	4 OZ	GLASS (AMBER)
022101BUL	80216	48 WS NEUT	FU-38 NEUT ORG SOLID	4 OZ	GLASS (AMBER)
022101BUL	80217	83 WS NEUT	FU-37 NEUT INORG SOLID	4 OZ	
022101BUL	80218	14 NEUT	FU-37 NEUT INORG SOLID	4 OZ	
022101BUL	80224	NOT INDICATED	FU-37 NEUT INORG SOLID	4 OZ	GLASS (AMBER)
022101BUL	80230	WS NEUT	FU-37 NEUT INORG SOLID	4 OZ	GLASS (AMBER)
022101BUL	80249	5	FU-38 NEUT ORG SOLID	4 OZ	GLASS (AMBER)
022101BUL	80267	116	FU-38 NEUT ORG SOLID	4 OZ	GLASS (AMBER)
022101BUL	90099	BORAX	FU-37 NEUT INORG SOLID	50-GAL	FIBER
022101BUL	90124	GLYCERYLHAZ N.F. XII	FU-37 NEUT INORG SOLID	50-GAL	FIBER
022101BUL	90166	NOT INDICATED	FU-37 NEUT INORG SOLID	100 LBS	CERAMIC
022101BUL	100662	SODIUM ACETATE	FU-37 NEUT INORG SOLID	2-GAL	FIBER
022101BUL	100666	POTASSIUM FLUORIDE	FU-37 NEUT INORG SOLID	500 G	FIBER
022101BUL	100172	PPG ACTIVATED CARBON	FU-37 NEUT INORG SOLID	5-GAL	FIBER
022101BUL	100175	VANADIUM OXIDE 98%	FU-37 NEUT INORG SOLID	500 ML/0.5 L	GLASS (AMBER)
022101BUL	100179	ZINC HYDROXIDE	FU-37 NEUT INORG SOLID	4 OZ	POLY
022101BUL	100185	ZINC ACETATE	FU-38 NEUT ORG SOLID	250 ML	GLASS (AMBER)
022101BUL	100186	ZINC CHLORIDE	FU-37 NEUT INORG SOLID	250 ML	GLASS (AMBER)
022101BUL	100187	UREA	FU-37 NEUT INORG SOLID	2 KG	GLASS (AMBER)
022101BUL	100188	ZINC FLUORIDE	FU-37 NEUT INORG SOLID	150 ML	GLASS (CLEAR)
022101BUL	100194	ZINC SULFATE	FU-37 NEUT INORG SOLID	250 ML	GLASS (AMBER)
022101BUL	100195	ZINC SULFATE	FU-37 NEUT INORG SOLID	64 OZ/0.5 GAL	POLY
022101BUL	100198	ZINC SULFATE	FU-37 NEUT INORG SOLID	250 ML	GLASS (AMBER)
022101BUL	100271	SODIUM SULFATE	FU-18 SULFIDES/ATES/ THIOS	500 G	GLASS (AMBER)
022101BUL	100276	SODIUM SULFATE	FU-18 SULFIDES/ATES/ THIOS	100 G	GLASS (AMBER)
022101BUL	100280	SUCROSE	FU-38 NEUT ORG SOLID	100 G	GLASS (AMBER)
022101BUL	100287	SODIUM SULFATE	FU-18 SULFIDES/ATES/ THIOS	100 G	POLY
022101BUL	100290	TALCUM USP	FU-37 NEUT INORG SOLID	500 ML/0.5 L	GLASS (AMBER)
022101BUL	100292	THYMIDINE, 99%	FU-38 NEUT ORG SOLID	20 ML	GLASS (AMBER)
022101BUL	100302	TIN	FU-37 NEUT INORG SOLID	4 OZ	GLASS (CLEAR)
022101BUL	100310	ONINALZARIN, 1,2,5,8-TETRAHYDROXY-ANTHRAQUINO	FU-37 NEUT INORG SOLID	2 OZ	GLASS (AMBER)
022101BUL	100319	L-TRYPTOPHAN	FU-38 NEUT ORG SOLID	100 ML	GLASS (AMBER)
022101BUL	100328	2,2,2-TRIFLUOROACETAMIDE	FU-37 NEUT INORG SOLID	113 G	GLASS (AMBER)
022101BUL	100329	A CELITE DIATOMITE FILTER AND MANVILLE	FU-37 NEUT INORG SOLID	1 L/1000 ML	POLY
022101BUL	100338	SAPONIN (TOXIC)	FU-38 NEUT ORG SOLID	113 G	GLASS (AMBER)

# **Exhibit 10**



OFFICE OF THE INSPECTOR GENERAL  
OFFICE OF INVESTIGATIONS

Interview of VAUGHN CARTER WILLIAMSON

VAUGHN CARTER WILLIAMSON, On Scene Coordinator (OSC), Emergency Response and Removal Branch (ERRB), EPA, Region 4, Atlanta, Georgia, was interviewed at the Flura Superfund site, Newport, Tennessee. WILLIAMSON was interviewed concerning allegations of unsafe clean up practices and the illegal shipping of hazardous material. Also present during the interview was BARRY STOLL, Engineer, Environmental Protection Agency (EPA), Office of Inspector General(OIG). WILLIAMSON provided the following information:

WILLIAMSON has been the backup OSC at the Flura site since May 2001. He has been an OSC since February 2000, and has been employed by EPA since 1991. WILLIAMSON was asked about instances alleged to have taken place on specific dates.

February 7, 2001 incident. WILLIAMSON was not involved in this incident. He did hear CHRIS MILITSCHER, EPA, OSC, joking about moving some material (Perchlora Methyl Mercaptan) that would have "stunk" up the whole area if released. WILLIAMSON said that moving the Mercaptan was directed by MILITSCHER.

February 22, 2001 incident. WILLIAMS provided a signed, in-depth statement regarding this incident. WILLIAMSON provided a Compact Disk (CD) containing pictures of the area cleanup, a picture of three buckets of solidified metals and a copy of the site log dated February 21 -23, 2001. See attachments.

WILLIAMSON was not involved with the shipping of Fluorine or Hydrogen Fluoride. He did sign off on the transportation/shipping bid because he was the OSC on duty. He stated that MILITSCHER wanted to treat these chemicals on site and write a paper.

Investigation Conducted on August 8, 2001		Conducted at Newport, Tennessee
Conducted by S/A Gene Mullis <i>EPM</i>		OI File Number 2001-1429 <i>[Signature]</i>
Date Dictated 8/15/01	Date Transcribed 8/15/01	By epm

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## STATEMENT

With respect to the investigation of activities associated with the removal action being conducted at the FLURA Chemical Superfund Removal Site, I respectfully submit the following information. This statement concerns a chemical bulking incident which occurred on February 22, 2001.

During the week of February 20, 2001, several OSC's, traveled to the FLURA Chemical Superfund site to participate in several training exercises and to witness site activities. OSC Dean Ullock invited OSC Carter Williamson while OSC Chris Militscher invited OSC Rick Jardine and OSC Ben Franco. In total, there were five OSC's who participated in various bulking operations and LEVEL A/B exercises during the week of February 20, 2001. OSC Militscher acted as the supervising OSC and planned all bulking and mixing activities associated with the site for that week while the staff employed by CMC, ETI, ERT/REAC went about their daily work routines as assigned.

### **WEDNESDAY, February 21, 2001**

On February 21, (Wednesday), 2001, OSC Militscher conducted a bulking team briefing at 0730 to discuss the bulking of cyanides and other materials. OSC Militscher explained the chemical processes of these bulking activities and the reactions that should occur as part of the exercise. During this briefing, a majority of the discussion centered on the chemical processes and grouping of similar compounds with the remaining time dedicated to how these particular exercises would be fulfilled, i.e., how to actually conduct the bulking. Discussion involved the bulking of cyanides for the early entry in LEVEL A and then metals solidification later on that afternoon in LEVEL B.

On or about 1030, OSCs Carter Williamson and Benjamin Franco entered the main laboratory complex in LEVEL A (Barricade suits) accompanied by GST Dave Harris to begin bulking cyanide compounds in the courtyard behind the laboratory complex. OSC's Militscher and Ullock entered the main building in LEVEL B to conduct bulking of solids activities inside the main complex. OSCs Franco and Williamson bulked cyanide compounds until about 1115 and then exited the complex and bulking activities to report to LEVEL A/B DECON.

Around 1400 that afternoon (Feb 21), OSCs Williamson, Franco and Jardine accompanied by GST staff Bruce Baker and Monica Allison conducted bulking/solidification exercises with heavy metals and Portland Cement. The objective of the exercise was to mix pre-determined RCRA metal compounds that were in powder and liquid form into Portland cement so that the final product contained in each 5-gallon bucket would pass TCLP. These heavy metals were pre-selected by OSC Militscher and GSA staff Dave Andrews (Chemist) prior to the bulking exercise and placed one by one into each empty 5-gallon bucket to await mixing and solidification by the bulking teams. There were approximately eight (8) empty 5-gallon buckets each with 5-6 RCRA metal containers present in the laboratory (Lunchroom #28).

When the bulking teams entered the complex, there were also several bags of Portland cement present for use in the solidification process. A source of water was found and the group broke into two (2) teams consisting of OSCs Jardine and Franco for TEAM 1 and OSC Williamson and GST member Baker in TEAM 2. GST member Allison provided oversight and assistance during the bulking exercises.

On or about 1430, Team 1 and 2 began mixing the Portland cement with the RCRA metals. Each RCRA metal was mixed in small portions throughout the 5-gallon bucket of cement to insure that none of the metals contained high levels in any one area of the mixture. All of these RCRA metals came from the "Container Waste Stream FU-14 RCRA Metals" list and consisted of but not limited to such compounds such as silver iodide, arsenic trioxide, barium hydroxide, potassium dichromate, silver oxide, nitrate and sulfate.

During this exercise, OSC Williamson and GST member Baker elected to pre-mix two empty 5-gallon buckets with 4-5 inches of cement so that when the metals were added, a sufficient cap would have already hardened on the bottom of each bucket. This was done to help prevent seepage from the constant stirring that was taking place as the metals were sequentially added. To be able to make two bucket concentrations for the cement, the bottles of metals that were already in the containers had to be placed outside the respective containers to allow them to be empty for the cement. The compounds were then placed on 8.5 X 11 sheets of paper so that each set of chemicals was admitted back into that respective drum once the cement cap had hardened sufficiently. This was done to insure that there were no metals inadvertently placed into the improper bucket when solidification and mixing resumed.

As the two drums with the 4-5 inches of cement were hardening, OSC Williamson and GST Baker were busy completing another bucket/bulking of metals. OSCs Jardine and Franco also were busy bulking and solidifying their assigned metals/buckets. On or about 1630, GST member Allison was informed by radio that the ERRS contractors were departing the complex to the DECON. A/B trailer. Since the DECON area/staff had to decontaminate all LEVEL A and B personnel upon exiting the complex/"Hot Zone", it was agreed that the OSCs and GST staff should depart as well and finish what was left of the RCRA metals on February 22<sup>nd</sup>, in the morning. Likewise, both teams had utilized all of the Portland cement available.

Approximately three (3) to four (4) 5-gallon buckets were completed during this period. Since the two remaining buckets assigned to TEAM 2 (Williamson and Baker) had not solidified yet (5 inch cap), the metals associated with each of these buckets could not be placed back into the two corresponding buckets. Note was made by GSTs Allison and Baker and OSC Williamson to that effect and the teams departed the complex around 1700. At that time, neither team had any idea that other bulking exercises were planned and/or that the laboratory that was being used for the metal solidification would also be used for other exercises.

#### **THURSDAY, February 22, 2001**

At approximately 0730, OSCs Militscher, Ullock, Williamson, Jardine and Franco, along with GST staff Baker and Allison convened to discuss an oxidation exercise that OSC Militscher and GSA staff chemist Dave Andrews had developed to oxidize pesticides with peroxides. OSC Militscher discussed at length the chemical properties associated with this bulking exercise and how much material should be produced during the work detail. Very little discussion focused on how the operation would proceed and who on the team would be assigned to what activity. It was during this time that OSC Ullock expressed to me and several other OSCs and GST members his dismay that the operation was moving too fast and that he did feel uncomfortable with the pace of the exercise. OSC Ullock had expressed this concern on several other occasions during this site visit.

Very soon thereafter, around 0900, the team comprised of OSCs Militscher, Jardine, Ullock and Williamson, accompanied by GST staff Bruce Baker departed the orientation trailer to rendezvous at the LEVEL B dress out trailer. Because the amount of room available in the dress out trailer only accommodated 3-4 persons, GSA staff chemist Andrews and GST staff, Monica Allison elected to await stand-by until the team was out of dress out. They would then dress out and join the team upon entry into the main complex. Once the OSC's and GST staff had completed dress out, they preceded to the front lobby of the FLURA laboratory complex, went "on air" and proceeded into the main lobby. This entry was made without GST member Allison or the GSA chemist Andrews.

Immediately upon entering the lobby, OSC Williamsons regulator malfunctioned and it began to bleed the tank/existing air through the blow-by valve. This malfunction caused the regulator to freeze and it was decided very quickly that OSC Williamson had to proceed back to the DECON trailer to exchange his tank and SCBA harness to re-enter with the team. As was customary with operations at FLURA, OSC Ullock accompanied OSC Williamson to DECON in the buddy system. Because OSC Williamson had to exchange his SCBA harness and tank, only one harness and tank were available to the team comprised of GST staff Allison and GSA staff chemist Andrews. As they would have to enter in the buddy system, these individuals had to wait until they could locate an additional SCBA harness and tank. During this time, OSC Militscher had elected to enter the laboratory without the assistance of OSCs Williamson and Ullock or GST staff Allison and GSA staff chemist Andrews.

Once OSC Williamson had been fitted for a replacement SCBA harness and tank, he and OSC Ullock proceeded back towards and into the main complex. Upon entry into the laboratory, it was noted that OSCs Militscher and Jardine along with GST staff Baker had already exited the structure and were stationed behind the laboratory complex (courtyard area) between the laboratory and the structure referred to as the "chapel". It was here that OSC Militscher had had the ERRS contractor stage the bulking drum which was centered under an awning that connected the lab to the chapel building.

During the time OSCs Williamson and Ullock had been out of the zone, OSC Militscher had directed OSC Jardine and GST Baker to move the chemicals to be oxidized to the outside of the lab near the bulking drum. GST Allison had also informed GST Baker previously that he was to move the RCRA metals that were staged on the outside of the 2, 5 gallon containers from the day before, back into the buckets and place them below the table in the laboratory so that they would not be mixed up with the pesticides/peroxides that were to be bulked this day.

OSC Militcher had either directed or conducted the collection of the pesticides/peroxides the day before and these had also been staged in the same room as the RCRA metal bulking exercises. Unfortunately, when OSC Militscher directed OSC Jardine and GST Baker to collect the peroxide/pesticide compounds for transfer to the bulking/oxidizing area outside the laboratory, one of the 5-gallon buckets that contained 2-3 RCRA metals was also collected. It was determined later that these metals (2 of which were placed into the drum during the oxidizing experiment) caused the runaway chemical reaction soon thereafter.

Upon entering the laboratory and exiting the rear of the building, OSCs Williamson and Ullock joined OSCs Jardine and Militscher and GST Baker under the awning. OSC Militscher directed OSC Ullock to be the person to actually pour the compounds into the drum during the oxidizing/bulking process with the remaining staff (Williamson, Baker and Jardine) removing the containers from the buckets and opening each container for transfer to OSC Ullock to empty into the drum. OSC Militscher did not have a list of the compounds to be placed in the drum in his possession nor did he have any of the staff present to identify each container verbally as they were being transferred by hand from the buckets to the drum. Likewise, the material was not checked before the activity began to make sure that what was to be bulked was what had been selected previously. OSCs Williamson, Ullock and Jardine along with GST Baker acted only under the direction of OSC Militscher due to his expertise in this exercise, his knowledge of the chemical processes and the fact that he and GSA chemist had developed the list of compounds to be bulked and had been the driving force behind the exercise itself.

The process associated with the collection, transfer and pouring of chemicals into the 55-gallon drum was very quick and there was little conversation as the tasks were performed. Approximately 5-8 minutes passed as the team began bulking the material with OSC Militscher directing the exercise and OSC Ullock pouring the chemicals into the drum that were being handed to him by the other team members. As OSC Ullock continued to pour the chemicals at OSC Militscher's direction, he noticed as did OSC Williamson, that the material in the bottom of the drum (approximately 3 inches deep) appeared to be bubbling/reacting. OSC Militscher did not appear to be alarmed and so the team continued to bulk the chemicals.

It was during the next addition of chemical a (Malathion) by OSC Ullock that a tremendous reaction occurred sending liquid material straight up into the awning that hung above the drum/team. As the reactions contents encountered the awning, it began to flair out and landed on the team members as they tried to move quickly away from the reacting vessel. This material, later determined to be chromic acid due to the reaction, contaminated several SCBA harnesses and tyvek suits in the process. The resulting reaction had also violently whipped OSC Ullock's right hand back and up as he was pouring the contents of the Malathion bottle into the drum. This caused numbness to OSC Ullock for two days following the incident.

Immediately following the incident and with material still reacting, several of the regulators on the SCBAs being used by OSCs Williamson and Jardine began to malfunction as did GST Bakers unit. This elevated the threat since the oxygen contents in the air tanks were quickly diminishing and the team had to be deconned appropriately before exiting the zone. It was also during this time that OSC Militscher became highly irate and began ranting at the other team members about the adverse reaction.

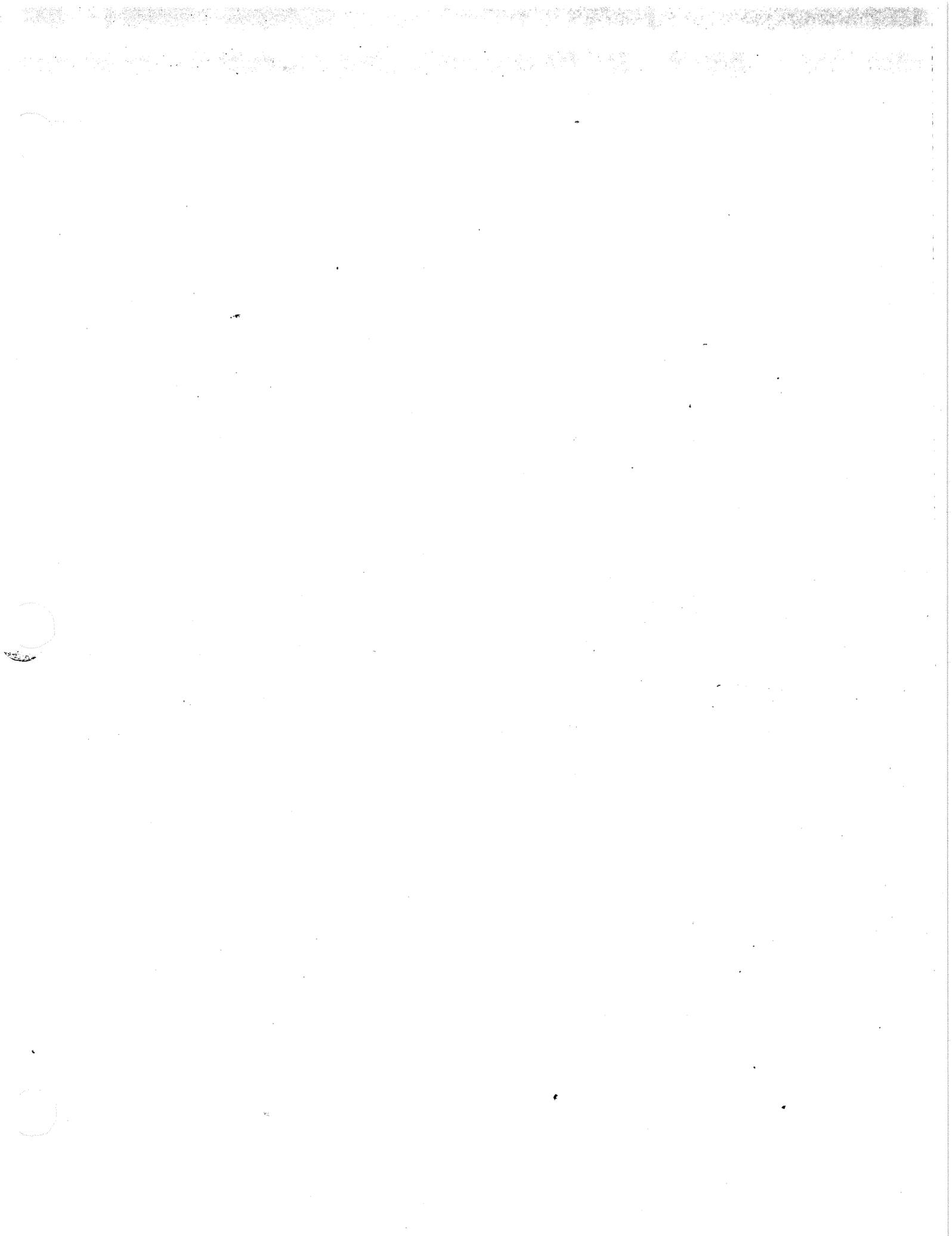
Upon exiting the area of contamination and proceeding through the DECON area and DECON dress out, OSC Militscher encountered GST Allison and then GSA chemist Andrews. Both of these encounters were adversarial with OSC Militscher berating the staff for apparent wrong-doing in allowing something to get into the bulking exercise that was not pre-selected earlier. Upon all OSCs and GST members exiting the zone, the team convened outside the EPA/GST trailer for a debriefing. It was at this time that OSC Militscher expressed to the group that he accepted full blame for the accident and that he should have completed a QA/QC of the chemicals before they were to be placed into the drum.

OSC Militscher was very upset over the incident and apologized to the team. It was during this time that OSC Williamson, Ullock and Jardine expressed to OSC Militscher that they felt the incident was caused by a host of human and equipment related errors and that the sole responsibility did not fall upon any particular individual. Also discussed was the belief that although the incident appeared to be very serious, the team was thankful that nobody was injured during the exercise, that the team could consider the incident a "wake-up call" as to the seriousness and danger associated with such a complex site and that none of the team members present held OSC Militscher totally responsible for the incident even though he planned, coordinated and directed the entire bulking exercise.

## Human Error/Mechanical Error

Numerous errors resulted in the runaway chemical reaction that occurred on February 22, 2001 at FLURA Chemical Superfund Site, none of which were based on negligence of those involved and/or that weigh heavily on one person in its entirety. The following issues resulted in the adverse reaction:

1. OSC Chris Militscher hand-picked, planned and oversaw the execution of the entire oxidation process while the rest of the team consisting of OSCs Ullock, Jardine and Williamson and GST member were basically relegated to laborers/trainees to learn and assist with the operation. The only two individuals who had the most experience and knowledge of the specific exercise scheduled for February 22<sup>nd</sup>, were in fact OSC Militscher and GSA chemist Dave Andrews. Although the intent by OSC Militscher was assuredly to assist his fellow OSCs with a beneficial training exercise, the bulking exercise team was not sufficiently prepared, the appropriate personnel were not present and the chemicals were not checked prior to entry into the drum;
2. OSC Militscher did not wait for GSA chemist Andrews to participate in the oxidation exercise nor did he wait for GST Allison since they could not at the time acquire SCBA's to enter in LEVEL B. It may have been more prudent, given the circumstances, to exit the zone with the team until such time that all relevant persons could be present. Their participation at the location of the chemical collection and subsequent oxidation, may have prevented the inclusion of the metal compounds that found their way into the drum containing pesticides/peroxides;
3. The two teams that bulked and solidified RCRA metals the day before were not advised of an additional exercise that would use staged materials from the actual laboratory where the RCRA metals were collected. Also, because the two teams had to depart the laboratory the day previous due to time constraints, they were unable to completely finish their RCRA metal bulking activities. These metals were left in their initial bottled form on the table ADJACENT to the chemicals that were to be oxidized the next day. These teams were unable to finish one bulking exercise BEFORE another exercise was underway/scheduled. This directly resulted in the unintentional collection of the metal compounds by either OSC Jardine and/or GST Bruce Baker at the direction of OSC Militscher and unfortunate placement among the chemicals that were selected previously for the exercise;
4. OSC Militscher did not check each chemical compound prior to its entry into the bulking drum against a master list of pre-selected chemicals. The chemicals were collected from the 5-gallon buckets, uncapped and poured into the drum without first reading off the label to determine if each component was in fact, supposed to be in that concoction. If this portion of the exercise would have occurred, OSC Militscher would surely have discovered the error and stopped the bulking operation;

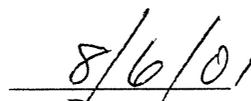


5. Although the team was comprised of experienced personnel, the bulking exercise most likely should have been conducted by OSC Militscher, GSA chemist Dave Andrews with oversight by GST member Allison. Assistance could have been provided as needed by the trainees (OSCs Ullock, Williamson, Jardine/GST Baker) as needed/requested. Further, it may have been more beneficial to have the EPA ERRS contractor, CMC Inc., staff conduct the bulking exercise with oversight by these three individuals while the trainees observed.

In summary, the incident (runaway chemical reaction) that occurred on February 22, 2001, was the result of human and mechanical error. The FLURA Chemical site is probably the most complex EPA Superfund Removal currently underway and this accident served to remind all involved that safety is of paramount importance. This incident was not a result of gross negligence and/or malice and was done with the best intentions. It has served as a training "tool" for all involved and resulted in improvements to an already exemplary site activity plan.

I attest and respectfully submit this statement as true and correct to the best of my knowledge.

  
V. Carter Williamson

  
Date

(135)

21 FEB 01 (WEDS)

0645 - NSF PERSONNEL O/S

0700 - ATTENDED MORNING MEETING. DISCUSSED CAYO TREATMENT FOR CYLINDER SAMPLING.

0730 - BULKING TEAM BRIEFED BY OSC MILITSCHER

0808 - 2 ERRS ENTER MAIN BUILDING IN LEVEL B

0835 - 2 ERRS ENTER PILOT HOUSE, LEVEL B.

0840 - 1 REAC TO LAB 11 IN LEVEL B

0900 - 2 ERRS EXIT HOT ZONE

0945 - 4 ERRS ENTER ROOM 53, LEVEL A, CYLINDER SAMPLING.

1000 - 2 EPA/1 GST/1 GSA ENTER MAIN BUILDING, LEVEL B, FOR BULKING/SOLIDIFICATION.

1030 - 2 EPA ENTER MAIN BUILDING, LEVEL A FOR BULKING OPS

1031 - 1 GST ENTERS MAIN BUILDING, LEVEL B, BULKING OPS

1040 - 2 EPA/1 GST EXIT HOTZONE + 1 GSA

1055 - 2 EPA/1 GST EXIT HOTZONE + 1 GSA

1125 - 1 RF HITS IN RM 53. POOL READY FOR BREACHED CYLINDER.

1130 - 4 ERRS EXIT RM 53 HOTZONE, 4 SAMPLES DONE

1145 - 1 REAC ENTRY\* - 1315 - 1 REAC EXITS LAB 11 + HOTZONE

1200 - ERRS TRANSPORT TEAM EXITS HOTZONE.

1203 - 2 ERRS EXIT HOTZONE.

1215 - 4 EPA/1 GSA/2 GST ENTER MAIN BUILDING FOR SOLIDIFICATION OPS, LEVEL B.

1215 - 2 ERRS ENTER MAIN BUILDING, LEVEL B

1220 - 2 ERRS EXIT HOTZONE

1233 - 2 EPA EXIT HOTZONE

1240 - 2 EPA EXIT HOTZONE

1250 - 2 GST/1 GSA EXIT HOTZONE.

137

22 FEB 01 (THURS)

0630 - ASST ALLISON O/S

0645 - GST HARRIS + BAKER O/S

0700 - ATTENDED MORNING SAFETY MTG.

0720 - TREATMENT TEAM MEETS WITH OSC MILITSCHER.

0800 - 3 ERRS IN LEVEL D AT SCRAP METAL PILE EXIT HOT ZONE DUE TO PID HITS

0830 - 2 ERRS ENTER BLDG, LEVEL B, TO EMPTY RAIN BUCKETS

0840 - 3 ERRS ENTER HOTZONE, LEVEL B, TO CONTINUE WORK ON SCRAP METAL PILE.

0830 - 2 ERRS ENTER ROOM 53, LEVEL ~~B~~ B

0855 - 1 REAC ENTERS LAB 11, LEVEL D.

0900 - 3 ERRS EXIT MAIN BLDG + ENTER ~~LEVEL 53~~ LEVEL B

0910 - 4 OSC / 1 GST ENTER BLDG, LEVEL B FOR OXIDATION PROCESS BETWEEN BLDG + CHAPEL IN POLY DRUM. REAC PERSONNEL EXIT HOT ZONE. 1 ERRS AT SCRAP METAL PILE ENTERS PILOT

HOUSE TO ASSIST OTHERS, ~~GST ANDREWS ALSO~~

E

0920 - 4 OSC / 1 GST EXIT HOT ZONE, CLOUD FROM OXIDATION PROCESS OBSERVED BY ERRS PERSONNEL. OXIDATION PROCESS PRODUCED RUNAWAY CHEMICAL REACTION.

0935 - RM MICK INSTRUCTS ALL PERSONNEL TO EXIT HOT ZONE.

0955 - 6 ERRS PERSONNEL EXIT HOT ZONE

0918 - OSC MILITSCHER HOLDS DEBRIEF ON OXIDATION PROCESS. PROCESSES INVOLVED OXIDIZING PARTICIPES

(138)

22 FEB 01 (CONT)

1014 cont - WITH 35% HYDROGEN PEROXIDE. PESTICIDES WERE PRE-STAGED. A CONTAINER OF POTASSIUM DICHROMATE WAS ACCIDENTLY STAGED WITH PESTICIDES WHEN THE POTASSIUM DICHROMATE WAS MIXED WITH HYDROGEN PEROXIDE, CREATING A RUNAWAY CHEMICAL REACTION. THE REACTION WAS VIOLENT & QUICK, RESULTING IN CHROMIUM MATERIAL BEING DISTRIBUTED OVER A 20 FT SURROUNDING AREA & PERSONNEL ON ENTRY. ENTRY TEAM IMMEDIATELY DECONED WITH SCRUB BRUSHES & SHOWER & EXITED HOT ZONE. NO INJURIES TO ANY PERSONNEL. 4 GST & 1 EPA SCBA HARNESES DISCARDED DUE TO CONTAMINATION.

1115 - 3 ERRS & 1 EPA ENTER HOT ZONE, LEVEL B, TO CLEAN UP FROM POTASSIUM DICHROMATE REACTION.

1300 - 3 ERRS & 1 EPA EXIT HOT ZONE. 3 ERRS ON DECON LINE EXIT CR2.

1440 - 2 ERRS ENTER CR2, LEVEL C, TO MAN DECON LINE.

1450 - 6 ERRS ENTER HOT ZONE, LEVEL B, TO COMPLETE VARIOUS TASKS.

1520 - 1 ERRS ENTERS HOT ZONE, LEVEL B, TO ASSIST OTHERS.

1659 - 2 ERRS EXIT PILOT HOUSE BUT REMAIN IN HOT ZONE.

1703 - 2 ERRS EXIT HOT ZONE.

1710 - 3 ERRS EXIT HOT ZONE.

1720 - 4 ERRS EXIT HOT ZONE. HOT ZONE CLEAR OF ALL PERSONNEL.

DMH

DAVID DM HARRIS, MST, USCG

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23 FEB 01 (FRIDAY)

- 0630 - AST ALLISON O/S
- 0645 - GST HARRIS & BAKER O/S
- 0700 - ATTENDED MORNING SITE MTG.
- 0720 - DEMOBED COMMS CHARGER KIT 7 (S/N 34340-83) &  
MOBED IN COMMS CHARGER KIT 1 (S/N 34340-86)
- 0730 - 2 ERRS ENTER ZONE, LEVEL B, FOR AIR MONITORING
- 0740 - ERRS CLEAR LAB II, HEADING TO 10A
- 0755 - 2 ERRS EXIT ZONE, ZONE CLEARED FOR  
LEVEL D.
- 0900 - 2 NSF ENTER, LEVEL B, HOTZONE
- 0915 - 2 ERRS (TRANSPORT TEAM) ENTER HOTZONE
- 0920 - 2 NSF PERSONNEL DEPART HOTZONE
- 0927 - LEVEL A CYLINDER SAMPLING TEAM ENTERS  
HOTZONE (5 PERSONNEL, ~~REACT~~) ~~REACT~~
- 0929 - 2 REAC ENTER LAB II, LEVEL B
- 0938 - 1 ERRS, LEVEL A, EXITING HOTZONE
- 0940 - 2 ERRS (TRANSPORT TEAM) EXITS HOTZONE
- 0942 - LEVEL A TEAM EXITS HOTZONE, 6 SAMPLES  
COLLECTED.
- 0940 - 2 REAC PERSONNEL EXIT LAB II & HOTZONE.
- 0950 - GST BAKER MANNING REAC AIR MONITORING  
INSTRUMENTS.
- 0955 - 2 ERRS, ENTER 10A IN LEVEL B TO CLEAN  
MANIFOLDS
- 1035 - 2 ERRS ENTER HOTZONE IN LEVEL B TO CLEAN  
UP CYLINDER SAMPLING AREA
- 1048 - 2 ERRS EXIT HOTZONE
- 1053 - 2 ERRS EXIT 10A FOR BREAK IN CR2

Find/Filter:31

CONTAINER	WASTE DESCRIPTION	CHEMICAL	CONTAINER	TYPE	PERCENT FULL	
100422	FU-14 RCRA METALS	SILVER IODIDE	113 G	GLASS (AMBER)	25%	Tx022101SOL
100479	FU-14 RCRA METALS	SODIUM SELENITE	750 ML	POLY	100%	Tx022101SOL
102586	FU-14 RCRA METALS	ARSENIC TRIOXIDE	200 ML	GLASS (AMBER)	75%	Tx022101SOL
102587	FU-14 RCRA METALS	ARSENIC TRIOXIDE	100 ML	GLASS (AMBER)	40%	Tx022101SOL
102589	FU-14 RCRA METALS	ARSENIC TRICHLORIDE	250 ML	GLASS (AMBER)	90%	Tx022101SOL
102593	FU-14 RCRA METALS	SODIUM ARSENITE	300 ML	GLASS (AMBER)	75%	Tx022101SOL
102685	FU-14 RCRA METALS	BARIUM HYDROXIDE	300 ML	GLASS (AMBER)	100%	Tx022101SOL
102686	FU-14 RCRA METALS	CADMIUM CHLORIDE	250 ML	GLASS (AMBER)	75%	Tx022101SOL
102694	FU-14 RCRA METALS	CADMIUM CHLORIDE	100 ML	POLY	75%	Tx022101SOL
102702	FU-14 RCRA METALS	LEAD NITRATE	250 ML	GLASS (AMBER)	70%	Tx022101SOL
102704	FU-14 RCRA METALS	LEAD CHLORIDE	250 ML	GLASS (AMBER)	100%	Tx022101SOL
102705	FU-14 RCRA METALS	LEAD CHLORIDE	100 ML	GLASS (CLEAR)	100%	Tx022101SOL
102706	FU-14 RCRA METALS	LEAD CHLORIDE	250 ML	GLASS (AMBER)	75%	Tx022101SOL
102707	FU-14 RCRA METALS	LEAD OXIDE	150 ML	GLASS (AMBER)	100%	Tx022101SOL
102716	FU-14 RCRA METALS	MERCURIC OXIDE	50 ML	GLASS (AMBER)	10%	Tx022101SOL
102717	FU-14 RCRA METALS	MERCURIC OXIDE	50 ML	GLASS (AMBER)	50%	Tx022101SOL
102718	FU-14 RCRA METALS	MERCURIC OXIDE	50 ML	GLASS (AMBER)	10%	Tx022101SOL
102721	FU-14 RCRA METALS	MERCURIC SULFATE	50 ML	GLASS (AMBER)	50%	Tx022101SOL
102731	FU-14 RCRA METALS	MERCURIC FLUORIDE	50 ML	POLY	75%	Tx022101SOL
102732	FU-14 RCRA METALS	CHROMIUM TRIOXIDE	300 ML	GLASS (AMBER)	25%	Tx022101SOL
102733	FU-14 RCRA METALS	CHROMIC ACID	500 ML/0.5 L	GLASS (AMBER)	75%	Tx022101SOL
102734	FU-14 RCRA METALS	CHROMIUM TRIOXIDE	300 ML	GLASS (AMBER)	50%	Tx022101SOL
102912	FU-14 RCRA METALS	BARIUM CHLORIDE	300 ML	GLASS (AMBER)	90%	Tx022101SOL
	FU-14 RCRA METALS	POTASSIUM DICHROMATE	4 OZ	GLASS (CLEAR)	100%	Tx022101SOL
	FU-14 RCRA METALS	POTASSIUM CHROMATE	500 G	GLASS (AMBER)	70%	Tx022101SOL
102851	FU-14 RCRA METALS	POTASSIUM DICHROMATE	1 LB	GLASS (AMBER)	25%	Tx022101SOL
102852	FU-14 RCRA METALS	SILVER OXIDE (POWDER)	4 OZ	GLASS (AMBER)	40%	Tx022101SOL
102856	FU-14 RCRA METALS	SILVER SULFATE	4 OZ	GLASS (AMBER)	40%	Tx022101SOL
120146	FU-14 RCRA METALS	REFERENCE ELECTRODE SOLUTION	0.5 LBS		80%	Tx022101SOL
120238	FU-14 RCRA METALS	SILVER NITRATE	250 ML	GLASS (AMBER)	80%	Tx022101SOL
120266	FU-14 RCRA METALS	SILVER SULFATE	1 OZ OR SMALL	GLASS (AMBER)	100%	Tx022101SOL

Metal Solidification 2/21/01

MST2 ALLISON - SUPERVISING

Team 1 - MST2 BAKER  
OSC C. WILLIAMSON

Team 2 - OSC R. JARDINE  
OSC B. FRANCO

Find/Filter:7

70058	FU-35 HAL ORG SOLID (NON-F	HEXAMETHYLPHOSPHORAMIDE	5-GAL	POLY	75%	Tx022201OX
100345	FU-04 FLAMABLE LIQUIDS	THIOPHENE	500 ML/0.5 L	GLASS (AMBER)	60%	Tx022201OX
101599	FU-35 HAL ORG SOLID (NON-F	HEXAMETHYLPHOSPHORAMIDE	2 L	GLASS (CLEAR)	100%	Tx022201OX
101602	FU-35 HAL ORG SOLID (NON-F	HEXAMETHYLPHOSPHORAMIDE	2 L	GLASS (CLEAR)	100%	Tx022201OX
102607	FU-29 NEUTRAL LIQUIDS	MALATHION	200 ML	GLASS (AMBER)	30%	Tx022201OX
102709	FU-14 RCRA METALS	LEAD CHLORIDE	300 ML	POLY	50%	Tx022201OX
102849	FU-14 RCRA METALS	POTASSIUM DICHROMATE	450 G	GLASS (AMBER)	60%	Tx022201OX

## OXIDIZATION OF PESTICIDES 2/22/01

OSC C. WILTSCHER  
MSTZ BAKER

OSC D. WILLOCK

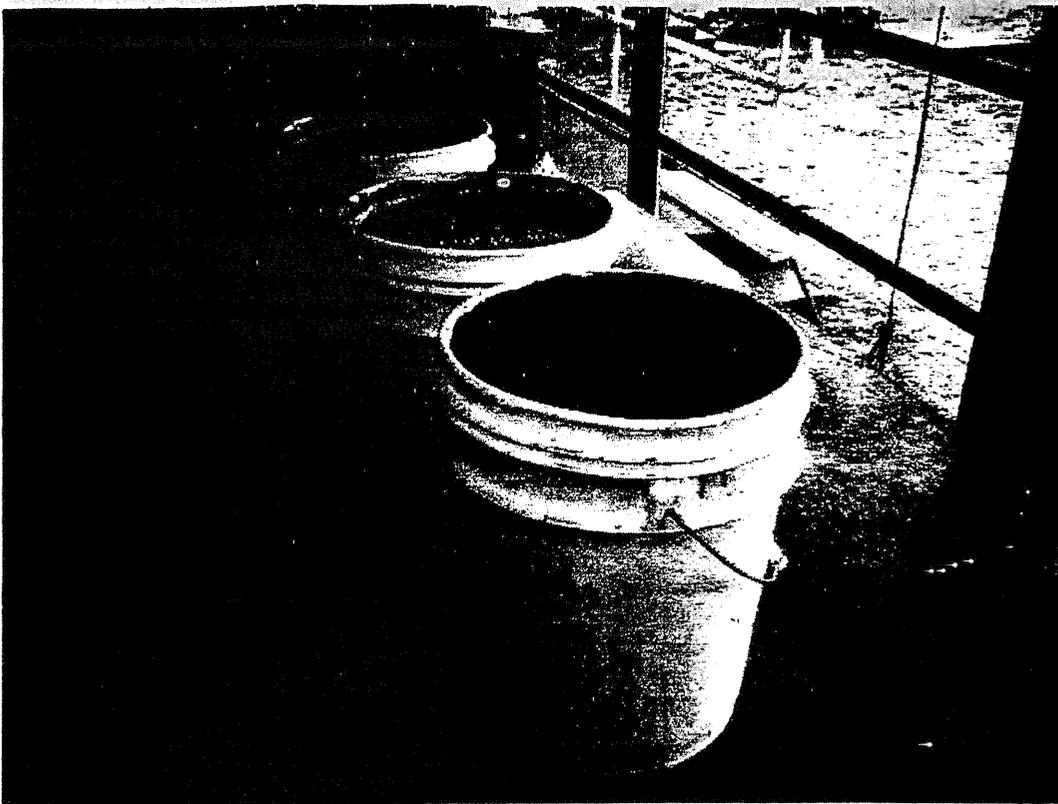
OSC C. WILLIAMSON

OSC R. JARDINE

~~OSC B. FRANCO~~ - not present. Conducted

Level A entry with CMC to conduct compressed  
gas cylinder ops.





# **Exhibit 11**



OFFICE OF THE INSPECTOR GENERAL  
OFFICE OF INVESTIGATIONS

Interview of GEORGE FRANK MICK

GEORGE FRANK MICK, Program Manager, CMC CONSTRUCTION COMPANY (CMC), Nicholasville, Kentucky, was interviewed at the Flura Superfund site, in Newport, Tennessee. The interview concerned allegations of unsafe cleanup activity by site personnel and illegal shipping of hazardous material. Also present during the interview were BARRY STOLL, Engineer, Environmental Protection Agency (EPA), Office of Inspector General (OIG), and Special Agent BRAD WHELLER, U.S. Department Of Transportation, OIG. MICK provided the following information:

He has been employed by CMC for ten months and is responsible for all contract work at the Flura site. Prior to working for CMC, he was with EARTH TECH CORPORATION (ET) for seven years and was at the Flura site with ET. He has been working with hazardous material for twenty years.

MICK was aware of an incident resulting in a mishap. CHRIS MILITSCHER, EPA, On Scene Coordinator, gave a class describing how to break down pesticides and herbicides with hydrogen peroxide. There was a mishap and CMC personnel did have to clean up the immediate area. Someone poured a container of potassium dichloride, an orange substance, into a drum and this resulted in an eruption which sent the container approximately 15 feet from the mixing area, however, the drum did stay in place. He is not aware of any other incidents like this at the site. Pictures were taken of the area where this happened. (Note: OSC CARTER WILLIAMSON provided a compact disk containing these pictures.) No contractor employees were involved in this incident. This was a team of EPA OSC's.

MICK was aware of a situation concerning six cylinders containing Fluorine (F<sub>2</sub>). The two OSC's, DEAN ULLOCK and MILITSCHER, disagreed on how these cylinders should be treated.

Investigation Conducted on August 7, 2001		Conducted at Newport, Tennessee	
Conducted by S/A Gene Mullis <i>EPM</i>		OI File Number 2001~1429 <i>[Signature]</i>	
Date Dictated 8/13/01	Date Transcribed 8/13/01	By epm	

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ULLOCK asked him and RAY WILLIS, EARTH TECH CORPORATION (ET) to review the regulations concerning treatment of these cylinders. They did find an issue concerning hydrostatic test (pressure test) dates. If there was not a current test date on the cylinders then they could not be shipped. Ultimately, ULLOCK requested and received clarification from the Department of Transportation (DOT). It would be ok to ship the cylinders to the original owners if they were not going to be resubmitted for resale. They were shipping the F<sub>2</sub> back to the owner for recycling, not as waste for disposal. The same conditions apply for 29 cylinders of Hydrogen Fluoride (HF) which were also being questioned. The F<sub>2</sub> and HF cylinders were tested and were found to be within industrial specifications for shipping. He, WILLIS and ULLOCK agreed that it was ok to ship the F<sub>2</sub> back for recycling and that these cylinders did not apply to the off site rule due to the intent to recycle. WILLIS handled all arrangements for the shipment. The truck did display the proper placards and the truck company was aware of what they were hauling. He suggested to ULLOCK that they escort the load to the receiving company's office in Knoxville, Tennessee. ULLOCK agreed and he, WILLIS and a USCG representative went with the cylinders to Knoxville. MILITSCHER expressed his opinion that hydrostatic test dates were required and his desire to treat the cylinders on site. The lead OSC makes the final decisions, MICK just takes directions from the OSC, however, he does feel that the option to send the cylinders off site was acceptable and legal.

The 29 cylinders of HF were in H series type cylinders. H series indicates a size of approximately 180 cubic feet to 310 cubic feet of pressure when filled to capacity. They are 52 to 54 inches tall and weigh around 200 pounds. The HF cylinders were in good condition and were labeled as the property of AMERICAN GAS GROUP (AGG). The cylinders were identified as originating from SPECTRA GAS. He contacted SPECTRA GAS and AGG. Initially they did not want the cylinders. AGG had no way of dealing with the cylinders, however, SPECTRA later agreed to accept them as a recycle item. They have signed a recycle and reuse statement. (Note: Copy of correspondence and this letter were found during record review and is attached.) According to MICK, there was never any indication that SPECTRA was pressured into receiving these cylinders. The shipment of the cylinders has been awarded to a contractor. MICK also provided copies of his correspondence with SPECTRA and AGG, bids for the transportation of F<sub>2</sub> and HF and a letter from OSC, DEAN ULLOCK to RON CORN, President, AGG, Toledo, Ohio..

TO: Spectra Gases, Inc., Headquarters  
Attn: Ms. Rebecca  
3434 Route 22 West  
Branchburg, NJ 08876  
Tel: 800-932-0624  
Fax: 908-252-0811

FROM: U.S. EPA Flura Chemical Superfund Site  
Attn: George F. Mick, RM/PM, CMC  
610 Rock Hill Rd.  
Newport, TN 37821  
Tel: 423-625-5967  
Fax: 423-625-0570

DATE: March 29, 2001

SUBJECT: Request for information & return of Spectra Gas cylinders

The U.S. EPA, Region IV is currently conducting a response and removal action at the former business location of a specialty chemical manufacture, (dba) Flura Corp. This facility is located at 610 Rock Hill Rd. just outside the town of Newport, TN.

During removal activities, 29 cylinders have been identified as potentially belonging to Spectra Gases. These cylinders have Spectra Gases neck-rings and Spectra Gases labeling. The label address indicates 80 Industrial Drive, Alpha, NJ 08865. Markings and labels indicate the cylinders contain Hydrogen Fluoride. Results of our on-site analysis was consistent with the labeling. "American Gas Group, 610 Rock Hill Rd. Newport, TN" has been stenciled on the side of the cylinders in black spray paint.

Request the following information:

1. Are the cylinders, described on the attached cylinder logs, the property of Spectra Gases?
2. On what date were these cylinders filled with the Hydrogen Fluoride?
3. On what date were these cylinders shipped and to whom?
4. If the cylinders are released for return, will Spectra Gases retrieve the cylinders from this location?

Thank you for your timely attention to this matter, Please contact me at the numbers listed above, if you have any questions pertaining to this matter.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4  
ATLANTA FEDERAL CENTER  
100 ALABAMA STREET, S.W.  
ATLANTA, GEORGIA 30303-3104

Date: May 17, 2001

From: Dean A. Ullock, On-Scene Coordinator  
FLURA Chemical Superfund Site  
611 Rock Hill Rd.  
Newport, Tennessee 37821

To: Andrew Dietz, President  
Spectra Gases, Inc.  
3434 Route 22 West  
Branchburg, NJ 08876

**Subject: Return of #29 Hydrogen Fluoride Cylinders to Spectra Gases, Inc..**

Dear Mr. Dietz,

Thank you for your company's cooperation regarding the accepted return of the 29 HF cylinders found at the ongoing FLURA Chemical Superfund Site clean up in Newport, Tennessee.

I wanted to follow up with our brief conversation of April 24, 2001. The attached Acceptance Letter is being sent to you in advance of the cylinders. Please review, sign and return the letter back to me at the above address.

The letter states that you (Spectra Gases, Inc.), intend and agree to comply with all State and Federal regulations regarding the recycle/reuse of the HF within the cylinders, as well as the emptied cylinders themselves. This is done so that the cylinders and their contents are properly handled and will not be shipped or forwarded to another location. As you know, once the cylinders have been emptied, they must be properly inspected and retested as required by DOT regulations before they (cylinders) may be re-introduced into commerce.

Once you've had a chance to review, please sign the letter and mail the letter back to me at the above address. In the meantime, I will instruct George Mick, my Project Manager at FLURA to contact Mr. Martin Rattigen, your shipping manager, to arrange for delivery of the cylinders back to your facility. As discussed, we will arrange shipment of the cylinders back to Spectra, Inc.

Please contact myself at 423/625-5991 or Mr. George Mick at 423/625-5967 if you have any questions. Thanks again for your cooperation and assistance regarding this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "Dean A. Ullock".

DATE:

TO: Spectra Gases, Inc.  
3434 Route 22 West  
Branchburg, NJ 08876

SUBJECT: ACCEPTANCE OF OWNERSHIP OF LIQUID AND/OR COMPRESSED GAS  
CYLINDERS AND THEIR CONTENTS.

Based upon a determination by the U.S. Environmental Protection Agency (EPA) the following liquid and/or compressed gases have been identified on the Flura Chemical Superfund Site within specialty containers (cylinders) owned by the accepting Company.

The exterior surfaces of the cylinders have been properly decontaminated and the containers, with their contents, deemed returnable to the cylinder owner for recycling/reuse. Proper recycling and reuse of the materials has been determined to be the most beneficial and environmentally sound alternative to treatment and/or disposal.

By accepting these materials, as signified by your signature below, you hereby agree to properly recycle and/or reuse the container, and its contents, in accordance with applicable Federal and state requirements. Should the material/product contained within the cylinder be deemed unsuitable for recycle/reuse the accepting party agrees to process/dispose of the contents in accordance with all applicable State, and Federal regulations, and ensures that these materials will not be discarded, abandoned, disposed of, or accumulated and stored, in a manner in which violates any of the provisions within 40 CFR.

Cylinders out of hydrostatic test date must be properly inspected and tested utilizing standard practices and methods of the Compressed Gas Association and applicable Federal Department of Transportation Regulations (49 CFR) prior to returning the containers for use in commerce.

Description of the recyclable/reusable/returnable materials/products: Quantity \_\_\_\_\_ Type Container:  
Cylinders of HF with SPECTRA GASES neck-rings and SPECTRA GASES shipping labels. 29 "H" cyls.  
The address on shipping labels is 80 Industrial Dr. Alpha, NJ 0885

These cylinders and their contents were inventoried on the USEPA Flura Chemical Superfund Site, 610 Rock Hill Road, Newport, Tennessee, 37821. Tel: 423-625-5967 Fax: 423-625-0570

A bill of lading will be utilized to properly document the pickup/delivery of the cylinders and will accompany the load to its destination. It should be verified for consistency with the information supplied above.

Acceptance by: \_\_\_\_\_  
Signature

Determination by: [Signature]  
Signature

Rejection by: \_\_\_\_\_  
Signature

Print Name

Representing

Date

DEAN A. UHOCK  
Print Name

U.S.E.P.A.  
Representing

5/17/01  
Date

DATE:

TO: Spectra Gases, Inc.  
3434 Route 22 West  
Branchburg, NJ 08876

SUBJECT: ACCEPTANCE OF OWNERSHIP OF LIQUID AND/OR COMPRESSED GAS  
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Cylinders out of hydrostatic test date must be properly inspected and tested utilizing standard practices and methods of the Compressed Gas Association and applicable Federal Department of Transportation Regulations (49 CFR) prior to returning the containers for use in commerce.

Description of the recyclable/reusable/returnable materials/products: Quantity Type Container:  
Cylinders of HF with SPECTRA GASES neck-rings and SPECTRA GASES shipping labels. 29 "H" cyls.  
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Acceptance by: [Signature]  
Signature

Determination by: [Signature]  
Signature

Rejection by: \_\_\_\_\_  
Signature  
Andrew E. Dietz  
Print Name  
Spectra Gases Inc.  
Representing  
5/29/01  
Date

DEAN A. UNOCCO  
Print Name  
U.S.E.P.A  
Representing  
5/17/01  
Date

Mr. D.A. Ullock  
FLURA Chemical Superfund Site  
611 Rockhill Rd.  
Newport, Tennessee 37821



37821-5512 00

Mr. D.A. Ullock  
FLURA Chemical Superfund Site  
611 Rockhill Rd.  
Newport, Tennessee 37821



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4

ATLANTA FEDERAL CENTER  
100 ALABAMA STREET, S.W.  
ATLANTA, GEORGIA 30303-3104

April 19, 2001

American Gas Group  
Attn: Ron Corn, President/Director  
6055 Brent Road  
Toledo, OH 43611

Mr. Corn,

As you may be aware, on April 4, 2000 the U.S. EPA began an emergency response and removal action at the Flura Chemical site located at 610 Rock Hill Road, Newport, TN. As cleanup workers inventoried all cylinders found on-site, twenty-nine "H" cylinders of Hydrogen Fluoride (HF) were identified. The operator of Flura Corp., Mr. Edward Tyczkowski, informed the EPA OSC that American Gas Group (AGG) had supplied him with these cylinders.

On March 13, 2001, I contacted American Gas Group to begin an investigation into the ownership and responsible parties related to the twenty-nine cylinders of HF. Subsequently, I instructed my Lead Project Manager, George Mick, to follow-up on my call to Mr. Avolt. On March 22, 2001 PM Mick spoke with Mr. Jimmy Avolt. During their conversation PM Mick informed Mr. Avolt that U.S. EPA was interested in the potential return of these cylinders to their owner. Mr. Avolt advised him of the following points during their discussion.

- ▶ These cylinders were never the property of AGG.
- ▶ AGG had placed two of their customers into contact with one another, one interested in obtaining cylinders of HF and one with available cylinders of HF.
- ▶ AGG had not brokered the cylinder deal.
- ▶ That Mr. Edward Tyczkowski was the party receiving the cylinders and he stated he didn't know who was the second party involved.

On March 27, 2001, Mr. Mick called you about the HF cylinders. You informed him that you knew very little about the cylinder transaction in question and didn't know the identity of the owner of the cylinders or contents. You also stated that you were unaware of where the cylinders had originated.

Continuing our investigation into the HF cylinders, on April 10<sup>th</sup> Mr. Mick talked to a representative for Spectra Gases (SG). Mr. Mick was advised that, after checking their records, these HF cylinders had been sold "Outright" to AGG on July 20, 2001. 1999 

On April 11<sup>th</sup> Mr. Mick called Mr. Avolt and informed him that SG records indicated an "Outright" sale of the cylinders and contents to AGG. Mr. Avolt said that AGG would check

their records on the subject cylinders. During this conversation, Mr. Avolt also verified that Spectra Gases was the party that supplied the cylinders.

On April 16<sup>th</sup> Mr. Mick again called Mr. Avolt to ask if AGG had located any information or files verifying the elements of the transaction. He stated they hadn't found any information. I informed Mr. Avolt that SG had supplied U.S. EPA with copies documenting the sale. Mr. Avolt said he would contact SG about the matter.

After reviewing all the information gathered to date, it would appear that American Gas Group is the owner of these cylinders and contents. It would also appear that American Gas Group is the Potentially Responsible Party for disposition of these cylinders. This is based solely on the information available to date.

The cleanup of the Flura Chemical site has progressed to the cylinder treatment phase. We are currently in the process of systems fabrication and need to immediately determine if we will be required to treat the contents of HF cylinders on-site. U.S. EPA would still prefer to allow the owner of these cylinders to immediately recover their property. As many weeks have elapsed since the beginning of this investigation, I am requesting an immediate and final decision from American Gas Group on this subject.

If your company decides not to recover the cylinders, our next option will be to treat the materials on-site and dispose of the waste generated. Normal U.S. EPA procedures will be followed for cost recovery associated with the treatment and disposal of these cylinders from the Responsible Party.

I reiterate the request for an immediate decision from American Gas Group on the disposition of the subject cylinders and contents.

Please find the attached recycle/reuse form. I request you complete the form by indicating your decision on the appropriate signature line and return this form immediately.

Should you have questions concerning this matter please contact me, Dean Ullock, immediately. I may be reached in Atlanta, Georgia at (404) 562-8257 or here in Newport, TN at (423) 625-5991.

Thank you for your time and consideration regarding this situation.

Sincerely,



Dean A. Ullock, OSC  
Region IV, ERRB  
U.S. EPA

Atch:           Recycle / Reuse Form



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 4

ATLANTA FEDERAL CENTER  
100 ALABAMA STREET, S.W.  
ATLANTA, GEORGIA 30303-3104

DATE: 4/19/01

TO: American Gas Group  
6055 Brent Road  
Toledo, OH 43611

SUBJECT: ACCEPTANCE OF OWNERSHIP OF LIQUID AND/OR COMPRESSED GAS  
CYLINDERS AND THEIR CONTENTS.

Based upon a determination by the U.S. Environmental Protection Agency (EPA) the following liquid and/or compressed gases have been identified on the Flura Chemical Superfund Site within specialty containers (cylinders) owned by the accepting Company.

The exterior surfaces of the cylinders have been properly decontaminated and the containers, with their contents, deemed returnable to the cylinder owner for recycling/reuse. Proper recycling and reuse of these materials has been determined to be the most beneficial and environmentally sound alternative to treatment and/or disposal.

By accepting these materials, as signified by your signature below, you hereby agree to properly recycle and/or reuse the container, and its contents, in accordance with applicable Federal and state requirements. Should the material/product contained within the cylinder be deemed unsuitable for recycle/reuse the accepting party agrees to process/dispose of the contents in accordance with all applicable State, and Federal regulations, and ensures that these materials will not be discarded, abandoned, disposed of, or accumulated and stored, in a manner in which violates any of the provisions within 40 CFR.

Cylinders out of hydrostatic test date will be properly inspected and tested utilizing standard practices and methods of the Compressed Gas Association and applicable Federal Department of Transportation Regulations (49 CFR) prior to returning the containers for use in commerce.

Description of the recyclable/reusable/returnable materials/products: Quantity \_\_\_\_\_ Type Container: \_\_\_\_\_  
"H" cylinders of HF Stenciled American Gas Group, 610 Rock Hill Rd. Newport, TN - 29 Cylinders

These cylinders and their contents have originated from the USEPA Flura Chemical Superfund Site, 610 Rock Hill Road, Newport, Tennessee, 37821. Fax: 423-625-0570

A bill of lading will be utilized to properly document the pickup/delivery of the cylinders and will accompany the load to its destination. It should be verified for consistency with the information supplied above.

Acceptance by: \_\_\_\_\_ Determination by: Alan L. Jell  
Signature Signature

Rejection by: \_\_\_\_\_  
Signature \_\_\_\_\_  
Print Name \_\_\_\_\_  
Representing \_\_\_\_\_  
Date \_\_\_\_\_  
DEAN A. ULLICH  
Print Name  
USEPA REGION  
Representing  
4/19/01  
Date

# **Exhibit 12**

[Code of Federal Regulations]  
[Title 40, Volume 24]  
[Revised as of July 1, 2001]  
From the U.S. Government Printing Office via GPO Access-  
[CITE: 40CFR300.440]

[Page 79-83]

TITLE 40--PROTECTION OF ENVIRONMENT

AGENCY (Continued)

PART 300--NATIONAL OIL AND HAZARDOUS SUBSTANCES POLLUTION CONTINGENCY PLAN--Table of  
Subpart E--Hazardous Substance Response

Sec. 300.440 Procedures for planning and implementing off-site response actions.

(a) Applicability. (1) This section applies to any remedial or removal action involving the off-site transfer of any hazardous substance, pollutant, or contaminant as defined under CERCLA sections 101 (14) and (33) (''CERCLA waste'') that is conducted by EPA, States, private parties, or other Federal agencies, that is Fund-financed and/or is taken pursuant to any CERCLA authority, including cleanups at Federal facilities under section 120 of CERCLA, and cleanups under section 311 of the Clean Water Act (except for cleanup of petroleum exempt under CERCLA). Applicability extends to those actions taken jointly under CERCLA and another authority.

(2) In cases of emergency removal actions under CERCLA, emergency actions taken during remedial actions, or response actions under section 311 of the Clean Water Act where the release poses an immediate and significant threat to human health and the environment, the On-Scene Coordinator (OSC) may determine that it is necessary to transfer CERCLA waste off-site without following the requirements of this section.

(3) This section applies to CERCLA wastes from cleanup actions based on CERCLA decision documents signed or consent decrees lodged after October 17, 1986 (''post-SARA CERCLA wastes'') as well as those based on CERCLA decision documents signed and consent decrees lodged prior to October 17, 1986 (''pre-SARA CERCLA wastes''). Pre-SARA and post-SARA CERCLA wastes are subject to the same acceptability criteria in Sec. 300.440(b)(1) and (2).

(4) EPA (usually the EPA Regional Office) will determine the acceptability under this section of any facility selected for the treatment, storage, or disposal of CERCLA waste. EPA will determine if there are relevant releases or relevant violations at a facility prior to the facility's initial receipt of CERCLA waste. A facility which has previously been evaluated and found acceptable under this rule (or the preceding policy) is acceptable until the EPA Regional Office notifies the facility otherwise pursuant to Sec. 300.440(d).

(5) Off-site transfers of those laboratory samples and treatability study CERCLA wastes from CERCLA sites set out in paragraphs (a)(5)(i) through (iii) of this section, are not subject to

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the requirements of this section. However, those CERCLA wastes may not be transferred back to the CERCLA site unless the Remedial Project Manager or OSC assures the proper management of the CERCLA waste samples or residues and gives permission to the laboratory or treatment facility for the samples and/or residues to be returned to the site.

(i) Samples of CERCLA wastes sent to a laboratory for characterization;

(ii) RCRA hazardous wastes that are being transferred from a CERCLA site for treatability studies and that meet the requirements for an

exemption for RCRA under 40 CFR 261.4(e); and

(iii) Non-RCRA wastes that are being transferred from a CERCLA site for treatability studies and that are below the quantity threshold established at 40 CFR 261.4(e)(2).

(b) Acceptability criteria. (1) Facility compliance. (i) A facility will be deemed in compliance for the purpose of this rule if there are no relevant violations at or affecting the unit or units receiving CERCLA waste:

(A) For treatment to standards specified in 40 CFR part 268, subpart D, including any pre-treatment or storage units used prior to treatment;

(B) For treatment to substantially reduce its mobility, toxicity or persistence in the absence of a defined treatment standard, including any pre-treatment or storage units used prior to treatment; or

(C) For storage or ultimate disposal of CERCLA waste not treated to the previous criteria at the same facility.

(ii) Relevant violations include significant deviations from regulations, compliance order provisions, or permit conditions designed to: ensure that CERCLA waste is destined for and delivered to authorized facilities; prevent releases of hazardous waste, hazardous constituents, or hazardous substances to the environment; ensure early detection of such releases; or compel corrective action for releases. Criminal violations which result in indictment are also relevant violations. In addition, violations of the following requirements may be considered relevant:

(A) Applicable subsections of sections 3004 and 3005 of RCRA or, where applicable, other Federal laws (such as the Toxic Substances Control Act and subtitle D of RCRA);

(B) Applicable sections of State environmental laws; and

(C) In addition, land disposal units at RCRA subtitle C facilities receiving RCRA hazardous waste from response actions authorized or funded under CERCLA must be in compliance with RCRA section 3004(o) minimum technology requirements. Exceptions may be made only if the unit has been granted a waiver from these requirements under 40 CFR 264.301.

(2) Releases. (i) Release is defined in Sec. 300.5 of this part. Releases under this section do not include:

(A) De minimis releases;

(B) Releases permitted under Federal programs or under Federal programs delegated to the States (Federally permitted releases are defined in Sec. 300.5), except to the extent that such releases are found to pose a threat to human health and the environment; or

(C) Releases to the air that do not exceed standards promulgated pursuant to RCRA section 3004(n), or absent such standards, or where such standards do not apply, releases to the air that do not present a threat to human health or the environment.

(ii) Releases from units at a facility designated for off-site transfer of CERCLA waste must be addressed as follows:

(A) Receiving units at RCRA subtitle C facilities. CERCLA wastes may be transferred to an off-site unit regulated under subtitle C of RCRA, including a facility regulated under the permit-by-rule provisions of 40 CFR 270.60 (a), (b) or (c), only if that unit is not releasing any hazardous waste, hazardous constituent, or hazardous substance into the ground water, surface water, soil or air.

(B) Other units at RCRA subtitle C land disposal facilities. CERCLA wastes may not be transferred to any unit at a RCRA subtitle C land disposal facility where a non-receiving unit is releasing any hazardous waste, hazardous constituent, or hazardous substance into the ground water, surface water, soil, or air, unless that release is controlled by an enforceable agreement for corrective action under subtitle C of RCRA or other applicable Federal or

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State authority. For purposes of this section, a RCRA "land disposal facility" is any RCRA facility at which a land disposal unit is located, regardless of whether a land disposal unit is the receiving

unit.

(C) Other units at RCRA subtitle C treatment, storage, and permit-by-rule facilities. CERCLA wastes may not be transferred to any unit at a RCRA subtitle C treatment, storage or permit-by-rule facility, where a release of any hazardous waste, hazardous constituent, or hazardous substance from non-receiving units poses a significant threat to public health or the environment, unless that release is controlled by an enforceable agreement for corrective action under subtitle C of RCRA or other applicable Federal or State authority.

(D) All other facilities. CERCLA wastes should not be transferred to any unit at an other-than-RCRA subtitle C facility if the EPA Regional Office has information indicating that an environmentally significant release of hazardous substances has occurred at that facility, unless the release is controlled by an enforceable agreement for corrective action under an applicable Federal or State authority.

(iii) Releases are considered to be "controlled" for the purpose of this section as provided in Sec. 300.440 (f)(3)(iv) and (f)(3)(v). A release is not considered "controlled" for the purpose of this section during the pendency of administrative or judicial challenges to corrective action requirements, unless the facility has made the requisite showing under Sec. 300.440(e).

(c) Basis for determining acceptability. (1) If a State finds that a facility within its jurisdiction is operating in non-compliance with state law requirements including the requirements of any Federal program for which the State has been authorized, EPA will determine, after consulting with the State as appropriate, if the violation is relevant under the rule and if so, issue an initial determination of unacceptability.

(2) If a State finds that releases are occurring at a facility regulated under State law or a Federal program for which the State is authorized, EPA will determine, after consulting with the State as appropriate, if the release is relevant under the rule and if so, issue an initial determination of unacceptability.

(3) EPA may also issue initial determinations of unacceptability based on its own findings. EPA can undertake any inspections, data collection and/or assessments necessary. EPA will then notify with the State about the results and issue a determination notice if a relevant violation or release is found.

(d) Determination of unacceptability. (1) Upon initial determination by the EPA Regional Office that a facility being considered for the off-site transfer of any CERCLA waste does not meet the criteria for acceptability stated in Sec. 300.440(b), the EPA Region shall notify the owner/operator of such facility, and the responsible agency in the State in which the facility is located, of the unacceptability finding. The notice will be sent by certified and first-class mail, return receipt requested. The certified notice, if not acknowledged by the return receipt card, should be considered to have been received by the addressee if properly sent by regular mail to the last address known to the EPA Regional Office.

(2) The notice shall generally: state that based on available information from a RCRA Facility Assessment (RFA), inspection, or other data sources, the facility has been found not to meet the requirements of Sec. 300.440; cite the specific acts, omissions, or conditions which form the basis of these findings; and inform the owner/operator of the procedural recourse available under this regulation.

(3) A facility which was previously evaluated and found acceptable under this rule (or the preceding policy) may continue to receive CERCLA waste for 60 calendar days after the date of issuance of the notice, unless otherwise determined in accordance with paragraphs (d)(8) or (d)(9) of this section.

(4) If the owner or operator of the facility in question submits a written request for an informal conference with the EPA Regional Office within 10 calendar days from the issuance of the notice, the EPA Regional Office shall provide the opportunity for such conference no

later than 30 calendar days after the date of the notice, if possible,

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to discuss the basis for the underlying violation or release determination, and its relevance to the facility's acceptability to receive CERCLA cleanup wastes. State representatives may attend the informal conference, submit written comments prior to the informal conference, and/or request additional meetings with the EPA Region, relating to the unacceptability issue during the determination process. If no State representative is present, EPA shall notify the State of the outcome of the conference. An owner/operator may submit written comments by the 30th day after issuance of the notice, in addition to or instead of requesting an informal conference.

(5) If the owner or operator neither requests an informal conference nor submits written comments, the facility becomes unacceptable to receive CERCLA waste on the 60th day after the notice is issued (or on such other date designated under paragraph (d)(9) of this section). The facility will remain unacceptable until such time as the EPA Regional Office notifies the owner or operator otherwise.

(6) If an informal conference is held or written comments are received, the EPA Region shall decide whether or not the information provided is sufficient to show that the facility is operating in physical compliance with respect to the relevant violations cited in the initial notice of unacceptability, and that all relevant releases have been eliminated or controlled, as required in paragraph (b)(2) of this section, such that a determination of acceptability would be appropriate. EPA will notify the owner/operator in writing whether or not the information provided is sufficient to support a determination of acceptability. Unless EPA determines that information provided by the owner/operator and the State is sufficient to support a determination of acceptability, the facility becomes unacceptable on the 60th calendar day after issuance of the original notice of unacceptability (or other date established pursuant to paragraphs (d)(8) or (d)(9) of this section).

(7) Within 10 days of hearing from the EPA Regional Office after the informal conference or the submittal of written comments, the owner/operator or the State may request a reconsideration of the unacceptability determination by the EPA Regional Administrator (RA). Reconsideration may be by review of the record, by conference, or by other means deemed appropriate by the Regional Administrator; reconsideration does not automatically stay the determination beyond the 60-day period. The owner/operator will receive notice in writing of the decision of the RA.

(8) The EPA Regional Administrator may decide to extend the 60-day period if more time is required to review a submission. The facility owner/operator shall be notified in writing if the Regional Administrator extends the 60 days.

(9) The EPA Regional Office may decide that a facility's unacceptability is immediately effective (or effective in less than 60 days) in extraordinary situations such as, but not limited to, emergencies at the facility or egregious violations. The EPA Region shall notify the facility owner/operator of the date of unacceptability, and may modify timeframes for comments and other procedures accordingly.

(e) Unacceptability during administrative and judicial challenges of corrective action decisions. For a facility with releases that are subject to a corrective action permit, order, or decree, an administrative or judicial challenge to the corrective action (or a challenge to a permit modification calling for additional corrective action) shall not be considered to be part of a corrective action "program" controlling those releases and shall not act to stay a determination of unacceptability under this rule. However, such facility may remain acceptable to receive CERCLA waste during the pendency of the appeal or litigation if:

(1) It satisfies the EPA Regional Office that adequate interim

corrective action measures will continue at the facility; or

(2) It demonstrates to the EPA Regional Office the absence of a need to take corrective action during the short-term, interim period.

Either demonstration may be made during the 60-day review period in the context of the informal conference and RA reconsideration.

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(f) Re-evaluating unacceptability. If, after notification of unacceptability and the opportunity to confer as described in Sec. 300.440(d), the facility remains unacceptable, the facility can regain acceptability. A facility found to be unacceptable to receive CERCLA wastes based on relevant violations or releases may regain acceptability if the following conditions are met:

(1) Judgment on the merits. The facility has prevailed on the merits in an administrative or judicial challenge to the finding of noncompliance or uncontrolled releases upon which the unacceptability determination was based.

(2) Relevant violations. The facility has demonstrated to the EPA Region its return to physical compliance for the relevant violations cited in the notice.

(3) Releases. The facility has demonstrated to the EPA Region that:

(i) All releases from receiving units at RCRA subtitle C facilities have been eliminated and prior contamination from such releases is controlled by a corrective action program approved under subtitle C of RCRA;

(ii) All releases from other units at RCRA subtitle C land disposal facilities are controlled by a corrective action program approved under subtitle C of RCRA;

(iii) All releases from other units at RCRA subtitle C treatment and storage facilities do not pose a significant threat to human health or the environment, or are controlled by a corrective action program approved under subtitle C of RCRA.

(iv) A RCRA subtitle C corrective action program may be incorporated into a permit, order, or decree, including the following: a corrective action order under RCRA section 3008(h), section 7003 or section 3013, a RCRA permit under 40 CFR 264.100 or 264.101, or a permit under an equivalent authority in a State authorized for corrective action under RCRA section 3004(u). Releases will be deemed controlled upon issuance of the order, permit, or decree which initiates and requires completion of one or more of the following: a RCRA Facility Investigation, a RCRA Corrective Measures Study, and/or Corrective Measures Implementation. The release remains controlled as long as the facility is in compliance with the order, permit, or decree, and enters into subsequent agreements for implementation of additional corrective action measures when necessary, except during periods of administrative or judicial challenges, when the facility must make a demonstration under Sec. 300.440(e) in order to remain acceptable.

(v) Facilities with releases regulated under other applicable Federal laws, or State laws under a Federally-delegated program may regain acceptability under this section if the releases are deemed by the EPA Regional Office not to pose a threat to human health or the environment, or if the facility enters into an enforceable agreement under those laws to conduct corrective action activities to control releases. Releases will be deemed controlled upon the issuance of an order, permit, or decree which initiates and requires one or more of the following: a facility investigation, a corrective action study, and/or corrective measures implementation. The release remains controlled as long as the facility is in compliance with the order, permit, or decree, and enters into subsequent agreements for implementation of additional corrective measures when necessary, except during periods of administrative or judicial challenges, when the facility must make a demonstration under Sec. 300.440(e) in order to remain acceptable.

(4) Prior to the issuance of a determination that a facility has

returned to acceptability, the EPA Region shall notify the State in which the facility is located, and provide an opportunity for the State to discuss the facility's acceptability status with EPA.

(5) An unacceptable facility may be reconsidered for acceptability whenever the EPA Regional Office finds that the facility fulfills the criteria stated in Sec. 300.440(b). Upon such a finding, the EPA Regional Office shall notify the facility and the State in writing.

[58 FR 49215, Sept. 22, 1993]

[[Page 84]]

# **Exhibit 13**



## Office of Solid Waste

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# Off-Site Rule Fact Sheet

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### What is the Off-Site Rule?

Section 121(d)(3) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) applies to any CERCLA response action involving the off-site transfer of any hazardous substance, pollutant or contaminant (CERCLA wastes). That section requires that CERCLA wastes may only be placed in a facility operating in compliance with the Resource Conservation and Recovery Act (RCRA) or other applicable Federal or State requirements. That section further prohibits the transfer of CERCLA wastes to a land disposal facility that is releasing contaminants into the environment, and requires that any releases from other waste management units must be controlled. These principles are interpreted in the Off-Site Rule (OSR), set forth in the National Contingency Plan (NCP), at 40 CFR 300.440. The purpose of the OSR is to avoid having CERCLA wastes from response actions authorized or funded under CERCLA contribute to present or future environmental problems by directing these wastes to management units determined to be environmentally sound (preamble to final OSR, 58 FR 49200, 49201, Sept. 22, 1993).

The OSR establishes the criteria and procedures for determining whether facilities are acceptable for the receipt of CERCLA wastes from response actions authorized or funded under CERCLA. The OSR establishes compliance criteria and release criteria, and establishes a process for determining whether facilities are acceptable based on those criteria. The OSR also establishes procedures for notification of unacceptability, reconsideration of unacceptability determinations, and re-evaluation of unacceptability determinations.

### What Actions are Affected?

The OSR applies to any remedial or removal action involving the off-site transfer of any hazardous substance, or pollutant or contaminant (CERCLA wastes) that is conducted by EPA, States, private parties, or other Federal agencies, if the action is Fund-financed or is taken pursuant to any CERCLA legal authority. Included are cleanups at Federal facilities under section 120 of CERCLA, and cleanups under section 311 of the Clean Water Act (CWA), except for cleanup of certain petroleum materials that are exempt under CERCLA. Applicability extends to those actions taken jointly under CERCLA and another authority. The OSR applies only to those actions being taken under a CERCLA authority or using CERCLA funds (e.g., actions taken under a CERCLA order or agreement or funded by CERCLA). Thus, if no CERCLA funds or authorities are involved, or if the waste is not a CERCLA waste, the OSR does not apply.

### What Wastes Are Affected?

The term "CERCLA wastes" includes any CERCLA "hazardous substance" or "pollutant or contaminant" (40 CFR 300.440(a)(1)). If the wastes fall outside this definition, the OSR does not apply.

### Who is Affected?

Persons who must comply with the OSR include anyone who, through a CERCLA-authorized or CERCLA-funded removal or remedial action, wants to transfer CERCLA wastes from the cleanup site to any U.S. off-site facility. These facilities include, but are not limited to, treatment, storage, or disposal (TSD) facilities that are regulated under RCRA, TSCA, or any other applicable Federal or State environmental law.

**Who should I contact for more information?**

For more information about the Off-Site Rule, or to inquire about the status of a particular facility under the Off-Site Rule, the following is a listing, by EPA Region, of the Regional Off-Site Contacts (ROCs).

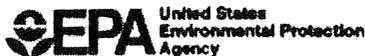
[Return to Off-Site Rule Main Page](#)

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URL: <http://www.epa.gov/epaoswer/hazwaste/id/offsite/os-facts.htm>

# **Exhibit 14**



## Superfund for Students and Teachers

# FACT FLASH

## 1: Hazardous Substances and Hazardous Waste

Chemicals affect our everyday lives. They are used to produce almost everything we use, from paper and plastics to medicines and food to gasoline, steel, and electronic equipment. More than 70,000 chemicals are used regularly around the world. Some occur naturally in the earth or atmosphere, others are synthetic, or human-made. When we use and dispose of them properly, they may enhance our quality of life. But when we use or dispose of them improperly, they can have harmful effects on humans, plants, and animals.

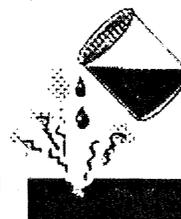
### What is hazardous waste?

Even when used properly, many chemicals can still harm human health and the environment. When these **hazardous substances** are thrown away, they become **hazardous waste**. Hazardous waste is most often a by-product of a manufacturing process – material left after products are made. Some hazardous wastes come from our homes: our garbage can include such hazardous wastes as old batteries, bug spray cans, and paint thinner. Regardless of the source, unless we dispose of hazardous waste properly, it can create health risks for people and damage the environment.

### What kinds of hazardous waste are there?

Most hazardous waste is identified by one or more of its dangerous properties or characteristics: corrosive, ignitable, reactive, or toxic.

- **Corrosive** — A corrosive material can wear away (corrode) or destroy a substance. For example, most acids are corrosives that can eat through metal, burn skin on contact, and give off vapors that burn the eyes.



- **Ignitable** — An ignitable material can burst into flames easily. It poses a fire hazard; can irritate the skin, eyes, and lungs; and may give off harmful vapors. Gasoline, paint, and furniture polish are ignitable.

- **Reactive** — A reactive material can explode or create poisonous gas when combined with other chemicals. For example, chlorine bleach and ammonia are reactive and create a poisonous gas when they come into contact with each other.



- **Toxic** — Toxic materials or substances can poison people and other life. Toxic substances can cause illness and even death if swallowed or absorbed through the skin. Pesticides, weed killers, and many household cleaners are toxic.

### Where does hazardous waste go?

Ideally, hazardous waste is reused or recycled. If this is not possible, hazardous waste is safely contained while it is stored, transported, and properly disposed of to prevent an accidental release into the environment. Advances in technology have greatly improved our ability to treat or dispose of hazardous waste in a way that prevents it from harming people or the environment. Typical methods of hazardous waste storage and disposal include **surface**

**impoundments** (storing it in lined ponds), high temperature **incineration** (controlled burning), municipal and hazardous waste **landfills** (burying it in the ground), and **deep well injection** (pumping it into underground wells). More promising methods focus on minimizing waste, reusing and recycling chemicals, finding less hazardous alternatives, and using **innovative treatment technologies**.

#### *What are the dangers of hazardous waste management?*

Proper management and control can greatly reduce the dangers of hazardous waste. There are many rules for managing hazardous waste and preventing releases into the environment. Even so, a lot can go wrong when we try to contain hazardous waste. Even the most technologically advanced landfills we build will leak some day. Tanks used for storing petroleum products and other chemicals can leak and catch fire; underground storage tanks weaken over time and leak their hazardous contents. Transportation accidents, such as train crashes and overturned trucks, can occur while transporting hazardous substances. There are also cases of intentional and illegal dumping of hazardous waste in sewer systems, abandoned warehouses, or ditches in remote areas to avoid the costs and rules of safe disposal.

#### *How can hazardous waste affect us?*

When hazardous wastes are released in the air, water, or on the land they can spread, contaminating even more of the environment and posing greater threats to our health. For example, when rain falls on soil at a waste site, it can carry hazardous waste deeper into the ground and the underlying groundwater. If a very small amount of a hazardous substance is released, it may become diluted to the point where it will not cause injury. A hazardous substance can cause injury or death to a person, plant, or animal if:

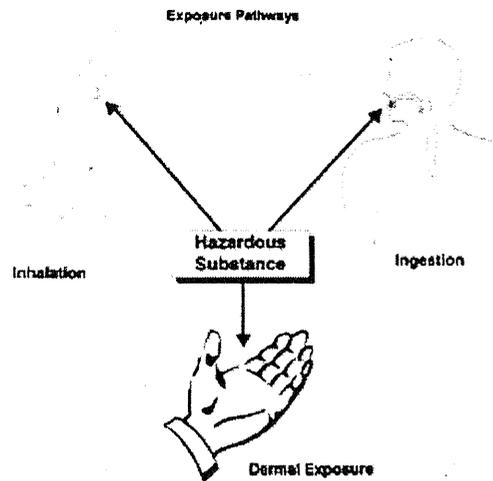
- A large amount is released at one time
- A small amount is released many times at the same place
- The substance does not become diluted
- The substance is very toxic (for example, arsenic).

Coming into contact with a substance is called an **exposure**. The effects of exposure depend on:

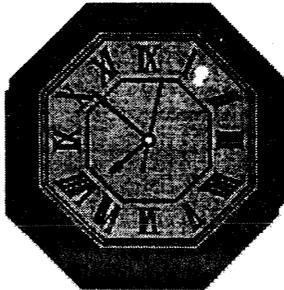
- How the substance is used and disposed of
- Who is exposed to it
- The concentration, or **dose**, of exposure
- How someone is exposed
- How long or how often someone is exposed.

Humans, plants, and animals can be exposed to hazardous substances through inhalation, ingestion, or dermal exposure.

- **Inhalation** — we can breathe vapors from hazardous liquids or even from contaminated water while taking a shower.
- **Ingestion** — we can eat fish, fruits and vegetables, or meat that has been contaminated through exposure to hazardous substances. Also, small children often eat soil or household materials that may be contaminated, such as paint chips containing lead. Probably the most common type of exposure is drinking contaminated water.
- **Dermal exposure** — a substance can come into direct contact with and be absorbed by our skin.



Exposures can be either acute or chronic. An **acute exposure** is a single exposure to a hazardous substance for a short time. Health symptoms may appear immediately after exposure; for example, the death of a fly when covered with bug spray or a burn on your arm when exposed to a strong acid such as from a leaking battery.



**Chronic exposure** occurs over a much longer period of time, usually with repeated exposures in smaller amounts. For example, people who lived near Love Canal, a leaking hazardous waste dump, did not notice the health effects of their chronic exposure for several years. Chronic health effects are typically illnesses or injuries that take a long time to develop, such as cancer, liver failure, or slowed growth and development.

One reason chronic exposure to even tiny amounts of hazardous substances can lead to harm is **bioaccumulation**. Some substances are absorbed and stay in our bodies rather than being excreted. They accumulate and cause harm over time.

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This page was last updated on August 25, 1999  
 Site maintained by: Office of Emergency and Remedial Response  
[superfund.info@epa.gov](mailto:superfund.info@epa.gov)

# **Exhibit 15**



OFFICE OF THE INSPECTOR GENERAL  
OFFICE OF INVESTIGATIONS

Interview of RAY WILLIS

RAY YOUNG WILLIS, JR., Project Manager, EARTH TECH CORPORATION (ET), Richmond, Virginia, was interviewed at the Flura Superfund site in Newport, Tennessee, concerning allegations of unsafe cleanup practices and the illegal shipping of hazardous materials. Also present during the interview were BARRY STOLL, Engineer, Environmental Protection Agency (EPA), Office of Inspector General (OIG), and Special Agent BRAD WHELLER, U.S. Department Of Transportation, OIG. WILLIS provided the following information:

WILLIS has been the project manager for ET at the Flura site since October 7, 2000. As project manager he supervises the work activities of the ET employees, does research, and some cylinder sampling. He reports directly to the EPA, On Scene Coordinator (OSC). WILLIS had no knowledge concerning alleged unsafe cleanup activities at the site, however, he was aware that concerns had been expressed concerning the shipment of six cylinders of Fluorine (F<sub>2</sub>) and 29 cylinders of Hydrogen Fluoride (HF).

WILLIS did not want to report to the Flura site when he learned that F<sub>2</sub> was present. F<sub>2</sub> is very dangerous and could cause a serious health problem. He and GEORGE MICK, Program Manager, CMC CORPORATION (CMC), did the assessment of the cylinders. During the sampling of approximately 700 cylinders at the site, six were labeled as containing F<sub>2</sub>. They had to decide if the content of the cylinders should be sampled or if they could rely on the identifying information. The cylinders were in good shape, properly labeled, properly stenciled, and dated. Due to this information and the characteristics of the cylinders, they decided that these cylinders did contain F<sub>2</sub>. These cylinders weighed between one hundred and one hundred fifty pounds.

Investigation Conducted on August 7, 2001		Conducted at Newport, TN
Conducted by S/A Gene Mullis <i>EPM</i>		OI File Number 2001~1429
Date Dictated 8/10/01	Date Transcribed 8/10/01	By <i>WJ</i> epm

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After this assessment was completed he decided to call, DENNIS CROLL, AIR PRODUCTS AND CHEMICAL COMPANY(AP). AP is the only company that packages F<sub>2</sub> in this size cylinder. WILLIS further advised that AP and BRITISH OXYGEN COMPANY(BOC) had merged and that BOC owns AIRCO, INC. (AIRCO).

The cylinders were identified as AIRCO cylinders. During his discussion with CROLL, he learned how to weight the cylinders and determine the amount of F<sub>2</sub> they contained. Five of the cylinders contained five pounds of F<sub>2</sub>. The sixth cylinder was almost empty. He did not discuss ownership of the cylinders with CROLL, however, he thinks DEAN ULLOCK, EPA, OSC, discussed this with AP.

The next issue was how to deal with the F<sub>2</sub>. He had discussions with ULLOCK, CHRIS MILITSCHER, Lead OSC, and MICK, to determine the best method of removing the F<sub>2</sub> cylinders from the site. Under normal circumstances when cylinders are found, they contact the gas company listed on the cylinder and the property is returned to them. ULLOCK decided to return the cylinders to BOC. WILLIS stated that he agreed with the decision and that BOC was capable of receiving the cylinders. He had discussions with ED HENNEY, BOC. They were willing to accept the cylinders. MICK identified several hand written notes and typed correspondence (obtained during record review) discussing this matter with CROLL, HENNEY and CHARLES QUINLAN, BOC. The final determination was that BOC would receive the cylinders and transport them to TEXLA GASES, one of their companies in Sulphur, Louisiana. MILITSCHER was not happy with this decision.

WILLIS also identified copies of Bills of Lading from EPA to BOC, listing the cylinders and identifying the content as F<sub>2</sub>, and a BOC GASES, HAZARDOUS MATERIALS SHIPPING MANIFEST, identifying 6 cylinders of F<sub>2</sub>. There is also a Bill of Lading from BOC to TEXLA, attention JIMMY HEBERT, identifying the cylinders as hazardous. WILLIS also provided a picture of the BOC truck loaded with the F<sub>2</sub> prior to shipping. (Note: MONICA ALLISON, US Coast Guard (USCG) site representative, provided several pictures via E-mail including this picture and several others. The picture from the E-mail will be attached.)

The discussions concerning the F<sub>2</sub> cylinders covered approximately one year. ULLOCK wanted to the remove the cylinders and MILITSCHER wanted to treat them on site. There were discussions about shipping to BOC only if they would destroy the cylinders. Then MILITSCHER insisted that they could only be sent if the cylinders could be recycled. According to WILLIS, MILITSCHER would have been "ranting" during these discussions and was not willing to discuss options other than on site treatment.

WILLIS also identified a letter from EPA to TEXLA, titled ACCEPTANCE OF OWNERSHIP OF LIQUIDS AND/OR COMPRESSES GAS CYLINDERS AND THEIR CONTENTS. It was signed by MICHAEL ANAKER, TEXLA.

This letter was not exactly what they wanted. He has never been required to have a letter like this before. (Note: Letter signed by ANAKER, but description of material to be recycled is not listed.)

Ultimately, the F<sub>2</sub> cylinders were picked up and transported by BOC. When BOC accepted the F<sub>2</sub> it became their responsibility. The cylinders were properly identified, labeled, and transported. The cylinders arrived at TEXLA, Sulphur, Louisiana, on April 23, 2001

WILLIS was not involved in the decision to ship the Hydrogen Fluoride.

## Fluorine

After making additional calls to determine if BOC/Airco would be interested or willing to recover the six cylinders of Fluorine found on site, I have been informed they are willing to reobtain the cylinders.

The new contact for finalizing the arrangements is:

Charles Quillian

(888)-427-2269 EXT. 1460

I have told him that prior to finalization of the pick-up I would get back in touch with him. The conversation was left at the fact that the EPA OSC's might have some formal questions or requirements attached to the pick-up (ie FINAL Disposition questions; letters of recycle/reuse/destruction; determination of shippability per CFR 49 PART 173.34 etc.).

The conversation was left at that point:

- a) I would check on any EPA requirements/questions
- b) He would discuss regulations & disposition with a BOC regulatory person

FACTS learned: ① BOC/Airco (BOC Group) have been involved together for 20 years.

② The local distributor of the Fluorine (? Knoxville Welding or Knoxville Oxygen) now belongs to Air Products

③ As per last update BOC/Air products had attempted a merger. Air Products is the filler / BOC is the owner of the cylinders

From the Desk of Ray Willis  
(Telephone Log)

**Subject – Fluorine (disposition options)**

**Telephone conversation with Dennis Croll of Air Products (Corporate HQ in Allentown, Pa.)**  
3-19-01 (Approx. 1400-1430)

**Background:** I had originally called Air Products and Chemical Company on Friday 3-16-01 at (610)481-4911 and, after leaving a message for Dennis Croll to call me, spoke with Scott in customer services. He did confirm that Air Products was a fluorine producer and that cylinders of Fluorine were not filled beyond 5 lbs. of product. He did refer me to their emergency number but, after I told him I had left a message at Dennis Croll's number, he let me know that Dennis Croll was from their emergency response group. \* note - I have spoken with Dennis Croll on multiple occasions in the past and have found him to be knowledgeable, so he was a logical first contact point given that for the past X number of years (? 10, ? 15+) he has been available and willing to answer questions related to the gas industry, and has been reachable at the same location for at least 7 or 8 years.

\*\*\*\*\*

**Dennis Croll conversation "highlights" (not to the word, or in order, and only as I remember them):**

- 1). The tare wt. of an empty A cylinder by their catalog is 137 lbs.. This weight is not inclusive of the valve or cylinder cap, which could add enough weight to bring the empty weight up to potentially 140, 141, or even 142 lbs.. (\* note- the Air Products "A" cylinder is the same size and type as the ones we refer to on-site as an H cylinders. Air Products has changed their terminology for this type of container).
- 2). He verified that Air Products is the only producer of Fluorine in the U.S.. For a short period of time Air Products and BOC Gases (British Oxygen Company) were combined together in what later became an unsuccessful merger. During that period BOC may have also appeared to be a producer. \*Note - He may also have mentioned that BOC Gases might be another producer overseas.
- 3). He stated although the cylinders may say Airco the cylinders would have been filled by Air Products, and that Air Products does fill Fluorine cylinders for all other companies such as Airco, Scott Specialty Gases, etc.. All fluorine cylinders filled in the U.S. would have come from Air Products.
- 4). Air Products does not except product back in cylinders not owned by them, for they are not a permitted facility and cannot accept materials from another company. Suggested I call Airco for these cylinders. He believed Airco might take them back, even if they didn't want to since they did have their name on them.
- 5). Stated that Fluorine was sold in cylinders with only 4.9 lb. of product in a vapor state. The vapor would be packaged at 400 PSI. He also added that even though you could place up to 6 lbs. of fluorine cylinder by DOT specs they would not exceed 4.9 lbs..
- 6). Suggested that Fluorine would be easy to treat as long as the scrubber solution was at greater than 5%. Don't let it fall below 5%. (\*note - we did not discuss type of scrubber solution. I assumed he was talking about sodium hydroxide since it is the industry standard for neutralizing acid gases).
- 7). We also discussed hydrogen fluoride, which Air Products also sells. Typically the cylinders would contain no greater than a 10% vapor layer over liquified product.
- 8). Stated that cylinders could be transported if out of hydrostatic test date, but not refilled without proper testing and inspection to make the cylinder DOT compliant. He referenced DOT regulation 173.34 in Code of Federal Regulations (CFR) 49, for testing and inspection requirements, and also as the regulation covering the filling and shipment of cylinders.

9). Discussed methods for the safe sampling of Fluorine cylinders, and methods for the remote actuation of the valves.

10). Discussed treatment of hydrogen fluoride.

11). Discussed potential recycling and disposal options for the HF and F cylinders.

12). Discussed potential recycling of freons, and whether any fractional distillation facilities existed for mixtures of freons. (\*note\* - he was not aware of any company capable of taking mixed freons, or that mixed freons (i.e. mixed halocarbons, mixed refrigerants, mixed fluoro carbons, etc.) for the purpose of fractional distillation (separation) of the freons into usable recoverable products.

\*\*\*\*\*

\* Note - Items 6 and 10 referring to treatment of fluorine and hydrogen fluoride was suggested by Dennis Croll as a way for handling of the cylinder contents, and not solicited during the conversation, which hinged primarily on potential off-site disposal or recycling options. He did, in the course of the conversation, mention BDT as a possible treatment facility, stated that he had not heard of SET Environmental / Treatment One, and said that he had heard MG Industries (an industrial gas company) had opened a facility in Fairless Hills, PA., under their new name of Messer. I have performed work for MG Industries in the past in the Conshohocken, Pa. area and will further explore this potential new facility and it's capabilities.

4-9-74

Ed Henry

(215) - 396-1570

New Jersey

1-800-CD-AIRCU

MIKE MCGAIN

SAN MARCOS, CALIF.

(1572) ~~1572~~

BOC Gases

Ed Henry → Emergency Response

MIKE MCGAIN → Sat in on a call but I did not list his title

- FAX -

4-11-00

To: ED HENNEY  
BOC GASES

From: RAY WILLIS  
EARTH TECH  
RESPONSE MANAGER (FLUOR CHEM SUPERFUND REMOVAL SITE)

SUBJECT: CYLINDER RETURN LETTER

PLEASE review the attached letter (as per our phone conversation of 4-11-00) and call me with either approval of its use or to let me know of any concerns you may have in its use to document the off-site removal of the six fluorine cylinders.



P.S. This is as fancy as my fax cover sheet can be at this time.

# FAX

To: Ed Henney  
Company: BOC Gas Group

Date: 4-11-01  
Fax #: (215)-396-1577

From: Ahmed El-Kaddah Ray Willis  
Location: Earth Tech  
C/o Flura Corp.  
610 Rock Hill Rd.  
Newport, TN 37821

Phone #: (423) 625-5974 0717  
Sending from Fax #:  
(423) 625-5974

Project #: 35395-01

Subject: CYLINDER ACCEPTANCE LETTER FOR THE FLUORINE

Comments: THIS IS HOW THE LETTER WILL LOOK IN ITS  
COMPLETED STATE, MINUS THE SIGNATURES. THE ORIGINAL  
ON <sup>EPA</sup> LETTER HEAD WILL BE FORWARDED TO WHATEVER  
ADDRESS YOU SPECIFY. IF YOU WISH TO CHANGE THE  
"TO:" INFORMATION JUST LET ME KNOW, IF YOU WISH TO  
HAVE EACH CYLINDER RECORDED BY SERIAL NUMBER IT CAN BE  
ARRANGED.

If you do not receive 2 pages (including cover page)  
please call us as soon as possible @ 423.625.5970



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 REGION 4  
 ATLANTA FEDERAL CENTER  
 100 ALABAMA STREET, S.W.  
 ATLANTA, GEORGIA 30303-3104

DATE:

TO: Ed Henney  
BOC Gas Group / AIRCO  
MURRAY HILL, NEW JERSEY

SUBJECT: ACCEPTANCE OF OWNERSHIP OF LIQUID AND/OR COMPRESSED GAS CYLINDERS AND THEIR CONTENTS.

Based upon a determination by the U.S. Environmental Protection Agency (EPA) the following liquid and/or compressed gases were found on the Flura Chemical Superfund Site within specialty containers (cylinders) owned by the accepting Company.

The outside surfaces of the cylinders have been properly decontaminated and the containers, and their contents, deemed returnable to the cylinder owner for recycling/reuse. Proper recycling and reuse of the these materials has been determined to be the most beneficial and environmentally sound alternative to treatment and/or disposal.

By accepting these materials, as signified by your signature below, you hereby agree to properly recycle and/or reuse the container, and its contents, in accordance with applicable Federal and state requirements. Should the material/product contained within the cylinder be deemed unsuitable for recycle/reuse the accepting party agrees to process/dispose of the contents in accordance with all applicable State, and Federal regulations, and ensures that these materials will not be discarded, abandoned, disposed of, or accumulated and stored, in a manner in which violates any of the provisions within 40 CFR.

Cylinders out of hydrostatic test date will be properly inspected and tested utilizing standard practices and methods of the Compressed Gas Association and applicable Federal Department of Transportation Regulations (49 CFR) prior to returning the containers for use in commerce.

Description of the recyclable/reusable/returnable materials/products:	Quantity	Type Container:
FLUORINE GAS	6	CYLINDERS
*NOTE - ALL SIX CYLINDERS HAVE NECK RINGS MARKED AIRCO, THEY ARE 3AA2400 "A" SIZE CYLINDERS.		

These cylinders and their contents have originated from the USEPA Flura Chemical Superfund Site, 610 Rock Hill Road, Newport, Tennessee, 37821.

A bill of lading will be utilized to properly document the pickup/delivery of the cylinders and to accompany the load to its destination. It should be verified for consistency with the information supplied above.

Acceptance by: \_\_\_\_\_  
 Signature \_\_\_\_\_  
 Print Name \_\_\_\_\_  
 Representing \_\_\_\_\_  
 Date \_\_\_\_\_

Determination by: \_\_\_\_\_  
 Signature \_\_\_\_\_  
 Print Name DEAN WLOCK, USEPA OSC  
 Representing USEPA REGION IV (ERRB)  
 Date \_\_\_\_\_

Charles Quinlan of BOC Gases informed me on Monday 4-02-01 that BOC could not track these cylinders by serial number and that BOC/Airco had not filled (or had filled) cylinders of Fluorine in about 15 years.

~~He~~ He was turning over the return/recovery of the Fluorine to their HIRT team, and was no longer the point of contact.

Yellow Truck -

Callwood H. Tex

on 4-23-01

Hertz Equipment Rental

1-888-777-2700

ARRIVED AT TEXAS FACILITY VIA BOL





ADDRESS: 2300 Sycamore Drive  
Knoxville, TN 37921

SHIPPING \_\_\_\_\_  
ORDER(S) \_\_\_\_\_  
NUMBER(S) \_\_\_\_\_

HAZARDOUS MATERIALS SHIPPING MANIFEST

Date: 4-12-01

Vehicle No.: \_\_\_\_\_

Driver: \_\_\_\_\_

TRIP STATUS NO. CONTAINERS	HM	TYPE	PROPER SHIPPING NAME	HAZARD CLASS	IDENTIFICATION NUMBER	PACKING GROUP	EXEMPTION DOT-E	WEIGHT OR VOLUME
			Acetylene, Dissolved	2.1	UN1001			
			Compressed Gas, Flammable, N.O.S. ( )	2.1	UN1954			
			Ethylene, Compressed	2.1	UN1962			
			Hydrogen, Compressed	2.1	UN1049			
			Methane, Compressed	2.1	UN1971			
			Air, Compressed	2.2	UN1002			
			Ammonia, Anhydrous Inhalation Hazard	2.2	UN1005			
			Argon, Compressed	2.2	UN1006			
			Carbon Dioxide	2.2	UN1013			
			Compressed Gas, N.O.S. ( )	2.2	UN1956			
			Helium, Compressed	2.2	UN1046			
			Nitrogen, Compressed	2.2	UN1066			
			Oxygen, Compressed	2.2	UN1072			
			Argon, Refrigerated Liquid	2.2	UN1951			
			Carbon Dioxide, Refrigerated Liquid	2.2	UN2187			
			Helium, Refrigerated Liquid	2.2	UN1963			
			Nitrogen, Refrigerated Liquid	2.2	UN1977			
			Oxygen, Refrigerated Liquid	2.2	UN1073			
			Carbon Monoxide, Compressed Poison-Inhalation Hazard, Zone D	2.3	UN1016			
			Compressed Gas, Toxic, Flammable, N.O.S. Poison-Inhalation Hazard, Zone _____ ( )	2.3	UN1953		"E-7835 special stowage Authorized"	
			Compressed Gas, Toxic, N.O.S. Poison-Inhalation Hazard, Zone _____ ( )	2.3	UN1955		"T-7835 special stowage Authorized"	
			Hydrogen Chloride, Anhydrous Poison-Inhalation Hazard, Zone C	2.3	UN1050			
		<u>6 X CYL</u>	<u>RQ Fluorine, Compressed</u> <u>Poison-Inhalation Hazard Zone A</u>	<u>2.3</u>	<u>UN1045</u>			<u>870 lb</u>

INSTRUCTIONS:

1. Placard for all classes carried except Radioactive material.
2. Enter materials covered by a DOT Exemption on separate lines.
3. Do not abbreviate or use trade names.
4. Check compatibility chart before loading.

This is to certify that the above named materials are properly classified, described, packed, marked, labeled/placarded and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

Signature: [Signature]

IN EVENT OF ANY EMERGENCY CONCERNING THE CHEMICALS IN THIS SHIPMENT, CALL CHEMTREC TOLL FREE NUMBER 800-424-9300, DAY OR NIGHT.

OR 404-562-8900





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4  
ATLANTA FEDERAL CENTER  
100 ALABAMA STREET, S.W.  
ATLANTA, GEORGIA 30303-8104

*Handwritten notes:*  
TO: [unclear]  
TO: [unclear]  
2/16/01

DATE:

TO: TEX-LA GASES  
3201 POTOSI DR  
SULPHUR LA 70665

SUBJECT: ACCEPTANCE OF OWNERSHIP OF LIQUID AND/OR COMPRESSED GAS CYLINDERS AND THEIR CONTENTS.

Based upon a determination by the U.S. Environmental Protection Agency (EPA) the following liquid and/or compressed gases were found on the Flare Chemical Superfund Site within specialty containers (cylinders) owned by the sampling Company.

The outside surfaces of the cylinders have been properly decontaminated and the containers, and their contents, removed returnable to the cylinder owner for recycling/reuse. Proper recycling and reuse of the these materials has been determined to be the most beneficial and environmentally sound alternative to treatment and/or disposal.

By accepting these materials, as signified by your signature below, you hereby agree to properly recycle and/or reuse the container, and its contents, in accordance with applicable Federal and state requirements. Should the material/product contained within the cylinder be deemed unusable for reuse/reuse the sampling party agrees to present/dispose of the contents in accordance with all applicable State and Federal regulations, and agrees that these materials will not be discarded, abandoned, disposed of, or accumulated and stored, in a manner in which violates any of the provisions within 40 CFR.

Cylinders out of hydrostatic test date will be properly inspected and sealed utilizing standard practices and methods of the Compressed Gas Association and applicable Federal Department of Transportation Regulations (49 CFR) prior to returning the containers for use in commerce.

Description of the recycled/reusable materials/products	Quantity	Type Container

These cylinders and their contents have originated from the USEPA Flare Chemical Superfund Site, 610 Rock Hill Road, Newport, Tennessee, 37621.

A bill of lading will be utilized to properly document the pickup/delivery of the cylinders and to accompany the load to its destination. It should be verified for consistency with the information supplied above.

Accepted by: Michael [Signature] Determination by: \_\_\_\_\_

Michael [Signature] \_\_\_\_\_  
 Title Name \_\_\_\_\_  
TEX-LA GASES INC \_\_\_\_\_  
 Representing \_\_\_\_\_  
4/16/01 \_\_\_\_\_  
 Date \_\_\_\_\_

Recycling/Reuseable - Printed with Vegetable Oil Based Ink on 100% Recycled Paper (40% Post Consumer Waste)

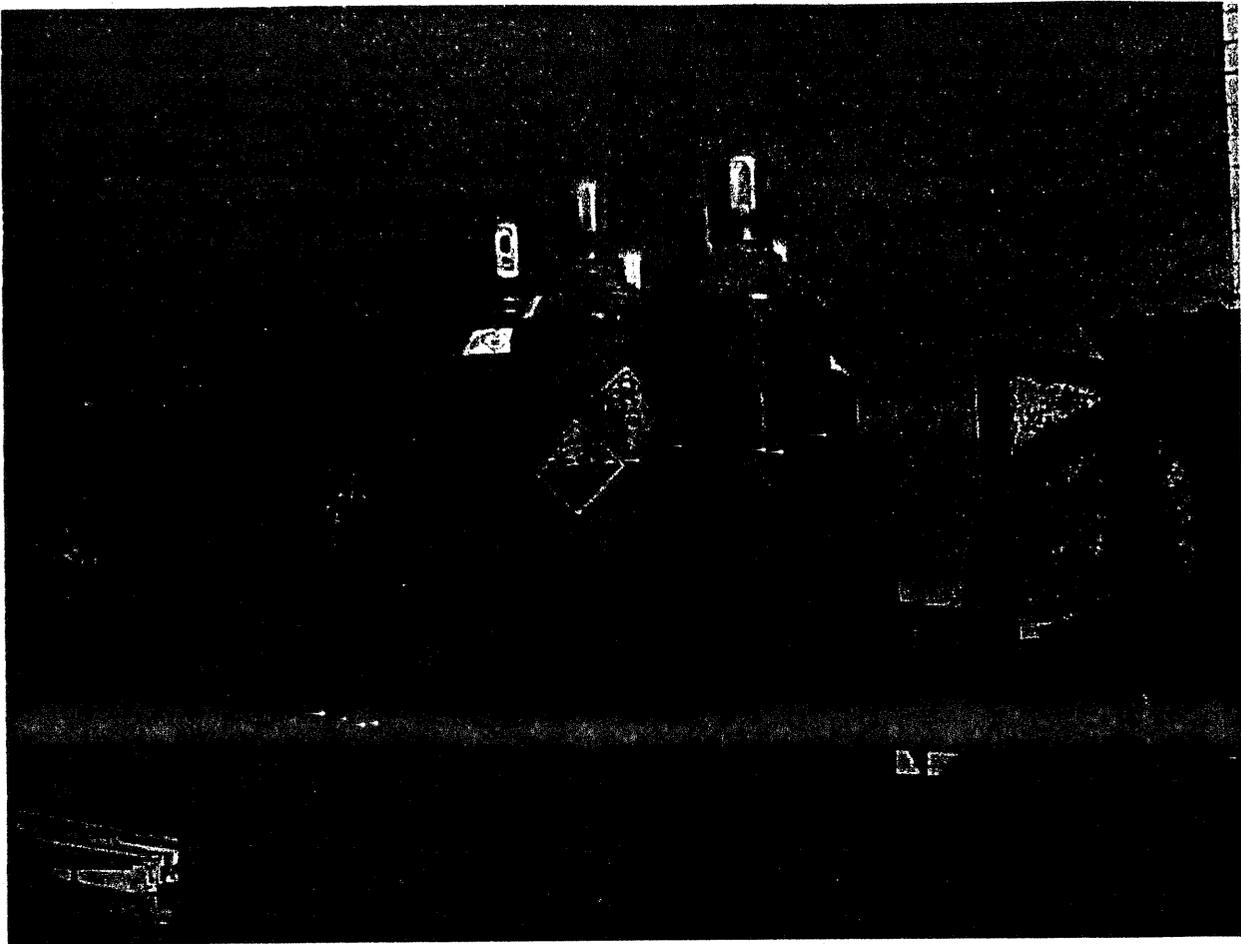


**U.S. DEPARTMENT OF TRANSPORTATION  
PLACARD DESCRIPTION:**

**YELLOW-----OXIDIZER**

**WHITE-----POISON**

**BLACK/WHITE-CORROSIVE**



**U.S. DEPARTMENT OF TRANSPORTATION  
PLACARD DESCRIPTION:**

**YELLOW-----OXIDIZER**

**WHITE-----POISON**

**BLACK/WHITE-CORROSIVE**

# **Exhibit 16**



OFFICE OF THE INSPECTOR GENERAL  
OFFICE OF INVESTIGATIONS

INTERVIEW OF RALPH DONALD RIGGER, JR.

On August 16, 2001, Special Agents Eugene P. Mullis, Jr and Michael A. Hill interviewed RALPH DONALD RIGGER, Jr., Chief, Removal Operations Section, Waste Division, EPA Region 4, regarding allegations of inappropriate activities at the FLURA Superfund Site (FLURA), Newport, TN. After being advised of the nature of the interview, RIGGER provided the following information:

He has been employed with EPA for approximately 14 years and was responsible for supervising the Superfund Removal Program. FLURA was a removal site in Newport, TN which was under his supervision. He was unaware of any problems with the moving of chemicals on February 7, 2001. Furthermore, he was unaware of the mixing of barium with nonhazardous material, thus changing the nonhazardous material to hazardous material.

He was familiar with the incident which involved the neutralizing of pesticides that resulted in an eruption. DEAN ULLOCK, Lead On Scene Coordinator (OSC) was putting chemicals in a drum and the drum erupted. He was told that CHRIS MILITSCHER took responsibility for the eruption. MILITSCHER was using the exercise to train other OSCs and MILITSCHER was responsible planning the bulking groups.

MICHAEL TAYLOR was the Lead OSC and requested MILITSCHER be assigned because FLURA was such a bad site. MILITSCHER was assigned for his technical advise. TAYLOR and MILITSCHER worked well together. MILITSCHER was due to go on the Emergency Response rotation; however, TAYLOR was reassigned because TAYLOR said EPA cannot complete the work at FLURA without MILITSCHER.

DEAN ULLOCK was selected to replace TAYLOR as the Lead OSC. This was not ULLOCK's first Lead OSC assignment. MILITSCHER was functioning as the Lead OSC in the Alabama Plating Superfund Site, while also working at FLURA. He thought being the Lead at

Investigation Conducted on	8-16-01	Conducted at	Atlanta, GA
Conducted by	Michael A. Hill & Eugene P. Mullis, Jr	OI File Number	2001-1429
Date Dictated	8-16-01	Date Transcribed	8-20-01
		By	mah

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spends a vast bot OSC h sites would be too much for MILITSCHER because the Lead OSC amount of time handling other matters such as budget, management of site activities and dealing with the press.

EPA has known about the cylinders of flourine at FLURA for awhile. He recalled having at least two conversations with MILITSCHER about the flourine. The treatment of flourine was both elaborate and expensive. He asked MILITSCHER to consider recycling; however, MILITSCHER said the cylinders of flourine were not able to be shipped and could not be recycled. In the Spring of 2001, ULLOCK came to him and was upset about the situation with the flourine. MILITSCHER wanted ULLOCK to spend hundreds of thousands of dollars to purchase supplies and equipment to treat hydrogen flouride and flourine. ULLOCK said he thought it was a big mistake and ULLOCK believed there was a better way which was more cost efficient. ULLOCK said it was safer to send the cylinders to places that have treatment capability, permits, etc. GREG POWELL, who is part of EPA's Emergency Response Team also told ULLOCK that it was not safe to treat the cylinders on site. The two issues that needed to be addressed were (1) Would someone take the cylinders and (2) Could the cylinders be safely shipped. Because the hydrostatic testing dates had expired, the cylinders could not be refilled without pressure testing; however, the cylinders could be shipped. This incident broke down the working relationship between MILITSCHER and ULLOCK. This was the first time ULLOCK questioned guidance from MILITSCHER. After this incident, MILITSCHER essentially divorced himself from the FLURA operation.

No one ever complained to him about safety violations or the way things were being handled at FLURA. He was never told that the shipper and receivers of the cylinders of flourine were not qualified to receive the cylinders. ULLOCK told him that MILITSCHER said he wanted to be the first OSC to treat flourine gas in the field. He thought MILITSCHER showed bad judgement in this matter and thought MILITSCHER's quest to be the first OSC to treat flourine gas in the field was a bad reason.

He said members of the Emergency Response Team (ERT) were consulted and could lend more expertise in the matter of treating the flourine gas on site. The HQ/ERT members are GREG POWELL, Geologist, Cincinnati, OH, DAVE MIKUNAS (expert in air), New Jersey, and PHIL CAMPAGNA, Chemist, New Jersey.

# **Exhibit 17**



OFFICE OF THE INSPECTOR GENERAL  
OFFICE OF INVESTIGATIONS

Interview of GREGORY W. POWELL

GREGORY W. POWELL, Environmental Scientist, Environmental Response Team (ERT), EPA, Cincinnati, Ohio, was interviewed about his activity at the Flura Superfund site, Newport, Tennessee. POWELL was interviewed concerning allegations of unsafe clean up practices and the illegal shipping of hazardous material. POWELL provided the following information:

He has been employed by EPA since 1984 and has been a member of the ERT since 1989. His duties consist of visiting hazardous sites and assisting and providing technical support to the On Scene Coordinators (OSC), including disposal options.

POWELL was not present during any unsafe cleanup practices or issues. He did participate in discussions concerning the handling of Fluorine (F<sub>2</sub>) and Hydrogen Fluoride (HF) with DEAN ULLOCK, EPA, OSC, Flura Superfund site. Prior information collected before ULLOCK assumed the duties of OSC, indicated that these chemicals, contained in cylinders, were not shippable. He advised ULLOCK to contact the Department of Transportation (DOT) and to determine if the chemicals could be shipped. Initially there were discussions related to the on site treatment of these chemicals. POWELL felt this procedure was dangerous and would place EPA in a vulnerable situation. There was not a definite paper trail indicating that these cylinders could not be shipped. He advised ULLOCK to pursue the shipping issue because he did not think they should be handling chemicals that could get someone killed. On site treatment would be very dangerous. POWELL did see the cylinders in question and they appeared to be in good condition to him. He feels that ULLOCK made the correct decision to ship the cylinders to appropriate off site locations.

Investigation Conducted on September 12, 2001		Conducted at Atlanta, GA (Telephone)
Conducted by S/A Gene Mullis <i>EPM</i>		OI File Number 2001-1429
Date Dictated 09/18/01	Date Transcribed 09/18/01	By <i>EPM</i>

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# **Exhibit 18**



OFFICE OF THE INSPECTOR GENERAL  
OFFICE OF INVESTIGATIONS

Interview of DAVID B. MICKUNAS

DAVID B. MICKUNAS, Chemist, Environmental Response Team (ERT) EPA, Edison, NJ, was interviewed about the Flura Superfund site, Newport, Tennessee. MICKUNAS was interviewed concerning allegations of unsafe clean up practices and the illegal shipping of hazardous material at the site.

MICKUNAS has been on the ERT for five years. His duties consist of responding to emergency sites or superfund sites as requested by EPA, On Scene Coordinators (OSC). MICKUNAS did visit the Flura site and feels that all requirements were followed. He was aware of discussions to treat Fluorine and Hydrogen Fluoride on site and also knew that these chemical, in cylinders, were ultimately transported to off site facilities. He has no first hand knowledge of how the final determination to ship these chemicals was reached. He feels that it was in the governments best interest and more cost effective not to treat these chemical on site. He has not discussed this matter with any of the OSC's since he left the site.

Investigation Conducted on September 12, 2001		Conducted at Atlanta, GA (Telephone)	
Conducted by S/A Gene Mullis <i>epm</i>		OI File Number 2001-1429 <i>MM</i>	
Date Dictated 09/18/01	Date Transcribed 09/18/01	By epm	

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# **Exhibit 19**



OFFICE OF THE INSPECTOR GENERAL  
OFFICE OF INVESTIGATIONS

INTERVIEW OF GARY CROWSON, BOC GASES, INC.

On August 23, 2001, Special Agents Michael A. Hill and Eugene P. Mullis interviewed GARY CROWSON, Production Manager and ERT Team Leader, BOC Gases, Inc., Chattanooga, TN regarding his knowledge of the transport and acceptance of six (6) cylinders of Flourine from the Flura Chemical Superfund Site in Newport, TN. CROWSON provided the following information:

He has been employed at BOC since December 1997. He was contacted by ED HENNE, ERT Manager, BOC Gases, Inc., PA. HENNE told him that RAY WILLIS, Earth Tech and DEAN ULLOCK, EPA contacted him (HENNE) regarding the six (6) cylinders containing Flourine. EPA was performing a cleanup in Newport, TN and located six cylinders of Flourine which appear to belong to BOC. HENNE told him to arrange for pickup of the cylinders. A BOC driver named JODY ELMO was dispatched to Newport to pickup the cylinders. WILLIS and ULLOCK escorted the cylinders to Knoxville, TN. BOC transported the cylinders from Knoxville to Chattanooga. When the cylinders arrived at BOC in Chattanooga, he personally inspected the cylinders. He confirmed that the cylinders did belong to BOC. The cylinders were in good condition and the Flourine was classified as product, not waste. The cylinders were sent to TEXLA for recycling. BOC was not coerced to take the cylinders and he considered the pick up of the Flourine as routine. He provided a copy of the Hazardous Material Shipping Manifest for the shipment of the Flourine (attached).

Investigation Conducted on		August 23, 2001		Conducted at		Chattanooga, TN	
Conducted by		Michael A. Hill & Eugene P. Mullis		OI File Number		2001-4005	
Date Dictated		8-23-01		Date Transcribed		8-27-01	
				By		mah	

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ADDRESS: 2300 Sycamore Pt  
 (Enter Here) Knoxville TN 37921

SHIPPING \_\_\_\_\_  
 ORDER(S) \_\_\_\_\_  
 NUMBER(S) \_\_\_\_\_

## HAZARDOUS MATERIALS SHIPPING MANIFEST

Date:

Vehicle No.:

Driver:

TRIP STATUS NO. CONTAINERS	HM	TYPE	PROPER SHIPPING NAME	HAZARD CLASS	IDENTI- FICATION NUMBER	PACKING GROUP	EXEMPTION DOT-E	WEIGHT OR VOLUME
18	X	cyl	Acetylene, Dissolved	2.1	UN1001			
			Compressed Gas, Flammable, N.O.S. ( )	2.1	UN1954			
			Ethylene, Compressed	2.1	UN1962			
			Hydrogen, Compressed	2.1	UN1049			
			Methane, Compressed	2.1	UN1971			
12	X	cyl	Hydrogen, Compressed	2.1	UN1049			
6	X	cyl	Air, Compressed	2.2	UN1002			
			Ammonia, Anhydrous Inhalation Hazard	2.2	UN1005			
12	X	cyl	Argon, Compressed	2.2	UN1006			
46	X	cyl	Carbon Dioxide	2.2	UN1013			
			Compressed Gas, N.O.S. (Argon - Carbon Dioxide )	2.2	UN1956			
22	X	cyl	Helium, Compressed	2.2	UN1046			
12	X	cyl	Nitrogen, Compressed	2.2	UN1066			
89	X	cyl	Oxygen, Compressed	2.2	UN1072			
6	X	cyl	<del>G. pitrous</del>	2.2				
6	X	cyl	Nitrous Oxide, Compressed	2.2	UN1070			
			Argon, Refrigerated Liquid	2.2	UN1951			
2	X	cyl	Carbon Dioxide, Refrigerated Liquid	2.2	UN2187			
			Helium, Refrigerated Liquid	2.2	UN1963			
3	X	cyl	Nitrogen, Refrigerated Liquid	2.2	UN1977			
3	X	cyl	Oxygen, Refrigerated Liquid	2.2	UN1073			
			Carbon Monoxide, Compressed Poison-Inhalation Hazard, Zone D	2.3	UN1016			
			Compressed Gas, Toxic, Flammable, N.O.S. Poison-Inhalation Hazard, Zone _____	2.3	UN1953		"E - 7835 special stowage Authorized"	
			Compressed Gas, Toxic, N.O.S. Poison-Inhalation Hazard, Zone _____	2.3	UN1955		"E - 7835 special stowage Authorized"	
			Hydrogen Chloride, Anhydrous Poison-Inhalation Hazard, Zone C	2.3	UN1050			
6	X	cyl	RO Fluorine Compressed	2.3	UN1045			
6	X	cyl	<del>RO Fluorine Poison Inhalation</del>					

Check for  
 Compliance  
 by  
 James

**INSTRUCTIONS:**

1. Placard for all classes carried except Radioactive material.
2. Enter materials covered by a DOT Exemption on separate lines.
3. Do not abbreviate or use trade names.
4. Check compatibility chart before loading.

This is to certify that the above named materials are properly classified, described, packed, marked, labeled/placarded and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

Signature: [Signature]

250 total Zone A

IN EVENT OF ANY EMERGENCY CONCERNING THE CHEMICALS IN THIS SHIPMENT, CALL CHEMTREC TOLL FREE NUMBER 800-424-9300, DAY OR NIGHT.

# **Exhibit 20**



OFFICE OF THE INSPECTOR GENERAL  
OFFICE OF INVESTIGATIONS

RECEIPT OF EMAIL RECORDS FROM ULLOCK

On August 20, 2001, ANTHONY DEAN ULLOCK, OSC, EPA Region 4, Atlanta, GA provided the attached copies of emails he maintained regarding his activities surrounding the shipping of cylinders of Flourine from the Flura Chemical Removal Site to BOC Gases, Inc. The following emails were provided:

1. Dated March 3, 2001 from TONYA LEWIS, EPA Attorney to MARY JOHNSON, EPA Attorney and copied sent to ULLOCK.
2. Dated March 15, 2001, from ULLOCK to CHRIS MILLITSCHER.
3. Dated March 19, 2001, from MILITSCHER to ULLOCK.
4. Dated March 20, 2001, from ULLOCK to MILITSCHER.
5. Dated March 22, 2001, from DON RIGGER to CAROL MONELL and copied to ULLOCK.
6. Dated March 26, 2001, from ULLOCK to MILITSCHER.
7. Dated March 26, 2001, from ULLOCK to MILITSCHER.

Investigation Conducted on		August 20, 2001		Conducted at		Atlanta, GA	
Conducted by		Michael A. Hill		OI File Number		2001-1429	
Date Dictated		8-20-01		Date Transcribed		8-27-01	
				By		mah	

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Owner Name: .DULLOCK.WASTE.ATLANTA.R4.EAST.EPA  
Name : Unknown

10:02:56 am

8-20-2001

U U k  
U U k  
U U nnnn k k nnnn ooo w w nnnn  
U U n n k k n n o o w w n n  
U U n n k k n n o o w w w n n  
U\* U n n k k n n o o w w w n n  
UUU n n k k n n ooo www n n

DDDD U U L L OOO CCC K K W W A SSS  
D DU UL L O OC CK K W W A A S S  
D DU UL L O OC KK W W W A A SSS  
D DU UL L O OC KK W W W AAAAA S  
.. D DU UL L O OC CK K .. WW WW A A S S  
.. DDDD UUU LLLLL LLLLL OOO CCC K K .. W W A A SSS

Hewlett-Packard NDPS Gateway

Principal: CN=Tonya Lewis/OU=R4/O=USEPA/C=US  
AltFrom: CN=Tonya Lewis/OU=R4/O=USEPA/C=US  
Logo: stdNotesLtr0  
Sign: 0  
Encrypt: 0  
DefaultMailSaveOptions: 1  
Path\_Info:  
Query\_String:  
Subject: Status on Flura  
SendTo: CN=MaryC Johnson/OU=R4/O=USEPA/C=US@EPA  
CopyTo: CN=David Clay/OU=R4/O=USEPA/C=US@EPA,CN=Suzanne  
Rubini/OU=R4/O=USEPA/C=US@EPA,CN=Dean  
Ullock/OU=R4/O=USEPA/C=US@EPA,CN=Herbert Miller/OU=R4/O=USEPA/C=US@EPA  
InetSendTo: Johnson.Maryc@epamail.epa.gov  
InetCopyTo:  
Clay.David@epamail.epa.gov,Rubini.Suzanne@epamail.epa.gov,Ullock.Dean@epamail.epa.gov,  
Miller.Herbert@epamail.epa.gov  
\$StorageTo: 1  
\$StorageCc: 1,1,1,1  
\$Mailer: Lotus Notes Release 5.0.1a August 17, 1999  
\$MessageID: <OF544AFD74.4E3D81B6-ON85256A10.0002BF8D@LocalDomain>  
From: CN=Tonya Lewis/OU=R4/O=USEPA/C=US  
INetFrom: Lewis.Tonya@epamail.epa.gov  
PostedDate: 03/14/2001 07:41:56 PM  
\$UpdatedBy: ,CN=R4MAIL2/OU=R4/O=USEPA/C=US  
RouteServers:  
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PM-03/14/2001 07:41:56 PM  
\$Orig:  
Categories:  
\$Revisions:  
\$MsgTrackFlags: 0  
DeliveredDate: 03/14/2001 07:41:56 PM

Mary, we have talked about Flura a bit. It's the one where issues surface from time to time. And we currently have a question on the table. Mr. Tyczkowski called yesterday and wanted to get some of his books and equipment from the site. I suggested that he call the OSC, Dean Ullock. Dean called me earlier today and did not think that it would be a problem to release some of his text books and perhaps some of his equipment. He will fill you in on that.

In addition, Dean had a question about recycling some of the cylinders of

materials at the site. In particular, Fluorine and HF. He wants to know if this is a viable option. His interest in handling the materials this way is due to concerns about public safety (accidents) if it is handled on site. Also, it may be more cost efficient to allow the industry to recycle it and use it for other purposes. Dean will give you a call on Tuesday.

Principal: CN=Dean Ullock/OU=R4/O=USEPA/C=US  
\$AutoSpell: 1  
InetSendTo: Militscher.Chris@epamail.epa.gov  
InetCopyTo: Rigger.Don@epamail.epa.gov  
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\$StorageCc: 1  
\$Mailer: Lotus Notes Release 5.0.1a August 17, 1999  
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INetFrom: Ullock.Dean@epamail.epa.gov  
PostedDate: 03/15/2001 10:04:31 AM  
Recipients: CN=Chris Militscher/OU=R4/O=USEPA/C=US@EPA,CN=Don  
Rigger/OU=R4/O=USEPA/C=US@EPA  
MAILOPTIONS: 0  
SaveOptions: 1  
From: CN=Dean Ullock/OU=R4/O=USEPA/C=US  
AltFrom: CN=Dean Ullock/OU=R4/O=USEPA/C=US  
Logo: StdNotesLtr21  
Sign: 0  
Encrypt: 0  
DefaultMailSaveOptions: 1  
Path\_Info:  
Query\_String:  
SendTo: CN=Chris Militscher/OU=R4/O=USEPA/C=US@EPA  
CopyTo: CN=Don Rigger/OU=R4/O=USEPA/C=US@EPA  
BlindCopyTo:  
Subject: FLURA  
EnterSendTo: CN=Chris Militscher/OU=R4/O=USEPA/C=US  
EnterCopyTo: CN=Don Rigger/OU=R4/O=USEPA/C=US  
EnterBlindCopyTo:  
\$UpdatedBy: CN=Dean Ullock/OU=R4/O=USEPA/C=US

Hey Chris,

Hope all is well with you. Wanted to pass some things along since we keep missing each other on the phone.

The GEO work is wrapping up. The prelim. data indeed illustrates five, distinct burial areas. I've been shown how to interpolate the data when it comes time to dig. Nice stuff!

Tonya Lewis has been replaced by Mary Johnson as our attorney. I spoke with her yesterday.

—Road work leading to sink and burial sites is complete.

I've instructed Ray to start becoming familiar with wastes associated with the lab (inside and out). He'll be working with Dave to come up to speed. We won't be touching anything and will be sticking to your bulking schedule. We'll wait for your return to discuss further bulking and disposal.

Since our cylinder sampling is mostly complete and prior to full blown procurement and construction of our own treatment systems (big \$\$\$), I've instructed George and Ray to contact a few vendors that treat HF to document what those options would cost and if they are viable. We'll see.

Did you or Mike consider recycling or offsite treatment of the HF and F prior to deciding on site treatment? If so, I couldn't find any evidence in our files. Let me know if you guys already did this so I can look at it.

That's it for now, crew size will scale back somewhat until we evaluate all our options regarding treatment of HF and F and George works out kinks with Elvira.

Doug, Mark M, Ed Stanton, et al... will be on site next week.

Talk at ya...

Dean

Principal: CN=Chris Militscher/OU=R4/O=USEPA/C=US  
AltFrom: CN=Chris Militscher/OU=R4/O=USEPA/C=US  
Logo: stdNotesLtr0  
Sign: 0  
Encrypt: 0  
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Path\_Info:  
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SendTo: CN=Dean Ullock/OU=R4/O=USEPA/C=US@EPA  
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DeliveredDate: 03/19/2001 03:29:06 PM

Dean: I am sorry; I misunderstood you....I thought you said that while the off-site disposal investigations were going on plans for the two treatment systems were going forward.....I undersatand that the procurements have not been authorized by you and that George and Ray are not working on the HF/F2/BF3/F5I, etc. system or the large scale system for the other freons and toxic gases. I understand that almost of half of George's crew has been demobed (temporarily?).

This comes as a bit of a shock...but I understand your intentions perfectly. You may wish to check the Action Memo regarding the generic cylinder treatment issue. How long did it take R6 Rita to get rid of her 3,000 gallons of HF at Treatment One? Just curious. I know there are many experts in this field (cylinders), including Phil, Greg Powell, Carmelo Vasi, Jeff Gold, Dan Nickens and others. You may wish to talk to some of the others too. I'm sure they can provide some additional information.

I too have placed my planning efforts on hold. I was planning to return to the site on April 23rd; but with the potential huge cost-savings in cylinder recycling and disposal that Treatment One and others will provide it just leaves the labpaks. And they can be labpacked. I also placed on hold my final calculations for the F2 and HF treatments. I know the system is going to work safely and efficiently and have the numbers to prove.....and we had all of the people and hopefully we can get them back if we need. Good luck with the mgmt. visit this week.

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\$StorageTo: 1  
\$StorageBcc:  
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InetBlindCopyTo:  
InheritedReplyTo:  
InheritedFrom: CN=Chris Militscher/OU=R4/O=USEPA/C=US  
InheritedAltFrom: CN=Chris Militscher/OU=R4/O=USEPA/C=US  
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From: CN=Dean Ullock/OU=R4/O=USEPA/C=US  
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Sign: 0  
Encrypt: 0  
DefaultMailSaveOptions: 1  
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Query\_String:  
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EnterCopyTo:  
EnterBlindCopyTo:  
\$UpdatedBy: CN=Dean Ullock/OU=R4/O=USEPA/C=US

Hi Chris,

The plans for building and the procurement of those systems are on hold. It won't take long to determine whether off-site is viable (2 weeks). In the meantime, I've been talking with others (DOT, lawyers, cost recovery) to cover those type questions. George and Ray each are working with the industry types explaining what we have, what we need. If it's viable,

save costs and is safe we need to know this before we proceed any further with procurement, construction, and treatment. If it's not an option we're prepared to move forward with the original plan.

George agrees that a reduction in manpower was necessary. He was going to suggest it himself. We were starting to see "busy work" and "burnout" That's unacceptable. Also, we we're developing a burn rate of 16K-17K a day! When I stretched out our costs over time including personnel, equipment and procurement, the numbers don't add up especially with the threat of potential cut backs. CMC would have expired their funds sooner than we projected. This doesn't take account of treatment duration, delays or setbacks. I think it is wise and prudent. This allows George time to look into off site options and to continue "tweaking" Elvira. Until she is 100%, how or why would we build a larger version? He (Geo) needs time to focus on this and he wasn't able to to with all the other activities going on. It's too much to expect one person to accomplish with much effectiveness. At some point, we have to be able to confirm that we're actually killing this stuff not just rearranging it. If we can lob-off some of the most difficult, costly work that remains to be done here, especially if it can be accomplished safely and save serious \$\$\$, why not?

Ray is focusing on the lab stuff. I instructed him to work with Dave and GST to continue to develop the plan to start getting rid of those chemicals and materials that are ready. This work is being done in conjunction with all the work you've done. The bulking schedule will not be effected and no further bulking will be done without your guidance and input.

The recently completed Geo work indicates what we already knew, only there appears to be more buried material than anybody expected. If we can save \$\$\$ now by any off-site options this may provide \$\$\$ for that phase of this clean up rather than having to go back to management to grovel for more. It might not be available, then we're left in a bind with the community. They want this place gone yesterday.

That's where we are. The site is going on a year @ \$3 million. We still got a long way to go. I just want to ensure we've looked at all options before we go any further. This is the time to do it. I'm sure you feel the same. I hope you do. Let me hear from you. Give me feedback. I know you wrapped up with far more delicate issues, Let me handle FLURA for the time being. We'll do what's right.

You mentioned your plans regarding your return. If you not going to return as planned, let me know that too. I will make other arrangements. Don't you bail on me Chris. I/we need you here.

Dean

Principal: CN=Don Rigger/OU=R4/O=USEPA/C=US  
AltFrom: CN=Don Rigger/OU=R4/O=USEPA/C=US  
Logo: stdNotesLtr0  
Sign: 0  
Encrypt: 0  
DefaultMailSaveOptions: 1  
Path\_Info:  
Query\_String:  
Subject: Flura  
SendTo: CN=Carol Monell/OU=R4/O=USEPA/C=US@EPA  
CopyTo: CN=Dean Ullock/OU=R4/O=USEPA/C=US@EPA  
InetSendTo: Monell.Carol@epamail.epa.gov  
InetCopyTo: Ullock.Dean@epamail.epa.gov  
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DeliveredDate: 03/22/2001 05:54:41 PM

I don't know how much you know about this, but I don't want you to be in the dark. Your employee (Ullock) is doing a great job. He has come to the realization that my employee (Militscher) had plans to do some very wasteful things in the name of ON-SITE TREATMENT which seems to be his mantra for the last few years. It mainly concerns the large cylinders of HF and F. Chris designed a \$1 million+ dollar treatment for these cylinders. Dean is looking into off-site disposal at a fraction of the cost. the thing that really chaps my ass is that I asked Chris months ago, to his face, if there wasn't some kind of off-site options for this stuff and he said absolutely not. Dean is pressing ahead - Chris is pissed and may "resign" from the site. If that happens Dean is ok with it, although he would like for Chris to stay involved because Chris brings a lot of experience to the table.

My deal with Dean was to keep out of it and let him try to work things out

\$AutoSpell: 1  
\$Mailer: Lotus Notes Release 5.0.1a August 17, 1999  
\$MessageID: <OF532569AA.F0ED3250-ON85256A1B.00692CFA@LocalDomain>  
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PostedDate: 03/26/2001 03:25:08 PM  
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Encrypt: 0  
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Query\_String:  
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EnterCopyTo:  
EnterBlindCopyTo:  
\$UpdatedBy: CN=Dean Ullock/OU=R4/O=USEPA/C=US

Chris,

Got your message. Let's talk!

Wish you would pick up the phone and call me as readily as you call the contractors, et al. for info. What's the deal? Every time you do this behind my back, it makes me wonder what you're thinking. Doesn't he trust

with Chris - that's why I haven't said anything to you or anybody else.  
Dean talked with Doug about it, so I didn't want you to get blindsided by  
Doug. I have talked to Doug and he agreed to let Dean continue to try to  
work things out - i hope Doug keeps his word.

Call me at home on Friday if you wish to discuss.

Principal: CN=Dean Ullock/OU=R4/O=USEPA/C=US  
\$AutoSpell: 1  
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Hey Chris:

You still out there?

We killed some PFIB last week! Still have a little tweaking to do in order to get the temps. just right but we're definitely on track. Pretty straight forward process, not sure what all the fuss was about.

Meeting w/ Doug and company went well. They left with strong impressions of what work remains here and what it might cost.

We'll probably find a home for the F, and saturated halogens (1 tonners), etc... Not sure about the HF yet. Chief and I will figure out what we'll end up treating on site.

\$AltNameLanguageTags:  
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Encrypt: 0  
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DeliveredDate: 03/26/2001 01:46:32 PM

Dean: I spoke with George on Friday and heard about the PFIB. This compound along with many others will 'treat' nicely once we finalize all of the treatment plans. Regarding the fluorine, don't get your hopes up.....if they have exceeded the hydrostatic tests dates, my interpretation is you can't ship them without a DOT exemption. PERIOD. Plus, I have completed the treatment plans for PHASE I (HF) and we can safely treat those 29 cylinders in approx. 14 days without a problem. The fluorine (PHASE 2) can be treated in ONE DAY, with no change to the treatment system. I do not recommend off-site disposal or "recycling" of this material. The risk of a release in transit or at the receiving end is too great. I won't sign the paperwork .....and if you do without DOT authorization?????.....We have the trained personnel, experience,

Work in lab progressing as scheduled.

Would you let me know how much \$\$\$ we have left for EPA costs here at FLURA? I'm not sure how to track those costs other than by your accounting. I just need a ballpark figure.

Will you be coming the week of April 23? I need to know by the end of next week in case I have to make other arrangements. Hope all is well with you.

Dean

monitors, LEVEL A suits and money to treat the 6 Fluorine cylinders.....we need to 'recycle' refrigerants (One tonners) were possible and some of the other freon compounds that are DOT-shippable (e.g. Genetron).

Since you haven't sent me your costs for two weeks, I was wondering when you would ask about tracking. I'm not DEAD Dean.....I'm still in the office 4 out of 5 days .....As of the last update, EPA costs were approx. \$149,000 with an Action Memo ceiling of \$500,000. This does not include Greg Powell and REAC's work....because the geo work would fall under prel. assessment costs.

I'm not sure how to read your question concerning my return on April 23rd. I had presumed that I was returning.....my wife's treatments will be completed by the Wed. of the previous week. I guess my answer might depend on what changes to the scope of work for the Site have been made between now and then. I have done more sites and been involved with more cylinders than any other OSC in the country.....Fluorine is bad stuff...but so is silane, disilane, pentaborane, fluorophosgene, boron trifluoride, monofluorochlorine, and many, many others. It will 'neutralize' safely, quickly, and very efficient in the proposed system....(of all the compounds I have dealt with pentaborane was by far the worse.....and for reasons too complicated to explain in this e-mail). I'm not worried.....we will treat these cylinders safely.

If you have other plans to find a replacement for me, I'd be interested to know what they are.....Don and Shane seemed to think that between Mike and I, I was the person who could not be replaced easily....but if you know something I don't, please let me know. I saw Betty today....have you finalized the plans and started taking samples of the 'candidates' yet.....call me on my cell phone 229-9500 if you need to discuss.....Thanks.

Dean Ullock  
03/26/2001 10:40 AM

To: Chris Militscher/R4/USEPA/US@EPA  
cc:  
Subject:

Hey Chris:

my abilities and decisions? It compromises my authority and direction I give them. It puts them in a corner. You'd be steamed if somebody did this to you. As for the office banter and loud telephone conversations about my decisions here at the site, I would ask that you use discretion and be more tactful whenever my name is spoken. I'm not a bad guy.

I've not touched the "candidates". When we last spoke about them you were going to give explicit directions on how to sample each one. Tell me how to do it! I'll sample them, send them off/perform the test here, you finish the "plans" with the criminal folks.

As for the treatment of HF and F. I recall all of us talking how it would take months to treat the F. Now it's down to 1 day? How is that? This must have been based on the thinking that we had 500lbs. plus.? As you probably already knew, F manufacturers can only ship 5-6 lbs of F per cylinder. Hence, we only have 30 to 36lbs. max. How did we come up with 500lbs? I still ask; why not get rid of it, rather than generate more time and material costs, stress, waste, etc...?

We may very well treat the HF on site, we'll know that here shortly. I'm grateful for the time you've spent on the calculations and I'm sure we'll utilize them if we treat. I'll keep you posted. I assure you, the DOT issue will be completely addressed. If it can't be done, we'll proceed.

You'll recall I explained that this last batch of travel to FLURA (3 weeks) is combined on one TA. I have to submit this voucher when the travel is completed (3/30/01). I'll give you the costs then. I hadn't forgotten.

Your decision to come back to FLURA on the 23rd is based on the changes to scope? What does that mean? I need to get off this %\$#@ rock sometime, I need some help!

Finally, you and I have a philosophical difference in opinions. I think we have a group of up very capable clean up contractors, not treatment specialists. It's not my place to have to spend time and money so someone can train their techs extra on how to handle this stuff, build the treatment systems, at great expense, only to have to spend weeks, months getting them on line (like ELVIRA) and working the kinks out. That's not what I'm here for. I won't "sign off" on it either. I only wish I could get your support for my approach and decisions rather than this advisarial karma. I respect and value you, your insight, experiences, humor, friendship, etc. I just don't enjoy being side stepped, talked down and second guessed by my own colleagues. If you think I'm way off mark Chris, then you should tell me and only me. And I should hear it from you and

only you. clear?

Dean

# **Exhibit 21**

[Code of Federal Regulations]

[Title 49, Volume 2, Parts 100 to 185]

Revised as of October 1, 2000]

From the U.S. Government Printing Office via GPO Access

[CITE: 49CFR173.34]

[Page 397-409]

## TITLE 49--TRANSPORTATION

### CHAPTER I--RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION, DEPARTMENT OF TRANSPORTATION

#### PART 173--SHIPPERS--GENERAL REQUIREMENTS FOR SHIPMENTS AND PACKAGINGS--Table of Cont

##### Subpart B--Preparation of Hazardous Materials for Transportation

#### Sec. 173.34 Qualification, maintenance and use of cylinders.

(a) General qualification for use of cylinders. (See Secs. 173.1 through 173.30 for requirements applying to all shipments.)

(1) No person may charge or fill a cylinder unless it is as specified in this part and part 178 of this subchapter. A cylinder that leaks, is bulged, has defective valves or safety devices, bears evidence of physical abuse, fire or heat damage, or detrimental rusting or corrosion, must not be used unless it is properly repaired and requalified as prescribed in these regulations.

(2) When cylinders with a marked pressure limit are prescribed, other cylinders made under the same specification but with a higher marked service pressure limit are authorized. For example, cylinders marked DOT-4B500 may be used where DOT-4B300 is specified.

(b) Grandfather clause. A cylinder in domestic use previous to the date upon which the specification therefor was first made effective in these regulations may be used if the cylinder has been properly tested and otherwise complies with the requirements applicable for the gas with which it is charged.

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(c) Cylinder marking. Each required marking on a cylinder must be maintained so that it is legible. Retest markings and original markings which are becoming illegible may be reproduced by stamping on a metal plate which must be permanently secured to the cylinder.

(1) Additional information not affecting the markings prescribed in the applicable cylinder specification may be placed on the cylinder. No indentation may be made in the sidewall of the cylinder unless specifically permitted in the applicable specification.

(2) When the space originally provided for dates of subsequent retests becomes filled, the stamping of additional test dates into the external surface of the footing of a cylinder is authorized.

(3) Except for marked service pressure, markings required on cylinders may not be altered or removed. The marked service pressure may be changed only upon application to the Associate Administrator for Hazardous Materials Safety and receipt of written instructions as to the procedure to be followed. A service pressure change is not authorized for a cylinder which fails to pass the prescribed periodic hydrostatic retest, unless it is reheat treated and requalified in accordance with this section.

(d) Pressure relief device systems. No person may offer a cylinder charged with a compressed gas for transportation in commerce unless the cylinder is equipped with one or more pressure relief devices sized and selected as to type, location, and quantity and tested in accordance with CGA Pamphlet S-1.1 (compliance with paragraph 9.1.1.1 of CGA Pamphlet S-1.1 is not required). The pressure relief device system must be capable of preventing rupture of the normally charged cylinder when

subjected to a fire test conducted in accordance with CGA Pamphlet C-14, or in the case of an acetylene cylinder, CGA Pamphlet C-12. Cylinders shall not be shipped with leaking safety relief devices. Safety relief devices must be tested for leaks before the charged cylinder is shipped from the cylinder filling plant; it is expressly forbidden to repair leaking fuse plug devices, where leak is through the fusible metal or between the fusible metal and the opening in the plug body, (except by removal of the device and replacement of the fusible metal.) Exceptions are as follows:

(1) Except as provided in paragraphs (d)(1)(i) through (iii) of this section, a pressure relief device is not required on a cylinder 12 inches or less in length, exclusive of neck, and 4 1/2 inches or less in outside diameter.

(i) A pressure relief device is required on a specification 9, 39 (Sec. 178.65 of this subchapter), 40, or 41 cylinder. A metal pressure relief valve is required on a specification 39 cylinder used for a liquefied flammable gas. A fusible pressure relief device is not authorized on a specification 39 cylinder containing a liquefied compressed gas.

(ii) A pressure relief device is required on a cylinder charged with a liquefied gas for which this part requires a service pressure of 1800 psi or higher.

(iii) A pressure relief device is required on a cylinder charged with a nonliquefied gas to a pressure of 1,800 psi or higher at 70 deg.F.

(2) Except for a specification 39 cylinder and a cylinder used for acetylene in solution, a pressure relief device is not required on a cylinder charged with a nonliquefied gas under pressure of 300 psi or less at 70 deg.F.

(3) A pressure relief device is prohibited on a cylinder charged with a Division 2.3 or Division 6.1 material in Hazard Zone A.

(4) A pressure relief device is prohibited on a cylinder charged with fluorine.

(5) A pressure relief device is not required on a cylinder charged with methyl mercaptan; with mono-, di-, or trimethylamine, anhydrous; with not over 10 pounds of nitrosyl chloride; or with less than 165 pounds of anhydrous ammonia.

(6) Pressure relief devices, if used, must be in the vapor space of cylinders containing pyroforic liquids, inorganic or organic, n.o.s., covered by Sec. 173.124.

(e) Periodic qualification and marking of cylinders. Each cylinder that becomes due for periodic retest as specified in the following table must be retested and marked in conformance with the requirements of this paragraph (e):

[[Page 399]]

Retest and Inspection of Cylinders \1\

Specification under which cylinder was made \2\	Minimum retest pressure (p.s.i.) \3\	Retest period (years)
DOT-3.....	3,000 p.s.i.....	5
DOT-3A, 3AA.....	5/3 times service pressure, except non-corrosive service (see Sec. 173.34(e) (13)).	5, 10, or 12 (see Sec. 173.34 (e)(14), (e)(12), (e)(16), and (e)(19))
DOT-3AL.....	5/3 times service pressure.	5 or 12 (see (e)(19))
DOT-3AX, 3AAX.....	5/3 times service	5

	pressure.	
3B, 3BN.....	2 times service pressure (see Sec. 173.34(e)(13)).	5 or 10 (see Sec. 173.34(e)(12))
3C.....	Retest not required.	.....
3D.....	5/3 times service pressure.	5
3E.....	Retest not required.	.....
3HT.....	5/3 times service pressure.	3 (see Sec. 173.34(e)(15))
3T.....	5/3 times service pressure.	5
4.....	700 p.s.i.....	10
4A.....	5/3 times service pressure (see Sec. 173.34(e)(13)).	5 or 10 (see Sec. 173.34(e)(12))
4AA480.....	2 times service pressure (see Sec. 173.34(e)(13)).	5 or 10 (see Sec. 173.34(e)(14))
4B, 4BA, 4BW, 4B-240ET.....	2 times service pressure, except non-corrosive service (see Sec. 173.34(e)(13)).	5, 10 or 12 (see Sec. 173.34(e)(11), (e)(12) and (e)(19))
4C.....	Retest not required.	.....
4D, 4DA, 4DS.....	2 times service pressure.	5
DOT-4E.....	2 times service pressure, except non-corrosive service (see Sec. 173.34(e)(13)).	5
4L.....	Retest not required.	.....
8, 8AL.....	.....	10 or 20 (see Sec. 173.34(e)(18))
DOT-9.....	400 p.s.i. (maximum 600 p.s.i.).	5
25.....	500 p.s.i.....	5
26 for filling at over 450 p.s.i.	5/3 times service pressure.	5
26 for filling at 450 p.s.i. and below.	2 times service pressure, except non-corrosive service (see Sec. 173.34(e)(13)).	5 or 10 (see Sec. 173.34(e)(11))
33.....	800 p.s.i.....	5
38.....	500 p.s.i.....	5
Exemption cylinder.....	See current exemption.	See current exemption
Foreign cylinder (see Sec. 173.301(j) for restrictions on use)\4\.	As marked on the cylinder, but not less than 5/3 of any service	5

or working  
pressure marking.

- 
- 1\ Any cylinder not exceeding two inches outside diameter and less than two feet in length is excepted from hydrostatic retest.
  - 2\ A cylinder in chlorine or sulfur dioxide service made before April 20, 1915, must be retested at 500 psi.
  - 3\ For cylinders not marked with a service pressure, see Sec. 173.301(e)(1).
  - 4\ For CTC cylinders, see Sec. 173.301(i). The retest period for CTC cylinders authorized under Sec. 173.301(i) is the period specified in the table for the corresponding DOT specification cylinder.

(1) General requirements. (i) Each cylinder bearing a DOT specification marking (including a cylinder remarked in conformance with Sec. 173.23) must be inspected, retested and marked in conformance with this section, at the frequency specified in the Retest and Inspection of Cylinders Table in this paragraph (e). Each cylinder bearing a DOT exemption number must be inspected, retested and marked in conformance with this section and the terms of the applicable exemption, at the frequency specified in the exemption.

(ii) No cylinder required to be retested by paragraph (e)(1)(i) of this section may be charged or filled with a hazardous material and transported in commerce unless that cylinder has been inspected and retested in accordance with this section and the retester has marked the cylinder by stamping the date of retest, the cylinder retester identification number unless excepted under this section, and any other marking required by this section. No person may mark a test date or a retester identification number on a DOT

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specification or exemption cylinder unless all applicable requirements of this section have been met.

(2) Retester authorization. (i) No person may mark a cylinder with a test date or retester identification number, or otherwise represent that a DOT specification or exemption cylinder has been retested under this section, unless that person holds a current retester identification number issued by the Associate Administrator for Hazardous Material Safety and operates in compliance with the terms of the retester identification number issuance letter. With the exception of visual inspections, all functions under this section must be performed or supervised by an individual named as qualified in the retester identification number application or a notification pursuant to paragraph (e)(2)(iv) of this section. A person is not required to obtain a retester identification number, if the person only performs visual inspections on DOT specification or exemption cylinders.

(ii) Any person seeking approval as a cylinder retester shall arrange for an independent inspection agency, approved by the Associate Administrator for Hazardous Material Safety pursuant to Sec. 173.300a, to inspect its retest facility. The person seeking approval shall bear the cost of the inspection. Independent inspection agencies are not RSPA agents or representatives. A list of approved independent inspection agencies is available from the Associate Administrator for Hazardous Materials Safety, Office of Hazardous Materials Exemptions and Approvals (DHM-32), Research and Special Programs Administration, U.S. Department of Transportation, Washington, DC 20590-0001. Assistance in obtaining an approval may be requested from the same address.

(A) After the inspection, the person seeking approval must submit a letter of recommendation and inspection report from the independent inspection agency and a completed request for approval to the Associate Administrator for Hazardous Materials Safety at the address listed in this paragraph (e)(2)(ii). An applicant must include the following information: company name; facility location; mailing address (if different from location of facility); business telephone number; name of

facility manager; the DOT specification/exemption cylinders that will be tested at the facility; a certification that the facility will operate in compliance with the applicable requirements of this subchapter, the date and an authorized signature.

(B) The Associate Administrator for Hazardous Materials Safety reviews the application, the inspection report and recommendation submitted by the independent inspection agency, and other available information. The Associate Administrator for Hazardous Materials Safety issues a retester identification number upon a finding that the applicant's facility and qualifications are adequate to properly inspect, test and mark cylinders under this section. Unless otherwise provided in the retester identification number issuance letter, a retester identification number expires five years from the date of issuance.

(iii) An approved retester shall apply for retester identification number renewal in a timely manner. A new inspection report and recommendation of an independent inspection agency are required for each renewal. If the Associate Administrator for Hazardous Materials Safety receives a renewal application with the accompanying inspection report and recommendation at least 50 days before expiration of the retester identification number, the retester identification number remains in effect until the Associate Administrator for Hazardous Materials Safety issues a renewal or notifies the retester that its request for renewal of the retester identification number is denied. The Associate Administrator for Hazardous Materials Safety considers renewal of a retester identification number in accordance with the standard in paragraph (e)(2)(ii)(B) of this section.

(iv) The retester identification number holder shall report in writing any change in its name, address, ownership, testing equipment, or management or personnel performing any function under this section, to the Associate Administrator for Hazardous Materials Safety (DHM-32) within 20 days of the change. A retester identification number remains valid only if the retester's

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facility and qualifications are maintained at or above the level observed at the time of inspection by the independent inspection agency.

(v) A retester shall maintain, at each location at which it inspects, retests or marks cylinders under this section:

(A) Current copies of those portions of this subchapter that apply to its cylinder inspection, retesting and marking activities at that location.

(B) Current copies of all exemptions governing exemption cylinders inspected, retested or marked by the retester at that location.

(C) Copies of each CGA pamphlet incorporated by reference in Sec. 171.7 of this subchapter that applies to the retester's cylinder inspection, retesting and marking activities at that location. The publication maintained must be the edition incorporated by reference in Sec. 171.7 of this subchapter.

(3) Visual inspection. Except as otherwise provided in this section, each time a cylinder is retested, it must be visually inspected, internally and externally, in accordance with CGA Pamphlets C-6, C-6.1, C-6.2, or C-6.3, as applicable. The cylinder must be approved, rejected or condemned according to the criteria in the applicable CGA pamphlet. Internal inspection may be omitted for cylinders of the type and in the service described under paragraph (e)(13) of this section. DOT 3BN cylinders must be inspected in accordance with CGA Pamphlet C-6.

(4) Pressure retest. (i) Unless otherwise provided, each cylinder required to be retested under this section must be retested by means suitable for measuring the expansion of the cylinder under pressure. Bands and other removable attachments must be loosened or removed before testing so that the cylinder is free to expand in all directions.

(ii) The pressure-indicating device of the testing apparatus must permit reading of pressures to within 1% of the minimum prescribed test

pressure of each cylinder tested, except that for an analog device, interpolation to  $\frac{1}{2}$  of the marked gauge divisions is acceptable. The expansion-indicating device of the testing apparatus must also permit incremental reading of the cylinder expansion to 1% of the total expansion of each cylinder tested or 0.1 cubic centimeter, whichever is larger. Midpoint visual interpolation is permitted.

(iii) Each day before retesting, the retester shall confirm, by using a calibrated cylinder or other method authorized in writing by the Associate Administrator for Hazardous Materials Safety that:

(A) The pressure-indicating device, as part of the retest apparatus, is accurate within  $\pm 1.0\%$  of the prescribed test pressure of any cylinder tested that day. The pressure indicating device, itself, must be certified as having an accuracy of  $\pm 0.5\%$ , or better, of its full range, and must permit readings of pressure from 90%-110% of the minimum prescribed test pressure of the cylinder to be tested. The accuracy of the pressure indicating device within the test system can be demonstrated at any point within 500 psi of the actual test pressure for test pressures at or above 3000 psi, or 10% of the actual test pressure for test pressures below 3000 psi; and

(B) The expansion-indicating device, as part of the retest apparatus, gives a stable reading of expansion and is accurate to  $\pm 1.0\%$  of the total expansion of any cylinder tested or 0.1 cubic centimeter, whichever is larger. The expansion-indicating device itself must have an accuracy of  $\pm 0.5\%$ , or better, of its full scale.

(iv) The test equipment must be verified to be accurate within  $\pm 1.0\%$  of the calibrated cylinder's pressure and corresponding expansion values. This may be accomplished by bringing the pressure to a value shown on the calibration certificate for the calibrated cylinder used and verifying that the resulting total expansion is within  $\pm 1.0\%$  of the total expansion shown on the calibration certificate. Alternatively, calibration may be demonstrated by bringing the total expansion to a known value on the calibration certificate for the calibrated cylinder used and verifying that the resulting pressure is within  $\pm 1.0\%$  of the pressure shown on the calibration certificate. The calibrated cylinder must show no permanent expansion. The retester shall demonstrate calibration in conformance with this paragraph (e)(4) to an authorized inspector on any day

[[Page 402]]

that it retests cylinders. A retester shall maintain calibrated cylinder certificates in conformance with paragraph (e)(8)(iii) of this section.

(v) Minimum test pressure must be maintained for at least 30 seconds, and as long as necessary for complete expansion of the cylinder. A system check may be performed at or below 90% of test pressure prior to the retest. In the case of a malfunction of the test equipment, the test may be repeated at a pressure increased by 10 percent or 100 psi, whichever is less. This paragraph (e)(4) does not authorize retest of a cylinder otherwise required to be condemned under paragraph (e)(6) of this section.

(5) Cylinder rejection. (i) A retester shall reject a cylinder when on visual inspection, it meets a rejection standard in CGA Pamphlets C-6, C-6.1, C-6.2, or C-6.3, as applicable.

(ii) Except as provided in paragraph (e)(5)(iv) of this section, a cylinder that is rejected may not be marked as meeting the requirements of this section.

(iii) When a cylinder is rejected, the retester shall notify the cylinder owner, in writing, that the cylinder has been rejected and, unless requalified as provided in paragraph (e)(5)(iv) of this section, may not be filled with a hazardous material for transportation in commerce where use of a specification packaging is required.

(iv) A rejected cylinder with a service pressure of less than 900 psig may be requalified and marked if the cylinder is repaired or rebuilt and subsequently reinspected and retested in conformance with--

- (A) CGA Pamphlets C-6, C-6.1, C-6.2, or C-6.3, as applicable;
- (B) Parts 173 and 178 of this subchapter;
- (C) Any exemption specific to that cylinder; and
- (D) Any approval required under paragraphs (i) and (l) of this section.

(6) Cylinder condemnation. (i) A cylinder must be condemned when--  
(A) On inspection, it meets a condition for condemnation in CGA Pamphlets C-6, C-6.1, C-6.2, or C-6.3, as applicable;

(B) The cylinder leaks through its wall;  
(C) Evidence of cracking exists to the extent that the cylinder is likely to be weakened appreciably;

(D) For a DOT specification cylinder other than a DOT 4E aluminum cylinder, permanent expansion exceeds 10 percent of total expansion;

(E) For a DOT 4E aluminum cylinder, permanent expansion exceeds 12 percent of total expansion;

(F) For a DOT exemption cylinder, permanent expansion exceeds the limit in the applicable exemption, or the cylinder meets another criterion for condemnation in the applicable exemption; or

(G) For a DOT specification 3HT cylinder, elastic expansion exceeds the marked rejection elastic expansion.

(ii) When a cylinder is required to be condemned, the retester shall stamp a series of X's over the DOT specification number and the marked service pressure or stamp "CONDEMNED" on the shoulder, top head, or neck using a steel stamp. Alternatively, at the direction of the owner, the retester may render the cylinder incapable of holding pressure.

(iii) When a cylinder is required to be condemned, the retester shall notify the cylinder owner, in writing, that the cylinder is condemned and may not be filled with hazardous material for transportation in commerce where use of a specification packaging is required.

(iv) A cylinder that is condemned may not be filled with hazardous material for transportation in commerce where use of a specification packaging is required and may not be marked as meeting the requirements of this section or any DOT exemption. No person may remove or obliterate the "CONDEMNED" marking.

(7) Retester markings. (i) Each cylinder passing retest must be marked with the retester's identification number set in a square pattern, between the month and year of the retest date, in characters not less than 1/8-inch high. The first character of the retester identification number must appear in the upper left corner of the square pattern; the second in the upper right; the third in the lower right, and the fourth in the lower left. Example: A cylinder retested in May 1994, and approved by a

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person who has been issued retester identification number "A123", would be marked plainly and permanently into the metal of the cylinder in accordance with location requirements of the cylinder specification or on a metal plate permanently secured to the cylinder in accordance with paragraph (c) of this section:

[GRAPHIC] [TIFF OMITTED] TR28MY96.000

(ii) Markings of previous tests may not be obliterated. A cylinder that is subject to the requirements of paragraph (e) (10), (11) (modified hydrostatic test only), (13) or (14) of this section is not required to be marked with a retester identification number. A cylinder requalified by the modified hydrostatic test method or external inspection must be marked after a retest or an inspection by stamping the date of retest or reinspection on the cylinder followed by the symbol "E" (external inspection) or "S" (modified hydrostatic test method) as appropriate. However, a cylinder subject to the requirements of Sec. 173.301(j) may not be marked with a retester identification number. Variation from the marking requirement may be approved on written request to the Associate Administrator for Hazardous Materials

Safety.

(8) Recordkeeping. A retester shall maintain the following records at the retesting location, on paper or in a form from which a paper copy can be produced on request.

(i) Records of authority to inspect, retest and mark must be maintained, as follows:

(A) Current retester identification number issuance letter;

(B) If the retester identification number has expired and renewal is pending, a copy of the renewal request; and

(C) Copies of notifications to Associate Administrator for Hazardous Materials Safety required under paragraph (e) (2) (iv) of this section.

(ii) Daily records of visual inspection and hydrostatic retest must be maintained until either the expiration of the retest period or until the cylinder is again reinspected or retested, whichever occurs first. A single date may be used for each retest sheet, provided each retest on the sheet was conducted on that date. Ditto marks or a solid vertical line may be used to indicate repetition of the preceding entry for the following entries: date; actual dimensions or a symbol; if present, manufacturer's name or symbol; if present, owner's name or symbol and retest operator. Blank spaces may not be used to indicate repetition of a prior entry. Records must include--

(A) For each test to demonstrate calibration, the date; serial number of the calibrated cylinder; calibration test pressure; total, elastic and permanent expansions; and legible identification of retest operator. The retest operator must be able to demonstrate that the results of the daily calibration verification correspond to the hydrostatic retests that were performed on that day. The daily verification of calibration(s) may be recorded on the same sheets as, and with, retest records for that date;

(B) For each cylinder retested or visually inspected, records containing the date; serial number; ICC/DOT specification or exemption number; service pressure; actual dimensions or a symbol; if present, manufacturer's name or symbol; if present, owner's name or symbol; result of visual inspection; actual test pressure; total, elastic and permanent expansions; percent permanent expansion; disposition, with reason for any repeated retest, rejection or condemnation; and legible identification of test operator. For each cylinder marked pursuant to Sec. 173.302(c) (5), the retest sheet must indicate the method by which any average or maximum wall stress was computed. Records must be kept for all completed retests, as well as unsuccessful retests under paragraph (e) (4) (v) of this section. The entry for a later retest under paragraph (e) (4) (v) of this section after a failure to hold test pressure, or retest of a cylinder regualified after rejection, must indicate the date of the earlier inspection or retest; and

(C) Calculations of average and maximum wall stress pursuant to Sec. 173.302(c) (3), if performed.

(iii) The most recent certificate of calibration must be maintained for

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each calibrated cylinder used by the retester.

(9) DOT 4-series cylinders. A DOT 4-series cylinder, except 4L cylinders, that at any time shows evidence of a leak or of internal or external corrosion, denting, bulging or rough usage to the extent that it is likely to be weakened appreciably; or that has lost five percent or more of its official tare weight must be retested before being recharged and shipped. (Refer to CGA Pamphlet C-6 or C-6.3, as applicable, regarding cylinder weakening.) After retest, the actual tare weight must be recorded as the new tare weight.

(10) Cylinders 12 pounds or less with service pressures of 300 psi or less. A cylinder of 12 pounds or less water capacity authorized for service pressure of 300 psi or less must be given a complete external visual inspection at the time periodic retest becomes due. External visual inspection must be in accordance with CGA Pamphlet C-6 or C-6.3.

The cylinder may be hydrostatically retested without a water jacket and without determining total and permanent expansions. The retest is successful if the cylinder, when examined under test pressure, does not display a defect described in paragraph (e) (6) (i) (B) or (C) of this section.

(11) Modified hydrostatic retest. A cylinder made in compliance with specification DOT 4B, DOT 4BA, DOT 4BW, DOT 4E or ICC-26-300 <SUP>2</SUP> (Secs. 178.50, 178.51, 178.61, 178.68 of this subchapter) that is used exclusively for anhydrous dimethylamine; anhydrous methylamine; anhydrous trimethylamine; methyl chloride; liquefied petroleum gas; methylacetylene-propadiene stabilized; or dichlorodifluoromethane, difluoroethane, difluorochloroethane, chlorodifluoromethane, chlorotetrafluoroethane, trifluorochloroethylene, or mixture thereof, or mixtures of one or more with trichlorofluoromethane; and that is commercially free from corroding components and protected externally by a suitable corrosion-resistant coating (such as galvanizing or painting) may be given a hydrostatic retest every 12 years instead of every five years. Alternatively, the cylinder may be subjected to internal hydrostatic pressure of at least two times the marked service pressure without determination of expansions, but this latter type of test must be repeated every seven years after expiration of the first 12-year period. When subjected to the latter test, the cylinder must be carefully examined under test pressure and removed from service if a leak or other harmful defect exists. A cylinder requalified by the modified hydrostatic test method must be marked after a retest or an inspection by stamping the date of retest or reinspection on the cylinder followed by a 'S'.

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\2\ For filling at 450 p.s.i. and below. Use of existing cylinders authorized; new construction not authorized.

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(12) A cylinder made in conformance with specification DOT-3A, DOT-3AA, DOT-3B, DOT-4BA or DOT-4BW (Secs. 178.36, 178.37, 178.38, 178.51, 178.61 of this subchapter) having a service pressure of 300 psi or less that is used exclusively for methyl bromide, liquid; mixtures of methyl bromide and ethylene dibromide, liquid; mixtures of methyl bromide and chlorpicrin, liquid; mixtures of methyl bromide and petroleum solvents, liquid; or methyl bromide and nonflammable, nonliquefied compressed gas mixtures, liquid; that is commercially free of corroding components, and that is protected externally by a suitable corrosion resistant coating (such as galvanizing or painting) and internally by a suitable corrosion resistant lining (such as galvanizing) may be tested every 10 years instead of every five years, provided that a visual internal and external examination of the cylinder is conducted every five years in accordance with CGA Pamphlet C-6. The cylinder must be examined at each filling, and rejected if a dent, corroded area, leak or other condition indicates possible weakness.

(13) A cylinder made in conformance with a specification listed in the table in this paragraph (e) (13) and used exclusively in the service indicated may, instead of a periodic hydrostatic retest, be given a complete external visual inspection at the time periodic retest becomes due. External visual inspection must be in accordance with CGA Pamphlet C-6 or C-6.3. When this inspection

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is used instead of hydrostatic retesting, subsequent inspections are required at five-year intervals after the first inspection. Inspections must be made only by competent persons and the results recorded and maintained in accordance with paragraph (e) (8) of this section. Records shall include: date of inspection (month and year); DOT specification number; cylinder identification (registered symbol and serial number, date of manufacture, and owner); type of cylinder protective coating

(including statement as to need of refinishing or recoating); conditions checked (e.g., leakage, corrosion, gouges, dents or digs in shell or heads, broken or damaged footing or protective ring or fire damage); disposition of cylinder (returned to service, returned to cylinder manufacturer for repairs or scrapped). A cylinder that passes inspection shall be marked with the date in accordance with paragraph (e)(7) of this section. An "E" after the date indicates requalification by the external inspection method. Specification cylinders must be in exclusive service as follows:

Cylinders made in compliance with--	Used exclusively for--
DOT-4, DOT-3A, DOT-3AA, DOT-3A480X, DOT-4A, DOT-4AA480..	Anhydrous ammonia of at least 99.95% purity.
DOT-3A, DOT-3AA, DOT-3A480X, DOT-3B, DOT-4B, DOT-4BA, DOT-4BW, ICC-26-240, \1\ ICC-26-300\1\.	Butadiene, inhibited, which is commercially free from corroding components.
DOT-3A, DOT-3A480X, DOT-3AA, DOT-3B, DOT-4A, DOT-4AA480, DOT-4B, DOT-4BA, DOT-4BW.	Cyclopropane which is commercially free from corroding components.
DOT-3A, DOT-3AA, DOT-3A480X, DOT-4B, DOT-4BA, DOT-4BW, DOT-4E.	Fluorinated hydrocarbons and mixtures thereof which are commercially free from corroding components.
DOT-3A, DOT-3AA, DOT-3A480X, DOT-3B, DOT-4B, DOT-4BA, DOT-4BW, DOT-4E, ICC-26-240,1 ICC-26-300\1\.	Liquefied hydrocarbon gas which is commercially free from corroding components.
DOT-3A, DOT-3AA, DOT-3A480X, DOT-3B, DOT-4B, DOT-4BA, DOT-4BW, DOT-4E, ICC-26-2401, ICC-26-3001.	Liquefied petroleum gas which is commercially free from corroding components.
DOT-3A, DOT-3AA, DOT-3B, DOT-4B, DOT-4BA, DOT-4BW, DOT-4E.	Methylacetylene-propadiene, stabilized, which is commercially free from corroding components.
DOT-3A, DOT-3AA, DOT-3B, DOT-4B, DOT-4BA, DOT-4BW.	Anhydrous mono, di, trimethylamines which are commercially free from corroding components.
DOT-4B240, DOT-4BW240.....	Ethyleneimine, inhibited.

\1\ Use of existing cylinders authorized; new construction not authorized.

(14) Cylinders containing anhydrous ammonia. A cylinder made in compliance with specification DOT-3A, DOT-3A 480X, or DOT-4AA480 used exclusively for anhydrous ammonia, commercially free from corroding components, and protected externally by a suitable corrosion-resistant coating (such as painting) may be retested every 10 years instead of every five years.

(15) 3HT cylinders. (i) In addition to the other requirements of this section, a cylinder marked DOT-3HT must be requalified in accordance with CGA Pamphlet C-8.

(ii) The cylinder must be condemned:

(A) If elastic expansion exceeds the marked rejection elastic expansion. A cylinder made before January 17, 1978, and not marked with a rejection elastic expansion in cubic centimeters near the marked original elastic expansion must be so marked before the next retest date. The rejection elastic expansion for a cylinder is 1.05 times its original elastic expansion.

(B) If there is evidence of denting or bulging.

(C) Twenty-four years after the date of the original test or after 1,380 pressurizations, whichever occurs first. If a cylinder is recharged, on average, more than once every other day, an accurate record of the number of rechargings must be maintained by the cylinder

owner or his/her agent.

(iii) The retest date and retester identification number must be applied by low-stress steel stamp to a depth no greater than that of the marking at the time of manufacture. Stamping on the sidewall is not authorized.

(16) DOT-3A or 3AA cylinders. (i) A cylinder made in conformance with specification DOT-3A or 3AA with a water capacity of 125 pounds or less that is removed from any cluster, bank, group, rack or vehicle each time it is filled, may be retested every ten

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years instead of every five years, provided the cylinder complies with all of the following--

(A) The cylinder was manufactured after December 31, 1945;

(B) The cylinder is used exclusively for air, argon, cyclopropane, ethylene, helium, hydrogen, krypton, neon, nitrogen, nitrous oxide, oxygen, sulfur hexafluoride, xenon, permitted mixtures of these gases (see Sec. 173.301(a)) and permitted mixtures of these gases with up to 30 percent by volume of carbon dioxide, provided that the gas has a dew point at or below minus 52 deg.F at 1 atmosphere;

(C) Before each refill, the cylinder passes the hammer test specified in CGA Pamphlet C-6;

(D) The cylinder is dried immediately after hydrostatic testing to remove all traces of free water;

(E) The cylinder is not used for underwater breathing; and

(F) Each cylinder is stamped with a five-point star at least one-fourth of an inch high immediately following the test date.

(ii) If, since the last required hydrostatic retest, a cylinder has not been used exclusively as specified in paragraph (e)(16)(i)(B) of this section, but currently conforms with all other provisions of paragraph (e)(16)(i) of this section, it may be retested every 10 years instead of every five years, provided it is first retested and examined as prescribed by Sec. 173.302(c)(2), (3) and (4).

(iii) Except as specified in paragraph (e)(16)(ii) of this section, if a cylinder marked with a star is charged with a compressed gas other than as specified in this paragraph (e)(16), the star following the most recent test date must be obliterated. The cylinder must be retested five years from the marked retest date, or prior to the first charging with a compressed gas, if the required five-year retest period has passed.

(17) Cylinders containing corrosive materials. (i) A cylinder that previously contained a Class 8 (corrosive) material may not be used to transport a compressed gas in commerce unless the following requirements are met--

(A) The cylinder is visually inspected, internally and externally, in accordance with CGA Pamphlet C-6;

(B) Regardless of the date of previous retest, the cylinder is subjected to and passes inspection and hydrostatic retest in accordance with this section; and

(C) The record prescribed in paragraph (e)(8) of this section includes: the month and year of inspection and test; the cylinder identification (including ICC or DOT specification number, registered symbol, serial number, date of manufacture and owner); the conditions checked (e.g., leakage, corrosion, gouges, dents, or digs in shell or heads, broken or damaged footrings, fire damage) and the disposition of the cylinder (returned to service, returned to the manufacturer for repairs, or scrapped).

(ii) A cylinder requalified for compressed gas service in accordance with this paragraph (e)(17) may have its next retest and inspection scheduled from the date of the inspection and retest prescribed in this paragraph (e). If decontamination cannot remove all significant residue or impregnation by the Class 8 material, the cylinder may not be used to transport compressed gas in commerce.

(18) DOT 8 and 8AL cylinders. (i) Each owner of a DOT 8 or 8AL cylinder used to transport acetylene must have the cylinder shell and

the porous filler requalified in accordance with CGA Pamphlet C-13. Requalification must be performed in accordance with the following schedule:

Date of cylinder manufacture	Shell (visual inspection) requalification		Porou
	Initial	Subsequent	Init
Before January 1, 1991.....	Before January 1, 2001.	10 yrs.....	Before Jan 2011.
On or after January 1, 1991.....	10 yrs \1\.....	10 yrs.....	3 to 20 yr

\1\ Years from date of cylinder manufacture.

\2\ For a cylinder manufactured on or after January 1, 1991, requalification of the performed no sooner than 3 years, and no later than 20 years, from the date of man

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(ii) Unless requalified and marked in accordance with CGA Pamphlet C-13 before October 1, 1994, an acetylene cylinder must be requalified by a person who holds a valid retester identification number. Each cylinder successfully passing a shell or filler requalification must be marked with the retester's identification number in accordance with paragraph (e)(7) of this section. In addition, the cylinder must be marked to identify the type of requalification performed in accordance with paragraph 5.6 of CGA Pamphlet C-13. For example, the letter ``S'' must be used for a shell requalification and the letter ``F'' for a porous filler requalification.

(iii) If a cylinder valve is replaced, a cylinder valve of the same weight must be used or the tare weight of the cylinder must be adjusted to compensate for valve weight differential.

(19) Cylinders used as fire extinguishers. Only DOT specification cylinders used as fire extinguishers and meeting Special Provision 18 in Sec. 172.102(c)(1) of this subchapter may be retested in accordance with this paragraph (e)(19).

(i) A DOT specification 4B, 4BA, 4B240ET or 4BW (Secs. 178.50, 178.51, 178.55 and 178.61 of this subchapter) cylinder may be retested as follows:

(A) For a cylinder with a water capacity of 12 pounds or less by hydrostatic test using the water jacket method or by hydrostatic test without determination of expansion (modified hydrostatic test method). A retest must be performed 12 years after the original test date and at 12-year intervals thereafter.

(B) For a cylinder having a water capacity over 12 pounds--

(1) By hydrostatic test without determination of expansion (modified hydrostatic test method). A retest must be performed 12 years after the original test date and at 7-year intervals; or

(2) By hydrostatic test using the water jacket method. A retest must be performed 12 years after the original test date and at 12-year intervals thereafter.

(ii) A DOT specification 3A, 3AA, or 3AL (Secs. 178.36, 178.37 and 178.46 of this subchapter) cylinder may be retested by hydrostatic test using the water jacket method. A retest must be performed 12 years after the original test date and at 12-year intervals thereafter.

(f) Cylinders subjected to the action of fire. A cylinder which has been subjected to the action of fire must not again be placed in service until it has been properly reconditioned as follows:

(1) A cylinder made of plain carbon steel with not over 0.25 percent carbon nor over 0.90 manganese need not be reheat-treated but must pass the periodic retest requirements as specified in paragraph (e) of this section.

(2) DOT 8 and 8AL cylinders made entirely of carbon steel with 0.25

percent or less carbon and with 0.90 percent or less manganese, must be reinspected to determine the condition of the cylinder and the porous filler, as prescribed in CGA Pamphlet C-13. If the cylinder has been damaged, the porous filler must be removed and the cylinder must be heat treated and retested. The porous filler must be replaced in accordance with the specification to which the cylinder was made. A cylinder may be returned to service without reheat treatment or retest if the cylinder has no fire or mechanical damage and the porous filler is unchanged and intact.

(3) The inner cylinders made under specification DOT-4L (Sec. 178.57 of this chapter) may be used after again passing the original hydrostatic test.

(4) DOT 3AL and DOT 4E aluminum cylinders may not be reheat treated and must be removed from service.

(5) Other cylinders must be reheat treated and reconditioned as specified in paragraph (g) of this section.

(g) Reheat treatment. (1) Previous to the reheat treatment procedure hereinafter prescribed, each cylinder must be subjected to a careful internal and external inspection.

(2) Cylinders must be segregated for reheat treatment in lots of 100 or less cylinders of the same general size having practically the same chemical composition.

(3) The reheat treatment operation must be carried out, supervised, and reported as prescribed for the heat treatment in the specification covering the manufacture of the cylinder in question. Data from the original reports of manufacture of the cylinders must be available.

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(4) The reheat treatment must be followed by hydrostatic retest, such retest to be carried out, supervised, and reported as prescribed for the hydrostatic tests in the specification covering the manufacture of the cylinder in question. The results of the retest must meet either of the following conditions:

(i) The permanent expansion shall be from zero to 10 percent of the total expansion in the hydrostatic retest and one cylinder from each lot shall pass the requirements of the flattening and physical tests prescribed. Failure to pass the flattening or physical tests will reject the lot or;

(ii) The permanent expansion shall not be less than 3 percent nor more than 10 percent of the total expansion in the hydrostatic retest, in which case the flattening and physical tests are not required. For this alternative method the hydrostatic retest pressure may not exceed 115 percent of the minimum prescribed test pressure.

(h) Repair by welding or brazing of specifications DOT-3A, 3AA, 3B, 3C, cylinders. Repair of specifications DOT-3A, 3AA, 3B or 3C (Secs. 178.36(e), 178.37(e), or 178.38(e) of this subchapter) cylinders by welding or brazing authorized, but only for the removal and replacement of neckrings and footrings attached to cylinders originally manufactured to conform to Secs. 178.36(a), 178.37(a), and 178.38(a) of this subchapter. Removal and replacement must be done by a regular manufacturer of this type of cylinder. After removal and before replacement of such parts, cylinders must be inspected, and defective ones rejected. Cylinders, neckrings, footrings, and method of replacement must conform to Sec. 178.36(e), Sec. 178.37(e), or Sec. 178.38(e) of this subchapter, whichever applies. Replacement must be followed by reheat treating, testing, inspection, and supervised and reported as prescribed by the specification covering their original manufacture. Inspector's reports must conform with that required by the specification covering original manufacture with the word "repaired" substituted for "manufactured." Show original markings and the new additional markings added, and statement: "Cylinders were carefully inspected for defects after removal of neckrings and after replacement, which replacement was made by process of \_\_\_\_\_ (Welding-brazing)."

(i) Repair by welding or brazing of DOT-4 series and DOT-8, welded or brazed cylinders. Repairs on DOT-4 series and DOT-8 series welded or brazed cylinders are authorized to be made by welding or brazing. Such repairs must be made by a manufacturer of these types of DOT cylinders or by a repair facility approved by the Associate Administrator for Hazardous Materials Safety and by a process similar to that used in its manufacture and under the following specific requirements:

(1) Cylinders with injurious defects in welded joints in or on pressure parts must be repaired by completely removing the defect prior to rewelding.

(2) Cylinders with injurious defects in brazed joints in or on pressure parts must be repaired by rebrazing.

(3) Cylinders during welding must be free of materials in contact with the welded joint that may impair the serviceability of the metal in or adjacent to the weld. (Precautions must be taken to prevent acetylene cylinder steels from picking up carbon during repair.)

(4) Neckrings, footrings, or other nonpressure attachments authorized by the specification may be replaced or repaired. Repair or replacement of footrings, neckrings, or other nonpressure attachments authorized by the specification for DOT-4BA and 8AL (Secs. 178.51 and 178.60 of this subchapter) cylinders may be made without conforming to the requirements of paragraph (i)(6) of this section provided the following requirements are met:

(i) Must be done by a manufacturer of these types of DOT cylinders or by a repair facility approved by the Associate Administrator for Hazardous Materials Safety.

(ii) The welder shall have available to him information as to the procedure equipment, and rod used during manufacture and shall use a similar method for repair.

(iii) Repairs must be by metal arc welding only. Welds shall be 3 inches maximum length and spaced at least 3 inches apart.

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(iv) Welds shall not be made on or near a brazed joint (to prevent the possibility of copper penetration).

(v) After repair the welds are to be inspected visually for weld quality.

(vi) After repair the weld area is to be leak tested at the service pressure of the cylinder.

(5) After removal, and before replacement of attachments, cylinders must be inspected and defective ones rejected, repaired or rebuilt.

(6) After repair, cylinders must be reheat-treated, tested, inspected and reported when and as prescribed by the specification covering their original manufacture when welding or brazing seams in a pressure part of a cylinder; or when welding or brazing on pressure parts of cylinders of plain carbon steels with carbon over 0.25 percent or manganese over 1.00 percent or of alloy steels except as provided in Sec. 173.34(i)(7).

Note 1: Heat-treatment is not required after welding or brazing weldable low carbon parts to attachments of similar material which has been previously welded or brazed to the top or bottom of cylinders and properly heat-treated, provided such subsequent welding or brazing does not produce a temperature in excess of 400 deg.F. in any part of the top or bottom material.

(7) Repair of cylinders must be followed by a proof pressure leakage test at prescribed test pressure and visual examination for weld quality when welding on pressure parts of cylinders of plain carbon 0.25 percent or less and manganese 1.00 percent or less, or when repairing steel types 1315, NAX and GLX by the following procedure:

(i) Leakage through the welding metal may be repaired without subsequent reheat treatment of the cylinder.

(ii) Repair permitted only by either the metal arc or tungsten inert

gas shielded arc process. E7015, 7016, or 7018 electrodes not larger than  $\frac{1}{8}$  inch diameter shall be used for the metal arc process.

(iii) Weld defects must be removed by grinding or chipping before repair by the metal arc process. The tungsten inert gas shielded arc process may be used for repair only when such repair can be made by puddling. Repair weld shall not exceed 1 inch in length nor be closer than 3 inches to the next repair area.

(iv) Repair of weld defects which have any cracking is not permitted.

(j) Repair of non-pressure attachments. Repair of non-pressure attachments by welding or brazing without affecting a pressure part of the cylinder must be followed by visual examination for weld quality.

(k) Prohibited repairs. Walls, heads or bottoms of cylinders with injurious defects or leaks in base metal shall not be repaired, but may be replaced as provided for in paragraph (l) of this section.

(l) Rebuilding of DOT-4 series and DOT-8, welded or brazed cylinders. Rebuilding of DOT-4 series and DOT-8 series, welded or brazed cylinders is authorized. Such rebuilding must be done by a manufacturer of these types of DOT cylinders or by a repair facility approved by the Associate Administrator for Hazardous Materials Safety and by a process similar to that used in its original manufacture and under the following specific requirements:

(1) The replacement of a pressure part such as wall, heads, or bottoms of cylinders or the replacement of the porous filling material, shall be considered as rebuilding.

(2) Rebuilt cylinders shall be considered as new cylinders and shall conform to all the requirements of the specifications applying, including verification of material, examination, inspection, etc., and the rendering of the proper reports to the purchaser, cylinder rebuilder, and the Associate Administrator for Hazardous Materials Safety. Report must show that cylinders were rebuilt.

(3) Information in sufficient detail regarding previous serial numbers and identification symbols must be filed with the Associate Administrator for Hazardous Materials Safety.

(Approved by the Office of Management and Budget under control number 2137-0022)

[29 FR 18671, Dec. 29, 1964. Redesignated at 32 FR 5606, Apr. 5, 1967]

Editorial Note: For Federal Register citations affecting Sec. 173.34, see the List of CFR Sections Affected appearing in the Finding Aids section of this volume.

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# **Exhibit 22**

[Code of Federal Regulations]  
[Title 49, Volume 2, Parts 100 to 185]  
[Revised as of October 1, 2000]  
from the U.S. Government Printing Office via GPO Access  
SITE: 49CFR173.40]

[Page 411-412]

TITLE 49--TRANSPORTATION

CHAPTER I--RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION, DEPARTMENT OF  
TRANSPORTATION

PART 173--SHIPPERS--GENERAL REQUIREMENTS FOR SHIPMENTS AND PACKAGINGS--Table of Cont

Subpart B--Preparation of Hazardous Materials for Transportation

Sec. 173.40 General packaging requirements for poisonous materials required to be p

When this section is referenced in the packaging section for a hazardous material elsewhere in this part, the following requirements are applicable to cylinders used for that material:

(a) Authorized cylinders. A cylinder must conform to one of the specifications for cylinders in subpart C of part 178 of this subchapter, except that Specification 8, 8AL and 39 cylinders are not authorized.

(b) Outage and pressure requirements. The pressure of the hazardous material at 55 deg.C (131 deg.F) must not exceed the service pressure of the cylinder. Sufficient outage shall be provided so that

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the cylinder will not be liquid full at 55 deg.C (131 deg.F).

(c) Closures. Each cylinder must be closed with a plug or valve conforming to the following:

(1) Each plug or valve must have a taper-threaded connection directly to the cylinder and be capable of withstanding the test pressure of the cylinder;

(2) Each valve must be of the packless type with non-perforated diaphragm, except that for corrosive materials, a valve may be of the packed type provided the assembly is made gas-tight by means of a seal cap with gasketed joint attached to the valve body or the cylinder to prevent loss of material through or past the packing;

(3) Each valve outlet must be sealed by a threaded cap or threaded solid plug, and

(4) Cylinder, valves, plugs, outlet caps, luting and gaskets must be compatible with each other and with the lading.

(d) Additional protection. Additional protection requirements for thin-walled cylinders and for cylinders equipped with valves are as follows:

(1) Each cylinder which has a wall thickness at any point of less than 2.03 mm (0.080 inch) and each cylinder which does not have fitted valve protection must be overpacked in a box. The box must conform to overpack provisions in Sec. 173.25. Box and valve protection must be of sufficient strength to protect all parts of the cylinder and valve, if any, from deformation and breakage resulting from a drop of 2.0 m (7 ft) or more onto a concrete floor, impacting at an orientation most likely to cause damage.

(2) Each cylinder equipped with a valve, if not overpacked in a box in accordance with paragraph (d)(1) of this section, must be equipped with a protective cap or other means of valve protection sufficient to protect the valve from deformation and breakage resulting from a drop of 2.0 m (7 ft) or more onto a concrete floor, impacting at an orientation most likely to cause damage.

(e) Interconnection. Cylinders may not be interconnected.

[Amdt. 173-224, 55 FR 52616, Dec. 21, 1990, as amended at 63 FR 37461,  
July 10, 1998]

# **Exhibit 23**

[Code of Federal Regulations]  
[Title 49, Volume 2, Parts 100 to 185]  
[Revised as of October 1, 2000]  
From the U.S. Government Printing Office via GPO Access  
[CITE: 49CFR173.301]

[Page 516-519]

TITLE 49--TRANSPORTATION

CHAPTER I--RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION, DEPARTMENT OF  
TRANSPORTATION

PART 173--SHIPPERS--GENERAL REQUIREMENTS FOR SHIPMENTS AND PACKAGINGS--Table of Cont

Subpart G--Gases; Preparation and Packaging

Sec. 173.301 General requirements for shipment of compressed gases in cylinders and

(a) Gases capable of combining chemically. A cylinder charged with compressed gas must not contain gases or materials that are capable of combining chemically with each other or with the cylinder material so as to endanger its serviceability. See Sec. 173.34(e)(17) regarding the requalification of a cylinder that previously contained a corrosive liquid.

(b) Ownership of container. A container charged with a compressed gas must not be shipped unless it was charged by or with the consent of the owner of the container.

(c) Retest of container. A container for which prescribed periodic retest has become due must not be charged and shipped until such retest has been properly made.

(d) Manifolding containers in transportation. No means of interconnecting such as manifolding of individual containers may be employed for the transportation of compressed gases, except as hereinafter authorized. Containers so manifolded shall be supported and held together as a unit by structurally adequate means. Safety relief devices on manifolded horizontal containers charged with flammable compressed gas shall be arranged to discharge upward and unobstructed to the open air in such a manner as to prevent any impingement of escaping gas upon the containers.

(1) Manifolding is authorized for containers of the following gases: argon, air, carbon dioxide, helium, neon, nitrogen, nitrous oxide, oxygen or sulfur hexafluoride provided that each container is individually equipped with pressure relief devices as required by Sec. 173.34(d) or Sec. 173.315(i).

(2) Manifolding is authorized for specification cylinders containing the following nonliquefied gases: boron trifluoride, carbon monoxide, ethylene, hydrogen, hydrocarbon gases, methane, nitrogen trifluoride, and tetrafluoroethylene, inhibited, except that aluminum cylinders are not authorized for boron trifluoride or nitrogen trifluoride service. Individual cylinders must be equipped with approved pressure relief devices as required by Sec. 173.34(d) or Sec. 173.315(i) of this part. Each cylinder must be equipped with an individual shutoff valve that must be tightly closed while in transit. Manifold branch lines of these individual shutoff valves must be sufficiently flexible to prevent damage to the valves which otherwise might result from the use of rigid branch lines. A temperature measuring device may be inserted in one cylinder of a manifold installation in place of the shutoff valve.

(3) Manifolding is authorized for specification cylinders containing the following gases: 1,1-Difluoroethylene, ethane, ethylene, hydrogen chloride, liquefied hydrocarbon gas, liquefied petroleum gas and propylene, except that aluminum cylinders are not authorized for hydrogen chloride service, provided each cylinder is equipped with approved pressure relief devices as required by Sec. 173.34(d) or Sec. 173.315(i) of this part: and provided further, that each cylinder

is equipped with an individual shutoff valve that must be tightly closed while in transit. Each cylinder must be separately charged and means must be provided to insure that no interchange of cylinder contents can occur during transportation. Manifold branch lines to these individual shutoff valves must be sufficiently flexible to prevent injury to the valves which otherwise might result from the use of rigid branch lines.

(4) Manifolding is authorized for containers of acetylene, provided that each container is individually equipped with approved safety relief devices as required by Sec. 173.34(d): And further provided, That each container is equipped with an individual shutoff valve, or valves, which shall be tightly closed while in transit. Manifold branch lines to these individual shutoff valves shall be sufficiently flexible to prevent injury to the valves which otherwise might result from the use of rigid

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branch lines. All manifold containers shall be transported in a vertical position. For the checking of tare weights or for replacement of solvent the container shall be removed from the manifold. This requirement is not intended to prohibit the charging of the acetylene cylinders while manifolded.

(5) Manifolding is authorized for cargo tanks of the following gas provided individual cargo tanks are equipped with the safety relief valves and gaging devices, as required by Sec. 173.315(h) and (i): And further provided, That each cargo tank is equipped with individual valve, or valves, which shall be tightly closed while in transit and that each such container must be separately charged: Anhydrous ammonia.

(e) Container pressure. The pressure in the container at 70 deg.F. must not exceed the service pressure for which the container is marked or designated, except as provided in Sec. 173.302(c).

Note 1: In certain cases with liquefied gases the pressure at 70 deg.F. must be lower than the marked service pressure to avoid having a greater pressure at a temperature of 130 deg.F. than is permitted.

(1) For authorized containers not marked with a service pressure, the service pressure is designated as follows:

Specification marking	Service pressure--psig
DOT 3.....	1,800
3E.....	1,800
4.....	300
8.....	250
9.....	200
25.....	300
33.....	480
38.....	250
40.....	200
41.....	240

(2) For containers made prior to the effective date of specifications, the service pressure is designated as the same as for the same type of container made in accordance with current specifications.

(f) Container pressure at 130 deg.F. The pressure in the container at 130 deg.F. shall not exceed 5/4 times the service pressure, except:

(1) Containers charged with acetylene, liquefied nitrous oxide and liquefied carbon dioxide.

(2) When a cylinder is charged in accordance with Sec. 173.302(c), the pressure in the cylinder at 130 deg.F. must not exceed 5/4 times the filling pressure authorized therein.

(g) Container valve protection. Containers charged with flammable, corrosive, or noxious gases, must have their valves protected by one of the following methods:

(1) By equipping the containers with securely attached metal caps of sufficient strength to protect the valves from injury during transit.

(2) By boxing or crating the containers so as to give proper protection to the valves.

(3) By so constructing the containers that the valve is recessed into the container or otherwise protected so that it will not be subjected to a blow when the container is dropped on a flat surface.

(4) By loading the containers compactly in an upright position and securely bracing in cars or motor vehicles, when loaded by the consignor and to be unloaded by the consignee.

(5) By equipping with valves strong enough to avoid damage during transit for containers containing non-liquefied gas under pressure not exceeding 300 psi at 70 deg.F.

(h) Compressed gas containers. Compressed gases must be in metal containers built in accordance with the DOT specifications, as shown below, in effect at the time of manufacture, and marked as required by the specification and the regulation for retesting if applicable;

Packagings

DOT-2P.....	DOT-3D.....	DOT-4BW.....
2Q.....	3E.....	4B240ET.....
ICC-3 \1\.....	3HT.....	4C.....
DOT-3A.....	DOT-3T.....	4D.....
DOT- 3AL.....		
DOT-3AX.....	4.....	4DA.....
3A480X.....	4A.....	4DS.....
3AA.....	4AA.....	4E.....

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DOT-3AAX.....	4B.....	4L.....
3B.....	4B240FLW.....	5.....
3BN.....	4B240X \1\.....	5F.....
3C.....	4BA.....	8.....

\1\ Use of existing cylinders authorized, but new construction not authorized.

(i) Foreign cylinders in domestic use. (1) Except as provided in this section and Sec. 171.12(c) of this subchapter, a charged cylinder manufactured outside the United States may not be offered for transportation to, from, or within the United States unless it has been manufactured, inspected, and tested in accordance with the applicable DOT specification set forth in part 178 of this subchapter.

(2) Effective October 1, 1999, a CTC specification cylinder manufactured, originally marked and approved in accordance with the Canadian Transport Commission (CTC) regulations and in full conformance with the Canadian Transport of Dangerous Goods (TDG) Regulations is authorized for the transportation of a hazardous material to, from or within the United States under the following conditions:

(i) The CTC specification corresponds with a DOT specification and the cylinder markings are the same as those specified in this subchapter except that they were originally marked with the letters `CTC in place of DOT;

(ii) The cylinder has been requalified under a program authorized by the Canadian TDG regulations or requalified in accordance with the requirements in Sec. 173.34(e) within the prescribed requalification period provided for the corresponding DOT specification;

(iii) When the regulations authorize a cylinder for a specific

hazardous material with a specification marking prefix of ``DOT, a cylinder marked ``CTC which otherwise bears the same markings that would be required of the specified ``DOT'' cylinder may be used; and

(iv) Transport of the cylinder and the material it contains is in all other respects in conformance with the requirements of this subchapter (e.g. valve protection, filling requirements, operational requirements, etc.).

(j) Charging of foreign cylinders for export. (1) A cylinder manufactured outside the United States that has not been manufactured, inspected, tested and marked in accordance with part 178 of this subchapter may be charged with compressed gas in the United States, and shipped solely for export if it meets the following requirements, in addition to other requirements of the subchapter:

(i) It has been inspected, tested and marked (with only the month and year of retest) in conformance with the procedures and requirements of Sec. 173.34(e) or the Associate Administrator for Hazardous Materials Safety has authorized the charging company to fill foreign cylinders under an alternative method of qualification; and

(ii) It meets the maximum filling density and service pressure requirements of this part.

(2) The bill of lading or other shipping paper must identify the cylinder and carry the following certification: ``This cylinder has [These cylinders have] been retested and refilled in accordance with DOT requirements for export.''

(k) Outside packagings. Specification 2P, 2Q, 3E, 3HT, 4BA spherical type, 4D, 4DA, 4DS, 9<SUP>1</SUP>, 39, 40<SUP>1</SUP>, and 41<SUP>1</SUP> must be shipped in strong outside packagings, except that the 4BA spherical type may be securely mounted on pallets to provide protection for the spheres and any attachments.

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\1\ Use of existing cylinders authorized, but new construction not authorized.

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(1) Outside packaging must provide protection for the cylinder. Unless the cylinder has a protective collar or neck ring, the outside packaging must provide protection to the valve against accidental functioning and damage.

(1) Specifications 3AX, 3AAX, and 3T cylinders are authorized for transportation only when horizontally mounted on a motor vehicle or in an ISO framework or other framework of equivalent structural integrity. Cylinders may be transported in COFC or TOFC service

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only under conditions approved by the Associate Administrator for Safety, Federal Railroad Administration. Cylinder valves and safety devices must be protected as follows:

(1) Each cylinder must be fixed at one end of the vehicle or framework with provision for thermal expansion at the opposite end attachment.

(2) The valve and safety relief device protective structure must be sufficiently strong to withstand a force equal to twice the weight involved with a safety factor of four, based on the ultimate strength of the material used; and

(3) Each discharge for a safety relief device on a cylinder containing a flammable gas must be upward and unobstructed.

[29 FR 18743, Dec. 29, 1964. Redesignated at 32 FR 5606, Apr. 5, 1967]

Editorial Note: For Federal Register citations affecting Sec. 173.301, see the List of CFR Sections Affected appearing in the Finding Aids section of this volume.



# **Exhibit 24**



OFFICE OF THE INSPECTOR GENERAL  
OFFICE OF INVESTIGATIONS

TELEPHONIC CONTACT WITH GARY CROWSON, BOC GASES, INC.

On October 18, 2001, Special Agent Michael A. Hill contacted GARY CROWSON, Production Manager and ERT Team Leader, BOC Gases, Inc., Chattanooga, TN to discuss the transportation of the of six (6) cylinders of Flourine from the Flura Chemical Superfund Site in Newport, TN. CROWSON provided the following information:

CROWSON confirmed that the cylinders did not have to be overpacked because the cylinders were thicker than 2.03 mm and the cylinders contained a fitted valve protection.

Investigation Conducted on		Conducted at	
August 23, 2001		Telephonic	
Conducted by		OI File Number	
Michael A. Hill <i>[Signature]</i>		2001-4005 <i>[Signature]</i>	
Date Dictated	Date Transcribed	By	
10-18-01	10-18-01	mah <i>[Signature]</i>	

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# **Exhibit 25**

**INTERVIEW OF BEN SUPKO**

On August 20, 2001, Ben SUPKO, Information Specialists for the Hazardous Materials Information Center Office of Hazardous Materials Standards (OHMS) for the U.S. Department of Transportation, Washington, D.C., was interviewed by Special Agent (SA) Brad WHEELER U.S. Department of Transportation, Office of Inspector General. SUPKO was interviewed telephonically concerning his knowledge of the transportation of fluorine and contact made with his office by Dean ULLOCK, Federal On-Scene Coordinator, United States Environmental Protection Agency. SUPKO was advised of the identity of the interviewer and he was apprised of the purpose of the interview. SUPKO voluntarily provided the following information:

**NAME:** Ben Supko

**ADDRESS:** 400 Seventh Street Southwest  
Washington, D.C.

**PHONE (W):** 1-800-467-4922

SUPKO was asked to provide his verbal interpretation of 49 CFR 173.34 (e)(1) (ii), concerning the shipment of cylinders containing hazardous material (fluorine and hydrogen fluoride) where the inspection and testing dates for these cylinders were expired. SUPKO stated that transportation of cylinders with expired inspection and testing dates is permitted as long as the contents of the cylinder will not be offered for commerce. SUPKO stated that commerce is the key word.

After reviewing a database maintained by his office, SUPKO determined that Dean ULLOCK made contact with SUPKO'S office on two occasions regarding the transportation of hazardous materials in cylinders with expired inspection and testing dates.

March 27, 2001

SUPKO stated that an interpretation letter was sent to ULLOCK on March 27, 2001, after a request telephonically by ULLOCK. The interpretation letter sent to ULLOCK was dated June 4, 1997, that was originally written to Chris Leason who previously posed the same question raised by ULLOCK.

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BAW



The response provided by OHMS states that the intent of U.S.C. 49 C.F.R. section 173.301 (C) is to permit undamaged packaging filled prior to the retest date to be transported to their ultimate destination for emptying and to permit their return to the shipper or a test facility for retesting.

April 3, 2001

On April 3, 2001, ULLOCK sent a letter to the OHMS requesting an interpretation. An additional previously issued interpretation letter addressing transportation of hazardous materials in cylinders with expired inspection and testing dates was sent to ULLOCK on April 3, 2001.

The OHMS responded that a cylinder filled prior to the retest due date may be offered for transportation or continued in transportation after the retest due date, without being tested again as long as the cylinder is in proper condition for transportation.

Interpretation Letters

SUPKO stated that it is common to provide interpretation letters that were previously sent to another person who requested the same information. Previously issued interpretation letters are issued when a caller requests a quick response. A written response directed to the requester requires additional time and a preexisting response can be provided immediately.

According to SUPKO, the file was officially closed on May 3, 2001 since no additional request was received from ULLOCK. Files are closed 30 days after the requestor makes the last contact. SUPKO stated that a direct response would have been presented had the request been made by ULLOCK.

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DEPARTMENT OF TRANSPORTATION-OFFICE OF INSPECTOR GENERAL

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# **Exhibit 26**



OFFICE OF THE INSPECTOR GENERAL  
OFFICE OF INVESTIGATIONS

INTERVIEW OF MARY JOHNSON, EPA ATTORNEY

On September 25, 2001, Special Agents Michael A. Hill and Eugene P. Mullis interviewed MARY JOHNSON, Attorney, Waste Division, EPA Region 4, Atlanta, GA regarding a conversation she had with DEAN ULLOCK on March 26, 2001, regarding the recycling of cylinders found at the Flura Chemical Removal Site in Newport, TN. JOHNSON provided the following information:

She specifically recalled the conversation with ULLOCK because she had kept notes of the conversation. The telephone conversation did occur on March 26, 2001. ULLOCK initiated the phone call in order to keep her informed of activities at the Flura Site. He specifically related information regarding his decision process in recycling cylinders containing Flourine. ULLOCK said he was thinking of shipping the cylinders off site to the original generator of the cylinders. He was talking to folks at the Department of Transportation (DOT) about the requirements to ship off-site. TIM PHILLIPS, DOT, was sending him a letter advising him that it was permissible to ship the cylinders off-site. ULLOCK said the Flourine was difficult to treat and the treatment of Flourine had never been accomplished in the field by EPA. ULLOCK was concerned about the safety of such a procedure and the tremendous cost involved. She believed ULLOCK was taking all the right steps which included keeping DOT, EPA Legal and EPA Management fully informed. She told ULLOCK to contact her if any problems arise with the matter. She had no further discussions with ULLOCK regarding the off site transportation of the cylinders.

Investigation Conducted on		Conducted at	
September 25, 2001		Atlanta, GA	
Conducted by		OI File Number	
Michael A. Hill & Eugene P. Mullis		2001-4005	
Date Dictated	Date Transcribed	By	
9-25-01	9-26-01	mah	

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