



July 14, 2009

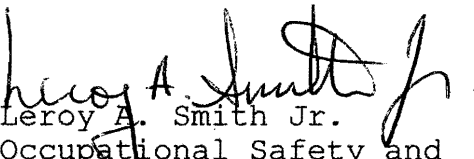
The Honorable William Reukauf  
Acting Special Counsel  
1730 M. Street, N.W., Suite 218  
Washington, D.C. 20036-3600

Re: OSC File No. DI-08-0523 & OIA File No. 2008-03216; VIOLATION  
OF LAW, RULE, OR REGULATION, GROSS MISMANAGEMENT, ABUSE OF  
AUTHORITY AND SPECIFIC DANGER TO PUBLIC HEALTH OR SAFETY AT  
THE FEDERAL CORRECTIONAL INSTITUTION, AND FEDERAL PRISON  
INDUSTRIES FACTORY, TUCSON, ARIZONA

Dear Mr. Reukauf

I have received a copy of the Department of Justice, Office  
of Inspector General, and two expert opinion reports, dated  
January 22, 2009 and March 20, 2009. Please accept comments and  
attached supporting documentation as a summary and conclusion to  
the Agencies technical assistance findings.

Sincerely,



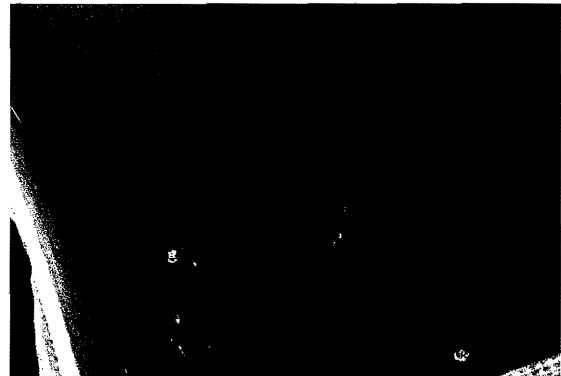
Leroy A. Smith Jr.  
Occupational Safety and  
Environmental Health Manager

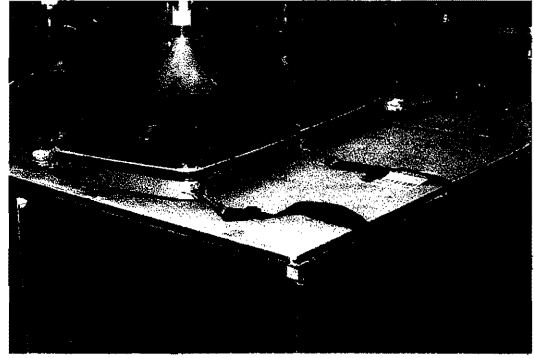
## 2.0 UNICOR E-Waist Recycling Facilities and Operations at FCC Tucson:

The UNICOR outside camp warehouse does disassemble Computer Processing Unit's (CPU's) and receive Cathode Ray Tubes (CRT's) assembled or broken during shipping, receiving and sorting. The CRT's are then re-packed and sent to the FCI to be disassembled, which additional monitors are broken during the process. Then the plastic, pallets, gaylord boxes, metal crates and other products are covered with the hazardous metals, which becomes airborne. The UNICOR staff, inmates and rear gate officers inhale and absorb low concentrations of hazardous metals daily. **(See Photos)**



The UNICOR Recycling Division began routing all CRT's to FCC Tucson to be disassembled. This is a new operation for FCC Tucson. If UNICOR determines the reuse is not an option, all asset tags/property stickers are removed from the CRT's. The CRT's are then de-manufactured for recycling or disposal. This process is to ensure that donors or manufactures are not open to liability **(See Website Attachment dated July 8, 2009)**. The CRT's are then re-packed before being sold and transported to Mexico or India for recycling and disposal. The initial concerns are that UNICOR has not conducted a job hazard analysis and the bracket/hanger used to lower the monitors into the gaylord boxes, which makes the process even more unsafe to the inmates. **(See Photos) (See Attachment February 18, 2009)**



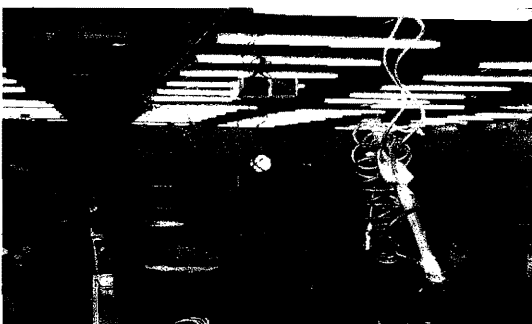


According to the Institution Safety Staff, OSHA, EPA and most recently FOH and NIOSH recommendations, that detailed job hazard analysis should be conducted prior to beginning any new operation or before making any changes to existing operations. This will allow the BOP and UNICOR to identify hazards prior to exposing staff and inmate workers. This did not occur prior to implementing the CRT disassembling operation.

Again, the BOP and UNICOR discounted the implementation of recommendations by subject matter expert's. When problems arise they conspire to conceal the truth or chalk it up to a learn as we go mentality. Meanwhile, staff and inmates are subjected to unsafe and unhealthy working conditions causing imminent and long term health effects for profit.

The BOP and UNICOR are knowingly aware of repeated or long-term exposure to cadmium, even at relatively low concentrations, may result in kidney damage and an increased risk of cancer of the lung and of the prostate (OSHA). Also, similar forms of encephalopathy may, however, arise from extended, chronic exposure to lower doses of lead. There is no sharp dividing line between rapidly developing acute effects of lead, and chronic effects which take longer to acquire. Lead adversely affects numerous body systems, and causes forms of health impairment and disease which arise after periods of exposure as short as days or as long as several years (OSHA).

The inmates are provided air tools, not powered (electrical) tools to assist in the disassembly process. This process causes harmful metals and dust to become airborne. Again, staff and inmates inhale, ingest, or absorb low concentrations of airborne hazardous metals and dust daily. **(See Photo)**



### **3.0 BOP/UNICOR Safety and Health Procedures and Practices at FCI Tucson:**

The institution safety staff have addressed and demonstrated the need for a good practice approach that warrants a general safety and health plan be put in place to identify workplace hazards, specify hazard controls and safe work practices. The BOP and UNICOR have deliberately conspired to restrain, interfere and coerce the institution safety and UNICOR staff from implementing procedures that are not item specific by OSHA or EPA, which good sound professional judgement is necessary in many cases to ensure a safe and healthy work environment for any routine or non routine work practices.

The BOP and UNICOR Chief Executive Officer's pledge a safe and healthy environment for all employees and inmates. They also pledge to ensure prompt abatement of unsafe and unhealthful working conditions. The local safety staff documents, FOH and NIOSH reports demonstrates abuse of authority by BOP and UNICOR management. They repeatedly ignore and fail to adopt recommended occupational safety and health and environmental precautions by the local safety staff, outside contractor, FOH and NIOSH. The BOP and UNICOR should not be allowed to intimidate or coerce Institution Safety Staff into deciding between the enforcement of occupational health, safety and environmental regulatory standards and their career.

#### **3.1 UNICOR Safety and Health Practices and Procedures to Control Toxic Metals Exposure:**

The BOP provided FOH and NIOSH a respiratory protection supplement, dated October 20, 2004, which was three (3) years old. In 2007 all safety supplements were changed to written plans or programs, which upon request the local safety staff provided a current respiratory protection plan to FOH, dated January 27, 2009. All programs are mandated to be reviewed and updated annually.

The local Safety Manager arrived FCI Tucson on February 5, 2006, which a respiratory program had not been in place for four (4) years. Then from October 27, 2006 thru July 17, 2008, the local safety staff continued several attempts to implement and enforce the respiratory program, which received resistance and lack of support by the local executive staff.

**(See Attachments October 27, 2006, April 1, 2008 and July 17, 2008)**

The institution staff had not been medically cleared, trained, or fit tested for over eight (8) years. The OSHA, CDC and Bureau tuberculosis program required our staff to be in a respiratory program. Also, the staff were never issued the N-95 mask when escorting suspect or confirmed tuberculosis cases. Again, executive were knowingly and wilfully aware the respiratory protections plan was in non-compliance with the OSHA hearing conservation standard.



According to Program Statement 6190.03, Infectious Disease Management, dated June 28, 2005, Tuberculosis, page 15, stated - "Escort personnel, including contract guard services, clinical staff, and others in close contact with the inmate will wear a NIOSH approved respirator (N-95 or better). Prior to use of a respirator, staff will be medically cleared, fit-tested and trained in accordance with the current OSHA standard on respiratory protection." This includes our Lieutenants, SORT team, DCT team, BPT staff, and ISM staff.

**(See Respiratory Protection Plan dated January 27, 2009)**

UNICOR originally issued a paper nuisance dust masks with a single strap with protection factor of zero (0). In this case, issuing the OSHA Appendix D to our staff and inmates would be adequate.

NIOSH stated, "The employer is not required to do medical qualifications or fit testing or have a written respiratory protection program for voluntary use of dust masks (or for respirators whose only use would be for emergency escape)." I believe this statement is not totally accurate. The Self Containing Breathing Apparatuses (SCBA) is used for emergency rescue or escape. According to OSHA, a SCBA is a respirator, which requires an employer to do medical clearances, training, fit testing and have a written respiratory protection program.

Once it was determined that low concentrations of hazardous metals and dust were detected in the UNICOR work areas, the local safety staff recommended a disposable N-95 (Model 8210) respirator with two straps and adjustable aluminum noise piece. The N-95 respirator was recommended by 3-M manufacture for the potential hazards in the UNICOR work environment, which has a much higher protection factor. Also, N-95 respirator does require a medical clearance, training and fit testing to be conducted prior to being worn by staff or inmate workers. The local safety staff recommended the N-95 respirator be made available to all staff and inmates on a voluntary basis, which has been supported by the UNICOR Associate Warden. This information has been implemented in the written respiratory protection plan since 2007 to present.

**(See Respiratory Protection Plan dated January 27, 2009)**

The Central Office, Recycling General Manager has already directed the FCI UNICOR staff not to implement a voluntary respiratory program for staff or inmates, which has been supported by FOH, NIOSH, Bill Collier and Associates and local safety staff. The BOP and UNICOR management continue to demonstrate their deliberate disregard to substantial occupational safety, health and environment laws, rule and regulations, which places the staff and inmate workers at risk without adequate safety precautions. Also, they have a clear

disregard that local safety staff having sufficient authority to correct unsafe and unhealthy working conditions.

**(See Bill Collier report dated May 27, 2009)**

### **3.2 Other UNICOR and FCI Tucson Safety and Health Procedures:**

Again, the BOP provided FOH and NIOSH supplements that were three to five years old. All supplements, plans and programs were up to date when requested by FOH and NIOSH in 2007. It appears the BOP and UNICOR continue to attempt to conceal accurate available information, which questions their sincerity and conviction to provide a safe and healthy environment for all employees and inmates. Again, the hearing conservation program supplement, dated October 7, 2002, was five (5) years old.

**(See Hearing Conservation Program, dated April 22, 2009)**

The local Safety Manager arrived FCI Tucson on February 5, 2006, which a hearing conservation program had not been in place for four years. Then from November 17, 2006 thru Present, the local safety staff continued several attempts to implement and enforce the respiratory program, which received resistance and lack of support by the local executive staff. **(See Attachments November 17, 2006, August 7, 2007, September 5, 2007, April 3, 2008, July 17, 2008, and March 5, 2009)**

One Warden even e-mailed an Associate Warden, stating - "I view this as a Complex-wide issue. Please ensure the proper follow-up occurs in a timely fashion. It has been one year and we are beginning to conduct audiometric tests on staff and will address audiometric testing for inmates in the future according to the executive staff. **(See E-mail dated July 17, 2008)**

The institution staff and inmates had not received an audiometric test for eight (8) years. The OSHA noise level survey and Bureau policy alone hearing protection program required UNICOR inmates (Bailer etc.), range instructors, SORT, DCT and BPT staff to be in a hearing conservation program. Again, BOP management were knowingly and wilfully aware the institution was not in compliance with the OSHA hearing conservation program.

**(See Safety Weekly Charts dated May 28, 2009 and July 2, 2009)**

### **3.3 FCI Tucson Safety Department Concerns:**

The FOH report stated, "Communications indicate that the FCI Tucson Safety Department is actively engaged to ensure hazard evaluation, communication, and control." Also, "This open rear gate" safety item points to the need for BOP and UNICOR to list, track, address, accept or not accept, and close out recommendations from its safety and health staff, consultants, and others, including from the OIG investigation."

The BOP program statement 1600.09, occupational safety, environmental compliance and fire protection requires each institution to comply with most recent codes, standards, regulations, and Bureau policy, which applies to UNICOR as well.

Program Statement 1600.09, clearly delineates the BOP and UNICOR occupational safety, environmental compliance, and fire protection ownership, responsibilities, and corrective actions to be taken. The program statement identifies the institution Safety Manager and staff being the local authority having jurisdiction (AHJ) for the implementation and enforcement of the safety program. Then chief executive officer must ensure compliance with OSHA, EPA and NFPA requirements and state and local regulations and ensure prompt abatement of unsafe and unhealthful working conditions. The hazard assessment stated - The Safety Department identifies and addresses hazards in the workplace for existing and new work procedures, projects, or exercises (mock drills, etc.) are reviewed by the Safety Department, which makes written recommendations to the chief executive officer.

**(See Program Statement 1600.09, chapter 1, page 1, section A, chapter 1, page 2, sections 4 & 6, chapter 1, page 3, section C, chapter 1, page 6, paragraph 2, and chapter 2, page 1, section B)**

On environmental compliance the BOP requires all institutions, UNICOR facilities, and offices will implement these policies and procedures, and inmate programs and activities specific to their location and operations.

**(See Program Statement 1600.09, chapter 3, page 1, section A, paragraph 2)**

The UNICOR recycling web-site states - "In addition to UNICOR's restrictive no-landfill policy, of electrical components, the recycling business group complies with OSHA standards and each institution is staffed with a full-time Safety Manager." UNICOR does not have a full-time Safety Manager, unless they are acknowledging the BOP's institution local Safety Manager is responsible for inspecting them to ensure compliance with OSHA, EPA and other regulatory agency's, which the BOP and UNICOR would be responsible for correcting any deficiencies noted.

**(See Website Environmental Compliance Attachment dated July 8, 2009)**

The real concern is having the BOP and UNICOR address the recommendations in writing. Especially, when they are not willing to accept the recommendations of the local safety staff, consultants, and others, including the OIG investigation findings. Otherwise, the BOP and UNICOR will continue to place the local safety staff liable for non-compliance issues and hold them solely responsible for unsafe and unhealthy conditions causing injury or loss of life to staff or inmate workers. This would include Notice of Violation (NOV's) citations by OSHA or EPA as well.

### 3.4 Environmental Procedures:

In the NIOSH report dated February 2009, recommended a daily and weekly cleaning of work areas by HEPA-vacuuming and wet mopping, which did not address any testing or disposal concerns. The local safety staff recommended that testing of the dust, debris, water, wet and dust mops with toxic metals for compliance with EPA regulations disposal practices, which was not mentioned in the report. This was discussed with FOH, UNICOR Associate Warden and the UNICOR Industrial Hygienist. Otherwise, UNICOR would of been pouring the water down the drains and disposed the other items in the general waste stream (landfills).

(See E-mails dated February 27, 2009 and March 6, 2009)

### 4.0 Field Investigation and Monitoring Results:

I support the recommendations.

### 4.1 Investigation for Exposure to Toxic Metals:

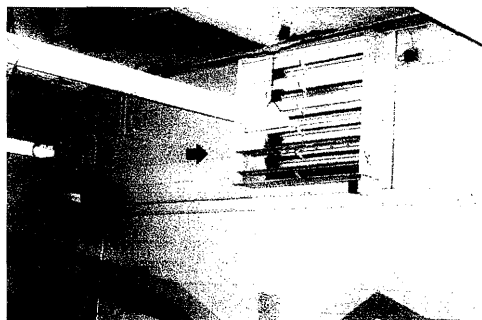
I support the recommendations.

#### 4.1.1 OSHA Exposure Monitoring for Toxic Metals and Other Findings:

UNICOR has contracted Bill Collier and Associates to conduct an Industrial Hygiene baseline survey for FCI Tucson. This survey was conducted March 25-27, 2009. The contractor conducted both personal exposure, area air levels and wipe samples.

The following measurement and observations in the report are not accurate:

1. UNICOR staff noted they cleaned the factory the week prior to the consultant conducting the industrial hygiene survey, which demonstrates why there is inconsistency with the survey results.
2. These are the exhaust fans and air vents in the FCI Factory. There are only two, one on the east wall and one on the north wall. They are approximately 10 to 12 feet in the air.

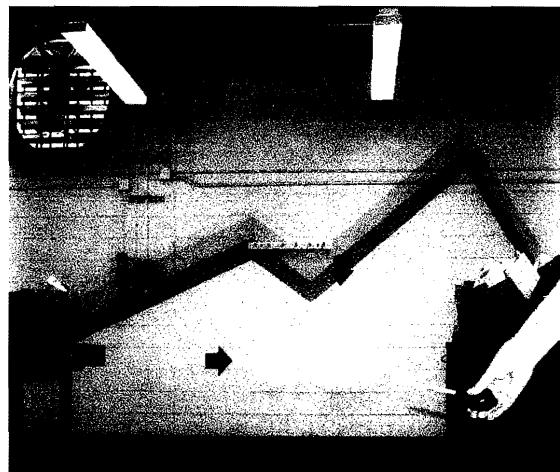


**Note:** The Collier report stated - the prison factory has exhaust fans to pull air away from the working areas. Also, they use smoke tubes primarily to determine airflow direction.

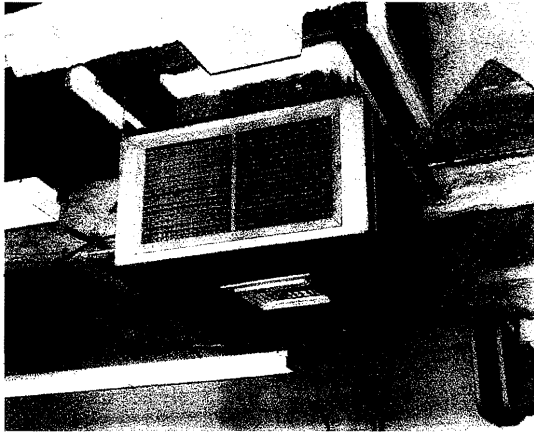
The institution safety staff recently was asked to review and comment on the Collier report dated May 27, 2009. The local safety staff will use smoke tubes to determine the direction of air flow. Also, demonstrate our concerns with the Collier report as well.

- A. Toxic metals are normally heavier than air, which the metals would float to the ground before floating 40 to 50 feet in a horizontal or vertical direction towards the exhaust fan.
- B. If the Collier report is accurate, the inmate work stations along the south and north walls would be exposed to a higher saturation level of toxic metals in their breathing zone daily.
- C. The exhaust fans are not designed with a HEPA filtering system.
- D. Without a filtering system the toxic metals would be exhausted outside the factory into the environment.
- E. Would there be any EPA air pollution permits required for exhausting toxic metals into the environment?
- E. Would there be any EPA violation for saturating the outside dirt with toxic metals overtime?

**Note:** The swamp coolers and diverters were turned off at the time the smoke tests were conducted. The red arrows indicated where the concentrations of smoke were released. Also, the image demonstrates the direction or non movement of the smoke. The smoke remained still, which does not support the information in the Collier report.



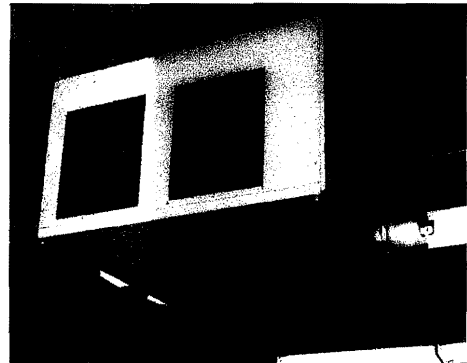
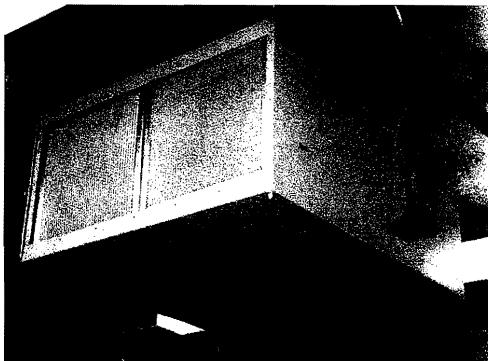
3. This is one of the swamp coolers in the FCI Factory. They are station down the middle of the factory floor. They are approximately 10 feet from the floor.

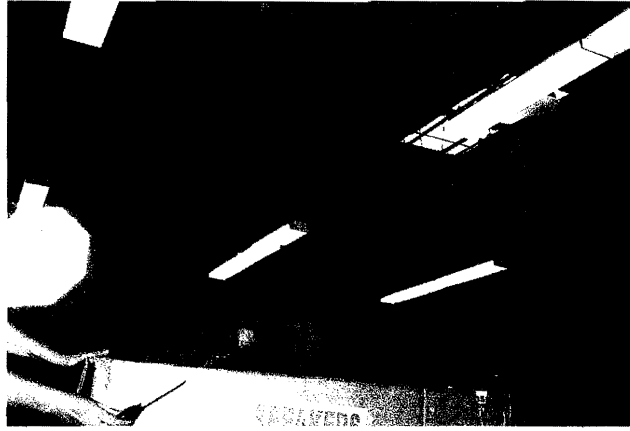


**Note:** The swamp coolers and diverters were turned on at the time the smoke test was conducted. The red arrows indicated where the concentrations of smoke were released. Also, demonstrates the direction or non movement of the smoke. The smoke made a hurricane or circular motion, but remain centrally located. Again, this does not support the information in the Collier report.



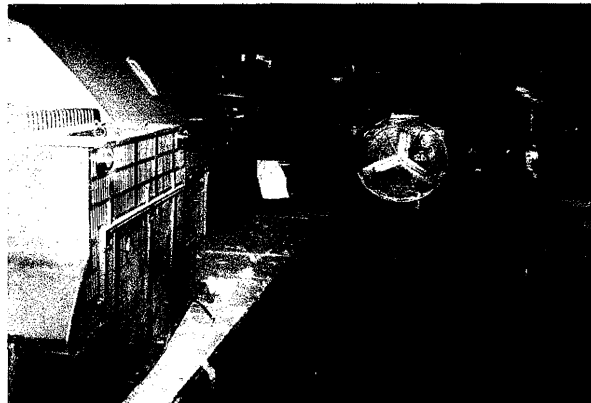
4. The Collier report identified this equipment as a air filtering system inside the FCI Factory. They are stationed at the south and north end of the factory. They are approximately 10 feet from the floor.





**Note:** These machines are not air filtering systems. They are air diverters that supply air and have a filter that protects the system from dust or debris. In the picture the smoke remains still and does not go horizontal or vertical to the diverters nor the exhaust fans on the north or south walls.

5. This is one of the swamp coolers and portable fans used at the camp warehouse. There are two swamp coolers on the east wall and portable fans throughout the warehouse.



**Note:** The roll up cargo doors are only opened when UNICOR is shipping or receiving product, which causes the toxic metal dust and debris to become airborne. The FOH and Collier reports recommend HEPA vacuuming be utilized instead of dry sweeping to prevent toxic metals from becoming airborne.

Also, the high cfm's from the swamp coolers and diverters were not addressed in the FOH and Collier reports. The high velocity of air flow from the swamp coolers and diverters will cause the toxic metals to become airborne continuously, which will subject staff and inmate workers to higher levels of toxic metals daily through inhalation, ingestion or absorption.

#### **4.1.2 UNICOR Consultant Monitoring Report for Toxic Metals:**

I support the recommendations.

#### **4.1.3 NIOSH/DART Surface Wipe and Bulk Dust Sample Results:**

The reason for the differences with the surface testing in 2006 (Contractor) and 2007 (FOH), UNICOR staff were instructed to stop work and clean the factory and warehouse areas the week prior to the industrial hygiene survey's being conduct. Again, the work stopped and additional cleaning was conduct prior to the surface testing in 2009 (Collier Report) survey's.

#### **4.2 Investigation for Noise Exposure:**

I support the recommendations.

#### **4.3 Heat Exposure and Repetitive Stress:**

I support the recommendations.

#### **4.3 Environmental Issues:**

I support the recommendations.

#### **5.0 Conclusions:**

I have no comments.

#### **5.1 Heavy Metals Exposures:**

The UNICOR Industrial Hygienist reviews and comments on all consultant reports, including the June 2006 report. This should be a serious concern for the BOP and UNICOR. This person is a former OSHA certified industrial hygienist. The Bureau's most competent industrial hygienist has been demoted to a worker's compensation coordinator.

#### **5.2 Noise, Heat, and Repetitive Stress Exposure:**

I have no comments.

#### **5.3 Safety and Health Programs, Plans, and Practices:**

The local safety staff supported the need for a voluntary respirator (dust mask) program for staff and inmate workers. Also, this is supported in the Collier and FOH reports.

The FCI UNICOR staff have been instructed by the Central Office, UNICOR Recycling Division not to provide any type of respirator (dust mask), which conflicts with the local safety staff, FOH, and Collier recommendations.



#### **5.4 Health and Safety Regulatory Compliance:**

The BOP and UNICOR were aware of the non-compliance issues addressed in this report for years, which they deliberately took no corrective action. Their current cooperation and actions are a deliberate misdirection. Once, the FOH, NIOSH, EPA, OIG and OSC complete their final reports and move on, the BOP and UNICOR will resort back to business as usual status. This includes restraint, interference, coercion, retaliation tactics towards safety staff, which places these staff in a very venerable position without any support.

#### **5.5 Environmental Compliance:**

The local safety staff have communicated with the BOP and UNICOR management concerning the source of surface dust contamination is not from glass breaking, but is from contamination which has been released to the air and re-deposited on surfaces during routine e-waste disassembly of CPU's and CRT's and by accidental breakage during shipping, receiving and handling, which they have not support or taken any corrective action.

#### **6.0 Recommendations:**

I have no comments.

#### **6.1 Heavy Metals Exposure:**

I support the recommendations.

#### **6.2 Noise, Heat, and Repetitive Stress Exposure:**

I support the recommendations.

#### **6.3 Safety and Health Program, Practices, and Plans:**

Again, the BOP and UNICOR should implement a system to list, track, address, accept or not accept, and close out recommendations or deficiencies identified by it's health and safety staff, consultants, and others, including from the OIG investigation report. This will be very beneficial to the local safety staff and the affected department.

BOP and UNICOR management need to clearly define who will be responsibility for taking actions for non-compliance issues between the BOP and UNICOR. Currently, when the BOP and UNICOR management discount necessary safety, health and environment recommendations or deficiencies by the local safety staff, they will direct the safety staff verbally to discontinue seeking corrective action or face disciplinary action.

**(See E-mails dated March 2, 2009 and May 27, 2009)**

Otherwise, the BOP and UNICOR will continue to place the local safety staff liable for non-compliance issues and hold them solely responsible for unsafe and unhealthy conditions, which may cause injury or loss of life to staff or inmate workers. This would include Notice of Violation (NOV's) citations by OSHA or EPA as well.

#### **6.4 Health and Safety Regulations Compliance:**

FCI Tucson has began receiving and disassembling CRT's. These shipments will be received from all vendors and other Bureau institutions. There has not been any new job hazard analysis conduct prior to the operation. This operations was implemented at the direction of the Central Office, UNICOR Recycling Division. By not conducting the job hazard analysis demonstrates the BOP and UNICOR management's business as usual approach and clear disregard for implementing the recommendations by local staff, consultants, and others (FOH & NIOSH), including the OIG investigation report.

#### **6.5 Environmental Compliance:**

I support the recommendations.

## **Mold:**

The institution submitted roof project requests to the Regional Facilities Administrator for eight (8) years or more, which the Regional Office refused to fund the needed roof replacements. The BOP should of provided six (6) consultant reports for mold related evaluations conducted through 2006 and 2008. There had not been any rain for a few months before or after the mold tests were taken.

AES and the Central Office Safety Division, Industrial Hygienist, supported the local safety staff's concern that mold in the HVAC systems maybe causing a mold outbreak throughout the buildings. In most cases the mold could not be detected by a visual inspection.

1. The Central Office, Industrial Hygienist stated - "I believe the air conditioning units, trailer construction/insulation, and leaks have provided conditions where moisture condenses around the trailers and promotes mold growth. The remediation recommendations of cleanup and leak repair may not solve the whole problem, mold growth could reoccur. HVAC timers may be necessary to allow building surfaces to dry out. Depending on the mold contamination within the walls, re-insulation may be needed and could also be good in preventing mold growth reoccurrence." The Industrial Hygienist was demoted to a workers compensation coordinator for this persons honesty concerning the increasingly mold concerns throughout the entire institution. This recommendations were never received by the local safety staff.

2. The level of mold detected in the sample is quite high, and finding the source or exact locations and dimensions of the affected area will require further testing. This can be accomplished by sampling the air within the wall cavities, HVAC system, and by testing the roof's interior surfaces. Because elevated mold spores levels were not detected above the ceilings, but were detected in the air, the HVAC system is suspect.

3. When mold exists in hidden areas of a structure, its growth is encouraged by high humidity and low or poor ventilation, which throws out the BOP's and NIOSH's theory that the mold growth was caused by leaking roofs only.

4. Maintain the humidity below 60%, maintain adequate ventilation, allow for proper amount of make-up air from the outdoors, per standards, change air filters frequently, or as recommended by the manufacturer of the air handling systems. **(See E-mail dated October 12, 2006 and Mold Reports dated September 27, 2006, October 23, 2006, November 6, 2006, July 3, 2008, July 30, 2008 and October 6, 2008)**

The staff became aware of mold in the trailers, health service and administration building as early as 1995 through 2005, and again on September 20, 2006. They reported noise bleeds, headaches, new/old asthma conditions, runny nose and eyes, respiratory conditions, skin and eye rashes, nausea, muscle aches and pains and fatigue. The staff reported that some of these symptoms developed within a couple of hours of entering the building daily. Also, many of the staff (FCI Warden, business office, safety and laundry staff etc.) reporting these health concerns were healthy normal people, without any preexisting medical conditions.

The Regional Facilities Administrator committed a criminal offense when making a false statement under oath (Affidavit). The BOP contracted Applied EnviroSolutions, Inc. (AES) to conduct mold remediation and clean-up of the trailers on October 31, 2006. **(See Mold Report dated November 6, 2006)**

The serious unsafe and unhealthy conditions reported by AES concerning the east and west trailers were the real reasons the BOP decided to dispose of the trailers at the landfill. The BOP was aware of these third world horrific conditions for ten (10) to twelve (12) years. Also, the cost of the construction repairs to make the trailers habitable for staff to work and inmates to program (Correctional, Recreational, and Psychology etc.) was the other reason the trailers were disposed of at the landfill.

1. AES conducted a visual inspection of the trailers on September 27, 2006. **(See Mold Report dated September 27, 2006)** I present the following findings for review:

- A. The East Trailer currently used as the Band; Exercise, and Arts and Crafts rooms, and an Office. The rooms had a detectable musty odor. The Band, Exercise and Arts & Crafts rooms had noticeable decay or rot of the paneling and inner wall structures, below and near the windows in their east and west walls.
- B. FCI personnel stated that the musty odor and black mold growth had been present on the east wall between the windows of the exercise room for some time.
- C. The floor with in the latrine located in the Arts and Crafts room had noticeable rot around the toilet to the extent that the toilet was no longer stable.
- D. The floor in front of the entry inside the Arts & Crafts room also has noticeable rot.
- E. The west annex building contains the officers station, lieutenants station and the psychology offices were in significantly better condition. However, stains were found around the windows of offices. Only bulk samples were taken from each location.

F. Discolored painted and textile surfaces throughout the west trailer.

G. Visible and savior mold growth in the HVAC ducts.

H. Portion of rotten paneling exposed with mold in the exercise room. The mold was found throughout walls.



Again, the Regional Facilities Administrator committed a criminal offense when making a false statement under oath (Affidavit) concerning the full replacement of the Health Service (Medical) roof and especially the FCI Administration Building (Business Office). The BOP provided the affidavit to NIOSH for review on September 30, 2008.

1. Apportion of the Health Services (Medical) roof was replaced and completed on February 15, 2008.  
**(See Asset Recognition For dated May 9, 2008)**
2. The other portion of the Health Services (Medical) roof, along with the Administrative buildings (Business Office) roof was replaced and completed on January 12, 2009.  
**(See Asset Recognition Form dated January 16, 2009)**

The Business Office Controller expressed his concern about remediation of health services and the business office (administration building). **(See E-mail dated January 30, 2007)**

The Administration building (business office) were tested a second time on October 13, 2006, which mold was found in the HVAC system, controller's office north wall and west window, and the financial program office south wall.

**(See Mold Report dated October 23, 2006)**

The Regional Office discounted the importance to fund the roof replacement of the Administration building for two (2) years, which they knowingly and wilfully kept staff in unhealthy work conditions. **(See Mold Report dated July 3, 2008)** Also, it took the FCI Warden's Secretary making a formal unhealthy complaint of mold causing additional health issues, before additional mold testing was conducted. She identifies that the administration

building roof was leaking during the 2007 monsoon rains, which again demonstrates the roof had not been replaced.

**(See E-mail dated May 13, 2008)**

Besides the Wardens Secretary's reporting health concerns associated with mold exposure, the laundry supervisor, two inmate systems supervisors and safety staff reported health concerns as well. **(See E-mails dated November 13 and December 3, 2008)**

AES conduct additional mold sampling that expanded from the administration building (business offices) to the administration building (warden's office, warden's reception area, file room, equipment room, and Ms. Haag's office), safety/facility building, commissary building, yucca officer station, palo verde wallboard, palo verde showers, hospital hallway, and carpentry shop).

Around this time the local safety staff became concerned with the mold being found institution-wide. Also, concerned with the reported staff health concerns associated with mold. The EPA has an Indoor Air Quality regulation concerning "Sick Building Syndrome." The causes of sick building syndrome are biological - bacteria, mold, pollen, and viruses are types of biological contaminants.

The local safety manager on three occasions requested additional funding to conduct health and environmental risk assessments for the entire institution, which was sent to the Complex Warden, FCI Warden, Regional Director, Regional Safety Administrator, without any acknowledgment returned.

1. Recommended a qualified mold remediation company conduct additional sampling for the assessment of indoor air quality and the possible presence of mold toxins in identified areas.

**(See Document dated September 18, 2008)**

2. Recommended the services of a qualified mold remediation company to conduct additional sampling for the assessment of indoor air quality and the possible presence of mold toxins in the ceiling, walls, and ventilation ducts throughout the institution areas.

**(See Document dated September 19, 2008)**

3. Requested consideration for a health and environmental risk assessment be conducted in all buildings at the FCI to determine the extent of mold exposure and in an attempt to ensure health risks are minimized.

**(See E-mail dated November 13, 2008)**

4. Also, requested additional funding to conduct a thorough health and environmental risk assessment of all buildings at FCI, Tucson, which will ensure compliance with OSHA's and EPA's occupational exposure, housekeeping and indoor air quality regulatory guidelines.

**(See E-mail dated November 22, 2008)**

Warden Winn stated, "Mr. McFadden denied your request for funding to conduct a complete health risk assessment and the cleaning of the ventilation ducts." The Regional Safety Administrator supported Warden Winn's comments. He mentioned, they are afraid the mold concerns will affect all institutions Bureau-wide, like the UNICOR Computer Recycling concerns have.

NIOSH wrongly quoted the July 3, 2008, AES report. The report explains the administration building previously had mold remediation performed, but seems that the leaking roofing was never completely repaired. The water subsequently permeated the roof and the ceiling tiles, which showed significant staining.

Again, this demonstrates the administration building roof was not replaced as mentioned in the Regional Facilities Administrator's affidavit, let alone any repairs to the roof for over two (2) years. The report dated July 3, 2008, addresses the mold sampling conducted on June 26, 2008 and the report dated July 30, 2008, addresses the mold sampling conducted on July 22, 2008.

#### **Ventilation:**

Again, the Agency has not been forthcoming with the ventilation information provided to NIOSH for review. The ventilation sampling is conducted in inmate rooms/cells, officer stations, and dining areas. The cells were designed to house one inmate. The Agency converted them into two and three inmate cells, which they have not been in non-compliance with the American Correctional Association Accreditation (ACA) process for years. If this was a mandatory ACA standard the Bureau of Prison would fail to obtain their ACA accreditation. The Agency intends to create additional three man cells, according to the Complex and FCI Wardens.

The March 14, 2000 and February 6, 2002, National Environmental Balancing Bureau (NEBB) reports provide to NIOSH to review stated, "The air distribution systems have been tested and balanced and final adjustments have been made in accordance with NEBB procedural standards for testing - adjusting - balancing of environmental systems, the hydronic distribution systems have been tested and balanced and final adjustments have been made" for some housing units and food service. The NEBB reports don't identify maximum number of occupants for the spaces evaluated as well, which is not mentioned in this report. The reports don't meet all other recommendations and more.

Again, the BOP provided balancing and adjusting certifications of the HVAC systems, not ventilation measurement for outdoor and recirculated air flow rates for inmate cells, office stations and food service dining areas. This questions their sincerity and conviction to conduct an impartial and comprehensive investigation.

The SAIC Industrial Hygienist technical assistance review of the NEBB reports determined the mechanical performance of the system as compared to the design specifications. Furthermore, the reports did not include any sampling methodology or the specific areas tested.

NIOSH suggested the SAIC report dated April 4, 2007, does not document the maximum number of occupants for the spaces evaluated, and the amount of outdoor air supplied to the HVAC systems or individuals cells was not provided. An assumption was used by the consultant that the HVAC systems provided 20% outdoor air, based on information provided by FCI Tucson representative.

The 2007 and 2008 SAIC ventilation surveys were sent to Regional Safety Administrator for review to ensure they meet the ACA standard requirements, which he replied "These look good to me Leroy!", which again does not support the BOP and NIOSH responses. The 20% outdoor air was not an assumption by the contractor, but information provided to him by the HVAC and General Foreman, which are considered the subject matter experts at the local institution.

**Carbon Black:**

No comments.

**NIOSH Conclusion and Recommendations:**

**Mold** - I disagree with NIOSH assuming that mold exposure in otherwise healthy people does not put them at risk for sinusitis, new-onset asthma, or allergies. This why NIOSH and CDC needs to conduct further testing to determine health affects, which will allow OSHA and EPA to implement standards associated with mold.

The AES reports and other research documents show the physical health effects of exposure to mold can vary from person to person, depending upon the amount and types of mold present, and one's sensitivity and general state of health.

1. Amount: AES reports dated July 3, 2008 and July 30, 2008, show the ambient air sample for the outside was 13 to 1600 spores and sampling was 13 to 11000 spores on the inside of the buildings. Then bulks and wipes from the building material and ventilation ducts ranged from 2 to 320,000 spores, which most of the molds were 1000 times greater indoors then outdoor causing some concerns.



2. Amount, Type and Health Affect:

A. Cladosporium - 51, 000 spores in the Palo Verde Units Ventilation Duct Cover. Cladosporium common cause of respiratory problems, allergic reactions and can be an agent for hypersensitivity diseases.

B. Penicillium/Aspergillus - 80,000 spores in the Carpentry Shop Ventilation Duct Cover. Penicillium/Aspergillus causes allergic reactions, hypersensitivity pneumonitis and variety of severe lung complications. Also, this mold is capable of producing mycotoxins.

C. Chaetomium - 290,000 spores in the Yucca Unit ceiling. Chaetomium is a fungus type that included approximately 80 different species. It is allergenic and an agent of onychomycoses (nasal infection), peritonitis, cutaneous lesions and potential agent in fatal systemic mycoses. Chaetomium have been documented, brain abscess, peritonitis and cutaneous lesions may also develop.

D. Stachybotrys - 320,000 spores in the Palo Verde shower areas. Stachybotrys may cause one or more mycotoxins, low doses include rashes, mild neurotoxin effects such as headaches, nausea, muscle aches and pains, and fatigue. The immune system may also be affected resulting in a decreased resistance to infections. **(See Mold Reports dated September 27, 2006, October 23, 2006, November 6, 2006, July 3, 2008, July 30, 2008 and October 6, 2008)**

It's clear why the initial repairs and replacements of the roof were ineffective in preventing additional water incursions. The Regional Facilities Administrator committed a criminal offense when making a false statement under oath (Affidavit). The Administrative building roof wasn't replaced until late 2008 beginning 2009. The Regional Office neglected to provide adequate funding to maintain and replace several roof for ten (10) to twelve (12) years. The first roof replacement during this time was the health services roof in 2007, which many more are needing to be replaced.

The Regional Facilities Administrator comment - all water intrusions must be repaired before cleaning mold-contaminated surfaces and removing mold contaminated materials to avoid a reoccurrence of mold does not exist in a Facility or Safety Program Statement. The local safety manager has recommended a mold maintenance plan or policy be implemented Bureau-wide, which the Regional and Central Offices have completely ignored. The

local facility and safety staff have had to develop local procedures with the information available on mold and have funded the testing, remediation and training cost out of our annual departmental budgets, without the support of the Regional and Central Offices.

I agree that testing should be discontinued for visible mold on wall, ceiling, and hvac surfaces. Non visible conditions pertaining to indoor air quality does not always equate to mold, it could be other environmental conditions causing health issues for staff and inmates, which NIOSH or anyone can't put a price on a persons health or life. I believe we are being asked to put the institution and BOP in a liability situation.

An institution safety committee is already established at the local level. In many occasions the communication and decisions concerning occupational health and safety implementation and corrective action is dictated solely by BOP management, instead of a concessive decision by the committee based on law, rule or regulations or professional judgement.

**Ventilation** - The NEBB reports are clearly HVAC adjusting and balancing reports. The SAIC ventilation reports meet the ACA standard requirements. There is no Bureau or ACA standard requiring the additional information recommended by NIOSH, which can be easily implemented.

**Carbon Black** - Support the recommendation.

**In Conclusion to these reports:**

After reviewing the reports from the National Institute of Occupational Safety and Health (NIOSH) and Federal Occupational Health (FOH), it is clear the Bureau of Prisons (BOP) and Federal Prison Industries (UNICOR) continue to conspire and conceal accurate available information to them and others. These reports clearly identify the BOP's and UNICOR's abuse of authority and failure to comply with occupational safety and environmental recommendations by local safety staff, consultants, and others, including the FOH, NIOSH, and OIG. Also, they identify the BOP and UNICOR need to develop jurisdictional responsibilities when faced with safety and environmental concerns.

The FOH report identifies the communication by the local safety staff was actively engaged with BOP and UNICOR management when conveying occupational health and safety control evaluations and needed measures. Despite the communication and stated policy the BOP and UNICOR recklessly, knowingly and wilfully ignored

local safety staff's recommendations concerning safety and environmental concerns, which potentially placed staff and inmates in unsafe and unhealthy working and living conditions.

The FOH and NIOSH reports echos OSHA, an employer is still required to protect their employees from hazards even in the absence of a specific OSHA regulatory standard, which BOP states - when policy and regulations are not specific, he/she exercises professional. The BOP and UNICOR management discounted substantial safety and environmental dangers associated with computer recycling, mold and other safety concerns, which they continued to operate the factory and institution without adequate safety precautions.



July 14, 2009

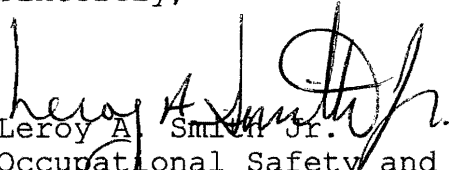
The Honorable William Reukauf  
Acting Special Counsel  
1730 M. Street, N.W., Suite 218  
Washington, D.C. 20036-3600

Re: OSC File No. DI-08-0523 & OIA File No. 2008-03216; VIOLATION  
OF LAW, RULE, OR REGULATION, GROSS MISMANAGEMENT, ABUSE OF  
AUTHORITY AND SPECIFIC DANGER TO PUBLIC HEALTH OR SAFETY AT  
THE FEDERAL CORRECTIONAL INSTITUTION, AND FEDERAL PRISON  
INDUSTRIES FACTORY, TUCSON, ARIZONA

Dear Mr. Reukauf

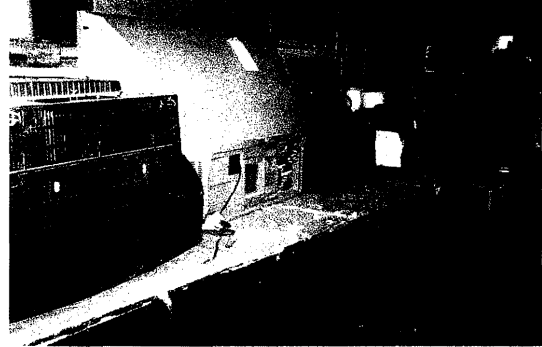
I have received a copy of the Department of Justice, Office  
of Inspector General, and two expert opinion reports, dated  
January 22, 2009 and March 20, 2009. Please accept comments and  
attached supporting documentation as a summary and conclusion to  
the Agencies technical assistance findings.

Sincerely,

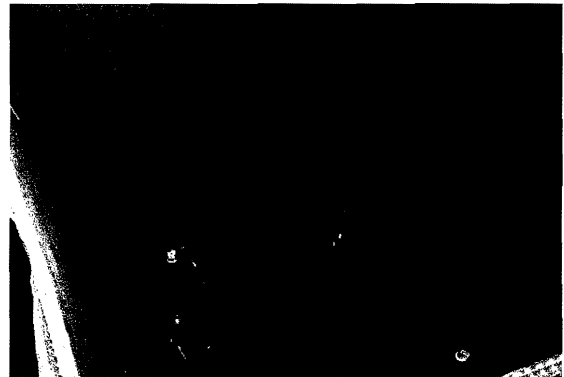
  
Leroy A. Smith Jr.  
Occupational Safety and  
Environmental Health Manager

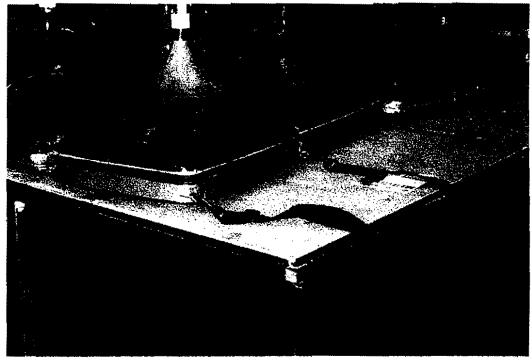
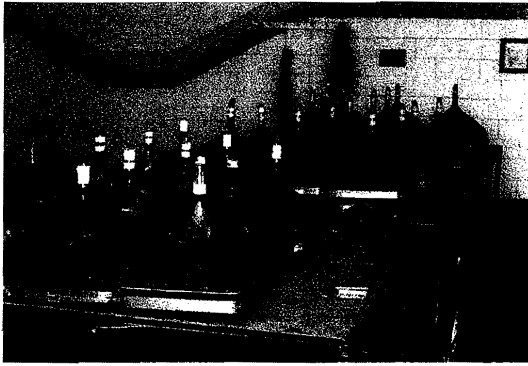
## 2.0 UNICOR E-Waist Recycling Facilities and Operations at FCC Tucson:

The UNICOR outside camp warehouse does disassemble Computer Processing Unit's (CPU's) and receive Cathode Ray Tubes (CRT's) assembled or broken during shipping, receiving and sorting. The CRT's are then re-packed and sent to the FCI to be disassembled, which additional monitors are broken during the process. Then the plastic, pallets, gaylord boxes, metal crates and other products are covered with the hazardous metals, which becomes airborne. The UNICOR staff, inmates and rear gate officers inhale and absorb low concentrations of hazardous metals daily. **(See Photos)**



The UNICOR Recycling Division began routing all CRT's to FCC Tucson to be disassembled. This is a new operation for FCC Tucson. If UNICOR determines the reuse is not an option, all asset tags/property stickers are removed from the CRT's. The CRT's are then de-manufactured for recycling or disposal. This process is to ensure that donors or manufactures are not open to liability **(See Website Attachment dated July 8, 2009)**. The CRT's are then re-packed before being sold and transported to Mexico or India for recycling and disposal. The initial concerns are that UNICOR has not conducted a job hazard analysis and the bracket/hanger used to lower the monitors into the gaylord boxes, which makes the process even more unsafe to the inmates. **(See Photos) (See Attachment February 18, 2009)**



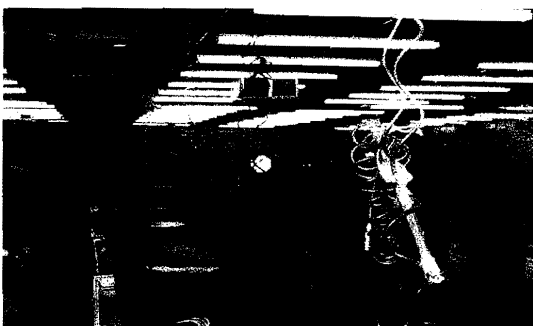


According to the Institution Safety Staff, OSHA, EPA and most recently FOH and NIOSH recommendations, that detailed job hazard analysis should be conducted prior to beginning any new operation or before making any changes to existing operations. This will allow the BOP and UNICOR to identify hazards prior to exposing staff and inmate workers. This did not occur prior to implementing the CRT disassembling operation.

Again, the BOP and UNICOR discounted the implementation of recommendations by subject matter expert's. When problems arise they conspire to conceal the truth or chalk it up to a learn as we go mentality. Meanwhile, staff and inmates are subjected to unsafe and unhealthy working conditions causing imminent and long term health effects for profit.

The BOP and UNICOR are knowingly aware of repeated or long-term exposure to cadmium, even at relatively low concentrations, may result in kidney damage and an increased risk of cancer of the lung and of the prostate (OSHA). Also, similar forms of encephalopathy may, however, arise from extended, chronic exposure to lower doses of lead. There is no sharp dividing line between rapidly developing acute effects of lead, and chronic effects which take longer to acquire. Lead adversely affects numerous body systems, and causes forms of health impairment and disease which arise after periods of exposure as short as days or as long as several years (OSHA).

The inmates are provided air tools, not powered (electrical) tools to assist in the disassembly process. This process causes harmful metals and dust to become airborne. Again, staff and inmates inhale, ingest, or absorb low concentrations of airborne hazardous metals and dust daily. **(See Photo)**



### **3.0 BOP/UNICOR Safety and Health Procedures and Practices at FCI Tucson:**

The institution safety staff have addressed and demonstrated the need for a good practice approach that warrants a general safety and health plan be put in place to identify workplace hazards, specify hazard controls and safe work practices. The BOP and UNICOR have deliberately conspired to restrain, interfere and coerce the institution safety and UNICOR staff from implementing procedures that are not item specific by OSHA or EPA, which good sound professional judgement is necessary in many cases to ensure a safe and healthy work environment for any routine or non routine work practices.

The BOP and UNICOR Chief Executive Officer's pledge a safe and healthy environment for all employees and inmates. They also pledge to ensure prompt abatement of unsafe and unhealthful working conditions. The local safety staff documents, FOH and NIOSH reports demonstrates abuse of authority by BOP and UNICOR management. They repeatedly ignore and fail to adopt recommended occupational safety and health and environmental precautions by the local safety staff, outside contractor, FOH and NIOSH. The BOP and UNICOR should not be allowed to intimidate or coerce Institution Safety Staff into deciding between the enforcement of occupational health, safety and environmental regulatory standards and their career.

### **3.1 UNICOR Safety and Health Practices and Procedures to Control Toxic Metals Exposure:**

The BOP provided FOH and NIOSH a respiratory protection supplement, dated October 20, 2004, which was three (3) years old. In 2007 all safety supplements were changed to written plans or programs, which upon request the local safety staff provided a current respiratory protection plan to FOH, dated January 27, 2009. All programs are mandated to be reviewed and updated annually.

The local Safety Manager arrived FCI Tucson on February 5, 2006, which a respiratory program had not been in place for four (4) years. Then from October 27, 2006 thru July 17, 2008, the local safety staff continued several attempts to implement and enforce the respiratory program, which received resistance and lack of support by the local executive staff.

**(See Attachments October 27, 2006, April 1, 2008 and July 17, 2008)**

The institution staff had not been medically cleared, trained, or fit tested for over eight (8) years. The OSHA, CDC and Bureau tuberculosis program required our staff to be in a respiratory program. Also, the staff were never issued the N-95 mask when escorting suspect or confirmed tuberculosis cases. Again, executive were knowingly and wilfully aware the respiratory protections plan was in non-compliance with the OSHA hearing conservation standard.

According to Program Statement 6190.03, Infectious Disease Management, dated June 28, 2005, Tuberculosis, page 15, stated - "Escort personnel, including contract guard services, clinical staff, and others in close contact with the inmate will wear a NIOSH approved respirator (N-95 or better). Prior to use of a respirator, staff will be medically cleared, fit-tested and trained in accordance with the current OSHA standard on respiratory protection." This includes our Lieutenants, SORT team, DCT team, BPT staff, and ISM staff.

**(See Respiratory Protection Plan dated January 27, 2009)**

UNICOR originally issued a paper nuisance dust masks with a single strp with protection factor of zero (0). In this case, issuing the OSHA Appendix D to our staff and inmates would be adequate.

NIOSH stated, "The employer is not required to do medical qualifications or fit testing or have a written respiratory protection program for voluntary use of dust masks (or for respirators whose only use would be for emergency escape)." I believe this statement is not totally accurate. The Self Containing Breathing Apparatuses (SCBA) is used for emergency rescue or escape. According to OSHA, a SCBA is a respirator, which requires an employer to do medical clearances, training, fit testing and have a written respiratory protection program.

Once it was determined that low concentrations of hazardous metals and dust were detected in the UNICOR work areas, the local safety staff recommended a disposable N-95 (Model 8210) respirator with two straps and adjustable aluminum noise piece. The N-95 respirator was recommended by 3-M manufacture for the potential hazards in the UNICOR work environment, which has a much higher protection factor. Also, N-95 respirator does require a medical clearance, training and fit testing to be conducted prior to being worn by staff or inmate workers. The local safety staff recommended the N-95 respirator be made available to all staff and inmates on a voluntary basis, which has been supported by the UNICOR Associate Warden. This information has been implemented in the written respiratory protection plan since 2007 to present.

**(See Respiratory Protection Plan dated January 27, 2009)**

The Central Office, Recycling General Manager has already directed the FCI UNICOR staff not to implement a voluntary respiratory program for staff or inmates, which has been supported by FOH, NIOSH, Bill Collier and Associates and local safety staff. The BOP and UNICOR management continue to demonstrate their deliberate disregard to substantial occupational safety, health and environment laws, rule and regulations, which places the staff and inmate workers at risk without adequate safety precautions. Also, they have a clear



disregard that local safety staff having sufficient authority to correct unsafe and unhealthy working conditions.

**(See Bill Collier report dated May 27, 2009)**

### **3.2 Other UNICOR and FCI Tucson Safety and Health Procedures:**

Again, the BOP provided FOH and NIOSH supplements that were three to five years old. All supplements, plans and programs were up to date when requested by FOH and NIOSH in 2007. It appears the BOP and UNICOR continue to attempt to conceal accurate available information, which questions their sincerity and conviction to provide a safe and healthy environment for all employees and inmates. Again, the hearing conservation program supplement, dated October 7, 2002, was five (5) years old.

**(See Hearing Conservation Program, dated April 22, 2009)**

The local Safety Manager arrived FCI Tucson on February 5, 2006, which a hearing conservation program had not been in place for four years. Then from November 17, 2006 thru Present, the local safety staff continued several attempts to implement and enforce the respiratory program, which received resistance and lack of support by the local executive staff. **(See Attachments November 17, 2006, August 7, 2007, September 5, 2007, April 3, 2008, July 17, 2008, and March 5, 2009)**

One Warden even e-mailed an Associate Warden, stating - "I view this as a Complex-wide issue. Please ensure the proper follow-up occurs in a timely fashion. It has been one year and we are beginning to conduct audiometric tests on staff and will address audiometric testing for inmates in the future according to the executive staff. **(See E-mail dated July 17, 2008)**

The institution staff and inmates had not received an audiometric test for eight (8) years. The OSHA noise level survey and Bureau policy alone hearing protection program required UNICOR inmates (Bailer etc.), range instructors, SORT, DCT and BPT staff to be in a hearing conservation program. Again, BOP management were knowingly and wilfully aware the institution was not in compliance with the OSHA hearing conservation program.

**(See Safety Weekly Charts dated May 28, 2009 and July 2, 2009)**

### **3.3 FCI Tucson Safety Department Concerns:**

The FOH report stated, "Communications indicate that the FCI Tucson Safety Department is actively engaged to ensure hazard evaluation, communication, and control." Also, "This open rear gate" safety item points to the need for BOP and UNICOR to list, track, address, accept or not accept, and close out recommendations from its safety and health staff, consultants, and others, including from the OIG investigation."

The BOP program statement 1600.09, occupational safety, environmental compliance and fire protection requires each institution to comply with most recent codes, standards, regulations, and Bureau policy, which applies to UNICOR as well.

Program Statement 1600.09; clearly delineates the BOP and UNICOR occupational safety, environmental compliance, and fire protection ownership, responsibilities, and corrective actions to be taken. The program statement identifies the institution Safety Manager and staff being the local authority having jurisdiction (AHJ) for the implementation and enforcement of the safety program. Then chief executive officer must ensure compliance with OSHA, EPA and NFPA requirements and state and local regulations and ensure prompt abatement of unsafe and unhealthful working conditions. The hazard assessment stated - The Safety Department identifies and addresses hazards in the workplace for existing and new work procedures, projects, or exercises (mock drills, etc.) are reviewed by the Safety Department, which makes written recommendations to the chief executive officer.

**(See Program Statement 1600.09, chapter 1, page 1, section A, chapter 1, page 2, sections 4 & 6, chapter 1, page 3, section C, chapter 1, page 6, paragraph 2, and chapter 2, page 1, section B)**

On environmental compliance the BOP requires all institutions, UNICOR facilities, and offices will implement these policies and procedures, and inmate programs and activities specific to their location and operations.

**(See Program Statement 1600.09, chapter 3, page 1, section A, paragraph 2)**

The UNICOR recycling web-site states - "In addition to UNICOR's restrictive no-landfill policy, of electrical components, the recycling business group complies with OSHA standards and each institution is staffed with a full-time Safety Manager." UNICOR does not have a full-time Safety Manager, unless they are acknowledging the BOP's institution local Safety Manager is responsible for inspecting them to ensure compliance with OSHA, EPA and other regulatory agency's, which the BOP and UNICOR would be responsible for correcting any deficiencies noted.

**(See Website Environmental Compliance Attachment dated July 8, 2009)**

The real concern is having the BOP and UNICOR address the recommendations in writing. Especially, when they are not willing to accept the recommendations of the local safety staff, consultants, and others, including the OIG investigation findings. Otherwise, the BOP and UNICOR will continue to place the local safety staff liable for non-compliance issues and hold them solely responsible for unsafe and unhealthy conditions causing injury or loss of life to staff or inmate workers. This would include Notice of Violation (NOV's) citations by OSHA or EPA as well.

### **3.4 Environmental Procedures:**

In the NIOSH report dated February 2009, recommended a daily and weekly cleaning of work areas by HEPA-vacuuuming and wet mopping, which did not address any testing or disposal concerns. The local safety staff recommended that testing of the dust, debris, water, wet and dust mops with toxic metals for compliance with EPA regulations disposal practices, which was not mentioned in the report. This was discussed with FOH, UNICOR Associate Warden and the UNICOR Industrial Hygienist. Otherwise, UNICOR would of been pouring the water down the drains and disposed the other items in the general waste stream (landfills).

**(See E-mails dated February 27, 2009 and March 6, 2009)**

### **4.0 Field Investigation and Monitoring Results:**

I support the recommendations.

#### **4.1 Investigation for Exposure to Toxic Metals:**

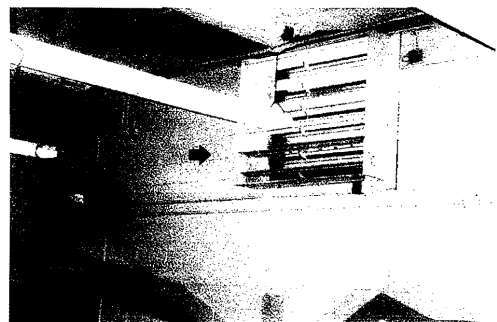
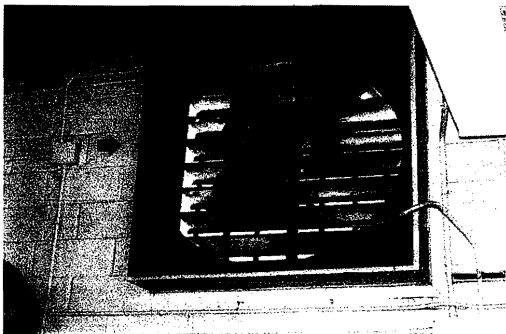
I support the recommendations.

##### **4.1.1 OSHA Exposure Monitoring for Toxic Metals and Other Findings:**

UNICOR has contracted Bill Collier and Associates to conduct an Industrial Hygiene baseline survey for FCI Tucson. This survey was conducted March 25-27, 2009. The contractor conducted both personal exposure, area air levels and wipe samples.

The following measurement and observations in the report are not accurate:

1. UNICOR staff noted they cleaned the factory the week prior to the consultant conducting the industrial hygiene survey, which demonstrates why there is inconsistency with the survey results.
2. These are the exhaust fans and air vents in the FCI Factory. There are only two, one on the east wall and one on the north wall. They are approximately 10 to 12 feet in the air.

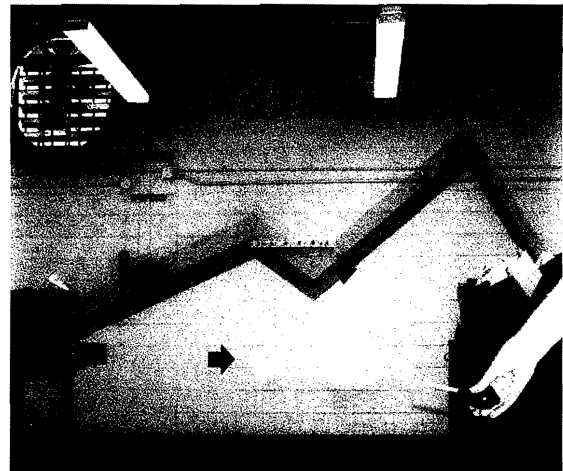
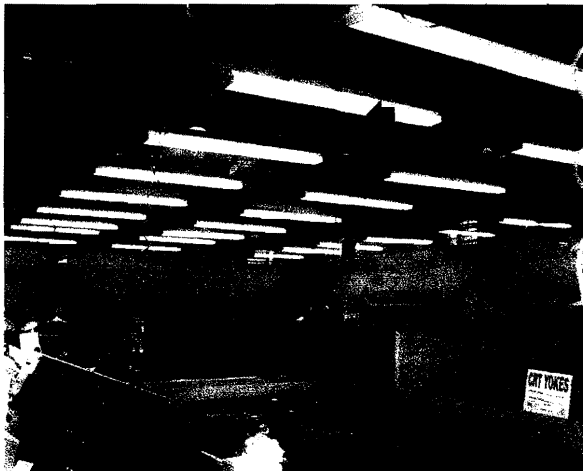


**Note:** The Collier report stated - the prison factory has exhaust fans to pull air away from the working areas. Also, they use smoke tubes primarily to determine airflow direction.

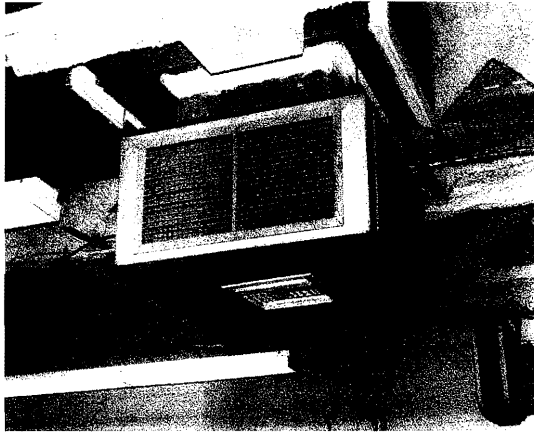
The institution safety staff recently was asked to review and comment on the Collier report dated May 27, 2009. The local safety staff will use smoke tubes to determine the direction of air flow. Also, demonstrate our concerns with the Collier report as well.

- A. Toxic metals are normally heavier than air, which the metals would float to the ground before floating 40 to 50 feet in a horizontal or vertical direction towards the exhaust fan.
- B. If the Collier report is accurate, the inmate work stations along the south and north walls would be exposed to a higher saturation level of toxic metals in their breathing zone daily.
- C. The exhaust fans are not designed with a HEPA filtering system.
- D. Without a filtering system the toxic metals would be exhausted outside the factory into the environment.
- E. Would there be any EPA air pollution permits required for exhausting toxic metals into the environment?
- E. Would there be any EPA violation for saturating the outside dirt with toxic metals overtime?

**Note:** The swamp coolers and diverters were turned off at the time the smoke tests were conducted. The red arrows indicated where the concentrations of smoke were released. Also, the image demonstrates the direction or non movement of the smoke. The smoke remained still, which does not support the information in the Collier report.



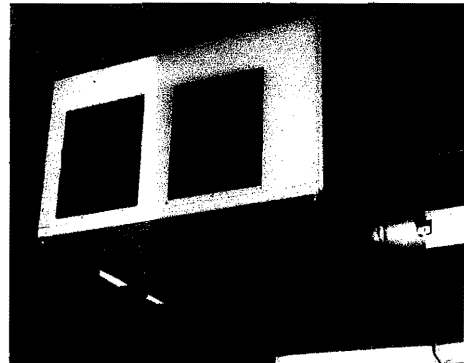
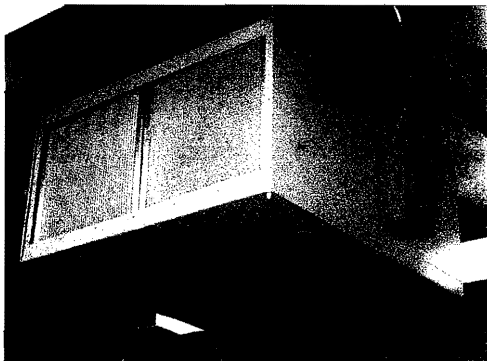
3. This is one of the swamp coolers in the FCI Factory. They are station down the middle of the factory floor. They are approximately 10 feet from the floor.

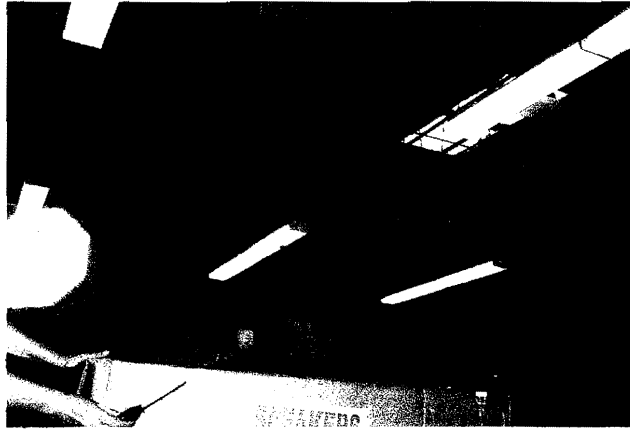


**Note:** The swamp coolers and diverters were turned on at the time the smoke test was conducted. The red arrows indicated were the concentrations of smoke were released. Also, demonstrates the direction or non movement of the smoke. The smoke made a hurricane or circular motion, but remain centrally located. Again, this does not support the information in the Collier report.



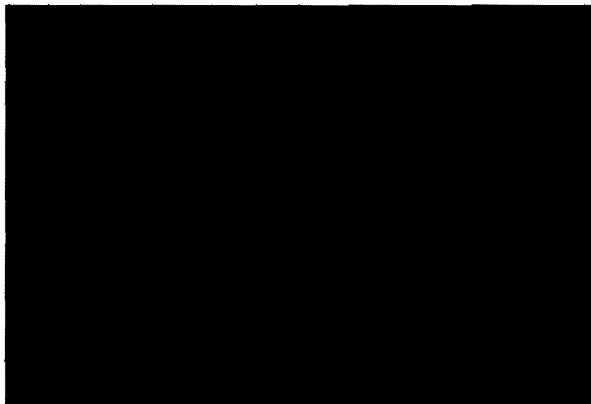
4. The Collier report identified this equipment as a air filtering system inside the FCI Factory. They are stationed at the south and north end of the factory. They are approximately 10 feet from the floor.





**Note:** These machines are not air filtering systems. They are air diverters that supply air and have a filter that protects the system from dust or debris. In the picture the smoke remains still and does not go horizontal or vertical to the diverters nor the exhaust fans on the north or south walls.

5. This is one of the swamp coolers and portable fans used at the camp warehouse. There are two swamp coolers on the east wall and portable fans throughout the warehouse.



**Note:** The roll up cargo doors are only opened when UNICOR is shipping or receiving product, which causes the toxic metal dust and debris to become airborne. The FOH and Collier reports recommend HEPA vacuuming be utilized instead of dry sweeping to prevent toxic metals from becoming airborne.

Also, the high cfm's from the swamp coolers and diverters were not addressed in the FOH and Collier reports. The high velocity of air flow from the swamp coolers and diverters will cause the toxic metals to become airborne continuously, which will subject staff and inmate workers to higher levels of toxic metals daily through inhalation, ingestion or absorption.

#### **4.1.2 UNICOR Consultant Monitoring Report for Toxic Metals:**

I support the recommendations.

#### **4.1.3 NIOSH/DART Surface Wipe and Bulk Dust Sample Results:**

The reason for the differences with the surface testing in 2006 (Contractor) and 2007 (FOH), UNICOR staff were instructed to stop work and clean the factory and warehouse areas the week prior to the industrial hygiene survey's being conduct. Again, the work stopped and additional cleaning was conduct prior to the surface testing in 2009 (Collier Report) survey's.

#### **4.2 Investigation for Noise Exposure:**

I support the recommendations.

#### **4.3 Heat Exposure and Repetitive Stress:**

I support the recommendations.

#### **4.3 Environmental Issues:**

I support the recommendations.

#### **5.0 Conclusions:**

I have no comments.

#### **5.1 Heavy Metals Exposures:**

The UNICOR Industrial Hygienist reviews and comments on all consultant reports, including the June 2006 report. This should be a serious concern for the BOP and UNICOR. This person is a former OSHA certified industrial hygienist. The Bureau's most competent industrial hygienist has been demoted to a worker's compensation coordinator.

#### **5.2 Noise, Heat, and Repetitive Stress Exposure:**

I have no comments.

#### **5.3 Safety and Health Programs, Plans, and Practices:**

The local safety staff supported the need for a voluntary respirator (dust mask) program for staff and inmate workers. Also, this is supported in the Collier and FOH reports.

The FCI UNICOR staff have been instructed by the Central Office, UNICOR Recycling Division not to provide any type of respirator (dust mask), which conflicts with the local safety staff, FOH, and Collier recommendations.

#### **5.4 Health and Safety Regulatory Compliance:**

The BOP and UNICOR were aware of the non-compliance issues addressed in this report for years, which they deliberately took no corrective action. Their current cooperation and actions are a deliberate misdirection. Once, the FOH, NIOSH, EPA, OIG and OSC complete their final reports and move on, the BOP and UNICOR will resort back to business as usual status. This includes restraint, interference, coercion, retaliation tactics towards safety staff, which places these staff in a very venerable position without any support.

#### **5.5 Environmental Compliance:**

The local safety staff have communicated with the BOP and UNICOR management concerning the source of surface dust contamination is not from glass breaking, but is from contamination which has been released to the air and re-deposited on surfaces during routine e-waste disassembly of CPU's and CRT's and by accidental breakage during shipping, receiving and handling, which they have not support or taken any corrective action.

#### **6.0 Recommendations:**

I have no comments.

#### **6.1 Heavy Metals Exposure:**

I support the recommendations.

#### **6.2 Noise, Heat, and Repetitive Stress Exposure:**

I support the recommendations.

#### **6.3 Safety and Health Program, Practices, and Plans:**

Again, the BOP and UNICOR should implement a system to list, track, address, accept or not accept, and close out recommendations or deficiencies identified by it's health and safety staff, consultants, and others, including from the OIG investigation report. This will be very beneficial to the local safety staff and the affected department.

BOP and UNICOR management need to clearly define who will be responsibility for taking actions for non-compliance issues between the BOP and UNICOR. Currently, when the BOP and UNICOR management discount necessary safety, health and environment recommendations or deficiencies by the local safety staff, they will direct the safety staff verbally to discontinue seeking corrective action or face disciplinary action.

**(See E-mails dated March 2, 2009 and May 27, 2009)**



Otherwise, the BOP and UNICOR will continue to place the local safety staff liable for non-compliance issues and hold them solely responsible for unsafe and unhealthy conditions, which may cause injury or loss of life to staff or inmate workers. This would include Notice of Violation (NOV's) citations by OSHA or EPA as well.

#### **6.4 Health and Safety Regulations Compliance:**

FCI Tucson has began receiving and disassembling CRT's. These shipments will be received from all vendors and other Bureau institutions. There has not been any new job hazard analysis conduct prior to the operation. This operations was implemented at the direction of the Central Office, UNICOR Recycling Division. By not conducting the job hazard analysis demonstrates the BOP and UNICOR management's business as usual approach and clear disregard for implementing the recommendations by local staff, consultants, and others (FOH & NIOSH), including the OIG investigation report.

#### **6.5 Environmental Compliance:**

I support the recommendations.

## **Mold:**

The institution submitted roof project requests to the Regional Facilities Administrator for eight (8) years or more, which the Regional Office refused to fund the needed roof replacements. The BOP should of provided six (6) consultant reports for mold related evaluations conducted through 2006 and 2008. There had not been any rain for a few months before or after the mold tests were taken.

AES and the Central Office Safety Division, Industrial Hygienist, supported the local safety staff's concern that mold in the HVAC systems maybe causing a mold outbreak throughout the buildings. In most cases the mold could not be detected by a visual inspection.

1. The Central Office, Industrial Hygienist stated - "I believe the air conditioning units, trailer construction/insulation, and leaks have provided conditions where moisture condenses around the trailers and promotes mold growth. The remediation recommendations of cleanup and leak repair may not solve the whole problem, mold growth could reoccur. HVAC timers may be necessary to allow building surfaces to dry out. Depending on the mold contamination within the walls, re-insulation may be needed and could also be good in preventing mold growth reoccurrence." The Industrial Hygienist was demoted to a workers compensation coordinator for this persons honesty concerning the increasingly mold concerns throughout the entire institution. This recommendations were never received by the local safety staff.

2. The level of mold detected in the sample is quite high, and finding the source or exact locations and dimensions of the affected area will require further testing. This can be accomplished by sampling the air within the wall cavities, HVAC system, and by testing the roof's interior surfaces. Because elevated mold spores levels were not detected above the ceilings, but were detected in the air, the HVAC system is suspect.

3. When mold exists in hidden areas of a structure, its growth is encouraged by high humidity and low or poor ventilation, which throws out the BOP's and NIOSH's theory that the mold growth was caused by leaking roofs only.

4. Maintain the humidity below 60%, maintain adequate ventilation, allow for proper amount of make-up air from the outdoors, per standards, change air filters frequently, or as recommended by the manufacturer of the air handling systems. **(See E-mail dated October 12, 2006 and Mold Reports dated September 27, 2006, October 23, 2006, November 6, 2006, July 3, 2008, July 30, 2008 and October 6, 2008)**

The staff became aware of mold in the trailers, health service and administration building as early as 1995 through 2005, and again on September 20, 2006. They reported noise bleeds, headaches, new/old asthma conditions, runny nose and eyes, respiratory conditions, skin and eye rashes, nausea, muscle aches and pains and fatigue. The staff reported that some of these symptoms developed within a couple of hours of entering the building daily. Also, many of the staff (FCI Warden, business office, safety and laundry staff etc.) reporting these health concerns were healthy normal people, without any preexisting medical conditions.

The Regional Facilities Administrator committed a criminal offense when making a false statement under oath (Affidavit). The BOP contracted Applied EnviroSolutions, Inc. (AES) to conduct mold remediation and clean-up of the trailers on October 31, 2006. **(See Mold Report dated November 6, 2006)**

The serious unsafe and unhealthy conditions reported by AES concerning the east and west trailers were the real reasons the BOP decided to dispose of the trailers at the landfill. The BOP was aware of these third world horrific conditions for ten (10) to twelve (12) years. Also, the cost of the construction repairs to make the trailers habitable for staff to work and inmates to program (Correctional, Recreational, and Psychology etc.) was the other reason the trailers were disposed of at the landfill.

1. AES conducted a visual inspection of the trailers on September 27, 2006. **(See Mold Report dated September 27, 2006)** I present the following findings for review:

- A. The East Trailer currently used as the Band; Exercise, and Arts and Crafts rooms, and an Office. The rooms had a detectable musty odor. The Band, Exercise and Arts & Crafts rooms had noticeable decay or rot of the paneling and inner wall structures, below and near the windows in their east and west walls.
- B. FCI personnel stated that the musty odor and black mold growth had been present on the east wall between the windows of the exercise room for some time.
- C. The floor with in the latrine located in the Arts and Crafts room had noticeable rot around the toilet to the extent that the toilet was no longer stable.
- D. The floor in front of the entry inside the Arts & Crafts room also has noticeable rot.
- E. The west annex building contains the officers station, lieutenants station and the psychology offices were in significantly better condition. However, stains were found around the windows of offices. Only bulk samples were taken from each location.

F. Discolored painted and textile surfaces throughout the west trailer.

G. Visible and savior mold growth in the HVAC ducts.

H. Portion of rotten paneling exposed with mold in the exercise room. The mold was found throughout walls.



Again, the Regional Facilities Administrator committed a criminal offense when making a false statement under oath (Affidavit) concerning the full replacement of the Health Service (Medical) roof and especially the FCI Administration Building (Business Office). The BOP provided the affidavit to NIOSH for review on September 30, 2008.

1. Apportion of the Health Services (Medical) roof was replaced and completed on February 15, 2008.  
**(See Asset Recognition For dated May 9, 2008)**
2. The other portion of the Health Services (Medical) roof, along with the Administrative buildings (Business Office) roof was replaced and completed on January 12, 2009.  
**(See Asset Recognition Form dated January 16, 2009)**

The Business Office Controller expressed his concern about remediation of health services and the business office (administration building). **(See E-mail dated January 30, 2007)**

The Administration building (business office) were tested a second time on October 13, 2006, which mold was found in the HVAC system, controller's office north wall and west window, and the financial program office south wall.

**(See Mold Report dated October 23, 2006)**

The Regional Office discounted the importance to fund the roof replacement of the Administration building for two (2) years, which they knowingly and wilfully kept staff in unhealthy work conditions. **(See Mold Report dated July 3, 2008)** Also, it took the FCI Warden's Secretary making a formal unhealthy complaint of mold causing additional health issues, before additional mold testing was conducted. She identifies that the administration

building roof was leaking during the 2007 monsoon rains, which again demonstrates the roof had not been replaced.

**(See E-mail dated May 13, 2008)**

Besides the Wardens Secretary's reporting health concerns associated with mold exposure, the laundry supervisor, two inmate systems supervisors and safety staff reported health concerns as well. **(See E-mails dated November 13 and December 3, 2008)**

AES conduct additional mold sampling that expanded from the administration building (business offices) to the administration building (warden's office, warden's reception area, file room, equipment room, and Ms. Haag's office), safety/facility building, commissary building, yucca officer station, palo verde wallboard, palo verde showers, hospital hallway, and carpentry shop). Around this time the local safety staff became concerned with the mold being found institution-wide. Also, concerned with the reported staff health concerns associated with mold. The EPA has an Indoor Air Quality regulation concerning "Sick Building Syndrome." The causes of sick building syndrome are biological - bacteria, mold, pollen, and viruses are types of biological contaminants.

The local safety manager on three occasions requested additional funding to conduct health and environmental risk assessments for the entire institution, which was sent to the Complex Warden, FCI Warden, Regional Director, Regional Safety Administrator, without any acknowledgment returned.

1. Recommended a qualified mold remediation company conduct additional sampling for the assessment of indoor air quality and the possible presence of mold toxins in identified areas.

**(See Document dated September 18, 2008)**

2. Recommended the services of a qualified mold remediation company to conduct additional sampling for the assessment of indoor air quality and the possible presence of mold toxins in the ceiling, walls, and ventilation ducts throughout the institution areas.

**(See Document dated September 19, 2008)**

3. Requested consideration for a health and environmental risk assessment be conducted in all buildings at the FCI to determine the extent of mold exposure and in an attempt to ensure health risks are minimized.

**(See E-mail dated November 13, 2008)**

4. Also, requested additional funding to conduct a thorough health and environmental risk assessment of all buildings at FCI, Tucson, which will ensure compliance with OSHA's and EPA's occupational exposure, housekeeping and indoor air quality regulatory guidelines.

**(See E-mail dated November 22, 2008)**

Warden Winn stated, "Mr. McFadden denied your request for funding to conduct a complete health risk assessment and the cleaning of the ventilation ducts." The Regional Safety Administrator supported Warden Winn's comments. He mentioned, they are afraid the mold concerns will affect all institutions Bureau-wide, like the UNICOR Computer Recycling concerns have.

NIOSH wrongly quoted the July 3, 2008, AES report. The report explains the administration building previously had mold remediation performed, but seems that the leaking roofing was never completely repaired. The water subsequently permeated the roof and the ceiling tiles, which showed significant staining.

Again, this demonstrates the administration building roof was not replaced as mentioned in the Regional Facilities Administrator's affidavit, let alone any repairs to the roof for over two (2) years. The report dated July 3, 2008, addresses the mold sampling conducted on June 26, 2008 and the report dated July 30, 2008, addresses the mold sampling conducted on July 22, 2008.

#### **Ventilation:**

Again, the Agency has not been forthcoming with the ventilation information provided to NIOSH for review. The ventilation sampling is conducted in inmate rooms/cells, officer stations, and dining areas. The cells were designed to house one inmate. The Agency converted them into two and three inmate cells, which they have not been in non-compliance with the American Correctional Association Accreditation (ACA) process for years. If this was a mandatory ACA standard the Bureau of Prison would fail to obtain their ACA accreditation. The Agency intends to create additional three man cells, according to the Complex and FCI Wardens.

The March 14, 2000 and February 6, 2002, National Environmental Balancing Bureau (NEBB) reports provide to NIOSH to review stated, "The air distribution systems have been tested and balanced and final adjustments have been made in accordance with NEBB procedural standards for testing - adjusting - balancing of environmental systems, the hydronic distribution systems have been tested and balanced and final adjustments have been made" for some housing units and food service. The NEBB reports don't identify maximum number of occupants for the spaces evaluated as well, which is not mentioned in this report. The reports don't meet all other recommendations and more.

Again, the BOP provided balancing and adjusting certifications of the HVAC systems, not ventilation measurement for outdoor and recirculated air flow rates for inmate cells, office stations and food service dining areas. This questions their sincerity and conviction to conduct an impartial and comprehensive investigation.

The SAIC Industrial Hygienist technical assistance review of the NEBB reports determined the mechanical performance of the system as compared to the design specifications. Furthermore, the reports did not include any sampling methodology or the specific areas tested.

NIOSH suggested the SAIC report dated April 4, 2007, does not document the maximum number of occupants for the spaces evaluated, and the amount of outdoor air supplied to the HVAC systems or individuals cells was not provided. An assumption was used by the consultant that the HVAC systems provided 20% outdoor air, based on information provided by FCI Tucson representative.

The 2007 and 2008 SAIC ventilation surveys were sent to Regional Safety Administrator for review to ensure they meet the ACA standard requirements, which he replied "These look good to me Leroy!", which again does not support the BOP and NIOSH responses. The 20% outdoor air was not an assumption by the contractor, but information provided to him by the HVAC and General Foreman, which are considered the subject matter experts at the local institution.

**Carbon Black:**

No comments.

**NIOSH Conclusion and Recommendations:**

**Mold** - I disagree with NIOSH assuming that mold exposure in otherwise healthy people does not put them at risk for sinusitis, new-onset asthma, or allergies. This why NIOSH and CDC needs to conduct further testing to determine health affects, which will allow OSHA and EPA to implement standards associated with mold.

The AES reports and other research documents show the physical health effects of exposure to mold can vary from person to person, depending upon the amount and types of mold present, and one's sensitivity and general state of health.

1. Amount: AES reports dated July 3, 2008 and July 30, 2008, show the ambient air sample for the outside was 13 to 1600 spores and sampling was 13 to 11000 spores on the inside of the buildings. Then bulks and wipes from the building material and ventilation ducts ranged from 2 to 320,000 spores, which most of the molds were 1000 times greater indoors then outdoor causing some concerns.

2. Amount, Type and Health Affect:

A. Cladosporium - 51, 000 spores in the Palo Verde Units Ventilation Duct Cover. Cladosporium common cause of respiratory problems, allergic reactions and can be an agent for hypersensitivity diseases.

B. Penicillium/Aspergillus - 80,000 spores in the Carpentry Shop Ventilation Duct Cover. Penicillium/Aspergillus causes allergic reactions, hypersensitivity pneumonitis and variety of severe lung complications. Also, this mold is capable of producing mycotoxins.

C. Chaetomium - 290,000 spores in the Yucca Unit ceiling. Chaetomium is a fungus type that included approximately 80 different species. It is allergenic and an agent of onychomycoses (nasal infection), peritonitis, cutaneous lesions and potential agent in fatal systemic mycoses. Chaetomium have been documented, brain abscess, peritonitis and cutaneous lesions may also develop.

D. Stachybotrys - 320,000 spores in the Palo Verde shower areas. Stachybotrys may cause one or more mycotoxins, low doses include rashes, mild neurotoxin effects such as headaches, nausea, muscle aches and pains, and fatigue. The immune system may also be affected resulting in a decreased resistance to infections. **(See Mold Reports dated September 27, 2006, October 23, 2006, November 6, 2006, July 3, 2008, July 30, 2008 and October 6, 2008)**

It's clear why the initial repairs and replacements of the roof were ineffective in preventing additional water incursions. The Regional Facilities Administrator committed a criminal offense when making a false statement under oath (Affidavit). The Administrative building roof wasn't replaced until late 2008 beginning 2009. The Regional Office neglected to provide adequate funding to maintain and replace several roof for ten (10) to twelve (12) years. The first roof replacement during this time was the health services roof in 2007, which many more are needing to be replaced.

The Regional Facilities Administrator comment - all water intrusions must be repaired before cleaning mold-contaminated surfaces and removing mold contaminated materials to avoid a reoccurrence of mold does not exist in a Facility or Safety Program Statement. The local safety manager has recommended a mold maintenance plan or policy be implemented Bureau-wide, which the Regional and Central Offices have completely ignored. The



local facility and safety staff have had to develop local procedures with the information available on mold and have funded the testing, remediation and training cost out of our annual departmental budgets, without the support of the Regional and Central Offices.

I agree that testing should be discontinued for visible mold on wall, ceiling, and hvac surfaces. Non visible conditions pertaining to indoor air quality does not always equate to mold, it could be other environmental conditions causing health issues for staff and inmates, which NIOSH or anyone can't put a price on a persons health or life. I believe we are being asked to put the institution and BOP in a liability situation.

An institution safety committee is already established at the local level. In many occasions the communication and decisions concerning occupational health and safety implementation and corrective action is dictated solely by BOP management, instead of a concessive decision by the committee based on law, rule or regulations or professional judgement.

**Ventilation** - The NEBB reports are clearly HVAC adjusting and balancing reports. The SAIC ventilation reports meet the ACA standard requirements. There is no Bureau or ACA standard requiring the additional information recommended by NIOSH, which can be easily implemented.

**Carbon Black** - Support the recommendation.

**In Conclusion to these reports:**

After reviewing the reports from the National Institute of Occupational Safety and Health (NIOSH) and Federal Occupational Health (FOH), it is clear the Bureau of Prisons (BOP) and Federal Prison Industries (UNICOR) continue to conspire and conceal accurate available information to them and others. These reports clearly identify the BOP's and UNICOR's abuse of authority and failure to comply with occupational safety and environmental recommendations by local safety staff, consultants, and others, including the FOH, NIOSH, and OIG. Also, they identify the BOP and UNICOR need to develop jurisdictional responsibilities when faced with safety and environmental concerns.

The FOH report identifies the communication by the local safety staff was actively engaged with BOP and UNICOR management when conveying occupational health and safety control evaluations and needed measures. Despite the communication and stated policy the BOP and UNICOR recklessly, knowingly and wilfully ignored

local safety staff's recommendations concerning safety and environmental concerns, which potentially placed staff and inmates in unsafe and unhealthy working and living conditions.

The FOH and NIOSH reports echos OSHA, an employer is still required to protect their employees from hazards even in the absence of a specific OSHA regulatory standard, which BOP states - when policy and regulations are not specific, he/she exercises professional. The BOP and UNICOR management discounted substantial safety and environmental dangers associated with computer recycling, mold and other safety concerns, which they continued to operate the factory and institution without adequate safety precautions.



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## Recycling Process

UNICOR's processing methods begin with receiving, testing, and evaluating the equipment. Equipment is first assessed to determine whether it can be used for its original purpose. If reuse is not an option, all asset tags/property stickers are removed from the equipment. The equipment is then de-manufactured for recycling. To ensure that donors are not open to liability, functioning equipment is cleaned, hard drives are wiped, and all drives are checked for media before the equipment is sold to other companies or donated to local schools for reuse.

UNICOR ensures security and integrity through traceability. All hard drives are cleaned in accordance with Department of Defense high-level security wiping procedures (5220.22M).

### Turning Scrap into a Commodity

Nonfunctioning equipment is broken down into its component parts, which are segregated and sold to reprocessors. These commodities, in turn, are sold to carefully screened buyers who use the base materials in the manufacture of new products. The recycling of these materials saves precious resources.

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**AMENDED ACKNOWLEDGEMENT OF CONSENT**

February 18, 2009

COMPANY	QUANTITY
<b>Technologies Displays Americas LLC</b> Calexico, CA 92231	<b>144,000,000 Kilograms</b>

This document will serve as the EPA Acknowledgement of Consent for **Technologies Displays Americas LLC, Calexico, CA 92231** to export **144,000,000 Kilograms OF CATHODE RAY TUBES UNDERGOING RECYCLING** to **Technologies Displays Mexicana SA DE CV, Mexicali Baja California,, MX. This CONSENT is VALID for the period of January 1, 2009 through December 31, 2009.**

Please be advised that a copy of this ACKNOWLEDGEMENT OF CONSENT must accompany each shipment of used broken Cathode Ray Tubes undergoing recycling.



Robert H. Weiss

The signature is written in cursive over a circular seal of the United States Environmental Protection Agency. The seal features an eagle with wings spread, perched on a globe, with the text "UNITED STATES ENVIRONMENTAL PROTECTION AGENCY" around the perimeter.



U.S. Department of Justice

Federal Bureau of Prisons

Office of the Safety Department

Federal Correctional Complex  
Tucson, Arizona 85706

October 27, 2006

MEMORANDUM TO ALL CONCERN

FROM: Leroy A. Smith, Safety Manager

SUBJECT: Respiratory Protection Program

This memorandum is in reference to OSHA 1910.134, OSHA 1910.139, and OSHA 1910.1001 Respiratory Protection Program. The Safety Department is required to provide training and fit-testing on the SCBA, Gas Mask, and N-95 respirators. I will identify the following areas needing to be medical cleared, trained, and fit-tested:

- |                         |                     |
|-------------------------|---------------------|
| 1. Lieutenants          | 2. SORT/DCT Team    |
| 3. Hospital             | 4. ISM              |
| 5. Facilities           | 6. UNICOR           |
| 7. Trust Fund/Warehouse | 8. Department Heads |

The Respirator Medical Evaluation Questionnaire (**Attachment 1**) will need to be completed by all your staff, reviewed, and medically cleared by Health Services. Once, your staff have been medically cleared, Health Services will complete the Respirator Medical Clearance, Training and Fit Testing Acknowledgment Form (**Attachment 3**) and forward this to the Safety Department.

When the Safety Department receives all respiratory medical clearances from Health Services, we will contact each Department Head to schedule a date and time to complete the respiratory training and fit-testing. This will ensure compliance with OSHA, ACA, and JACHO.

If you have any questions, please do not hesitate to let me know.

cc: AW(O)



U.S. Department of Justice

Federal Bureau of Prisons

Office of the Safety Department

Federal Correctional Complex  
Tucson, Arizona 85706

April 1, 2008

MEMORANDUM TO ALL CONCERN

FROM: Leroy A. Smith Jr., Complex Safety Manager

SUBJECT: Respiratory Protection Program

This memorandum is in reference to OSHA 1910.134, OSHA 1910.139, and OSHA 1910.1001 Respiratory Protection Program. The Safety Department is required to provide training and fit-testing on the SCBA, Gas Mask, and N-95 respirators.

I will identify the following areas needing to be medical cleared, trained, and fit-tested to ensure compliance:

1. Lieutenants
2. SORT/DCT Team
3. Hospital
4. ISM
5. Department Heads
6. UNICOR
7. Trust Fund/Warehouse
8. Facilities - confined space, welding etc.

Staff or inmates needing to be medically cleared for the first time need to complete the initial respirator medical evaluation questionnaire (**Attachment 1**). Otherwise, please have your staff or inmates complete the annual medical form (**Attachment #2**). Please provide the medical exam forms to Health Service for review and approval.

Once your staff have been medically cleared, Health Services will complete the Respirator Medical Clearance, Training and Fit Testing Acknowledgment Form (**Attachment3**) and forward this to the Safety Department.

When the Safety Department receives all respiratory medical approval from Health Services, we will contact each Department Head to schedule a date and time to complete the respiratory training and fit-testing. This will ensure compliance with OSHA, ACA, JACHO, Correctional Services and Safety's program review requirements.

If you have any questions, please do not hesitate to let me know.

cc: Wardens, AW's Department Heads



U.S. Department of Justice

Federal Bureau of Prisons

Office of the Safety Department

Federal Correctional Complex  
Tucson, Arizona 85706

July 17, 2008

MEMORANDUM TO ALL CONCERN

FROM: Leroy A. Smith Jr., Complex Safety Manager

SUBJECT: Respiratory Protection Program

This memorandum is in reference to OSHA 1910.134, OSHA 1910.139, and OSHA 1910.1001 Respiratory Protection Program. The Safety Department is required to provide training and fit-testing on the SCBA, Gas Mask, and N-95 respirators.

I will identify the following areas needing to be medical cleared, trained, and fit-tested to ensure compliance:

1. Lieutenants
2. SORT/DCT/BPT Teams
3. Health Services
4. ISM
5. Department Heads
6. UNICOR
7. Trust Fund/Warehouse
8. Facilities - confined space, welding etc.

Staff or inmates needing to be medically cleared for the first time need to complete the initial respirator medical evaluation questionnaire (**Attachment 1**). Otherwise, please have your staff or inmates complete the annual medical form (**Attachment #2**). Please provide the medical exam forms to Health Service for review and approval.

Once your staff have been medically cleared, Health Services will complete the Respirator Medical Clearance, Training and Fit Testing Acknowledgment Form (**Attachment3**) and forward this to the Safety Department.

When the Safety Department receives all respiratory medical approval from Health Services, we will contact each Department Head to schedule a date and time to complete the respiratory training and fit-testing. This will ensure compliance with OSHA, ACA, JACHO, Correctional Services and Safety's program review requirements.

If you have any questions, please do not hesitate to let me know.

cc: Warden, AK's Department Heads



U.S. Department of Justice

Federal Bureau of Prisons

Federal Correctional Complex

Safety Office

Tucson, Arizona 85706

January 27, 2009

*S.G. McClintock*  
MEMORANDUM FOR S.G. MCCLINTOCK, ASSOCIATE WARDEN

FROM:

*Leroy A. Smith*  
Leroy Smith, Complex Safety Manager

SUBJECT:

Annual Review and Certification of Complex  
Respiratory Protection Plan

I certify, as primary reviewer of this safety plan, that no changes are required at this time.





Federal Correctional Complex  
Tucson, Arizona

RESPIRATORY PROTECTION PLAN

The purpose of this program is to establish procedures regarding respirator protection for staff and inmates at the Federal Correctional Complex, Tucson, Arizona, who may work in any environment containing contaminants of dusts, fogs, fumes, mists, sprays and vapors. It is the policy of this institution to provide guidance to those work areas required to use respirators. All staff and inmates shall observe procedures outlined in this document.

Bureau of Prisons Program Statement 1600.09, "Occupational Safety and Environmental Health Manual", will be used as a reference in conjunction with this Plan. In addition, Occupational Safety and Health Administration Standards 1910.134 and 1910.139 should be used as a reference.

A copy of this Plan has been provided to all Departments included in this Plan.

I have reviewed and certify that the provisions of this Plan are in accordance with policy requirements.

S.G. McClintock  
S.G. McClintock, Associate Warden

1/30/09  
Date

Leroy A. Smith Jr.  
Leroy A. Smith Jr., FCC Safety Manager

1/27/09  
Date

## **RESPIRATORY PROTECTION**

### 1. **BACKGROUND:**

Prolonged exposure to toxic materials can cause headaches, dizziness, nausea and/or respiratory problems and reduce employee productivity. Self-Contained Breathing Apparatus (SCBA) shall always be worn in cases involving smoke and other oxygen deficient and/or toxic atmospheres.

- A. In addition, paper type masks (those used for nuisance dusts and/or non-toxic type particles only) are neither approved nor authorized for use within the context of this directive. The thicker type disposable mask, such as the 8210 models by 3M, is authorized for use when working with certain dusts.
- B. However, use of this type of mask is not authorized unless the user has been medically cleared and properly fit tested.

### 2. **GENERAL:**

In the control of occupational diseases caused by breathing air contaminated with harmful dusts, fogs, fumes, mists and vapors, the primary objective is to prevent atmospheric contamination. This shall be accomplished as far as feasible by control measures such as confinement of operation, adequate ventilation, and substitution of fewer toxic materials. When effective controls are not feasible for operations, appropriate respirators shall be used in accordance with the following measures.

- A. The following staff have been placed in the Respiratory Protection Program:

- Clinical staff
- R&D staff
- D.C.T. and S.O.R.T. Members
- All Lieutenants and staff volunteers for SCBA's

- B. The following work activities have been identified as needing respiratory protection due to exposure at or above the permissible exposure limit (PEL).

- 1. Blasting/Paint/Sanding Booths
- 2. Confined Entry Program - if above the exposure limit
- 3. Use of Less than Lethal Munitions
- 4. TB Escort Program

## RESPIRATORY PROTECTION

5. Emergency evacuation
- D. The institution will follow the guidelines outlined in Program Statement 6190.02, Infectious Disease Management for the TB Escort Program.
  1. The N-95 respirator will be worn by ALL personnel in the following conditions: A listing of staff involved in the tuberculosis program will be provided to the appropriate Departments.
    - a. Entering the room of a suspected or confirmed tuberculosis (TB) case.
    - b. Transporting a suspected or confirmed (TB) case.
    - c. Any contact with a suspect or confirmed (TB) case, which would include R&D out-processing staff, posts at local hospital, etc.
    - d. The suspect or confirmed (TB) patient will not be permitted to wear a respirator. He/She shall be issued and wear a standard "Surgical Type Mask."

### 3. SELF CONTAINED BREATHING APPARATUS

A listing of staff who have been medically cleared, properly trained and fit tested for SCBA use will be provided to the Correctional Services Department.

3M, 30-minute SCBAs are located in pairs in the following locations:

#### A. **AREA QUANTITY (SCBA) - USP**

Control Center -----	2	Safety Department -----	2
Lieutenants Office -----	2	Between R&D and SHU ---	2
Behind A-Unit -----	2	Behind B-Unit -----	2
Behind C-Unit -----	2	Behind D-Unit -----	2
Behind E-Unit -----	2	Behind F-Unit -----	2

#### B. **AREA QUANTITY (SCBA) - FCI**

Control Center -----	2	Special Housing -----	4
Middle of Compound -----	4		

#### C. **AREA QUANTITY (SCBA) - SPC**

Message Center -----	2
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## **RESPIRATORY PROTECTION**

- D. These units are available to aid in the evacuation of staff and inmates during fire or smoke emergencies. These units will also provide the users with respiratory protection while performing work in an atmosphere which could be dangerous to life and health.
- E. The buddy system shall be used when performing emergency evacuation. SCBAs must be used in pairs (two staff). Two back up staff will be suited up and available whenever SCBA units are used.
- F. SCBAs will be stored in pairs in wall mounted cabinets or cases depending on the location. The cabinets will be kept secured in areas with inmate access. A monthly inspection of each unit will be performed by the Safety Department. Each unit will receive hydrostatic testing in accordance with the manufacturers requirements or DOT regulations.

### **4. MEDICAL CLEARANCE/RECORD KEEPING PROCEDURES:**

Staff and inmates shall not work on any project requiring a respirator until they have been medically cleared and fit tested.

- A. Appendix C to Section 1910.134: "OSHA Respirator Medical Evaluation Questionnaire" will be issued by the Safety Department to the Department Head/Detail Supervisor whose staff/inmate requires the use of respirators. **(Attachment 1)**
- B. Upon receipt of the Respirator Medical Evaluation Questionnaire the Health Services Department will schedule the staff and/or inmate for the appropriate evaluation if necessary. Upon completion of the Respirator Medical Evaluation Questionnaire, staff shall ensure the completed Questionnaire form is forwarded to the Health Services Department for review. Upon completion of the evaluation, the Clinical Director approve/disapprove the use of a Respirator and forward the results of the evaluation to the Safety Department via the Medical Approval Form. If the inmate cannot read then they shall be orally asked the questions by an authorized staff member who will then fill out the questionnaire for them.
- C. The completed Respirator Medical Evaluation Form will be placed in the staff/inmate medical file in the Health Services Department for retention.

## **RESPIRATORY PROTECTION**

- D. The Clinical Director will review the Medical Evaluation Questionnaire annually for staff involved in the TB Escort Program in accordance with CFR 1910.139.
- E. Once in receipt of the Medical Approval Form, the Safety Department will then ensure that the staff or inmate is properly trained and fit tested. Once this test is completed, the Respirator Training and Fit Testing Acknowledgment Form will be filled out and placed on file in the Safety Office for retention.

**NOTE:**      **No staff or inmate shall be allowed/required to use a respirator until he/she has received medical clearance, training and fit testing.**

### 5.    **FIT TESTING:**

- A. Fit testing shall be conducted upon initial assignment to any job that may routinely require the use of respirators.    **(Attachment 3)**
- B. All employees who wear respirators will be fit tested initially upon being cleared by the staff physician, and annually after that.    **(Attachment 2)**
- C. Fit testing must be performed using the same make and model of respirator that the employee will be using on the job.
- D. Respirator users must perform a positive and negative fit check prior to each use.
- E. A qualitative fit test will be performed utilizing irritant smoke.
- F. Fit testing for SCBAs will be conducted using a negative pressure mode.
- G. Whenever an employee dons a respirator they shall perform a positive and negative pressure fit check to ensure that there is a good seal between their face and the respirator.

### 6.    **TRAINING:**

- A. All staff and/or inmates whose work involves the use of respirators, will receive training in the following areas at least annually:

## **RESPIRATORY PROTECTION**

- B. The Safety Department will provide training to the respirator user and the detail supervisor responsible for supervising work details where the use of a respirator is necessary. At a minimum, this training will include the following:
1. Nature of respiratory hazards.
  2. Engineering and administrative controls.
  3. Selection and limitations of respirators.
  4. Demonstrations and practice in how the respirator should be worn.
  5. How to make proper adjustments.
  6. How to determine proper fit.
  7. Selection and limitations of respirators.
  8. Proper wearing of respirators.
  9. Proper cleaning, maintenance, storage and inspection of respirators.

### **7. LIMITATIONS OF RESPIRATORS:**

- A. Air Purifying Respirators SHALL NOT be used in oxygen deficient environments (less than 19.5% oxygen).
- B. Proper fit with a tight fitting respirator cannot be achieved when there is any hair growth between the skin and the sealing surface of the face piece.
- C. Respirators used at FCC Tucson shall only be used to protect against contaminants that have obvious warning properties (odor, taste or dust). Cartridges and/or pre-filters shall be replaced as needed and in accordance with manufacturers' recommendations.

### **8. CLEANING AND DISINFECTING:**

- A. The employer shall provide each respirator user with a respirator that is clean, sanitary, and in good working order. The employer shall ensure that respirators are cleaned and disinfected using the procedures in Appendix B-2 of 1910.134, or procedures recommended by the manufacturer, provided such procedures are of equivalent effectiveness. The respirators shall be cleaned and disinfected at the following intervals:

## **RESPIRATORY PROTECTION**

- B. Respirators issued for the exclusive use of an employee shall be cleaned and disinfected as often as necessary to be maintained in a sanitary condition.
- C. Respirators maintained for emergency use shall be cleaned and disinfected after each use; and respirators used in fit testing and training shall be cleaned and disinfected after each use.

### 9. **Storage:**

- A. The employer shall ensure that respirators are stored as follows:
  - 1. All respirators shall be stored to protect them from damage, contamination, dust, sunlight, extreme temperatures, excessive moisture, and damaging chemicals, and they shall be packed or stored to prevent deformation of the facepiece and exhalation valve.

### 10. **INSPECTION:**

- A. The employer shall ensure that respirators are inspected as follows:
  - 1. All respirators used in routine situations shall be inspected before each use and during cleaning;
  - 2. All respirators maintained for use in emergency situations shall be inspected at least monthly and in accordance with the manufacturer's recommendations, and shall be checked for proper function before and after each use.
  - 3. A check of respirator function., tightness of connections, and the condition of the various parts including, but not limited to, the facepiece, head straps, valves, connecting tube, and cartridges, canisters or filters; and a check of elastomeric parts for pliability and signs of deterioration.

### 11. **FILTER/CANNISTER MAINTENANCE:**

- A. Filters, cartridges and/or canisters for use with respirators will be stored in a clean, dry, and sanitary environment to prevent exposure when not in use. The filter, cartridge and/or cannister will be inspected before each use and will be replaced at a minimum of annually for the following respirators:

### **RESPIRATORY PROTECTION**

- B. Emergency Use Respirators (Gas Mask) for S.O.R.T. and D.C.T.
  
- C. Safety staff shall periodically inspect and evaluate the Respirator Program and complete a review of the program annually in accordance with CFR 1910.134 and 1910.139.



**RESPIRATORY PROTECTION**

Attachment 1

**FEDERAL CORRECTIONAL COMPLEX  
TUCSON, ARIZONA**

**RESPIRATOR MEDICAL EVALUATION QUESTIONNAIRE (MANDATORY)**

**TO THE EMPLOYER/DETAIL SUPERVISOR:** Answer to questions in Section 1, and to question 9 in Section 2 of Part A, do not require a medial examination.

**TO THE EMPLOYEE/INMATE:** Can you read? (Circle one): Yes / No

Your employer/detail supervisor must allow you to answer this questionnaire during normal working hours, or at a time and place that is convenient to you. To maintain your confidentiality, your employer or supervisor must not look at or review your answers, and your employer must tell you how to deliver or send this questionnaire to the health care professional who will review it.

**PART-A SECTION-1 (MANDATORY):** The following information must be provided by every employee/inmate who has been selected to use any type of respirator **(PLEASE PRINT)**.

1. **Today's date:** \_\_\_\_\_
2. **Your name:** \_\_\_\_\_
3. **Your age (to nearest year):** \_\_\_\_\_
4. **Sex (circle one):** Male / Female
5. **Your height:** \_\_\_\_\_ft. \_\_\_\_\_in.
6. **Your weight:** \_\_\_\_\_lbs.
7. **Your job title:** \_\_\_\_\_
8. A phone number where you can be reached by the health care professional who review this questionnaire **(include the area code):**  
**Area Code:** \_\_\_\_\_ **Phone Number:** \_\_\_\_\_
9. The best time to phone you at this number: \_\_\_\_\_
10. Has your employer/detail supervisor told you how to contact the health care professional who will review this questionnaire **(circle one):** Yes / No
11. Check the type of respirator you will use (you can check more than one category):
  - a. \_\_\_\_\_ N, R, or P disposable respirator,  
(filter-mask, non-cartridge type only)

## RESPIRATORY PROTECTION

- b. \_\_\_\_\_ Other type (for example, half or full-face piece type, powered-air, purifying, supplied-air, self-contained breathing apparatus).

12. Have you worn a respirator (**circle one**): Yes / No If "yes," what type (s): \_\_\_\_\_

**PART-A SECTION-2 (MANDATORY):** Questions 1 through 9 below must be answered by every employee/inmate who has been selected to use any type of respirator (**PLEASE CIRCLE YES OR NO**).

1. Do you currently smoke tobacco, or have you smoked tobacco in the last month: Yes / No
2. Have you ever had any of the following conditions?
  - a. Seizures (fits): Yes / No
  - b. Diabetes (sugar disease): Yes / No
  - c. Allergic reactions that interfere with your breathing: Yes / No
  - d. Claustrophobia (fear of closed-in places): Yes / No
  - e. Trouble smelling odors: Yes / No
3. Have you ever had any of the following pulmonary or lung problems?
  - a. Asbestosis: Yes / No
  - b. Asthma: Yes / No
  - c. Chronic bronchitis: Yes / No
  - d. Emphysema: Yes / No
  - e. Pneumonia: Yes / No
  - f. Tuberculosis: Yes / No
  - g. Silicosis: Yes / No
  - h. Pneumothorax (collapsed lung): Yes / No
  - i. Lung cancer: Yes / No
  - j. Broken ribs: Yes / No
  - k. Any chest injuries or surgeries: Yes / No
  - l. Any other lung problem that you've been told about: Yes / No
4. Do you currently have any of the following symptoms of pulmonary or lung illness?
  - a. Shortness of breath: Yes / No
  - b. Shortness of breath when walking fast on level ground or walking up a slight hill or incline: Yes / No
  - c. Shortness of breath when walking with other people at an ordinary pace on level ground: Yes / No
  - d. Have to stop for breath when walking at your own pace on level ground: Yes / No
  - e. Shortness of breath when washing or dressing yourself: Yes / No
  - f. Shortness of breath that interferes with your job: Yes / No

## RESPIRATORY PROTECTION

- g. Coughing that produces phlegm (thick sputum):  
Yes / No
- h. Coughing that wakes you early in the morning:  
Yes / No
- i. Coughing that occurs mostly when you are lying down:  
Yes / No
- j. Coughing up blood in the last month:  
Yes / No
- k. Wheezing:  
Yes / No
- l. Wheezing that interferes with your job:  
Yes / No
- m. Chest pain when you breathe deeply:  
Yes / No
- n. Any other symptoms that you think may be related to lung problems:  
Yes / No
5. Have you ever had any of the following cardiovascular or heart problems?
- a. Heart attack: Yes / No
- b. Stroke: Yes / No
- c. Angina: Yes / No
- d. Heart failure: Yes / No
- e. Swelling in your legs or feet (not caused by walking):  
Yes / No
- f. Heart arrhythmia (heart beating irregularly):  
Yes / No
- g. High blood pressure: Yes / No
- h. Any other heart problem that you've been told about:  
Yes / No
6. Have you ever had any of the following cardiovascular or heart symptoms?
- a. Frequent pain or tightness in your chest:  
Yes / No
- b. Pain or tightens in your chest during physical activity:  
Yes / No
- c. Pain or tightness in your chest that interferes with your job:  
Yes / No
- d. In the past two years, have you noticed your heart skipping or missing a beat:  
Yes / No
- e. Heartburn on indigestion that is not related to eating:  
Yes / No
- f. Any other symptoms that you think may be related to heart of circulation problems:  
Yes / No
7. Do you currently take medication for any of the following problems?
- a. Breathing or lung problems: Yes / No
- b. Heat trouble: Yes / No
- c. Blood pressure: Yes / No
- d. Seizures (fits): Yes / No

## RESPIRATORY PROTECTION

8. If you've used a respirator, have you ever had any of the following problems? (If you've never used a respirator, check the following space and go to question 9):

Never used a respirator

- a. Eye irritation: Yes / No
- b. Skin allergies or rashes: Yes / No
- c. Anxiety: Yes / No
- d. General weakness or fatigue: Yes / No
- e. Any other problem that interferes with your use of a respirator: Yes / No

9. Would you like to talk to the health care professional who will review this questionnaire about your answers to this questionnaire: Yes / No

Questions 10 to 15 below must be answered by every employee/inmate who has been selected to use either a full-face piece respirator or a self-contained breathing apparatus (SCBA). For employees/inmates who have been selected to use other types of respirators, answering these questions is voluntary.

10. Have you ever lost vision in either eye (temporarily or permanently): Yes / No

11. Do you currently have any of the following vision problems?

- a. Wear contact lenses: Yes / No
- b. Wear glasses: Yes / No
- c. Color blind: Yes / No
- d. Any other eye or vision problem: Yes / No

12. Have you ever had an injury to your ears, including a broken ear drum: Yes / No

13. Do you currently have any of the following hearing problems?

- a. Difficulty hearing: Yes / No
- b. Wear a hearing aid: Yes / No
- c. Any other hearing or ear problem: Yes / No

14. Have you ever had a back injury: Yes / No

15. Do you currently have any of the following musculoskeletal problems?

- a. Weakness in any of your arms, hands, legs, or feet: Yes / No
- b. Back pain: Yes / No
- c. Difficulty fully moving your arms and legs: Yes / No
- d. Pain or stiffness when you lean forward or backward at the waist: Yes / No

**RESPIRATORY PROTECTION**

- e. Difficulty fully moving your head up or down:  
Yes / No
- f. Difficulty fully moving your head side to side:  
Yes / No
- g. Difficulty bending at your knees:  
Yes / No
- h. Difficulty squatting to the ground:  
Yes / No
- i. Climbing a flight of stairs or ladder carrying more than 25lbs:  
Yes / No
- j. Any other muscle or skeletal problem that interferes with using a respirator:  
Yes / No

**MEDICAL DEPARTMENTS USE ONLY:**

\_\_\_\_\_ Approved \_\_\_\_\_ Denial \_\_\_\_\_ More Information Needed (Specify)

RESTRICTION REMARKS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
PHYSICIANS SIGNATURE

\_\_\_\_\_  
DATE

**RESPIRATORY PROTECTION**

Attachment 2

**FEDERAL CORRECTIONAL COMPLEX  
TUCSON, ARIZONA**

**ANNUAL EMPLOYEE/INMATE RESPIRATORY MEDICAL REVIEW FORM**

Employee Name	Job Title	Department	Detail
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**ACKNOWLEDGMENT FORM:**

In accordance with OSHA 1910.134 and the Bureau of Prisons Safety Manual, it is a requirement that all workers using a respirator be provided an annual user's medical status update and be reviewed by a medical physician. Upon medical clearance the Safety Department will provide fit-testing to all staff medically cleared and capable of wearing and using a respirator.

Since your last medical status update have you had any of the following medical changes:

- A. Any difficulty fully moving your arms, legs, hands, feet, or neck. Yes / No.
- B. Difficulty bending at your knees. Yes / No.
- C. Any current lifting restrictions. Yes / No.
- D. Any facial scares. Yes / No.
- E. Any weight changes (i.e. lose or gain). Yes / No.
- F. Shortness of breathing while conducting daily activities. Yes / No.
- G. Any current lung problems or heart conditions. Yes / No.
- H. Any changes with your vision. Yes / No.

\_\_\_\_\_ 1. Review of your annual medical status update that you completed revealed that you have no medical condition restrictions and may be fit tested for respirator usage. (Does not require an employee signature).

\_\_\_\_\_ 2. Review of your annual medical status update that you completed revealed that you have a medical condition not compatible with respirator usage. (Does require an employee signature for denial).

PHYSICIAN COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

\_\_\_\_\_ Staff Members Signature \_\_\_\_\_ Date

\_\_\_\_\_ Physicians Signature \_\_\_\_\_ Date

**RESPIRATORY PROTECTION**

cc: Staff Member Medical File

Attachment 3

**FEDERAL CORRECTIONAL COMPLEX  
TUCSON, ARIZONA**

**RESPIRATOR MEDICAL CLEARANCE, TRAINING AND FIT TESTING ACKNOWLEDGMENT FORM**

In accordance with OSHA 1910.134 and the Bureau of Prisons Safety Manual, it is a requirement that all workers using a respirator be provided a fit-test to determine whether the worker is capable of wearing and using a respirator. Before completing this fit-test form, you must complete a medical questionnaire and have it reviewed by a physician.

**EMPLOYEE/INMATE NAME**

**DEPARTMENT/JOB ASSIGNMENT**

**Date**

**Medical Clearance:**

\_\_\_\_\_ 1. Review of your medical history that you completed in the OSHA Respirator Medical Evaluation Questionnaire (1910.134) reveal that you have no medical condition restrictions and may be fit tested for respirator usage. (Does not require an employee signature).

\_\_\_\_\_ 2. Review of your medical history that you completed in the OSHA Respirator Medical Evaluation Questionnaire (1910.134) reveal that you have a medical condition not compatible with respirator usage. (Does require an employee signature for denial).

**PHYSICIANS SIGNATURE**

**Date**

Respirator Type	Manufacturer	Model Number	Size	Pass	Fail
½ Face					
Full Face					
SCBA					
Gas Mask					
HEPA Mask					
Other:					

**Fit Check:**

Negative Pressure \_\_\_\_\_ Pass \_\_\_\_\_ Fail

Positive Pressure \_\_\_\_\_ Pass \_\_\_\_\_ Fail

**Protocol:**

Irritant Fume: \_\_\_\_\_ Saccharin: \_\_\_\_\_ Other: \_\_\_\_\_

Test Conducted By: \_\_\_\_\_ Date: \_\_\_\_\_ Retest Date: \_\_\_\_\_

**Training:** This certifies that I have received training in the use and proper maintenance of the above named respirator and have been informed of my responsibility to wear the proper respiratory equipment.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**RESPIRATORY PROTECTION**

cc: Safety Office



# **BC** Bill Collier & Associates

May 27, 2009

Ms. Kim Caraway  
Contract Specialist  
Interagency Solutions and Procurement Branch  
UNICOR  
400 First St. NW  
Washington, DC 20534

Mr. Robert Tonetti  
General Manager  
Recycling Business Group  
UNICOR  
400 First St. NW  
Washington, DC 20534

Re: Industrial Hygiene Report - FPI Tucson

## **EXECUTIVE SUMMARY**

On March 25-27, 2009, an air monitoring and wipe sampling study was conducted by William C. Collier, CIH to evaluate lead, cadmium and beryllium levels in the prison disassembly factory and at the camp.

All measured lead, cadmium, and beryllium air levels were below the laboratory's detection limit and consequently well below the allowable OSHA limits. All lead, cadmium, and beryllium wipe samples reported surface concentrations below the laboratory's detection limit and were consequently well below OSHA and EPA guidance levels.

Personal noise dosimetry was conducted on March 26 and 27, 2009, to evaluate noise during various FPI Tucson operations. Ten personal exposure measurements were collected during this timeframe. Noise exposures ranged from approximately 10 to 205 percent of the allowable OSHA limits. Four workers recorded noise exposures in excess of OSHA's Hearing Conservation Level (e.g. recorded a dose higher than fifty percent). Three of these four workers recorded a noise exposure in excess of OSHA's Permissible Exposure Limit (e.g. recorded a dose higher than one-hundred percent).

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**Mariposa Office: 3882 Pinecrest Drive, Mariposa, CA 95338**  
**Phone: 209-742-6622, FAX 209-966-7149, e-mail: [billcollier@sti.net](mailto:billcollier@sti.net)**

## INTRODUCTION

William C. Collier, CIH, performed an industrial hygiene evaluation for UNICOR's Recycling Business Group at FPI Tucson during March 25-27, 2009. On March 25<sup>th</sup> a walk through of both the factory and the camp was performed to determine where air and wipe sampling would be conducted. Evaluations of the prison and camp were conducted on March 26<sup>th</sup> and 27<sup>th</sup> respectively between the hours of 7:30 AM to approximately 3:00 PM.

The purposes of this evaluation were:

- a. To evaluate beryllium (Be), cadmium (Cd), and lead (Pb) air exposures during recycling operations.
- b. To evaluate beryllium (Be), cadmium (Cd), and lead (Pb) surface concentrations.
- c. To identify and describe work practices and controls for existing recycling operations and to determine the necessity of additional controls and/or work practices.
- d. To evaluate the use of personal protective equipment utilized during recycling operations.
- e. To evaluate the existing air ventilation systems.
- f. To evaluate noise exposures during recycling operations.
- g. To observe work activities and to provide pertinent safety and health recommendations.

The items will be addressed below in sections a-g of "Measurements and Observations."

## EVALUATION TECHNIQUES

Surface wipe samples were collected using Ghost Wipes for metals to evaluate surface contamination. These wipe samples were collected in accordance with NIOSH 9100, using a plastic template with a 10 cm by 10 cm square opening in the center (100 cm<sup>2</sup>). The template was held in place by hand to prevent movement during sampling and both sides of each wipe were firmly pressed with a scrubbing action against the various surfaces. Surface wipes were then placed in sealable vials for storage and shipment. The wipe samples were analyzed for metals according to NIOSH Method 7300.

Air samples were collected using un-weighed 0.80 um MCE filters and NIOSH Method 7300. Air pumps were attached to the MCE filters via hoses. The air pumps were calibrated to run at or near 2.0 Liters per minute with a Bios Dry-Cell and run for as close as possible to a full shift. The individual filters were numbered and sent to a laboratory

for analysis. All samples taken in this study, both air and wipe samples, were analyzed by a laboratory (Schneider Laboratories, Richmond, VA) accredited by the AIHA.

Two forms of noise survey instruments were used during this survey. Full shift noise dosimetry studies were conducted using calibrated Casella CEL-350 dosimeters while a calibrated Sper Sound Level Meter was used to instantaneously evaluate noise during the walkthrough. The noise dosimeters were attached to individuals determined to have potential for noise exposure at or above 85 dBA on an eight hour time weighted average (TWA) basis.

Ventilation systems were evaluated with Krestel 3000 velometer and smoke tubes. Face velocity readings were taken at several points, in a grid like manner, on both the inlet and exhaust grids and averaged to calculate volumetric flow. Smoke tubes were used primarily to determine airflow direction.

### MEASUREMENTS AND OBSERVATIONS

- a. All measured lead, cadmium, and beryllium personal air exposures were below the laboratory's detection limits and consequently well below allowable OSHA limits. (See Exhibit 1-2).
- b. All measured lead, cadmium, and beryllium surface levels were below the laboratory's detection limits and consequently well below OSHA's lead guidance level and EPA's recommended beryllium and cadmium Health Benchmark levels (Exhibit 3-6).
- c. It is evident that site personnel are extremely vigilant about cleaning up workstations quickly.  
  
Dry sweeping was observed to collect larger parts. Afterwards, the floors were then HEPA-vacuumed and mopped. Orderlies continued throughout the shift and kept the floors in a very clean condition. The workers at the various tear down stations frequently cleaned their areas.
- d. Other than some variability in the use of dust masks, no other PPE observations were noteworthy.
- e. The prison and the camp have swamp coolers for their air conditioning system. The prison factory has exhaust fans to pull air away from working areas. The Camp's large swamp cooler forces air out and through cargo doors on the front of the building. The airflow from the Factory's exhaust fans was measured at 1300 cfm (east wall) and 1492 cfm (south wall). The swamp coolers were not running on the day of the evaluation.

The factory has installed two air filter systems above the work area. The fan closest to the factory supervisor's office had airflow of 1132 cfm through the system. The other filter device was not operational and was reported to the factory manager.

Maximum ambient outdoor temperature for this study was 72°F, with corresponding maximum relative humidity of 35%. Indoor temperatures in the work areas were not measured but were not considered greatly different than outdoor temperatures.

- f. Personal noise dosimetry was conducted on March 26 and 27, 2009, to evaluate noise during various FPI Tucson operations (See Exhibits 7-8). Ten personal exposure measurements were collected during this timeframe. Noise exposures ranged from approximately 10 to 205 percent of the allowable OSHA limits. Four workers recorded noise exposures in excess of OSHA's Hearing Conservation Level (e.g. recorded a dose higher than fifty percent). Three of these four workers recorded noise exposures in excess of OSHA's Permissible Exposure Limit (e.g. recorded a dose higher than one-hundred percent).

Highest noise levels were recorded by the operator of the chisel gun in the copper recovery area. Bailers and the forklift truck operator also recorded noise levels above OSHA's Hearing Conservation Level.

The measured noise differences between the two prison factory bailers were attributed to the blue bailer's operator spending more time moving materials in and out of the work area.

- g. Workplace recommendations:

1. Continue HEPA vacuuming and mopping of work surfaces. However, we would suggest that HEPA vacuuming be utilized instead of dry sweeping.
2. We would suggest having several types of disposable dust masks (N-95 or better) for workers based on their personal preference. We would also suggest that Appendix D of 29 CFR 1910.134 (OSHA's Respiratory Protection Standard) be provided to the workers voluntarily using dust masks. However, we would not make it mandatory to wear the masks at this point.
3. We recommend that all bailers, forklift operators, and copper recover workers be included in a Hearing Conservation Program consisting of program elements such as, but not limited to, annual training and audiometric testing. Please see 29 CFR 1910.95 for complete Hearing Conservation Requirements.

We also suggest mandatory use of double hearing protection (plugs and muffs) for the copper chisel gun operator(s) while this operation is further evaluated to determine if noise controls can be implemented, and/or until measured noise levels fall below 90 dBA. In addition, we suggest that every worker within a 30-40 foot radius be required to wear hearing protection (ear plugs or ear muffs) while the copper chisel gun is running.

Additional, noise dosimetry would be useful to better determine which copper recovery workers to include in the Hearing Conservation Program.

4. The speed of forklift trucks observed during this survey concerned us. We recommend that all drivers simply stop in areas where there is not an unobstructed view, honk their horns, and then proceed to the adjacent area. We also suggest that the existing forklift training program be evaluated against the training requirements set forth by OSHA in 29 CFR 1910.178.
5. We suggest that these results be communicated within 15 days of receipt to the workers monitored.

If you have any questions, or if you would like to further discuss this report please contact me at 209-742-6622.

Respectfully Submitted,

William C. Collier, CIH

## EXHIBIT 1

**Personal Air Exposure Monitoring**  
**Site: FPI Tucson - Prison Factory Operations**  
**Dates: March 26, 2009**

Sample Number	Job Title/Location/Inmate ID	Date	Time Sampled (Minutes)	Pollutant	Concentration ( $\mu\text{g}/\text{m}^3$ ) <sup>a</sup>		
					TWA <sup>b</sup>	8-hr TWA <sup>c</sup>	OSHA PEL/AL <sup>d</sup>
A-1	Table 1, 31451-051	3/26/09	403	Lead	ND	ND	50 (PEL); 30 (AL)
A-2	Table 16, 0549-196	3/26/09	388		ND	ND	
A-3	Table 44, 07954-091	3/26/09	399		ND	ND	
A-4	Table 37, 12955-081	3/26/09	346		ND	ND	
A-5	Sample lost by orderly, finished shift with A-11, 6612-180	3/26/09	-		ND	ND	
A-6	Table 27, 23090-175	3/26/09	395		ND	ND	
A-7	Bailer Operator (Yellow), 11726-014	3/26/09	388		ND	ND	
A-8	Warehouse 1, 08505-091	3/26/09	383		ND	ND	
A-9	Warehouse 2, 16538-012	3/26/09	381		ND	ND	
A-10	Rear Gate Officer	3/26/09	136		ND	ND	
A-11	Orderly Sweeper, 6612-180	3/26/09	159		ND	ND	
A-2	Table 16, 0549-196	3/26/09	388	Cadmium	ND	ND	5 (PEL); 2.5 (AL)
A-8	Warehouse 1, 08505-091	3/26/09	383		ND	ND	
A-10	Rear Gate Officer	3/26/09	136		ND	ND	
A-7	Bailer Operator (Yellow), 11726-014	3/26/09	388		ND	ND	
A-2	Table 16, 0549196	3/26/09	388	Beryllium	ND	ND	2 (PEL)
A-7	Bailer Operator (Yellow), 11726-014	3/26/09	388		ND	ND	
A-8	Warehouse 1, 08505-091	3/26/09	383		ND	ND	
A-10	Rear Gate Officer	3/26/09	136		ND	ND	

<sup>a</sup> Air concentration reported as mass of pollutant (in micrograms) per cubic meter of air ( $\mu\text{g}/\text{m}^3$ ).

<sup>b</sup> TWA = Time Weighted Average of pollutant levels measured in micrograms of pollutant per cubic meter of air ( $\mu\text{g}/\text{m}^3$ ) for the time sampled.

<sup>c</sup> 8-hr TWA = Measured TWA averaged over 8-hours.

<sup>d</sup> OSHA Permissible Exposure Limit and/or Action Level (8-hr TWA) in units of  $\mu\text{g}/\text{m}^3$ .

Concentrations reported with an "ND" were less than the laboratory's detection limit for either lead (2.0  $\mu\text{g}$ ), cadmium (0.4  $\mu\text{g}$ ), or beryllium (0.4  $\mu\text{g}$ ).

## Exhibit 2

### Personal Air Exposure Monitoring

*Site: FPI Tucson - Camp Operations*

*Dates: March 27, 2009*

Sample Number	Job Title/Location/ Inmate ID	Date	Time Sampled (Minutes)	Pollutant	Concentration ( $\mu\text{g}/\text{m}^3$ ) <sup>a</sup>		
					TWA <sup>b</sup>	8-hr TWA <sup>c</sup>	OSHA PEL/AL <sup>d</sup>
CA-1	Sweeper, 05071-081	3/27/09	398	Lead	ND	ND	50 (PEL); 30 (AL)
CA-2	Hand Sort, 10876-112	3/27/09	398		ND	ND	
CA-3	Hard Drive, 95344-022	3/27/09	107		ND	ND	
CA-4	CPU, 10139-111	3/27/09	390		ND	ND	
CA-5	Laptop - 05071-081	3/27/09	389		ND	ND	
CA-6	Hard Drive, testing operator	3/27/09	279		ND	ND	
CA-1	Sweeper, 05071-081	3/27/09	398	Cadmium	ND	ND	5 (PEL); 2.5 (AL)
CA-1	Sweeper, 05071-081	3/27/09	398	Beryllium	ND	ND	2 (PEL)

<sup>a</sup> Air concentration reported as mass of pollutant (in micrograms) per cubic meter of air ( $\mu\text{g}/\text{m}^3$ ).

<sup>b</sup> TWA = Time Weighted Average of pollutant levels measured in micrograms of pollutant per cubic meter of air ( $\mu\text{g}/\text{m}^3$ ) for the time sampled.

<sup>c</sup> 8-hr TWA = Measured TWA averaged over 8-hours.

<sup>d</sup> OSHA Permissible Exposure Limit and/or Action Level (8-hr TWA) in units of  $\mu\text{g}/\text{m}^3$ .

Concentrations reported with an "ND" were less than the laboratory's detection limit for either lead (2.0  $\mu\text{g}$ ), cadmium (0.4  $\mu\text{g}$ ), or beryllium (0.4  $\mu\text{g}$ ).

**EXHIBIT 3**

**Lead Wipe Sampling**

*Site: FPI Tucson - Prison Factory - Disassembly Operations*

*Dates: March 26, 2009*

Sample ID	Description	Date	Sample Area (ft <sup>2</sup> )	Lead Concentration (µg/ft <sup>2</sup> ) <sup>a</sup>
W-1	Wall in Between Bailers	3/26/09	0.11	ND
W-2	Warehouse Office - below seal	3/26/09	0.11	ND
W-3	Wall West Side of Factory	3/26/09	0.11	ND
W-4	Wall East Side of Factory	3/26/09	0.11	ND
L-2	Factory Lights, Row 1, 3rd light from office	3/26/09	0.11	ND
L-3	Factor Lights, Row 2, 3rd Light from North Wall	3/26/09	0.11	ND
L-4	Factory Lights, Warehouse Center	3/26/09	0.11	ND
L-5	Light in between Bailers	3/26/09	0.11	ND
FSP-1	Fire Sprinkler System - Warehouse	3/26/09	0.11	ND
T-1	Table Top on Tale on West Wall	3/26/09	0.11	ND
T-2	Table - Workstation 45	3/26/09	0.11	ND
BIN-1	Rubber Coated Bin - Disassembly Area	3/26/09	0.11	ND
MP-1	Metal Plate, Work Station 24	3/26/09	0.11	ND
F-4	Floor, Warehouse Center	3/26/09	0.11	ND
H-1	Hands of Disassembly worker, prior to lunch	3/26/09	0.11	ND
H-2	Hands of Disassembly worker, prior to lunch	3/26/09	0.11	ND
L-1	Warehouse Area	3/26/09	0.11	ND
F-1	Floor in front of yellow bailer	3/26/09	0.11	ND
F-5	Center Aisle - Disassembly	3/26/09	0.11	ND
F-6	Center Aisle - Near Office Door	3/26/09	0.11	ND
F-7	Floor Copper Recovery	3/26/09	0.11	ND
F-2	Bailer area, in walkway	3/26/09	0.11	ND

<sup>a</sup> Measured lead surface concentration reported as mass of pollutant (in micrograms) per square foot of surface area (ft<sup>2</sup>).

OSHA requires that surfaces be maintained as free as practicable of lead accumulations. However, OSHA uses a guidance level of 200 µg/ft<sup>2</sup> for lead contamination in areas where workers have direct contact with lead-contaminated surfaces, such as working surfaces, floors, etc. OSHA has no guidance or regulatory level for lead in areas, such as rafters, pipes and light fixtures, where there is no direct contact with the workers.

Concentrations reported with an "ND" were less than the laboratory's detection limit for lead (10 µg).



**EXHIBIT 4****Cadmium Wipe Sampling****Site: FPI Tucson - Prison Factory - Disassembly Operations****Dates: March 26, 2009**

Sample ID	Description	Date	Sample Area (ft <sup>2</sup> )	Cadmium Concentration (µg/ft <sup>2</sup> ) <sup>a</sup>
W-1	Wall in Between Bailers	3/26/09	0.11	ND
L-1	Warehouse Area	3/26/09	0.11	ND
H-1	Hands of Disassembly worker, prior to lunch	3/26/09	0.11	ND
T-1	Table Top on Tale on West Wall	3/26/09	0.11	ND
F-1	Floor in front of yellow bailer	3/26/09	0.11	ND
F-5	Center Aisle - Disassembly	3/26/09	0.11	ND

<sup>a</sup> Measured cadmium surface concentration reported as mass of pollutant (in micrograms) per square foot of surface area (ft<sup>2</sup>).

OSHA requires that surfaces be maintained as free as practicable of cadmium accumulations. OSHA has not established a surface contamination guidance level for cadmium.

The EPA Health Benchmark cadmium guidance level developed for residential dust clean-up following the attacks on September 11, 2001, is 144 µg/ft<sup>2</sup>.

Concentrations reported with an "ND" were less than the laboratory's detection limit for cadmium (4.0 µg).

**EXHIBIT 5****Beryllium Sampling****Site: FPI Tucson - Prison Factory - Disassembly Operations****Dates: March 26, 2009**

Sample ID	Description	Date	Sample Area (ft <sup>2</sup> )	Beryllium Concentration (µg/ft <sup>2</sup> ) <sup>a</sup>
W-1	Wall in Between Bailers	3/26/09	0.11	ND
L-1	Warehouse Area	3/26/09	0.11	ND
H-1	Hands of Disassembly worker, prior to lunch	3/26/09	0.11	ND
T-1	Table Top on Tale on West Wall	3/26/09	0.11	ND
F-1	Floor in front of yellow bailer	3/26/09	0.11	ND
F-5	Center Aisle - Disassembly	3/26/09	0.11	ND

<sup>a</sup> Measured beryllium surface concentration reported as mass of pollutant (in micrograms) per square foot of surface area (ft<sup>2</sup>).

OSHA has not established a beryllium surface contamination limit or guidance level.

The EPA Health Benchmark beryllium guidance level developed for residential dust clean-up following the attacks on September 11, 2001, is 291 µg/ft<sup>2</sup>.

Concentrations reported with an "ND" were less than the laboratory's detection limit for beryllium (4.0 µg).

**EXHIBIT 6**  
**Lead, Cadmium and Beryllium Wipe Sampling Results**  
*Site: FPI Tucson - Camp/Warehouse*  
*Dates: March 27, 2009*

Sample ID	Description	Date	Sample Area (ft <sup>2</sup> )	Lead Concentration (µg/ft <sup>2</sup> ) <sup>a</sup>
WT-1	Hard Drive Area – Table	3/27/09	0.11	ND
WF-1	Floor, CPU area	3/27/09	0.11	ND
WT-3	CPU Area Table	3/27/09	0.11	ND
WF-2	Floor, Hard Drive Area	3/27/09	0.11	ND
WWF-3	Floor, Printer Sort Area	3/27/09	0.11	ND
WT-2	CPY Station Table, just east of Printer Sort Area	3/27/09	0.11	ND
VT-T-3	Table in Laptop Area	3/27/09	0.11	ND
TLT-1	Floor of Truck Bed	3/27/09	0.11	ND
CW-4	Warehouse floor, just east of printer sort	3/27/09	0.11	ND
Field Blank-1	Blank	3/27/09	NA	ND
Sample ID	Description	Date	Sample Area (ft <sup>2</sup> )	Cadmium Concentration (µg/ft <sup>2</sup> ) <sup>a</sup>
TLT-1	Floor of Truck Bed	3/27/09	0.11	ND
CW-4	Warehouse Floor, near printer sort	3/27/09	0.11	ND
Field Blank-1	Blank	3/27/09	NA	ND
Sample ID	Description	Date	Sample Area (ft <sup>2</sup> )	Beryllium Concentration (µg/ft <sup>2</sup> ) <sup>a</sup>
TLT-1	Floor of Truck Bed	3/27/09	0.11	ND
CW-4	Warehouse Floor, near printer sort	3/27/09	0.11	ND
Field Blank-1	Blank	3/27/09	NA	ND

<sup>a</sup> Measured lead surface concentration reported as mass of pollutant (in micrograms) per square foot of surface area (ft<sup>2</sup>).

OSHA requires that surfaces be maintained as free as practicable of lead accumulations. However, OSHA uses a guidance level of 200 µg/ft<sup>2</sup> for lead contamination in areas where workers have direct contact with lead-contaminated surfaces, such as working surfaces, floors, etc. OSHA has no guidance or regulatory level for lead in areas, such as rafters, pipes and light fixtures, where there is no direct contact with the workers.

OSHA requires that surfaces be maintained as free as practicable of cadmium accumulations. OSHA has not established surface contamination guidance levels or limits for cadmium and beryllium.

The EPA Health Benchmark cadmium and beryllium guidance levels developed for residential dust clean-up following the attacks on September 11, 2001, are 144 µg/ft<sup>2</sup> and 291 µg/ft<sup>2</sup> respectively.

Concentrations reported with an "<" were less than the laboratory's detection limit for either lead (10 µg), cadmium (4.0 µg), or beryllium (4.0 µg).

### EXHIBIT 7

**Personal Noise Exposure Monitoring**  
**Site: FPI Tucson - Prison Factory Operations**  
**Dates: March 26, 2009**

Dosimeter Number	Job Title/Location/Inmate ID	Date	Time Sampled (Minutes)	% Dose <sup>a</sup>	TWA (dBA) <sup>b</sup>	8-HR TWA (dBA) <sup>c</sup>
374	Bailer Operator (Yellow) 11726-014	3/26/09	427	136	92	91
309	Forklift Operator, Warehouse 8450800-823	3/26/09	365	173 <sup>d</sup>	82	93
378	Copper Recovery, 23090-175	3/26/09	307	205	97	95
307	Bailer Operator (Blue) 78366-011	3/26/09	356	32	84	81
376	Table 1, Disassembly 09114998	3/26/09	384	10	76	73

<sup>a</sup> % Dose = Measured noise exposure expressed as a percent of the OSHA PEL (90 dBA). A dose of 50% is in excess of OSHA's Hearing Conservation Level (85 dBA), while a dose greater than 100% exceeds OSHA's PEL.

<sup>b</sup> TWA (dBA) = Time Weighted Average of noise levels measured in dBA (decibels A-Weighted Scale) for the time sampled.

<sup>c</sup> 8-HR TWA = Measured TWA averaged over 8-hours.

<sup>d</sup> Discrepancies between the % Dose and TWA were observed when recording the results from the sampling instrumentation. It is recommended that this task be included in a Hearing Conservation Program unless follow-up monitoring shows differently.

### EXHIBIT 8

**Personal Noise Exposure Monitoring**  
**Site: FPI Tucson - Camp Operations**  
**Dates: March 27, 2009**

Dosimeter Number	Job Title/Location/Inmate ID	Date	Time Sampled (Minutes)	% Dose <sup>a</sup>	TWA (dBA) <sup>b</sup>	8-HR TWA (dBA) <sup>c</sup>
307	Bailer Operator (bailer is outdoors), Billingsley, 13728-097	3/27/09	358	58 <sup>d</sup>	76	86
376	Sorter, 08584-097	3/27/09	389	16.4	80	76
309	Forklift Driver	3/27/09	382	10	73	73
378	Labastida, 05071-081	3/27/09	365	10	73	73
374	CPU Breakdown Lap Top Worker	3/27/08	378	10	73	73

<sup>a</sup> % Dose = Measured noise exposure expressed as a percent of the OSHA PEL (90 dBA). A dose of 50% is in excess of OSHA's Hearing Conservation Level (85 dBA), while a dose greater than 100% exceeds OSHA's PEL.

<sup>b</sup> TWA (dBA) = Time Weighted Average of noise levels measured in dBA (decibels A-Weighted Scale) for the time sampled.

<sup>c</sup> 8-HR TWA = Measured TWA averaged over 8-hours.



Federal Correctional Complex  
Tucson, Arizona

**HEARING CONSERVATION PROGRAM**

The purpose of the Hearing Conservation Program at FCC Tucson is to establish procedures for providing engineering and administrative controls to reduce noise in areas where levels are at or above an 8-hour time-weighted average of 85 dBA. In areas where such controls are not feasible, a Hearing Conservation Program shall be implemented.

Bureau of Prisons Program Statement 1600.09, "Occupational Safety, Environmental Compliance, and Fire Protection Manual", will be used as a reference in conjunction with this Plan. In addition, Occupational Safety and Health Administration Standard 29 CFR 1910.95 should be referenced.

In addition, the applicable American Correctional Association 4th Edition, Standard 4-4150.

I have reviewed this Plan and certify that the provisions of this Plan are in accordance with policy requirements.

S.G. McClintock  
S.G. McClintock, Associate Warden

4/28/09  
Date

Leroy A. Smith Jr.  
Leroy A. Smith Jr. FCC Safety Manager

4/22/09  
Date

## HEARING CONSERVATION PROGRAM

### DEFINITIONS

- A. Action level - An 8-hour time-weighted average of 85 decibels measured on the A-scale, slow response, or equivalently, a dose of fifty percent.
- B. Audiogram - A chart, graph, or table resulting from an audiometric test showing an individual's hearing threshold levels as a function of frequency.
- C. Audiologist - A professional, specializing in the study and rehabilitation of hearing, who is certified by the American Speech-Language-Hearing Association or licensed by a state board of examiners.
- D. Baseline audiogram - The audiogram against which future audiograms are compared.
- E. Criterion sound level - A sound level of 90 decibels.
- F. Decibel (dB) - Unit of measurement of sound level.
- G. Hertz (Hz) - Unit of measurement of frequency, numerically equal to cycles per second.
- H. Medical pathology - A disorder or disease. For purposes of this regulation, a condition or disease affecting the ear, which should be treated by a physician specialist.
- I. Noise dose - The ratio, expressed as a percentage, of (1) the time integral, over a stated time or event, of the 0.6 power of the measured SLOW exponential time-averaged, squared A-weighted sound pressure and (2) the product of the criterion duration (8 hours) and the 0.6 power of the squared sound pressure corresponding to the criterion sound level (90 dB).
- J. Noise dosimeter - An instrument that integrates a function of sound pressure over a period of time in

## HEARING CONSERVATION PROGRAM

such a manner that it directly indicates a noise dose.

- K. Otolaryngologist - A physician specializing in diagnosis and treatment of disorders of the ear, nose and throat.
- L. Representative exposure - Measurements of an employee's noise dose or 8-hour time-weighted average sound level that the employers deem to be representative of the exposures of other employees in the workplace.
- M. Sound level - Ten times the common logarithm of the ratio of the square of the measured A-weighted sound pressure to the square of the standard reference pressure of 20 micropascals.
- N. Unit: decibels (dB). For use with this regulation, SLOW time response, in accordance with ANSI S1.4-1971 (R1976), is required.
- O. Sound level meter - An instrument for the measurement of sound level.
- P. Time-weighted average sound level - That sound level, which if constant over an 8-hour exposure, would result in the same noise dose as is measured.

### 2. PROGRAM OVERVIEW

Current OSHA Regulation, 29 CFR 1910.95, requires the establishment of a continuing, effective hearing conservation program when an area, operation, or procedure produces noise levels at 85 dBA and above. When noise levels exceed 90 dBA, the wearing of approved hearing protection is mandatory for all persons exposed.

Protection against the effects of noise exposure shall be provided when the sound levels exceed those listed below when measured on the A scale of a standard sound level meter at slow response.

## HEARING CONSERVATION PROGRAM

### PERMISSIBLE NOISE EXPOSURES

Duration per day, hours	Sound Level (dBA)
8	90
6	92
4	95
3	97
2	100
1.5	102
1	105
0.5	110
0.25 or less	115

### 3. PROCEDURES:

- A. The Safety Department will perform annual noise level evaluations throughout the institution to determine which areas have noise levels at 85 dBA and above.
1. Fixed locations having excessive noise levels shall be clearly designated by conspicuously posting signs requiring personal protective equipment (i.e., HIGH NOISE HAZARD - HEARING PROTECTION REQUIRED).
  2. Isolated operations or activities which produce over 90 dBA but are not an identified high noise area shall require personal protective equipment.
  3. The affected department head will be notified of the results of the survey and the needed action, if any. It is the responsibility of the department head to notify the Safety Department of any procedural or process changes which may affect the noise levels in his/her area.
- B. In areas where noise levels exceed 85 dBA, consideration must be given to reduce the exposures of staff and inmates through engineering and/or administrative controls:

## HEARING CONSERVATION PROGRAM

1. Engineering controls consist of:
  - a. repairing or replacing worn machine parts which are generating the noise,
  - b. replacing the process or machine with one which produces less noise, or
  - c. isolating the process or machinery from workers with a sound absorbing medium which reduces the noise level below 85 dBA.
2. Administrative controls consist of significantly limiting the exposure by controlling or manipulating the work schedule.

When engineering or administrative controls cannot successfully reduce the exposures of staff and inmates to less than 85 dBA, a Hearing Conservation Program is mandatory.

### C. HEARING CONSERVATION:

1. Staff or inmate workers who are exposed to noise levels of 85 dBA or higher for an 8-hour work shift shall be included in the Hearing Conservation Program. This program will include a baseline audiogram, prior to assignment to a high noise level area, followed by annual retesting in accordance with the current Bureau of Prisons Health Services Manual.
2. Persons demonstrating a standard threshold shift of 10 dBA or more from a baseline average over 2,000, 3,000, or 4,000 Hz frequencies shall be removed from the high-noise area and reevaluated in 48 hours.

If hearing returns to baseline after 48 hours, hearing protection is required if none has been used or it has been incorrectly used. Any individual found to have a hearing loss greater than 25 dB in the same frequencies shall be restricted from the high-noise area for three months. After three months, a determination shall be made about the work assignment by the Clinical Director.

3. Hearing protection shall be worn by staff and



## **HEARING CONSERVATION PROGRAM**

inmates utilizing equipment/machinery that produces high noise. The affected employee is typically only exposed to high noise levels in short time durations utilizing equipment / machinery. Listed below are examples of equipment/machinery that may require the use of hearing protection but would not require the user to be included in the Hearing Conservation Program, i.e., Lawn Mowers, Weed Eaters, Leaf Blowers, Jack Hammers, Air Tools, etc.

### **4. RESPONSIBILITY AND ENFORCEMENT:**

Supervisors will enforce the wearing of approved hearing protection in all affected work areas. Supervisors will take corrective action, to include disciplinary action, if necessary, for violators of this policy. Compliance with this Program will be monitored during inspections of the institution.

### **5. REQUIRED AUDIOMETRIC TESTING**

Staff using the firing range beyond annual requalification must enroll in the hearing conservation program according to Program Statement 1600.09 Occupational Safety Environmental Compliance, and Fire Protection.

**Firing Range Staff, SORT, and DCT have been identified as affected employees that need to be enrolled in the Hearing Conservation Program.**

All participants, instructors and observers of firearm training shall wear ear muffs and ear plugs during firing. Hearing protection at outdoor ranges is required for all persons within 15 yards of the firing point.

A sign shall be posted at the Firing Range alerting all instructors, participants, and observers of firearms training that hearing and eye protection is required.

### **POWERHOUSE**

Employees working in these areas have been identified to be enrolled in the Hearing Conservation Program.

### **6. TRAINING:**

All affected employees shall be trained. The following is a summary of the training requirements:

## HEARING CONSERVATION PROGRAM

The Safety Department shall provide annual training to those employees exposed to noise at or above an 8 - hour time weighted average of 85 decibels - or equivalently - a 50 % dose.

The training shall be repeated annually, and updated to accurately reflect any changes in the program or work place exposures.

The training shall include:

1. The effects of noise on hearing
2. The purpose of hearing protectors, including their use, limitations and care
3. The purpose and procedures of audiometric testing

### 7. AUDIOMETRIC TESTING:

Audiometric testing shall be administered by a licensed or certified audiologist, otolaryngologist, other physician, or by an appropriately certified technician who is responsible to an audiologist, otolaryngologist or physician.

Audiometric tests will be conducted for affected employees (SORT, DCT, Powerhouse) within 6 months of the employee being first exposed to the noise in that area, except when a test van is used to conduct audiometric testing. If a mobile van is used, affected employees will be testing within their first year of being exposed to the noise.

Prior to the intital testing, employees will have at least 14 hours without any workplace noise exposure. This may be accomplished by using hearing protection. The initial test will establish a baseline.

Audiometric testing shall be repeated annually for all affected employees. These audiograms are compared to the baseline to determine whether a standard threshold shift has occurred.

If a comparison of the annual audiogram to the baseline audiogram indicates a standard threshold shift, the employee shall be informed of this fact in writing, within 21 days of the determination.

## **HEARING CONSERVATION PROGRAM**

Unless a physician determines that the standard threshold shift is not work related or aggravated by occupational noise exposure, the following steps are taken:

Employees not using hearing protectors will be fitted with hearing protectors, trained in their use and care, and required to use them.

Employees already using hearing protectors will be refitted and retrained in the use of hearing protectors and provided with hearing protectors offering greater attenuation if necessary.

The employee will be referred for a clinical audiological evaluation or an otological examination, as appropriate, if additional testing is necessary or if the employer suspects that a medical pathology of the ear is caused or aggravated by the wearing of hearing protectors.

The employee is informed of the need for an otological examination if a medical pathology of the ear that is unrelated to the use of hearing protectors is suspected.

Audiometric testing shall be made available to all employees exposed at or above an 8 - hour time weighted average of 85 dBA or equivalently, a 50 % noise dose.

Audiometric testing shall be funded by the Human Resources Department utilizing Project Code 48S.

### **8. PERSONAL PROTECTIVE EQUIPMENT:**

Hearing protection shall be provided to staff and inmates identified in the Hearing Conservation Program at no cost. i.e., ear muffs, plugs, etc.



**U.S. Department of Justice**

**Federal Bureau of Prisons**

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*Office of The Safety Department*

*Federal Correctional Complex  
Tucson, Arizona 85706*

November 17, 2006

**MEMORANDUM TO CHRISTOPHER LAMB, HEALTH SERVICES ADMINISTRATOR**

**FROM: Leroy A. Smith, Safety Manager**

**SUBJECT: Hearing Conservation Program**

This memorandum is in reference to OSHA 1910.95 Hearing Conservation Program. This program requires a baseline audiogram prior to assignment to a high noise level area, followed by annual retesting. The following work areas have been identified for your review:

1. UNICOR staff and inmates
2. firearm instructors
3. DCT team
4. Welding shop staff and inmates
5. Carpenter shop staff and inmates
6. Power plant staff and inmates

These affected staff and inmates have been identified for the Hearing Conservation Program. The affected departments need to provide a list of their staff and inmates to the Health Services Department to be scheduled for audiometric testing by November 24, 2006. This will ensure compliance with OSHA, Program Review, ACA, and JCAHO guidelines, which is paramount to the success of the hearing conservation program.

The Safety Department requests an updated listing of all current staff and inmates that have received their annual audiometric testing for our official records. Also, the Safety Department requests an assurance memorandum that all affected staff and inmates have been notified of their audiometric test results.

Please forward the written responses to the Safety Department no later than November 29, 2006.

If I you have any questions or concerns, please do not hesitate to let me know.

cc: R. E. Chavez, Warden  
W. Jones, AW Operations  
M. Szafir, AW Programs  
J. Sanchez, AW I&E  
L. Calcote, AW Admin.  
J. Barnhart, Captain  
C. Thygerson, Employee Services Manager  
M. McKissic, Facilities Manager



**U.S. Department of Justice**

**Federal Bureau of Prisons**

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*Office of The Safety Department*

*Federal Correctional Complex  
Tucson, Arizona 85706*

August 07, 2007

**MEMORANDUM TO CONNEE THYGERSON, EMPLOYEE SERVICES MANAGER**

**JONATHAN BARNHART, CAPTAIN**

**FROM: Leroy A. Smith, Complex Safety Manager**

**SUBJECT: Hearing Conservation Program**

After speaking with the Health Services Administrator, we agree that a baseline audio-gram should be conducted for all Firearm Instructors and DCT Team members. These staff will also receive annual retests. I ask that you provide a list of the affected staff to the Health Services Department, this will allow them to effectively schedule the staff for their audiometric testing.

Once the staff have received their audiometric test, a list needs to be provided to the affected departments and the Safety Department to maintain as well.

If I you have any questions or concerns, please let me know.

cc: Ricardo E. Chavez, Complex Warden  
Louis W. Winn, Warden  
Keith Roy, Associate Warden  
Chris Lamb, Health Services Administrator  
Scott Sutton, Acting Associate Warden

**From:** Christopher Lamb  
**To:** Smith, Leroy  
**Date:** 9/5/2007 3:59:38 PM  
**Subject:** Re: Hearing Conservation

I have received nothing as of this date.

>>> Leroy Smith 9/5/2007 3:49:49 PM >>>  
Hi Everyone,

I need to know that everyone has submitted the names of all SORT, DCT, and Range Instructors to Health Services. These staff members will need to be scheduled to receive an audio-gram. If this has not taken place, please advise or please get with Mr. Lamb.

Thanks.

Leroy A. Smith, Safety Manager  
FCC Tucson, Arizona  
520-663-5190 (Office)  
520-663-5189 (Fax)

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**Federal Bureau of Prisons**

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*Office of The Safety Department*

*Federal Correctional Complex  
Tucson, Arizona 85706*

April 3, 2008

**MEMORANDUM TO CONNEE THYGERSON, EMPLOYEE SERVICES MANAGER**

**JONATHAN BARNHART, CAPTAIN**

**JAMES MARCHETTI, FACILITIES MANAGER**

**ROQUE TAMARAY, ACTING HEALTH SERVICE  
ADMINISTRATOR**

**FROM: Leroy A. Smith Jr., Complex Safety Manager**

**SUBJECT: Initial and Annual Audiometric Testing**

It has been brought to my attention that audiometric testing has not been conducted or scheduled for the Range Instructors, SORT, DCT and Welding Operators. We all agreed on November 17, 2006 and August 7, 2007, to have the audiometric testing performed on all affected staff and inmate workers. This audiometric testing will affect our upcoming ACA, JACHO and the Safety Departments Program Review. I have attached the Range and DCT Instructors listings to help expedite scheduling of the staff and inmate workers, which will ensure we meet and maintain compliance.

I once again plea for everyone's support to provide Health Services additional staff or inmate workers names needing to have audiometric testing conducted, this will allow Health Services to effectively schedule staff and inmate workers

If you have any questions or concerns, please let me know.

cc: AW, Calcote  
AW, Beckwith  
AW, Hollembaek





**U.S. Department of Justice**

**Federal Bureau of Prisons**

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*Office of The Safety Department*

*Federal Correctional Complex  
Tucson, Arizona 85706*

July 17, 2008

**MEMORANDUM TO CONNEE THYGERSON, EMPLOYEE SERVICES  
MANAGER**

**JONATHAN BARNHART, CAPTAIN**

**JAMES MARCHETTI, FACILITIES MANAGER**

**GUY DRENNAN, HEALTH SERVICE  
ADMINISTRATOR**

**FROM:** Leroy A. Smith Jr., Complex Safety Manager

**SUBJECT:** Initial and Annual Audiometric Testing

It has been brought to my attention that audiometric testing has not been conducted or scheduled for the Range Instructors, SORT, DCT and Welding Operators. We all agreed on November 17, 2006, August 7, 2007, and March 2008, to have the audiometric testing performed on all affected staff and inmate workers. Currently, we are non compliant with the OSHA standards. A listing of all staff and inmate workers needs to be provided to Health Services. This will assist Health Services in effectively scheduling the necessary audiometric tests.

A listing of staff and inmates that receive the audiometric testing needs to be provided to Correctional Services, Employee Services, Facilities and Safety. Again, I plea for everyone's needed support to the safety and health of our staff and inmate workers.

If you have any questions or concerns, please let me know.

cc: Warden Apker, Warden Winn, AW, Calcote, AW, Beckwith  
AW, Hollembaek

**From:** Leroy Smith  
**To:** Barnard, Mark; Barnhart, Jonathan; Cobb, Paul; Marchetti, James; Mel...  
**CC:** Beckwith, Daniel; Hollembaek, Stephanie; McClintock, Susan  
**Subject:** Audio-gram Testing

The audio-gram testing will effect all Range Instructors , SORT, DCT, UNICOR (Bailer Operators) and Facility Shops. I need to ask everyone to please provide a list of your staff and inmates needing to participate in the hearing program to Health Services by Monday, March 9, 2009.

If there are any question or anything that I need to address, please advise.

**From:** Louis Winn  
**To:** Beckwith, Daniel  
**Date:** 7/17/2008 1:58:42 PM  
**Subject:** Fwd: Emailing: COMPLIANCE MEMO4

Dan: i view this as a Complex-wide issue. Please ensure the proper follow-up occurs in a timely fashion.

>>> Leroy Smith 7/17/2008 1:53 PM >>>

Please review the below attachment concerning audiometric testing. If there are any questions, please advise.

Leroy A. Smith, Safety Manager  
FCC Tucson, Arizona  
520-663-5190 (Office)  
520-663-5189 (Fax)

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**CC:** Apker, Craig; Smith, Leroy



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# Program Statement

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**OPI:** HSD/SAF  
**NUMBER:** P1600.09  
**DATE:** 10/31/2007  
**SUBJECT:** Occupational Safety,  
Environmental  
Compliance, and Fire  
Protection

1. **PURPOSE AND SCOPE.** The purpose of this Manual is to:
  - Provide a safe and healthy environment for staff and inmates to work and live.
  - Provide oversight and examination of issues and develop strategies on the impact of occupational safety, environmental, and fire protection regulations affecting the Bureau.
  - Ensure that Federal institutions comply with current American Correctional Association (ACA) Standards, National Fire Protection Association (NFPA) National Fire Codes (NFC), emphasizing NFPA 101, Life Safety Codes, environmental regulations, and Uniform Federal Accessibility Standards.

This revision is prompted by the many changes to laws, regulations, and standards since the 1999 edition.

The Manual is organized by subject. Many requirements are interrelated; staff are responsible for compliance with all of its provisions.

2. **PROGRAM OBJECTIVES.** Expected results of this program are:
  - a. Hazardous materials will be controlled.
  - b. Unsafe or unhealthy conditions reported by staff or inmates will be examined and corrected when appropriate.
  - c. Fire losses will be reduced through prevention and control strategies, evacuation planning, and maintenance of fire suppression equipment.
  - d. Work-related accidents and injuries will be investigated.

## Chapter 1. Administration

\* **A. PURPOSE.** The Federal Bureau of Prisons, through its safety policy, aims to create a safe, healthful environment for staff, inmates, and visitors. Each institution must comply with the most recent codes, standards, and regulations; the following are referenced in this policy:

- Occupational Safety and Health Administration (OSHA).
- National Fire Protection Association (NFPA).
- Environmental Protection Agency (EPA).
- American Correctional Association (ACA).
- Joint Commission for the Accreditation of Health Care Organizations (JCAHO).
- American Society for Testing and Materials (ASTM).
- American National Standards Institute (ANSI).
- Factory Mutual Engineering Corporation (FM).
- American Congress of Governmental Industrial Hygienists (ACGIH).

### B. RESPONSIBILITIES

1. **Assistant Director.** The Assistant Director, Health Services Division (HSD), is the designated Occupational Safety and Health official for the Bureau. He/she manages the Bureau's Occupational Safety, Environmental Compliance, and Fire Protection Program, and is the "Authority Having Jurisdiction" (AHJ) for the Bureau, as defined in National Fire Codes (NFC).

2. **National Safety Administrator.** The National Safety Administrator (NSA) reports to the Assistant Director, Health Services Division (HSD), on occupational safety, fire safety, and environmental health issues. He/she:

- Consults with institution Safety Managers when issues cannot be resolved at institution or regional levels.
- Interprets policy to the Program Review Division.
- Is the Bureau's primary technical resource for the National Incident Management System (NIMS), Incident Command System (ICS), and emergency response procedures involving fires, natural disasters, chemical, biological, radiological/nuclear, and explosive incidents.
- Develops and updates national policy in the areas of occupational safety, fire protection, and environmental regulations.

3. **Regional Safety Administrator.** The Regional Safety Administrator (RSA) reports to and advises the Regional Director on occupational safety, fire safety, and environmental health issues. He/she:

- Ensures the effectiveness and uniformity of safety programs in the region by monitoring program reviews and technical assistance visits at institutions.

- Monitors reports and data generated by institution safety personnel.
- Provides guidance and technical supervision to institution safety personnel and helps resolve problems that cannot be resolved at the institution level.
- Serves as the regional technical resource for the NIMS, ICS, and emergency response procedures involving fires, natural disasters, chemical, biological, radiological/nuclear, and explosive incidents.

\* 4. **Safety Manager.** The Safety Manager advises the Chief Executive Officer (CEO) on occupational safety, environmental compliance, and fire protection. He/she works at the department head level, and serves as the safety officer under the ICS and the institution's technical resource for the NIMS, ICS, and emergency response procedures involving fires, natural disasters, chemical, biological, radiological/nuclear, and explosive incidents.

5. **Safety Alternate.** If an institution has only one full-time Safety Manager or designee, the CEO provides at least one full-time relief during the Safety Manager's absence. The Safety Manager provides training for this position. The Safety Alternate is assigned full-time to the Safety Department until on-the-job training is complete.

\* 6. **Chief Executive Officers.** The CEO must:

- Commit top management support to injury/illness reduction, and personally monitor the effectiveness of the program.
- \* ■ Ensure compliance with OSHA, EPA, and NFPA requirements and state and local regulations.
- Provide sufficient staffing to administer the Occupational Safety, Environmental Compliance, and Fire Protection Program.
- Ensure periodic inspections of workplaces by technically competent personnel.
- \* ■ Ensure prompt abatement of unsafe or unhealthful working conditions.
- Ensure that management information systems and records are kept accurately and posted annually for accidents, injuries, and illnesses.
- Ensure that employees are not subject to restraint, interference, coercion, discrimination, or reprisal for exercising their rights under Executive Order 12196, 29 CFR 1960, or for participating in the Bureau's Occupational Safety, Environmental Compliance, and Fire Protection Program.
- Ensure that adequate occupational safety, environmental compliance, and fire protection training is provided to management, supervisory, safety, and collateral duty safety personnel, as well as all other institution personnel.
- Ensure participation in the local Federal Safety and Health Council.

7. **Detail Supervisors.** Detail Supervisors must:

- Ensure safety practices are followed and implement corrective actions.
- Train inmates in safe practices.

- Familiarize themselves with hazards in particular jobs or the physical surroundings of employees.
- Institute training on accident prevention, fire prevention, and environmental compliance. Safety Managers, in cooperation with other department heads, ensure that training resources are available to detail supervisors.
- Promptly and accurately report and record accidents, injuries, illnesses, and their causes to the Safety Department within 24 hours.

8. **Employees and Inmates.** Employees and inmates must:

- Perform their duties in the safest possible manner.
- Comply with OSHA, EPA, NFPA, and Bureau Occupational Safety, Environmental Compliance, and Fire Protection Standards, along with Federal, state, and local laws and regulations.
- Immediately report hazards or unsafe acts to supervisors.
- Report accidents, injuries, and illnesses to supervisors.

\* C. **IMMINENT DANGER.** When an Occupational Safety staff member determines conditions or practices in a place of employment could reasonably and immediately be expected to cause death or serious physical harm, he/she must inform affected employees of the danger and shut down the work or process until the danger is eliminated. In addition, he/she must inform in writing the CEO, RSA, NSA, and the local Union president of the hazard and action. Reactivation of the work or process depends on the Safety Manager's reinspection and written approval.

The RSA and NSA review actions taken regarding imminent danger determinations. The Chief of the OSHA Area Office in which the institution is located is consulted if the RSA or NSA disagree with the Safety Manager's findings and actions concerning imminent danger.

D. **TRAINING**

1. **Safety Staff.** Safety staff (including alternates) complete the following courses within 18 months from the date this policy is issued or their date of appointment to a safety position:

- Introduction to Occupational Safety, Environmental Compliance, and Fire Protection Training Program.
- Environmental compliance training, as specified in Chapter 3. Safety staff also receive environmental refresher training annually.
- Fire protection and emergency response training, as specified in Chapter 4. Safety staff also receive annual refresher training in fire protection and emergency responses.
- Employee Compensation procedures and forms.
- Training for trainers.

Log entries contain: date, time, code/reference/file number, location of condition, brief description, classification (imminent danger, serious, or other), and date and nature of action taken.

\* The Safety Manager conducts an inspection upon notification of imminent danger conditions, within 8 hours for potentially serious conditions, and 3 working days for other than serious conditions.

A written summary is provided to the employee or inmate upon request. Distribution of the employee report is per the Master Agreement.

The Bureau Occupational Safety and Environmental Health Program poster is displayed in a conspicuous location frequented by employees and inmates. The poster details the Bureau program and how to file a report.

**H. ACCIDENT INVESTIGATION.** Work-related accidents and injuries are investigated and documented by the detail supervisor and the Safety Department. Documentation of property damage accidents is retained in the Safety Department for three years.

In instances of serious injury, dismemberment, or fatal injury, the CEO promptly appoints a board of investigation to determine the underlying conditions responsible for the accident, for the sole purpose of identifying corrective actions to prevent future reoccurrences.

In the event of a disaster, the Regional Director may appoint a team to conduct an investigation. Outside experts may be included.

A Board of Inquiry may be appointed by the Bureau Director when an external investigation is thought appropriate.

Reporting inmate injuries is covered in Section K.

## **I. REPORTS**

1. **Serious Accidents/Incidents/Fires.** Within 8 hours after a serious accident/incident/fires of the following types, the Safety Manager notifies the RSA by telephone and e-mail of the circumstances, individuals involved, actions taken, fatalities and injuries, and extent of property damage:

- Occupational accident that is fatal or involves loss of a bodily function or an appendage.
- Occupational accident that results in hospitalization of three or more persons.
- Occupational illness that results in death.



## Chapter 2. Occupational Safety

This chapter mirrors the layout of the OSHA regulations.

### A. OCCUPATIONAL SAFETY

1. **Standards.** While other publications help in managing the occupational safety program, OSHA regulations are the governing authority. Note that provisions in this policy may be **more** restrictive than OSHA minimum standards. Health hazards discussed in this section concern environmental conditions in the workplace that may cause illness or death. If the scope of a problem is beyond the expertise of the Safety Department, OSHA has responsibility (Executive Order 12196) to provide services and guidance to Federal agencies in development and implementation of occupational safety and health programs.

2. **NIOSH.** The National Institute for Occupational Safety and Health (NIOSH) evaluates hazards resulting from exposure to chemical substances only, while OSHA assists with evaluation of physical agents (noise, heat, etc.).

3. **Hazard Control Methods.** Occupational hazards must be assessed. If hazards cannot be "substituted out" (i.e., use of a less flammable solvent), then administrative (reduced exposure through scheduling) and engineering controls (i.e., ventilation) are implemented where feasible. The last line of defense for workers is the use of personal protective equipment.

 **B. HAZARD ASSESSMENT.** The Safety Department identifies and addresses hazards in the workplace. Existing and new work procedures, projects, or exercises (mock drills, etc.) are reviewed by the Safety Department, which makes written recommendations to the CEO.

Before purchase of any chemical, orders are approved by the Safety Manager. Hazard assessments include identification of equipment requiring safety guards.

### C. WALKING-WORKING SURFACES (FLOORS, STAIRS, ETC.)

1. **Floors.** Floors, aisles, and passages are per 29 CFR 1910 Subpart D.

2. **Loading Docks.** Loading docks 4 feet or more in height have guardrails and signs posted designating the use of wheel chocks or mechanical means to secure trucks or trailers to the loading dock.

**Note:** The NFPA Life Safety Code requires a guardrail on any section of the loading dock that is part of a required exit, when dock height is 30 inches or more.

## **Chapter 3. Environmental Compliance**

**A. POLICIES AND PROCEDURES.** The Bureau promotes energy conservation, reducing solid waste, recycling waste materials, using environmentally friendly products, and educating inmates and staff regarding the need to protect the environment.

To assume a proactive role as an agency recognized for environmental awareness, specific policies, procedures, programs and activities must be implemented by the Bureau. Institutions, UNICOR facilities and offices will implement these policies and procedures, and initiate programs and activities specific to their location and operations.

An Environmental Regulations Technical Reference Manual (TRM) has been developed to address management processes associated with environmental compliance. The manual outlines regulatory requirements in Executive Orders and environmental regulations.

A summary report, outlining discrepancies noted during annual environmental inspections, is developed by the Safety Manager and provided to each CEO.

### **B. PLUMBING AND DRINKING WATER**

**1. Plumbing.** Design, construction, and maintenance of an institution plumbing system meet nationally recognized plumbing codes. Renovations also meet plumbing code requirements.

Approved backflow prevention devices or assemblies are installed in the potable water supply to prevent pollution or contamination from cross-connections. These are tested and maintained in good working condition by the Facilities Department.

Backflow prevention assemblies are tested by a certified tester at installation, repair, or relocation, and at least annually thereafter. Inspection is documented using a state-approved form or the form provided by NFPA 25.

Annually, the Safety Manager inspects backflow assemblies to ensure each has been tested by a certified tester.

**2. Drinking Water.** Institutions that receive drinking water from a public or private utility collect water samples only if required by a state or local regulatory agency. Institutions required to provide water samples collect at least the minimum number. A state-certified laboratory performs the analysis; Safety staff collect the samples.

Institutions receiving drinking water from a Bureau-owned or –operated source comply with Federal, state, and local standards. They develop a written program approved by the Warden, including:



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WHY RECYCLE?

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## What's Hot

- [Earth Day 2009 Video](#)
- [Certified Facilities - ISO-9001:2000 Certification and/or IAER Certification Achieved](#)

## Events/Tradeshows

There are no events at this time.

## Overview

## News

## Factory Contacts

## Program Contacts

## Why Recycle?

## Recycling Process

## Accepted Items & Materials

## Packaging Information

## Vendor Registration

## Environmental Compliance

## EPA Regulations

## Certification

## Permits

## Refurbished Item Directory

## National Capital Recycling Center

## Recycling Inquiry Form

## Catalogs & Publications

## Partnerships

## Environmental Compliance

UNICOR's goal is to be a responsible steward of the environment by ensuring our recycling operations meet all national standards. UNICOR factories are regulated by the same agencies that regulate commercial e-cycling facilities.

In addition to UNICOR's restrictive no-landfill policy, of electrical components, the Recycling Business Group complies with OSHA standards and each institution is staffed with a full-time **Safety Manager**. UNICOR locations are fully permitted, where required, by state EPA regulations.

## Certifications

- [Texarkana, ISO-9001:2000 Certified, IAER Certified](#)
- [Marianna, ISO-9001:2000 Certified, IAER Certified](#)
- [Tucson, ISO-9001:2000 Certified, IAER Certified](#)
- [Atwater, ISO-9001:2000 Certified, IAER Certified](#)
- [Elkton, ISO-9001:2000 Certified,](#)
- [Lewisburg, ISO-9001:2000 Certified, IAER Certified](#)
- [Ft. Dix, ISO-9001:2000 Certified, IAER Certified](#)
- [OIG Review of Operations](#)

## UNICOR recycling computers and electronics while giving individuals another chance.

UNICOR's recycling program gives approximately 1,200 federal inmates an opportunity to voluntarily participate in a work program. While developing job skills, these inmates improve their self-worth and prepare for release. Inmates use their earnings to pay victim restitution and court-ordered fines, as well as family and child support obligations.

## Teaching Essential Skills

The Recycling Business Group provides essential training to its inmate workers. This valuable training includes hazardous materials handling, identification and segregation of electronic components, proper operation of equipment, electronics assessment, and the opportunity to obtain their GED and A+ Certification. This employment prepares inmates to be productive individuals upon release and provides them the opportunity to participate in reducing the amount of e-waste in public landfills.

## Demonstrating Compliance

UNICOR has engaged professional, independent organizations to conduct third-party inspections and verify environmental compliance efforts. UNICOR factories have undergone intensive technical reviews of their ability to perform effective, responsible recycling activities, including safety procedures, and materials handling and disposition.

## Medical Test/Monitoring

- Staff and Inmates
- Blood and Urine
- Lead, Cadmium, Barium, Barium
- Air/Wipe Test

## 3rd Party Inspections

- Safety Manager
- DTSC (Department of Toxic Substance Control), CA
- N.J. DEPA
- P.A. DEPA
- OSHA
- DoD
- Customer Inspections/Reviews
- Bureau of Prisons Program Reviews/Inspections
- IAER

## Training

- OSHA
- DeMil
- Monthly Health & Safety Training
- ISO Training
- Pre-Industrial Training (Recycling) Staff / Inmates

[Customer Service](#) [Public Notices](#) [Privacy](#) [SiteMap](#)

**From:** Leroy Smith  
**To:** McClintock, Susan  
**Subject:** UNICOR Sampling

Per our conversation, I am providing an update to the bulk sampling being conducted in UNICOR. The action to take bulk samples is based off the recommendations in the UNICOR NIOSH report, which the bulk sampling of the material is supported by the UNICOR Industrial Hygienist.

1. The UNICOR staff were reluctant to take the Bulk samples.
2. The HEPA filter were replaced and the old filters thrown away in the general waste stream.
3. The saturated Mop Heads were thrown away in the general waste stream.
4. The saturated Dust mops were thrown away in the general waste stream.

As a pro-active measure the safety department collected the samples from the generated dirty mop water and the dust from HEPA vacuums. The new HEPA filters, Mop Heads and Dust Mops had only been in place for a couple of days, which would not give a true result of the current operation. It is recommended that these items be used in normal operations until which time they need to be replaced. It is recommended that all dirty water, dust, mop heads, dust mops and hepa filters be stored properly until testing can be conducted to determine the toxicity for disposal requirements. Any further disposal into the waste stream should be prohibited.

**From:** Leroy Smith  
**To:** Ornstein, Jeff  
**CC:** Sanchez, Jose; Sanchez, Jose  
**Date:** 2/27/2009 10:19 AM  
**Subject:** Re: Sample Taking  
**Attachments:** Leroy Smith.vcf

What about the dust that is accumulated in the HEPA Vacuums? Did the UNICOR Industrial Hygienist provide any feedback concerning the PPE requirements when handling the HEPA filter and the Dust? Did the UNICOR Hygienist provide any feedback concerning the NIOSH report and their recommendations? If so, please provide me a copy for my review as well.

Thanks

Leroy A. Smith, Safety Manager  
FCC Tucson, Arizona  
520-663-5190 (Office)  
520-663-5189 (Fax)

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>>> Jeff Ornstein 2/27/2009 9:31 AM >>>  
Leroy,

We have contacted Schneider laboratories of Richmond, Virginia to do the RCRA metals TCLP scan.

We are requesting your presents as a third party to come over to UNICOR and take the samples as requested by the company. Company as requested in order to do the testing a litter of the water that needs to be testing, HEPA filter, and a dust mop. I would like to take the samples today if possible in order to expedite the process. The results will take five days to process from the day they received the samples.

Your cooperation in this matter is appreciated.

Jeff Ornstein, Recycling Technician/ ISO Management Representative  
FCC-Tucson  
UNICOR-Federal Prison Industries  
8901 S. Wilmot Road  
Tucson, Arizona 85706  
Office: 520-574-7100 ext. 7177  
Fax: 520-574-0606  
E-mail: [jornstei@central.unicor.gov](mailto:jornstei@central.unicor.gov)

**From:** Jose Sanchez  
**To:** Krupinski, Dale  
**Date:** 2/27/2009 10:44 AM  
**Subject:** Fwd: Re: Sample Taking  
**Attachments:** Re: Sample Taking

Please assist in responding to Mr. Smith questions??? Call me 520 574-7110

Jose L. Sanchez, Jr.  
A.W. (I & E)  
FCC Tucson

Office (520) 574-7110  
Cell (520) 818-4208  
jsanchez@central.unicor.gov

**From:** Leroy Smith  
**To:** Krupinski, Dale; Sanchez, Jose  
**CC:** Barnhart, Jonathan; brlaw@hotmail.com; Clements, John; cmcmullen@osc....  
**Date:** 3/2/2009 8:37 AM  
**Subject:** Re: Fwd: Rear Gate Procedure  
**Attachments:** Leroy Smith.vcf

As previously discussed the OSHA and other wipe sampling reports did identify hazardous metals present in the trailers, gaylord boxes and other areas in the factory. These samples were below the action and permissible level according to the OSHA standards, which means a full blown program does not have to be implemented. I have been the Safety Manager since August of 2006, which I have expressed my concerns of awareness training, hygiene procedures, ppe requirements to control the low concentrations of the hazardous metals exposure to our staff, which still may cause liver, kidney, respiratory health concerns to our staff over a longer period of time according to OSHA. It has been well documented through analytical data gather through previous operations at other institutions and most recently NIOSH reports that training should be provided to staff concerning the hazards that exist with the handling, transporting and dismantling of Computer Unit Processors (CPUs) and Cathode Ray Tubes (CRTs). This training has never been discussed or presented to the Safety Department for review during the past three years. This training was initial supposed to be developed by UNICOR, which UNICOR Central Officer never followed through. Most recent the NIOSH report identified hazardous metals in the factory and other areas, which the results would have identified other areas throughout the Factory if the ceiling and rafters were not cleaned prior to the testing. This does not support the most recent OIA report concerning this matter as well. The Safety Department will continue to take the pro-active to ensure UNICOR meets their program goals.

Thanks.

Leroy A. Smith, Safety Manager  
FCC Tucson, Arizona  
520-663-5190 (Office)  
520-663-5189 (Fax)

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for its return to me.

>>> Jose Sanchez 2/27/2009 3:08 PM >>>

Gentlemen,

in May 2008, we put together a rear gate procedure for the correctional staff that oversee the rear gate. The procedure did not get implemented due to Mr. Cuestes memo. I would like for both of you to review and add any comments to Rear Gate Procedure...This procedure is been created as a precaution. Per Mr. Cuestes,(Retire Safety Manager) memo dated May 19, 2006, "at present time no hazards have bee identified per OSHA site inspection and air sampling test with negative results.

**Mail Envelope Properties** (49AB9AC9.B3A : 217 : 45988)

**Subject:** Re: Fwd: Rear Gate Procedure  
**Creation Date** 3/2/2009 8:37:30 AM  
**From:** Leroy Smith

**Created By:** lasmith@bop.gov

Recipients	Action	Date & Time
bop.gov		
TCNADMI.TCNDOMI	Delivered	3/2/2009 8:37:30 AM
TCN1279 CC (Louis Winn)	Opened	3/2/2009 8:39:45 AM
	Forwarded	3/2/2009 9:57:03 AM
TCN3083 CC (Jonathan Barnhart)		
bop.gov		
WXR_ADMI.WXR_DOMI	Delivered	3/2/2009 8:37:38 AM
	Post Office Deleted	3/4/2009 3:08:43 PM
WXR5719 CC (John Clements)	Opened	3/2/2009 8:53:23 AM
	Deleted	3/4/2009 11:51:07
AM		
	Emptied	3/4/2009 3:08:42 PM
central.unicor.gov		
NC_POLENSD	Delivered	3/2/2009 8:37:39 AM
dkrupins (Dale Krupinski)	Replied	3/2/2009 8:37:39 AM
	Opened	3/2/2009 8:37:41 AM
	Forwarded	3/2/2009 8:40:53 AM
	Forwarded	3/2/2009 1:35:41 PM
central.unicor.gov		
COPO.GWPD	Delivered	3/2/2009 8:37:37 AM
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central.unicor.gov		
TUPO.LOSD	Delivered	3/2/2009 8:37:39 AM
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AM		
	Emptied	3/5/2009 10:36:09
AM		
jsanchez (Jose Sanchez)	Opened	3/4/2009 8:00:03 AM



hotmail.com Transferred 3/2/2009 8:38:07 AM  
 brlaw CC (brlaw@hotmail.com)

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WXR_ADMLWXR_DOM1	3/2/2009 8:37:38 AM	bop.gov
NC_PO1.ENSJ	3/2/2009 8:37:39 AM	central.unicor.gov
COPO.GWPD	3/2/2009 8:37:37 AM	central.unicor.gov
TUPO.LOSD	3/2/2009 8:37:39 AM	central.unicor.gov

Files	Size	Date & Time
MESSAGE	3953	3/2/2009 8:37:30 AM
Leroy Smith.vcf	208	3/2/2009 8:37:29 AM

**Options**

**Auto Delete:** No  
**Expiration Date:** None  
**Notify Recipients:** Yes  
**Priority:** Standard  
**Reply Requested:** No  
**Return Notification:** None

**Concealed Subject:** No  
**Security:** Standard

**To Be Delivered:** Immediate  
**Status Tracking:** All Information

**Fwd: Re: Metals and noise analysis - FPI Tucson**

Monday, July 6, 2009 1:00 PM

From: "Leroy Smith" &lt;lasmith@bop.gov&gt;

To: leroy2741@yahoo.com

Re: Metals and noise analysis - FPI Tucson.eml (4KB), Leroy Smith.vcf (219b)

Leroy A. Smith, Safety Manager  
FCC Tucson, Arizona  
520-663-5190 (Office)  
520-663-5189 (Fax)

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**Forwarded Message: Re: Metals and noise analysis - FPI Tucson**

Wednesday, May 27, 2009 4:07 PM

**Re: Metals and noise analysis - FPI Tucson**

From: "Leroy Smith" &lt;lasmith@bop.gov&gt;

To: "Dale Krupinski" &lt;dkrupins@central.unicor.gov&gt;

Cc: "Esther White" &lt;exWhite@bop.gov&gt;, "Jonathan Barnhart" &lt;j1barnhart@bop.gov&gt;, "Jose Sanchez" &lt;j2sanchez@bop.gov&gt;, "John Clements" &lt;jdclements@bop.gov&gt;, "Robert Tonetti" &lt;rtonetti@central.unicor.gov&gt;

Leroy Smith.vcf (219b)

What type of PPE are you talking about that OSHA would not require to be provided to our staff? They crawl over and around gaylord boxes, which is a hazard within it's self (i.e. gloves or safety glasses etc). What procedures are you talking about that would not be required to be put in place? Every report I have read mention proper hygiene procedures and handling etc. A respirator may not be required, but it should be made available if the staff member requests one to protect them from low exposure of the hazardous metals over an long period of time. You have many institutions that are below the lead, cadmium, and beryllium OSHA limits and UNICOR still provides staff and inmates a respirator as additional protection for long term exposure.

There is not a red flag, but there are measures that need to be implemented to protect our staff at the rear gate. Lets discuss

further.

Thanks.

Leroy A. Smith, Safety Manager  
FCC Tucson, Arizona  
520-663-5190 (Office)  
520-663-5189 (Fax)

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>>> Dale Krupinski 5/27/2009 3:01 PM >>>

Mr. Smith:

In response to your inquiry, I have attached Mr. Collier's FPI Tucson industrial hygiene report for your information.

Please note that all measured lead, cadmium, and beryllium air/surface levels for both UNICOR and rear gate operations were below the laboratory's detection limit and consequently well below the allowable OSHA limits. Given the measured levels, OSHA would not require a procedure or personal protective equipment for the rear gate.

Feel free to utilize this information as part of your documentation pertaining to Section F of PS 1600.9 and OSHA 29 CFR 1910.132(d) ([http://osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=STANDARDS&p\\_id=9777](http://osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9777)) for your rear gate employees. In addition, you may also want to consider providing hand wipes (such as Hygenall) or hand soap (such as D-Lead) for your rear gate employees.

Please free to contact me should you have difficulties opening the above hyperlinks.

Regards,

Dale Krupinski, CIH, CSP  
Industrial Hygienist  
UNICOR  
Phone: (303) 980-2316

Fax: (303) 763-2526  
e-mail: [dkrupins@central.unicor.gov](mailto:dkrupins@central.unicor.gov)

**From:** Matthew R. Korbelak  
**To:** Clements, John  
**Date:** 10/12/2006 8:08:34 AM  
**Subject:** Mold Notes

I've reviewed the memo from Tucson and the report on the mold sampling/assessment you sent in your email. I've also spoken with a facilities staff member from Tucson and tried to contact AES, Inc.

I believe the air conditioning units, trailer construction/insulation, and leaks have provided conditions where moisture condenses around the trailers and promotes mold growth. The remediation recommendations of cleanup and leak repair may not solve the whole problem - mold growth could reoccur. HVAC timers may be necessary to allow building surfaces to dry out. Depending on the mold contamination within the walls, re-insulation may be needed and could also be good in preventing mold growth reoccurrence.

It would be very helpful to see photographs of the mold in the trailers as well as to speak with the Environmental Technician that did the sampling.

It may be more cost effective to replace the trailers than to remediate them.



Tucson  
7012 E. 3rd St.  
Tucson, AZ 85710  
Tel: (520) 575-7100

Main Office  
325 E. Southern Ave., #115  
Tempe, AZ 85282  
Tel: (480) 839-7000

Mailing Address  
PO Box 28085  
Tempe, AZ 85285

November 6, 2006

**Environmental:**

Management  
Engineering  
Impact Statement  
Vulnerability  
Health & Safety

**Mr. Leroy Smith  
Federal Bureau of Prisons, FCI Tucson  
8901 S. Wilmot Rd.  
Tucson, AZ 85706**

**Re: Equipment Clean up Report**

**Dear Mr. Smith:**

**Services:**

Permitting  
Compliance  
Modeling  
Testing  
Monitoring  
Archaeology  
Hydrogeology  
Decontamination  
Leaking UST  
Risk Assessment  
Training  
ISO-14000 Support  
Indoor Air Quality  
Asbestos  
Lead  
Mold

Per your request on October 31, 2006 Applied EnviroSolutions, Inc. (AES) provided a mold consulting and a cleaning crew to the Federal Correctional Institute (FCI) facility located at 8901 S. Wilmot Rd. Tucson, AZ. The purpose of this project was to conduct cleaning and disinfection of the office equipment in the East Trailer, West Trailer, Dental Exam Room, Medical Records Room, and Mr. Paul Madrid's Office. All of the equipment in the above areas were cleaned and disinfected per industry standards and then removed outside.

AES crew completed all the work per our October 23<sup>rd</sup> contract except the areas that were not accessible during the cleaning days. These areas were the following:

1. The Arts & Crafts Room in the East Trailer contained personal effects of both the FCI staff and Prisoners. Per our agreement, these equipment were disinfected however, it was not removed from the room.
2. Items that were mounted to walls or floors were not removed. They were:
  - a. A wall-mounted cabinet in the Band Room
  - b. Tool Rack in the Arts and Crafts Room closet
  - c. Shelving in the Exercise Room closet
  - d. Bookshelves in the Psychology Office closet.

3. The Dental Exam Room had a few equipment that required to be disassembled. Per your suggestion, the equipment were disinfected but not removed from the room.

**Site:**

Assessment  
Characterization  
Remediation

**Licensed**

**Contractor:**

150268  
199996

Page2  
Letter to Mr. Smith  
November 6, 2006

Also, Psychology Rooms A, B, and C contained large amounts of printed materials. The materials were treated with a fungicide and removed from the offices. One set of bookshelves were fixed to the wall in the storage room and were not removed. The television in room A was disinfected but was not removed as it was fixed to the wall.

However, there were three closets that were not previously inspected by AES and we had to provide extra services. These areas included the storage closets in the Exercise Room, in the Arts and Crafts Room, and in the Psychology Room A. These closets contained large amounts of supplies and printed materials. Per our discussion with your staff, we agreed to utilize an airborne fungicide. The areas were professionally disinfected.

Should you have any questions regarding this report, please do not hesitate to contact me or Mr. Martin Godusi at 520-575-7100 or at 480-839-7000. Thank you.

Sincerely,



Robert House, Jr.  
Environmental Sampling Specialist





Mailing Address	Main Office	Tucson Office
PO Box 28085 Tempe, AZ 85285	325 E. Southern Ave., #115 Tempe, AZ 85282 Tel: (480) 839-7000	7012 E. 3rd St. Tucson, AZ 85710 Tel: (520) 575-7100

Environmental:  
 Management  
 Engineering  
 Impact Statement  
 Vulnerability  
 Safety

September 27, 2006  
 Mr. Leroy Smith  
 Bureau of Prisons, FCI Tucson  
 8901 S. Wilmot Rd.  
 Tucson, AZ 85706

Re: Mold Survey and Sampling

**Services:**

- Permitting
- Compliance
- Modeling
- Testing
- Monitoring
- Hydrogeology
- Decontamination
- Leaking UST
- Risk Assessment
- Training
- ISO-14000 Support
- Indoor Air Quality
- Asbestos
- Lead
- Mold

Dear Mr. Leroy Smith,

Per your request, on September 27, 2006 Applied EnviroSolutions Inc. (AES) staff conducted limited mold sampling at the Bureau of Prisons facility located at the 8901 S. Wilmot Road in Tucson, AZ. AES staff took twenty-eight total samples including seventeen bulk samples and eleven air cassette samples from the areas requested. Please see attached floor plan for location of samples taken. The purpose of this sampling was to identify mold in the specified locations of the prison. Below are results of the visual inspections and laboratory analysis of the samples.

**I. Visual Inspections**

On September 27, 2006 AES staff, conducted a visual survey and sampling of the above structures. The Annex Building consists of East Trailer and West Trailer. The East Trailer currently used as the Band, Exercise, and Arts and Crafts rooms, and an Office. The rooms had a detectable musty odor. The Band, Exercise and Arts & Crafts rooms had noticeable decay or rot of the paneling and inner wall structures, below and near the windows in their east and west walls. FCI personnel stated that the musty odor and black mold growth had been present on the east wall between the windows of the exercise room for some time. The floor within the latrine located in the Arts and Crafts room had noticeable rot around the toilet to the extent that the toilet was no longer stable. The floor in front of the entry inside the Arts & Crafts room also has noticeable rot. Please see figures 1 & 2 for your reference. It seems that storm water soaked in through the roof and windows allowing moisture to become trapped within the walls and floors of the building.

**Site:**

- Assessment
- Characterization
- Remediation

**Licensed**

Contractor:  
 150266  
 199996



The West Annex Building contains the Officers Station, Lieutenants Station and the Psychology offices were in significantly better condition. However, stains were found around the windows of offices. Only bulk samples were taken from each location. Additionally, one sample was collected from the cabinets located in the lieutenant's office. In the psychology office stain was found and sampled from around the windows. No bulk samples were collected from the inner office or the carpet in the Psychology office.

Additional samples were taken from the Medical Records Office ceiling, Dental Office ceiling, and the showers located in Palo Verde and Mesquite Housing Units and finally Mr. Paul Madrid's office ceiling. The FCI staff member that provided access to this office stated that "the ceiling is always wet" as is the floor directly beneath this location. Other locations were visually inspected within the reception building; however, no further suspect material was found.

During the visual inspection, the inspector observed the following issues:

- 1 Floor buckling (rotten wood) in the East Trailer and Psychology office
- 2 Wet carpeting and ceiling tiles in the Psychology office, Medical Records Office, Dental Office and the Office of Mr. Paul Madrid.
- 3 Musty odor in the East Trailer
- 4 Portion of rotten paneling exposed with mold in the Exercise Room.
- 5 Ceiling tile stains in Medical, Dental and Paul Madrid's Offices
- 6 Discolored painted & textured surfaces throughout West Trailer.

## II. Sample Analysis

One Air Cassette sample was taken from ambient air outside of East Trailer for comparison and ten others were taken from inside the rooms. Please see attached floor plan for your sample locations. Bulk samples were also collected from floor, paneling, dry wall, floor tiles, grout and ceiling tiles. The samples collected from the buildings were transported to Fiberquant Analytical Services, a certified laboratory, for further analysis.

The analytical results showed that levels of *Aspergillus / Penicillium*, was higher in most indoor samples compared to the ambient air. The following types of spores had higher indoor levels than were present in the ambient air: *Aspergillus / Penicillium* Ascospore, *Trichoderma*, *Paecilomyces*, and *Torula*. Please see the attached Table 1 for the analytical results of each sample. A few of the wall check samples (FCI-06-07, 09, 10 and 14) were not analyzed because accurate counts of mold spores could not be determined due to heavy loading from inside the wall. However these samples showed a large amount of various mold types on them. Tables 1 & 2 show the results of the air and bulk samples analysis. Our color definition of Blue means mold is more than the

ambient air but less than twice the ambient air value, moderate (yellow) means anything more than twice as much as the ambient air sample e.g. (FCI-06-03). Significant (Red) is for mold when it is ten times as much as the ambient air sample.

Important air samples were:

**FCI-06-01** was taken inside the Band room. Analysis found a moderate amount of Aspergillus/Penicillium.

**FCI-06-02** was a wall check taken from within the West wall of the Band Room. Analysis found a significant amount Aspergillus/Penicillium.

**FCI-06-03** was taken from the outside and is the reference air sample by which the remainders of the air samples are compared with.

**FCI-06-04** was taken from within the East wall of the Band Room. Analysis found a significant amount of Aspergillus/Penicillium.

**FCI-06-12** was taken from within the Arts & Crafts Room. Analysis found a moderate amount of Basidiospores.

**FCI-06-18** was taken from the Office adjoining the Arts & Crafts Room. Analysis found a moderate amount of Aspergillus/Penicillium.

**FCI-06-19** was taken from within the West Wall in Office adjoining the Arts & Crafts Room. Analysis found a significant amount of Aspergillus/Penicillium.

The collected bulk samples also contained various forms of mold. The types of mold with a significant presence in the samples are Bipolaris / Drechslera, Stachybotrys / Memnoniella and Alternaria which are known human pathogens. Other species of mold were identified in the bulk samples please refer to table 2 for the analytical results of the bulk samples.

**FCI-06-05** was collected from Band Room West Wall. Analysis found a significant amount of Torula mold spores.

**FCI-06-06** was collected from Exercise Room East Wall. Analysis found a moderate amount of Ulocladium mold spores.

**FCI-06-08** was collected from Exercise Room flooring. Analysis found a Trace amount of Bipolaris/ Drechslera mold spores.

**FCI-06-11** was collected from Exercise Room NW corner flooring. Analysis found no mold spores.

**FCI-06-13** was collected from Arts & Crafts Room flooring. Analysis found a small amount of Mycelial Fragments.

**FCI-06-15** was collected from Arts & Crafts Room, West Window. Analysis found no mold spores.

**FCI-06-16** was collected from Arts & Craft Room ceiling S. Wall. Analysis found a Trace amount of Bipolaris/ Drechslera mold spores.

**FCI-06-17** was collected from the Bathroom flooring in the Arts & Crafts Room. Analysis found a small amount of miscellaneous mold spores.

**FCI-06-20** was collected from the officers station East Window. Analysis found no mold spores.

**FCI-06-21** was collected from the lieutenant's station East Window. Analysis found a significant amount of Stachybotrys mold spores

**FCI-06-22** was collected from the lieutenant's station cabinet door. Analysis found a significant amount Aspergillus/Penicillium.

**FCI-06-23** was collected from the Psychology Main Room East Window. Analysis found a significant amount of Stachybotrys mold spores

**FCI-06-24** was collected from the Medical Records Room ceiling. Analysis found a significant amount of Bipolaris/Drechslera spores.

**FCI-06-25** was collected from the Dental Office Ceiling. Analysis found no mold spores.

**FCI-06-26** was collected from the showers Palo Verde Housing Unit. Analysis found no mold spores.

**FCI-06-27** was collected from the showers Mesquite Housing Unit. Analysis found no mold spores.

**FCI-06-28** was collected from the Office of Mr. Paul Madrid. Analysis found small amounts of Alternaria and Ulocladium mold spores and Mycelial Fragments.

### **III. Mold Characteristics**

In general, exposures to molds can cause allergic reactions, infections and even toxic (poisonous) effects depending on pre-existing health situations, length of exposure and amount of molds in the environment. Species such as Cladosporium and Alternaria are common outdoor molds that can induce allergies and asthma; however, most people are not particularly affected.

Species such as Aspergillus, Penicillium and Bipolaris/Dreschlera are capable of producing mycotoxins, which can cause a variety of health effects to human such as Type I allergies (hay fever, asthma) and Type III Hypersensitivity Pneumonitis. Please check US EPA websites (<http://www.epa.gov/mold/> and <http://www.epa.gov/iaq/molds>) for more information about characteristics of molds.

#### **IV. Conclusions and Recommendations**

AES staff collected eleven Air Cassette samples and seventeen bulk samples in the buildings as shown on the attached maps. The worst area of the mold seems to be the East Trailer in the Annex Buildings. The main problem appears to be the East and West walls of the Trailer. Moisture for the mold has penetrated the roof and windows, by the rain and remained trapped within the walls of the Trailer. This moisture within the walls of the structure allowed mold to grow over time.

The West trailer in the Annex Buildings appeared to be vulnerable around the windows to rain water leakage.

The laboratory results and visual inspection of the buildings showed evidence of mold growth inside therefore, AES recommends the following measures:

1. The East Trailer, in the Annex Building, showed dangerous molds in significant quantities. These molds were due to water leaks from the windows and the roof in all rooms. Physical damage to the trailer walls and floor seem significant and need to be repaired in order to stop further water leaks and future mold growth. However, if the cost of all these repairs for this old trailer is too high, then FCI may save money by demolishing the trailer. AES recommends that all items in the rooms in this Trailer be professionally cleaned (remediated) before they are relocated to a new location.
2. Bulk samples from the west Trailer showed Stachybotrys in significant amounts. The samples were from the Psychology Office and Middle Office collected from the window sills. It appears that these mold growth was caused by leaks from the windows. AES recommends repairing the leaks and professionally cleaning the affected areas.

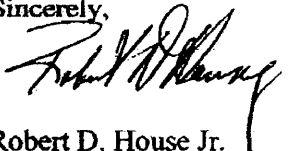
Another bulk sample was taken from inside the cabinet door in the Lt's Office. There were Cladosporium type spores that can cause allergies and intensify asthma. This cabinet door is adjacent to the HVAC return vent and we are suspecting that the mold growth may have been caused by condensation from the vent. AES recommends cleaning the cabinet and air duct by a professional contractor.

3. Regarding the Medical Records Room, AES staff discovered Bipolaris/Drechslera mold spores from the bulk sample taken from the ceiling tile. This mold type is an allergenic and may cause hay fever and asthma. AES recommends repairing the leaks from the roof and cleaning the affected areas in the crawl space above the ceiling.
4. Mr. Paul Madrid's Office had leaks from above the ceiling tile at the center of his office. This leak from the roof had caused some mold growth (Sample FCI-06-28). AES recommends repairing the leak on the ceiling then crawl space above the ceiling be professionally cleaned.
5. AES recommends, additional bulk sampling of the rooms with leaks, air sampling of the rooms in the West Trailer, the Medical Records Rooms and Mr. Madrid's Office. In order to save money, FCI may first repair the above leaks, clean the molds and then request for the sampling.
6. Request a professional contractor to conduct post-abatement sampling to provide status of mold abatement effectiveness.

Please note that the growth rate of mold is a function of time, temperature and moisture. Therefore, the amount of molds can increase, unless it is ceased immediately by proper abatement procedures. AES is a qualified professional contractor to conduct mold related services including abatement. If you have any questions regarding this report, please do not hesitate to contact AES at (480) 839-7000.

Thank you.

Sincerely,



Robert D. House Jr.  
Environmental Technician

### Sampling Map for Annex (East and West Trailer Units)

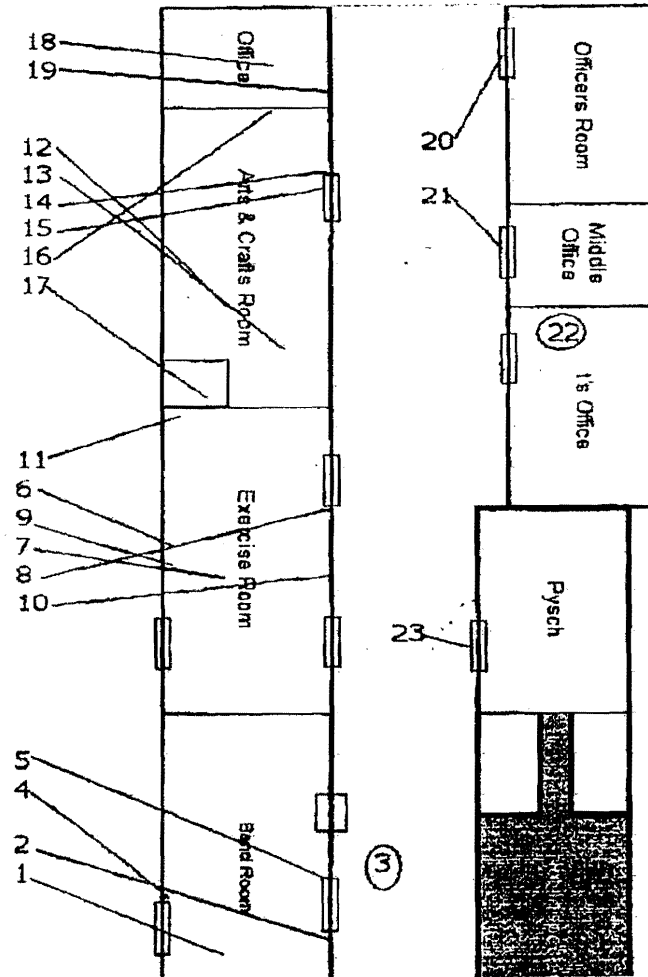


Table 1

**AIR SAMPLES**

TABLE 1								
Sample Number	FCI-06-03	FCI-06-02	FCI-06-01	FCI-06-04	FCI-06-12	FCI-06-18	FCI-06-19	
(Type)	Air Cassette	Air Cassette	Air Cassette	Air Cassette	Air Cassette	Air Cassette	Air Cassette	
Sample Location	Outdoor Ambient Air Sample	WC Band Rm West wall	Indoor Band Room	WC East wall	Arts&Crafts Rm	A&C Room Adj.Office	A&C Office WC West Wall	
Type of Spores	(Counts/m <sup>3</sup> )	(Counts/m <sup>3</sup> )	(Counts/m <sup>3</sup> )	(Counts/m <sup>3</sup> )	(Counts/m <sup>3</sup> )	(Counts/m <sup>3</sup> )	(Counts/m <sup>3</sup> )	Counts/m <sup>3</sup> )
Alternaria	13							
Arthrinium								
Ascospores	140		210					
Aspergillus / Penicillium	71	1,800	140	2400		190	1400	
Basidiospores	1600		360	1200	190	360	280	
Bipolaris / Drechslera	67			13	13	13		
Cadosporium								
Botrytis								
Chaetomium	27		13				13	
Cladosporium	1100		480		240		71	
Cercospora								
Curvularia	27		27	13				
Epicoccum								
Fusarium								
Memnoniella								
Nigrospora								
Oidium / Peronospora								
Paecilomyces	110	290		230			500	
Pithomyces								
Trichoderma				11000				
Smuts/Myxomycetes	53	40	27	40		27	27	
Stachybotrys/Memnoniella		13		13				
Spegazzinia								
Stemphylium								
Tetraploa								
Torula						40		
Ulocladium								
Miscellaneous			13	27	360		5800	
Mycelial Fragments								
Unclassified Conidia								

**Note for Air-Cassette Samples:**  
**Red and Bold: Significantly High**  
**Yellow and Bold: Moderate**

WC = Wall Check



Table 2

**BULK SAMPLES**

<b>TABLE 1</b>						
<b>Sample Number</b>	<b>FCI-06-05</b>	<b>FCI-06-06</b>	<b>FCI-06-08</b>	<b>FCI-06-11</b>	<b>FCI-06-13</b>	<b>FCI-06-15</b>
<b>(Type)</b>	<b>Bulk Sample</b>	<b>Bulk Sample</b>	<b>Bulk Sample</b>	<b>Bulk Sample</b>	<b>Bulk Sample</b>	<b>Bulk Sample</b>
<b>Sample Location</b>	Band Room West Wall	Exercise Room-East Wall Paneling	Exercise Room Flooring West W	NW Corner Bulk Flooring	Arts&Craft Room Flooring	Art&Craft West window
<b>Type of Spores</b>	100%	100%	Trace	0%	5%	0%
Alternaria						
Arthrinium						
Ascospores						
Aspergillus / Penicillium						
Basidiospores						
Bipolaris / Drechslera			100			
Cadosporium						
Botrytis						
Chaetomium						
Cladosporium						
Cercospora						
Curvularia						
Epicoccum						
Fusarium						
Memnoniella						
Nigrospora						
Oidium / Peronospora						
Paecilomyces						
Pithomyces						
Rusts						
Smuts / Myxomycetes						
Stachybotrys / Memnoniella						
Spegazzinia						
Stemphylium						
Tetraploa						
Torula	98					
Ulocladium		100				
Miscellaneous	2					
Mycelial Fragments					100	
Unclassified Conidia						



Table 2

**BULK SAMPLES**

<b>TABLE 1</b>						
<b>Sample Number</b>	<b>FCI-06-16</b>	<b>FCI-06-17</b>	<b>FCI-06-20</b>	<b>FCI-08-21</b>	<b>FCI-06-22</b>	<b>FCI-06-23</b>
<b>(Type)</b>	<b>Bulk Sample</b>	<b>Bulk Sample</b>	<b>Bulk Sample</b>	<b>Bulk Sample</b>	<b>Bulk Sample</b>	<b>Bulk Sample</b>
<b>Sample Location</b>	Arts&Craft Ceiling S. Wall	Flooring From Latrine	Officer's Station East Window	Lt's Office East Window	Lt's Room Cabinet Door	Pysch Main Room E. Window
<b>Type of Spores</b>	Trace	10%	0%	60%	100%	60%
Alternaria					trace	
Arthrinium						
Ascospores						
Aspergillus / Penicillium						
Basidiospores						
Bipolaris / Drechslera						
Cadosporium						
Botrytis						
Chaetomium						
Cladosporium					100	
Cercospora						
Curvularia						
Epicoccum						
Fusarium						
Memnoniella						
Nigrospora						
Oidium / Peronospora						
Paecilomyces						
Pithomyces						
Rusts						
Smuts / Myxomycetes						
Stachybotrys / Memnoniella				100		100
Spegazzinia						
Stemphylium						
Tetraploa						
Torula						
Ulocladium						
Miscellaneous	100	100				
Mycelial Fragments						
Unclassified Conidia						



Table 2

**BULK SAMPLES**

TABLE 1						
Sample Number	FCI-06-24	FCI-06-25	FCI-06-26	FCI-06-27	FCI-06-28	
(Type)	Bulk Sample	Bulk Sample	Bulk Sample	Bulk Sample	Bulk Sample	
Sample Location	Medical Records Room	Dental Ceiling	Showers-Palo Verde	Showers-Mesquite	Paul Madrid Office	
Type of Spores	Trace	0%	0%	0%	%	%
Alternaria					25	
Arthriniium						
Ascospores						
Aspergillus / Penicillium						
Basidiospores						
Bipolaris / Drechslera	100					
Cadosporium						
Botrytis						
Chaetomium						
Cladosporium						
Cercospora						
Curvularia						
Epicoccum						
Fusarium						
Memnoniella						
Nigrospora						
Oidium / Peronospora						
Paecilomyces						
Pithomyces						
Rusts						
Smuts / Myxomycetes						
Stachybotrys / Memnoniella						
Spegazzinia						
Stemphylium						
Tetraploa						
Torula						
Ulocladium					40	
Miscellaneous					35	
Mycelial Fragments						
Unclassified Conidia						

**From:** John Byler  
**To:** Smith, Leroy  
**Date:** 1/30/2007 3:18:28 PM  
**Subject:** Re: Mold Clean-Up

Thanks Leroy.

>>> Leroy Smith 1/30/2007 3:12 PM >>>  
John,

I agree that if the roofs are not completely repaired to prevent the leaks, we will have the same problem in the future. We also need to look at the immediate health concerns as well. I think this needs to be discussed with everyone of concern and a decision made jointly.

Thanks.

>>> John Byler 1/30/2007 10:55 AM >>>  
To All Concerned,

Recently we received a Request for Purchase (PR) and Statement of Work from Safety to clean up the mold in the Business Office, FCI Medical, and Cholla Unit.

The estimate given to us on the PR is \$7,200. After speaking with one of the vendors, it appears this estimate is on the low side.

\* Here is my concern... with the snow last week, the roof in the Business Office is still leaking. I confirmed the roof in Medical is also still leaking. With the rain we received today and are forecast to receive tomorrow, I'm sure these roofs will leak again. Are we sure we want to spend a minimum of \$7,200 to clean up mold that will soon reappear? The vendor expressed the same concern. In my humble opinion, this seems like a waste of money.

If you still want the mold cleaned up without repairing the roofs, we will continue to process the Request for Purchase. I am not trying to make things difficult, I just want to make sure everyone has all the facts before this decision is made.

Please let me know how you want me to proceed.

Thank you  
John

**Asset Recognition Form**  
(Notification of Asset Put in Use / Substantially Completed)

Institution: FCC Tucson

Project: 6GE , Replace Roofing Surface - Medical  
(Number) (Name)

Property Description: Remove and Replace Roofing Surface - Medical  
(If Improvement, include SRPMS Reference)

**Type of Property**

Building  Other Structure  Major Equipment  
 Building Improvement  Oth Structure Improvement  Leasehold Improvement

Date Real Property Put In Use / Substantially Completed: Feb 15, 2008

Estimated Capitalized Value: \$93,896.57

**If an Improvement to existing property:**

SRPMS Reference \_\_\_\_\_

Did Improvement Increase the Useful Life of Original Property? Yes  No

If Yes, estimated # of years: \_\_\_\_\_

If No, will Improvement's Useful Life correspond with the Original Property's Life?  Yes No

If No, estimated Useful Life of Improvement? N/A years

**If not an Improvement to existing property:**

Square Footage: N/A

Submitted by: \_\_\_\_\_ Date: \_\_\_\_\_  
(Facilities Manager)


**To be completed by the Financial Management Office** JV #: \_\_\_\_\_

Date: \_\_\_\_\_

1) Amount Previously Recognized:	<u>0.00</u>
2) Amount Recognized for the above listed Property	<u>93,896.57</u>
3) Total Amount Recognized to Date:	<u>93,896.57 (1+2)</u>

**Entries to Transfer & Recognize the amount of Capitalized Real Property (line 4)**

TC 5020 Fund: <u>X3</u>	Suffix: <u>B</u>	ActClass: _____	RCN: <u>NA</u>	<u>93,896.57</u>
TC 5025 Fund: <u>02</u>	Suffix: <u>B</u>	ActClass: _____	RCN: <u>NA</u>	<u>93,896.57</u>

Approved by:  Date: 5/9/08  
John Byler, Business Administrator

**Asset Recognition Form**  
**(Notification of Asset Put in Use / Substantially Completed)**

Institution: FCC Tucson  
 Project: 6GE , Replace Roof Medical / Administration  
(Number) (Name)  
 Property Description: Building A - Administration  
(If Improvement, include SRPMS Reference)

**Type of Property**  
 Building  Other Structure  
 Building Improvement  Other Structure Improvement  Leasehold Improvement

**Date Real Property Put In Use / Substantially Completed:** Jan 12, 2009

**Estimated Capitalized Value:** ~~\$177,071.14~~ 83,174.57

**If an Improvement to existing property:**

SRPMS Reference \_\_\_\_\_  
 Did Improvement Increase the Useful Life of Original Property? No  
 If Yes, estimated # of years: N/A  
 If No, will Improvement's Useful Life correspond with the Original Property's Life? Yes  
 If No, estimated Useful Life of Improvement? N/A years

**If not an Improvement to existing property:**

Square Footage: 10,430

Submitted by: [Signature] Date: 01/12/2008  
(Facilities Manager)

**To be completed by the Financial Management Office**

JV #: ISJV0038  
 Date: 01/22/09

- 1) Amount Previously Recognized: \$93,896.57 ✓
- 2) Amount Recognized for the above listed Property \$83,174.57 ✓
- 3) Total Amount Recognized to Date: \$177,071.14 (1+2)

**Entries to Transfer & Recognize the amount of Capitalized Real Property (line 4)**

TC 5020 Fund: <u>X3</u>	Suffix: <u>B</u>	ActClass: <u>PZ</u>	RCN: <u>NA</u>	<u>83,174.57</u>
TC 5025 Fund: <u>02</u>	Suffix: <u>B</u>	ActClass: _____	RCN: <u>NA</u>	<u>83,174.57</u>

83,174.57  
 83,174.57  
 166,349.14

Approved by: [Signature] Date: 1/16/09  
(Controller)



Mailing Address  
PO Box 28085  
Tempe, AZ 85285

Main Office  
325 E. Southern Ave., #115  
Tempe, AZ 85282  
Tel: (480) 839-7000

Tucson Office  
7012 E. 3rd St.  
Tucson, AZ 85710  
Tel: (520) 575-7100

Environmental:  
Management  
Engineering  
Impact Statement  
Vulnerability  
Safety

October 23, 2006

Mr. Leroy Smith  
Environmental and Safety Manager  
Bureau of Prisons, FCI Tucson  
8901 S. Wilmot Road  
Tucson, AZ 85706

Services:  
Permitting  
Compliance  
Modeling  
Testing  
Monitoring  
Hydrogeology  
Decontamination  
Leaking UST  
Risk Assessment  
Training  
ISO-14000 Support  
Indoor Air Quality  
Asbestos  
Lead  
Mold

Re: Second Mold Survey and Sampling

Dear Mr. Leroy Smith,

Per your request, on October 13, 2006 Applied EnviroSolutions Inc. (AES) staff conducted limited mold sampling at the Bureau of Prisons Facility located at the 8901 S. Wilmot Road in Tucson, AZ. AES staff collected a total of thirty samples including seventeen bulk samples and thirteen air cassette samples from the areas requested. Please see attached floor plan for location of samples taken. The purpose of this sampling was to identify mold in the specified locations of the prison. Below are results of the visual inspections and laboratory analysis of the samples.

### **I. Visual Inspections and Sampling**

On October 13, 2006 AES staff, conducted a visual survey of the above location. During the visual inspection, the inspector observed the following issues:

1. In the Psychology Offices, the Doctor's offices (shown as office A and office B) contained visible mold growth in the HVAC ducts and the windows. Office A, had a large (approx 4ft diameter.) weak spot in the floor that could be rotten. Please see attached West Trailer floor plan for your reference.
2. The Psychology Office A has several large stains in the carpet from the apparent roof leaks.
3. The Medical Office entry has a strong musty smell near the patient waiting area. It appears that the crawl space above the drop ceiling is utilized as the air return for the HVAC system; therefore any mold

Site:  
Assessment  
Characterization  
Remediation

Licensed  
Contractor:  
150268  
199996

outbreak in the building could potentially spread throughout the building.

4. At the time of the inspection the Business Offices were having the carpeting replaced so that most of the cove base (baseboard trim) was removed. Because of this there were three areas of visible mold growth exposed and identified. The offices of the Controller and Financial Programs, and Mr. Paul Madrid's previous office.

The West Trailer consists of the Lieutenants Offices (called Compound, Records Room and Lieutenants Offices) and the Psychology Offices (three main offices and the two Doctor's offices). See attached floor plan with sampling locations. Air cassette and bulk samples were collected from the walls and offices including those not previously inspected in the Psychology Offices.

Samples were also collected from the Medical/Dental Building. Air cassettes were collected from the Medical Records room and the Dental Exam room. Additional Bulk samples were collected from the Clinical Director's Office, the examination room directly across from the Director's office and the HVAC ducts in the hallways of the Medical/Dental Building. Although there was no apparent visible signs of mold growth; there was however a strong musty odor in the Patient Waiting Room which could indicate mold growth.

Finally, the Business Offices were sampled due to high mold counts previously sampled (see mold sampling report of 9/27/06) from Mr. Paul Madrid's office. Samples were collected from Ms. Avery's Office, the Office of the Controller, the Financial Programs office, and the HVAC duct above the hallway. For more information, please see list of air and bulk samples in Table 1 and Table 2, respectively.

## **II. Sample Analyses**

One Air Cassette sample was taken from the ambient air outside of the West Trailer for comparison and twelve additional samples were collected from inside rooms. Please see attached West Trailer's floor plan for your sample locations.

Bulk samples were also collected from floor, dry wall, and the HVAC ducts. Please see attached floor plan for your reference.

The samples collected from the structures were transported to Fiberquant Analytical Services, a certified laboratory, for further analysis.

The following types of spores had higher indoor levels than in the ambient air: Aspergillus / Penicillium, Smuts/Myxomycetes, and Torula. Please see the attached Table 1 for the analytical results of each sample. A few of the samples (FCI-06-02-9 & 26) were no detect for any of the common forms of mold.

Our color definition of blue (for moderate) means mold is about twice the value of ambient air. Red color (for significant) means amount of mold is about ten times as much as the ambient air sample.

Important air samples were:

**FCI-06-02-1** was taken from the outside and is the reference air sample by which the remainders of the air samples are compared with.

**FCI-06-02-13** was collected from inside air in the Doctor's office B. Analysis found a moderate amount of Aspergillus/Penicillium.

**FCI-06-02-14** was collected from a wall check in the Doctor's office B. Analysis found a significant amount Aspergillus/Penicillium.

The collected bulk samples also contained various forms of mold. The types of mold with a significant presence in the samples are Bipolaris / Drechslera, Stachybotrys / Memnoniella and Alternaria which are known human pathogens. When Alternaria and Cladosporium are present together they are a significant allergen. Other species of mold were identified in the bulk samples. Please refer to Table 2 for the location and analytical results of the bulk samples.

**FCI-06-02-5** was collected from the Lieutenants Office in side HVAC duct. Analysis found a moderate amount of Cladosporium and Alternaria mold spores.

**FCI-06-02-20** was collected from the HVAC in the Medical Records Office. Analysis found a moderate amount of Alternaria and Aspergillus/Penicillium mold spores.

**FCI-06-02-23** was collected from the HVAC in the Dental Hallway. Analysis found a significant amount of Alternaria mold spores.

**FCI-06-02-24** was collected from the HVAC of the Clinic Director Office. Analysis found significant Aspergillus/Penicillium mold spores.

**FCI-06-02-27** was collected from the HVAC in the Business Offices. Analysis found a moderate amount of Aspergillus/Penicillium and Chaetomium mold spores.



**FCI-06-02-29** was collected from the base board of the Controller's Office north wall, West Window. Analysis found significant *Stachybotrys* mold spores.

**FCI-06-02-30** was collected from Financial Programs Office, South Wall. Analysis found moderate amounts of *Aspergillus/Penicillium*, *Stachybotrys*, *Alternaria* and *Ulocladium* mold spores.

### **III. Mold Characteristics**

In general, exposures to molds can cause allergic reactions, infections and even toxic (poisonous) effects depending on pre-existing health situations, length of exposure and amount of molds in the environment. Species such as *Cladosporium* and *Alternaria* are common outdoor molds that can induce allergies and asthma; however, most people are not particularly affected.

Species such as *Aspergillus*, *Penicillium* and *Bipolaris/Dreschlera* are capable of producing mycotoxins, which can cause a variety of health effects to human such as Type I allergies (hay fever, asthma) and Type III Hypersensitivity Pneumonitis. Please check US EPA websites (<http://www.epa.gov/mold/> and <http://www.epa.gov/iaq/molds>) for more information about characteristics of molds.

### **IV. Conclusions and Recommendations**

AES staff collected thirteen Air Cassette samples and seventeen bulk samples in the buildings as shown on the attached maps.

Samples were collected throughout the west trailer including the two doctor's offices at the north end of the psychology unit which were previously not inspected. Bulk sampling particularly from the HVAC ducts shows active growth of mold spores. This is important because HVAC system can spread the spores throughout the trailer.

The Medical and Dental Building were also inspected and the Bulk samples collected showed active growth in several areas of the HVAC ducts.

The Business Offices were inspected again and due to the renovation occurring on the day of sampling obvious mold growth was uncovered behind the cove base (trim) in several offices.

Based on the laboratory results and visual inspection of the buildings, There were evidence of mold growth inside areas. Therefore, AES recommends the following measures to be considered:

1. Bulk samples from the West Trailer showed active mold spores. The samples were collected from the Lieutenant's Office and the Doctor's Offices from the HVAC. Analysis of the air samples collected from the Doctor's Offices showed significant levels of Aspergillus/Penicillium mold spores. Therefore, AES recommends cleaning the offices and the HVAC ducting by a professional contractor.

2. Regarding the Medical Records room in the Medical/Dental Building, AES staff discovered significant mold growth in the HVAC duct, specifically Alternaria and Aspergillus/Penicillium types of molds. Both of these mold types are an allergenic and may cause hay fever and asthma. There is a strong musty odor in the waiting room near the Medical Records room that crawl space should be further investigated. AES recommends repairing any leaks from the roof, inspecting and cleaning the affected areas in the crawl space above the ceiling in this building.

3. Mr. Madrid's office in the Business Offices building had leaks. This was probably started from above the ceiling tile and showed on the floor at the center. This leak that may originally started from the roof had caused some mold growth. AES recommends first repairing the leak(s), second inspecting the crawl space above the ceiling, and third cleaning all the mold professionally.

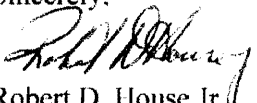
Additionally at the Business Office building, controllers and Financial Programs offices had Stachybotrys and Aspergillus/Penicillium types of molds. These molds were caused from leaks due to the nearby windows. AES recommends repairing the leaks and having the entire office area professionally cleaned.

4. AES recommends further investigation to determine the source of the mold growth in the Medical/Dental building. In order to save money, FCI may first repair the above leaks, clean the molds and then request final air sampling.

5. Request a professional contractor to conduct post repair/abatement sampling to provide status of mold abatement effectiveness.

Please note that the growth rate of mold is a function of time, temperature and moisture. Therefore, the amount of molds can increase, unless it is ceased immediately by proper abatement procedures. AES is a qualified professional contractor to conduct mold related services including abatement. If you have any questions regarding this report, please do not hesitate to contact AES at (480) 839-7000. Thank you.

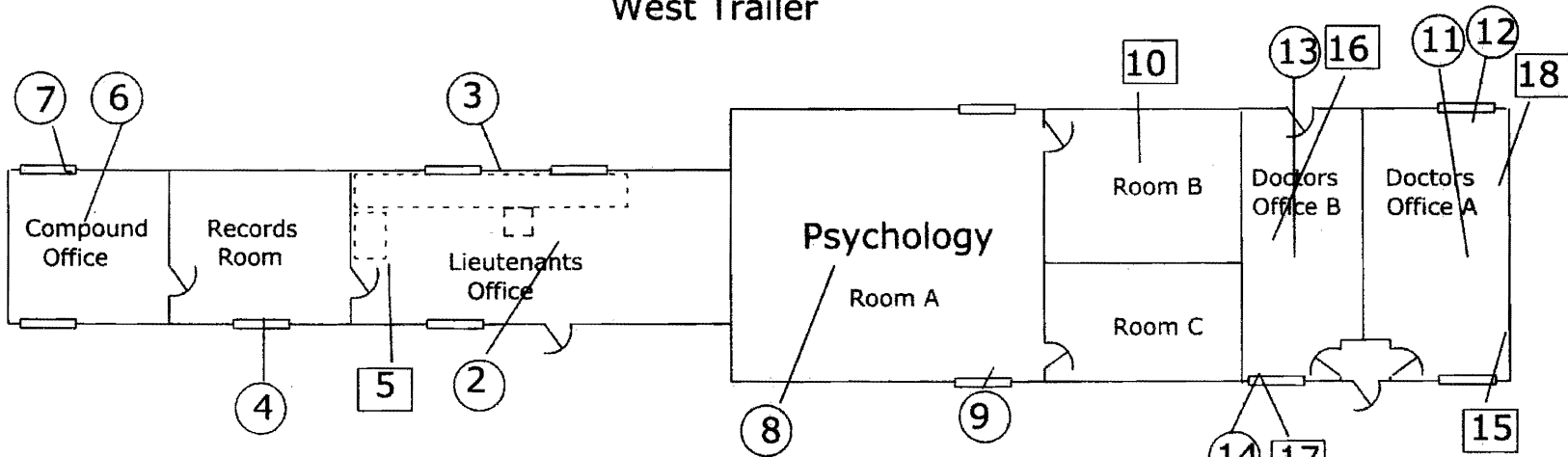
Sincerely,

  
Robert D. House Jr.  
Environmental Sampling Specialist

Reference Only Map Not to Scale



### West Trailer



- Bulk Sample
- Air Sample

Applied EnviroSolutions, Inc. 325 E. South Street Ave. Suite 115, Tempe, Arizona 85282 Main Office: 480.859.2600 Tucson: 520.575.7100		FCI Tucson
By: R.House	Date: October 23, 2006	For: West Trailer Sampling Map

Table 1

<b>AIR SAMPLES</b>								
Sample Number	FCI-06-02-1	FCI-06-02-2	FCI-06-02-3	FCI-06-02-4	FCI-06-02-6	FCI-06-02-7	FCI-06-02-8	
(Type)	Air Cassette	Air Cassette	Air Cassette	Air Cassette	Air Cassette	Air Cassette	Air Cassette	
Sample Location	Outdoor Ambient Air Sample	Air Cassette, Lt's Office	Wall Check, Lt's Office	Wall Check, S.W. Window Lt's Office	Compound Officer's Air	Wall Check Window, Psychology	Air Cassette, Psych Office	
Type of Spores	(Counts/m <sup>3</sup> )	(Counts/m <sup>3</sup> )	(Counts/m <sup>3</sup> )	(Counts/m <sup>3</sup> )	(Counts/m <sup>3</sup> )	(Counts/m <sup>3</sup> )	(Counts/m <sup>3</sup> )	
Alternaria								
Arthriniium								
Ascospores								
Aspergillus / Penicillium								
Basidiospores								
Bipolaris / Drechslera	1	1						
Cadosporium								
Botrytis								
Chaetomium								
Cladosporium	18	7						
Cercospora								
Curvularia								
Epicoccum								
Fusarium								
Memnoniella								
Nigrospora								
Oidium / Peronospora								
Paecilomyces								
Pithomyces								
Trichoderma								
Smuts/Myxomycetes	1	2		1	2			
Stachybotrys/Memnoniella								
Spegazzinia								
Stemphylium								
Tetraploa								
Torula			1					
Ulocladium								
Miscellaneous				1			1	
Mycelial Fragments	1	3	8	4	2	9		
Unclassified Conidia								

**Note for Air-Cassette Samples:**

**Red and Bold** means indoor spore count is greater than ambient air spore count

**Blue and Bold** indoor spore count is greater than half of the ambient air spore count, but less than and equal to ambient air spore count

\* Indicates samples that were not analyzed due to excessive debris

Table 1

<b>AIR SAMPLES</b>								
TABLE 1								
Sample Number	FCI-06-02-9	FCI-06-02-11	FCI-06-02-12	FCI-06-02-13	FCI-06-02-14	FCI-06-02-19	FCI-06-02-21	FCI-06-02-25
(Type)	Air Cassette	Air Cassette	Air Cassette	Air Cassette	Air Cassette	Air Cassette	Air Cassette	Air Cassette
Sample Location	Psych WC	Psych Office A Air	Psych Office A WC	Psych Office B Air	Psych Office B WC	Air Medical Records	Dental Room Air	Madrid Office Air
Type of Spores	(Counts/m <sup>3</sup> )	(Counts/m <sup>3</sup> )	(Counts/m <sup>3</sup> )	Counts/m <sup>3</sup>	Counts/m <sup>3</sup>	Counts/m <sup>3</sup>	Counts/m <sup>3</sup>	Counts/m <sup>3</sup>
Alternaria								
Arthrinium								
Ascospores								
Aspergillus / Penicillium				8	18			
Basidiospores								
Bipolaris / Drechslera				2			1	
Cadosporium								
Botrytis								
Chaetomium				1				
Cladosporium				14				
Cercospora								
Curvularia		1		1			1	
Epicoccum								
Fusarium								
Memnoniella								
Nigrospora								
Oidium / Peronospora								
Paecilomyces								
Pithomyces								
Rusts								
Smuts/Myxomycetes			2			1		
Stachybotrys/Memnoniella								
Spegazzinia				1				
Stemphylium								
Tetraploa								
Torula								
Ulocladium								
Miscellaneous						2	1	
Mycelial Fragments			3	2	6		7	2
Unclassified Conidia								

**Note for Air-Cassette Samples:**

Red and Bold means indoor spore count is greater than ambient air spore count  
 Blue and Bold indoor spore count is greater than half of the ambient air spore count, but less than and equal to ambient air spore count

\* Indicates samples that were not analyzed due to excessive debris

Table 1

<b>AIR SAMPLES</b>									
<b>TABLE I</b>									
<b>Sample Number</b>	FCI-06-02-26	FCI-06-02-28							
<b>(Type)</b>	Air Cassette	Air Cassette							
<b>Sample Location</b>	Madrid Office WC	Avery Office							
<b>Type of Spores</b>	(Counts/m <sup>3</sup> )	(Counts/m <sup>3</sup> )							
Alternaria									
Arthrinium									
Ascospores									
Aspergillus / Penicillium									
Basidiospores									
Bipolaris / Drechslera		1							
Cadosporium									
Botrytis									
Chaetomium									
Cladosporium									
Cercospora									
Curvularia									
Epicoccum									
Fusarium									
Memnoniella									
Nigrospora									
Oidium / Peronospora									
Paecilomyces									
Pithomyces									
Trichoderma									
Smuts/Myxomycetes									
Stachybotrys/Memnoniella									
Spegazzinia									
Stemphylium									
Tetraploa									
Torula									
Ulocladium									
Miscellaneous									
Mycelial Fragments									
Unclassified Conidia									

**Note for Air-Cassette Samples:**

**Red and Bold** means indoor spore count is greater than ambient air spore count

**Blue and Bold** indoor spore count is greater than half of the ambient air spore count, but less than and equal to ambient air spore count

\* Indacted samples that were not analyzed due to excessive debris

Table 2

<b>BULK SAMPLES</b>						
<b>Sample Number</b>	FCI-06-02-05	FCI-06-02-10	FCI-06-02-15	FCI-06-02-16	FCI-06-02-17	FCI-06-02-18
<b>(Type)</b>	Bulk Sample	Bulk Sample	Bulk Sample	Bulk Sample	Bulk Sample	Bulk Sample
<b>Sample Location</b>	Lt's Office HVAC Swab	Psych. Floor Bulk	Psych,N. Office HVAC Swab	Psych,N. Office HVAC Swab	Swab Window Sill, S. Office	Swab HVAC Return. N. Office
<b>Type of Spores</b>	%	%	%	%	%	%
Alternaria	9				trace	
Arthrinium						
Ascospores					99	
Aspergillus / Penicillium						
Basidiospores					1	
Bipolaris / Drechslera	1					
Cadosporium						
Botrytis						
Chaetomium			1			
Cladosporium	90		99	100		98
Cercospora						
Curvularia						
Epicoccum						
Fusarium						
Memnoniella						
Nigrospora						
Oidium / Peronospora						
Paecilomyces						
Pithomyces						
Rusts						
Smuts / Myxomycetes						
Stachybotrys / Memnoniella						
Spegazzinia						
Stemphylium						
Tetraploa						
Torula						
Ustilago						2
Ulocladium						
Miscellaneous						
Mycelial Fragments						
Unclassified Conidia						

<b>BULK SAMPLES</b>						
<b>Sample Number</b>	FCI-06-02-20	FCI-06-02-22	FCI-06-02-23	FCI-06-02-24	FCI-06-02-27	FCI-06-02-29
<b>(Type)</b>	Bulk Sample	Bulk Sample	Bulk Sample	Bulk Sample	Bulk Sample	Bulk Sample
<b>Sample Location</b>	HVAC Swab Medical Records Room	HVAC Dental Exam Room	HVAC Hall, Dental	HVAC Clinic Director Office	HVAC Business Office	Controller Office, Wall base
<b>Type of Spores</b>	%	%	%	%	%	%
Alternaria	50		100			trace
Arthrimum						
Ascospores						
Aspergillus / Penicillium	50			100	40	
Basidiospores						
Bipolaris / Drechslera						
Cadosporium						
Botrytis						
Chaetomium					60	
Cladosporium						
Cercospora						
Curvularia						
Epicoccum						
Fusarium						
Memnoniella						
Nigrospora						
Oidium / Peronospora						
Paecilomyces						
Pithomyces						
Rusts						
Smuts / Myxomycetes						
Stachybotrys / Memnoniella						100
Spegazzinia						
Stemphylium						
Tetraploa						
Torula						
Ustilago						
Ulocladium						
Miscellaneous						
Mycelial Fragments						
Unclassified Conidia						



Table 2

<b>BULK SAMPLES</b>						
<b>Sample Number</b>	FCI-06-02-30					
<b>(Type)</b>	Bulk Sample	Bulk Sample	Bulk Sample	Bulk Sample	Bulk Sample	
<b>Sample Location</b>	Financial Office, Floor					
<b>Type of Spores</b>	%					
Alternaria	40					
Arthrimum						
Ascospores						
Aspergillus / Penicillium	10					
Basidiospores						
Bipolaris / Drechslera						
Cadosporium						
Botrytis						
Chaetomium						
Cladosporium						
Cercospora						
Curvularia						
Epicoccum						
Fusarium						
Memnoniella						
Nigrospora						
Oidium / Peronospora						
Paecilomyces						
Pithomyces						
Rusts						
Smuts / Myxomycetes						
Stachybotrys / Memnoniella	10					
Spegazzinia						
Stemphylium						
Tetraploa						
Torula						
Ustilago						
Ulocladium	40					
Miscellaneous						
Mycelial Fragments						
Unclassified Conidia						



**Tucson**

7012 E. 3rd St.  
Tucson, AZ 85710  
Tel: (520) 575-7100

**Main Office**

325 E. Southern Ave., #115  
Tempe, AZ 85282  
Tel: (480) 839-7000

**Mailing Address**

PO Box 28085  
Tempe, AZ 85285

July 3, 2008

Environmental:  
Management  
Planning  
Impact Statement  
Vulnerability  
Health & Safety

Mr. Paul Cobb  
8901 S. Wilmot Road  
Tucson, AZ 85706

Re: **Mold Sampling**

**Introduction**

On June 26, 2008, Applied EnviroSolutions, Inc. (AES) conducted sampling for airborne mold spores from the Administration Building at the above referenced location. Testing was conducted as a result of concerns arising from significant water leaks from the roof. This building has previously had mold remediation performed, but seems that the leaking roofing was never completely repaired. The water subsequently permeated the roof and the ceiling tiles, which showed significant staining.

Air samples were taken from above the ceiling in the unoccupied Warden's office, the bathroom immediately adjacent to the Warden's office, a conference room between two offices and above the ceilings in the file room and the equipment room. A bulk sample was also taken from a water stained ceiling tile in the file room. Following indoor sampling, an outdoor air sample was taken from the east side of the structure as a "reference" sample for comparison purposes.

**Analytical Results**

The samples were transported to a certified laboratory for analysis, and the resulting lab report is attached. The report shows the comparative results for both indoor and outdoor mold samples. Please note that elevated levels of *Penicillium Aspergillus* were found in sample number 3, which was taken in the conference room between two administrative offices. A total of 300 spores of *Penicillium Aspergillus* fungus were found in sample number 3, which translates to 1,330 spores per cubic meter of indoor air. For comparison, the outside total spore count for *Penicillium Aspergillus* was 31, or 138 spores per cubic meter of air. *Penicillium Aspergillus* is a common black mold, which grows in damp and dark areas.

While there are no state or federal numerical standards for mold in Arizona, the comparisons or ratios of the indoor air sample to the outdoor air sample are useful in interpreting the results. When the indoor mold counts exceed the outdoor mold counts, it can generally be assumed that there is mold growth somewhere in the structure.

Services:  
Permitting  
Compliance  
Enforcement  
Modeling  
Testing  
Monitoring  
Archaeological  
Biological  
Decontamination  
Risk Assessment  
Training  
ISO-14000 Support  
Indoor Air Quality  
Asbestos  
Lead  
Mold

Site:  
Assessment  
Testing  
Clean Up

Licensed  
Contractor:  
150268  
199996

## **Conclusions and Recommendations**

AES collected air cassette samples and reviewed the laboratory analytical results. The results indicate that there are elevated levels of mold within the structure. Elevated levels of *Penicillium Aspergillus* were found in sample number 3, which was taken in the conference room between two administrative offices. The level of mold detected in the sample is quite high, and finding the source or exact locations and dimensions of the affected areas will require further testing.

This can be accomplished by sampling the air within the wall cavities, HVAC system, and by testing the roof's interior surfaces. Because elevated mold spore levels were not detected above the ceilings, but were detected in the air, the HVAC system is suspect. When mold exists in hidden areas of a structure, its growth is encouraged by high humidity and low or poor ventilation.

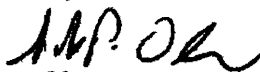
However, it is highly recommended that the roof leaks be located and repaired prior to any remediation activities. Failure to do so will result in the probable return of the mold growth.

The physical health effects of exposure to mold can vary from person to person, depending upon one's sensitivity and one's general state of health.

Mold of this type visibly appears as black spots. Please see [www.epa.gov/mold/](http://www.epa.gov/mold/) and [www.OSHA.gov](http://www.OSHA.gov) web sites for further information regarding mold and its effects on health and building materials.

If you have any questions regarding this report, resampling, remediation or any other indoor air quality related services, please do not hesitate to contact AES at (480) 839-7000.

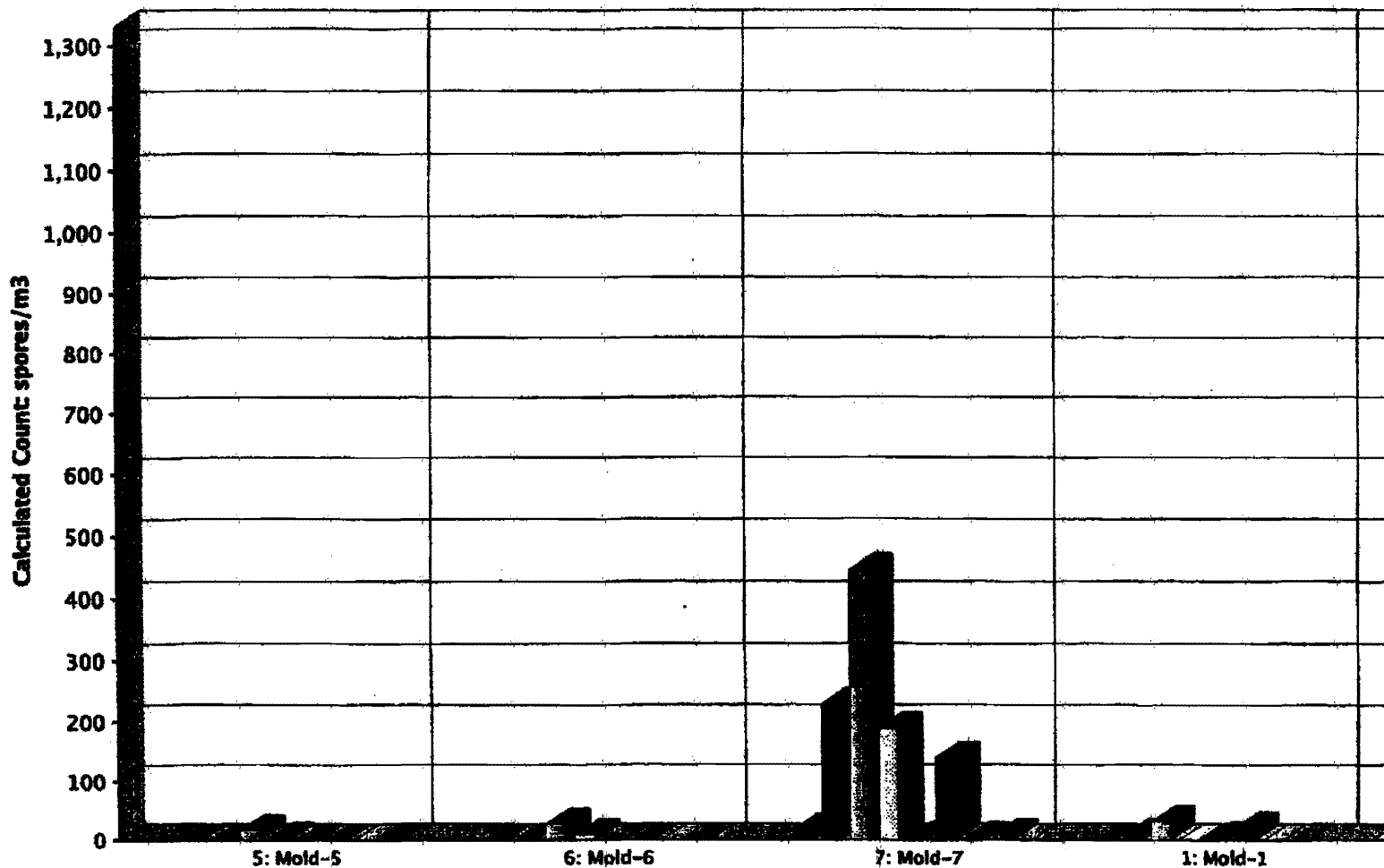
Sincerely,



Steve Olson  
Project Manager

**SPORE TRAP REPORT: NON-VIABLE METHODOLOGY**

■ Alternaria ■ Ascospores ■ Basidiospores ■ Cladosporium ■ Other brown ■ Penicillium/Aspergillus types ■ Pithomyces  
■ Smuts, Periconia, Myxomycetes



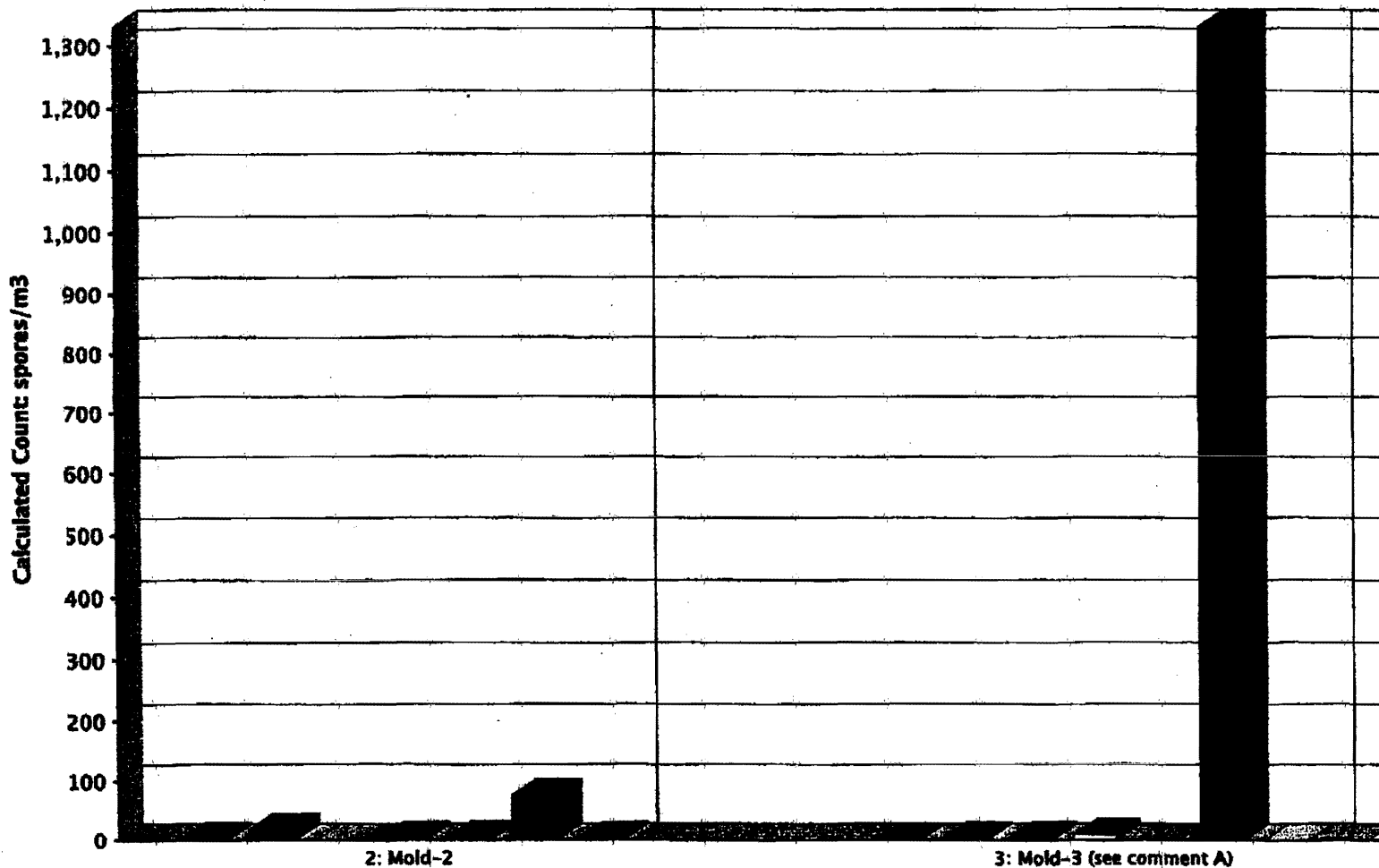
**Comments:**

Note: Graphical output may understate the importance of certain "marker" genera.

*Reference  
T092*

**SPORE TRAP REPORT: NON-VIABLE METHODOLOGY**

■ Ascospores ■ Basidiospores ■ Bipolaris/Drechslera group ■ Cladosporium ■ Other brown ■ Penicillium/Aspergillus types  
■ Smuts, Periconia, Myxomycetes



Comments: A) 300 of the raw count *Penicillium/Aspergillus* type spores were present as a single clump.  
Note: Graphical output may understate the importance of certain "marker" genera.

Client: Applied EnviroSolutions, Inc.  
 C/O: Steve Olson  
 Re: FCI-TUS-08

Date of Sampling: 06-27-2008  
 Date of Receipt: 06-30-2008  
 Date of Report: 07-02-2008

*Reference*

**SPORE TRAP REPORT: NON-VIABLE METHODOLOGY**

Location:	5: Mold-5		6: Mold-6		7: Mold-7		1: Mold-1	
Comments (see below)	None		None		None		None	
Lab ID-Version†:	1929471-1		1929472-1		1929473-1		1929469-1	
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Alternaria					4	18		
Arthrinium								
Ascospores*					51	227	2	9
Aureobasidium								
Basidiospores*	4	16	6	27	100	444	7	31
Bipolaris/Drechslera group								
Botrytis								
Chaetomium								
Cladosporium	1	4	2	9	42	187		
Curvularia								
Epicoccum								
Fusarium								
Myrothecium								
Nigrospora								
Other brown					1	4	1	4
Other colorless								
Penicillium/Aspergillus types†					31	138	5	22
Pithomyces					1	4		
Rusts*								
Smuts*, Periconia, Myxomycetes*					2	9		
Stachybotrys								
Stemphylium								
Torula								
Ulocladium								
Zygomycetes								
Background debris (1-4+)††	1+		1+		3+		3+	
Sample volume (liters)	255		225		225		225	
<b>TOTAL SPORE/m3</b>		20		36		1,031		66

Comments:

\* Most of these spore types are not seen with culturable methods (Andersen sampling), although some may appear as non-sporulating fungi. Most of the basidiospores are "mushroom" spores while the rusts and smuts are plant pathogens.  
 † The spores of *Aspergillus* and *Penicillium* (and others such as *Acremonium*, *Poecilomyces*) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.  
 †† Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher than reported. It is important to account for sample volumes when evaluating dust levels.  
 The Limit of Detection is the product of a raw count of 1 and 100 divided by the percent read. The analytical sensitivity (counts/m3) is the product of the Limit of Detection and 1000 divided by the sample volume.  
 ‡ A "Version" greater than 1 indicates amended data.

**EMLab P&K**  
 1501 West Knudsen Drive, Phoenix, AZ 85027  
 (800) 651-4802 Fax (623) 780-7695 www.emlab.com

Client: Applied EnviroSolutions, Inc.  
 C/O: Steve Olson  
 Re: FCI-TUS-08

Date of Sampling: 06-27-2008  
 Date of Receipt: 06-30-2008  
 Date of Report: 07-02-2008

**SPORE TRAP REPORT: NON-VIABLE METHODOLOGY**

Location:	2: Mold-2		3: Mold-3	
Comments (see below)	None		A	
Lab ID-Version†:	1929470-1		1929474-1	
	raw ct.	spores/m3	raw ct.	spores/m3
Alternaria				
Arthrinium				
Ascospores*	1	4		
Aureobasidium				
Basidiospores*	4	18	1	4
Bipolaris/Drechalera group			1	4
Botrytis				
Chaetomium				
Cladosporium	1	4	2	9
Curvularia				
Epicoccum				
Fusarium				
Myrothecium				
Nigrospora				
Other brown	1	4		
Other colorless				
Penicillium/Aspergillus types‡	17	76	300	1,330
Pithomyces				
Rusts*				
Smuts*, Periconia, Myxomycetes*	1	4		
Stachybotrys				
Stemphylium				
Torula				
Ulocladium				
Zygomycetes				
Background debris (1-4+)††	3+		3+	
Sample volume (liters)	225		225	
<b>TOTAL SPORE/m3</b>		<b>110</b>		<b>1,347</b>

Comments: A) 300 of the raw count *Penicillium/Aspergillus* type spores were present as a single clump.

\* Most of these spore types are not seen with culturable methods (Andersen sampling), although some may appear as non-sporulating fungi. Most of the basidiospores are "mushroom" spores while the rusts and smuts are plant pathogens.  
 † The spores of *Aspergillus* and *Penicillium* (and others such as *Acremonium*, *Faecilomyces*) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.  
 †† Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher than reported. It is important to account for samples volumes when evaluating dust levels.  
 The Limit of Detection is the product of a raw count of 1 and 100 divided by the percent read. The analytical sensitivity (counts/m3) is the product of the Limit of Detection and 1000 divided by the sample volume.  
 ‡ A "Version" greater than 1 indicates amended data.

EMLab P&K

1501 West Knudsen Drive, Phoenix, AZ 85027  
(800) 651-4802 Fax (623) 780-7695 www.emlab.com

Client: Applied EnviroSolutions, Inc.  
C/O: Steve Olson  
Re: FCI-TUS-08

Date of Sampling: 06-27-2008  
Date of Receipt: 06-30-2008  
Date of Report: 07-02-2008

**DIRECT MICROSCOPIC EXAMINATION REPORT**  
(Wet Mount)

Background Debris and/or Description	Miscellaneous Spores Present*	MOLD GROWTH: Molds seen with underlying mycelial and/or sporulating structures†	Other Comments††	General Impression
Lab ID-Version‡: 1929468-1: Bulk sample 4: Mold-4				
Tile	Very few	1+ <i>Alternaria</i> species	<i>Stachybotrys</i> spores detected.	Minimal mold growth

‡ A "Version" greater than 1 indicates amended data.



**From:** Ellyn Wickliffe  
**To:** James Marchetti; Leroy Smith  
**Date:** 5/13/2008 1:12:11 PM  
**Subject:** Mold Concerns in FCI Warden's Office area

At the onset of last summer's monsoon season, the leaky roof poured rain into Warden Chavez' FCI office in many areas. Facilities staff patched the roof and replaced the stained ceiling tiles.

However, since approximately last September, I have noticed a smell in that office that I liken to "fresh cut grass." I've complained about this more vocally recently since my allergies and asthma have been aggravated and seem worse at work than at home. My eyes sometimes burn when I enter that office, so for the last week or so, I've kept that office door closed when no one is in there.

I was unable to find information about if this smell might really be mold so I called Arizona Mold Dog Detection Services (203.6616). The gentleman indicated this is a mold smell.

I shared this information with Warden Winn and he told me to have you gentlemen check into it. Due to the leaky roof, I know mold was eradicated from the Business Office area in the last year or so.

Thank you for your attention to this matter.  
-Ellyn

**CC:** Ellyn Wickliffe

**Mail Envelope Properties** (4829F61B.27C : 107 : 45412)

**Subject:** Mold Concerns in FCI Warden's Office area  
**Creation Date** 5/13/2008 1:12:11 PM  
**From:** Ellyn Wickliffe  
  
**Created By:** EWickliffe@bop.gov

**Recipients**

bop.gov  
TCNADMULTCNDOMI  
TCN3409 (Leroy Smith)  
TCN5257 (James Marchetti)  
TCN7089 CC (Ellyn Wickliffe)

**Post Office**

TCNADMULTCNDOMI

**Route**

bop.gov

Files	Size	Date & Time
MESSAGE	1525	5/13/2008 1:12:11 PM

**Options**

**Expiration Date:** 5/28/2008  
**Priority:** Standard  
**ReplyRequested:** No  
**Return Notification:** None

**Concealed Subject:** No  
**Security:** Standard

**Junk Mail Handling Evaluation Results**

Message is not eligible for Junk Mail handling  
Message is from an internal sender

**Junk Mail settings when this message was delivered**

Junk Mail handling disabled by User  
Junk List is not enabled  
Junk Mail using personal address books is not enabled  
Block List is not enabled

**From:** Robert Hollembaek  
**To:** Smith, Leroy  
**Date:** 11/13/2008 8:56 AM  
**Subject:** Yucca North Laundry Room

Mr. Smith, for the past nine months working in the Laundry Room in Yucca North, I have noticed water on the floor and water dripping from the ceiling. The facilities dept have been in there on occasions fixing the ceilings for water damage, mostly in preparation for ACA. I have contacted the facility dept today, Mr Haag and they said they would take a look at it and try to fix it. The reason I am contacting you is I am concerned that there might possibly be mold up in the ceiling. I work in there approximately 4 hrs a week and I noticed I leave with headaches and sometimes a cough. I also noticed that the inmates are sneezing and coughing while working over there. If you could investigate this matter it would be greatly appreciated. Thanks. Bob.

**Mail Envelope Properties (491BEBB4.B63 : 247 : 46648)**

**Subject:** Yucca North Laundry Room  
**Creation Date:** 11/13/2008 8:56:20 AM  
**From:** Robert Hollembaek

**Created By:** rhollembaek@bop.gov

**Recipients**

bop.gov  
TCNADM1.TCNDOM1  
TCN3409 (Leroy Smith)

**Post Office**

TCNADM1.TCNDOM1

**Route**

<b>Files</b>	<b>Size</b>	<b>Date &amp; Time</b>
MESSAGE	1071	11/13/2008 8:56:20 AM

**Options**

**Expiration Date:** None  
**Priority:** Standard  
**Reply Requested:** No  
**Return Notification:** None

**Concealed Subject:** No  
**Security:** Standard

**Junk Mail Handling Evaluation Results**

Message is not eligible for Junk Mail handling  
Message is from an internal sender

**Junk Mail settings when this message was delivered**

Junk Mail handling disabled by User  
Junk List is not enabled  
Junk Mail using personal address books is not enabled  
Junk iCal Mail using personal address books is not enabled  
Block List is not enabled

**From:** Susan McClintock  
**To:** Smith, Leroy  
**CC:** Cobb, Paul; Marchetti, James; Moriarty, Michael; Serrato, Barbara; W...  
**Date:** 12/3/2008 12:46 PM  
**Subject:** Re: FCI R&D

I agree.

Susan G. McClintock  
Associate Warden  
FCC Tucson  
8901 S. Wilmot Road  
Tucson, AZ 85756  
520-574-7112

>>> Leroy Smith 12/3/2008 9:03 AM >>>

It is my recommendation that we conduct an outside and inside indoor air quality sample and wipe samples of the air vents throughout ISM as well.

If there are any questions, please advise.

Leroy A. Smith, Safety Manager  
FCC Tucson, Arizona  
520-663-5190 (Office)  
520-663-5189 (Fax)

**SENSITIVE/PRIVILEGED COMMUNICATION**

This e-mail is covered by the Electric Communication Privacy Act, 18 U.S.C. 2510-2521 and is legally privileged.

The information and/or documents with this transmission are confidential. The information is intended only for the use of the individual/entity named above. If you are not the intended recipient or recipients, you are hereby notified that any disclosure, copying, distribution of this communication, in any form, or the taking of any action in reliance upon its contents, is strictly prohibited. If you receive this message in error, please notify me immediately to make arrangements for its return to me.

>>> Lora Molinar 12/2/2008 6:50 PM >>>

Hello Mr. Smith,

A while back Mr. Southern in R&D had contacted you about the possible health issues here in R&D. Most times while working in here (evening shift) I feel sick, get headaches, and feel cold symptoms. Once I leave this office, symptoms seem to clear up after an hour or so. You had the filters changed out a couple of months ago and might have cleared up the air for a few weeks only. Is there anything further that can be checked out. I'm only speaking for myself, but I know some of my co-workers feel the same way. Thank you.

Lora R. Molinar  
Inmate Systems Officer  
Federal Correctional Complex

**Mail Envelope Properties** (49358370.B1F : 177 : 45562)

**Subject:** FCI R&D  
**Creation Date** 12/2/2008 6:50:25 PM  
**From:** Lora Molinar

**Created By:** lmolinar@bop.gov

**Recipients**

bop.gov

TCNADM1.TCNDOM1

TCN3409 (Leroy Smith)

TCN9562 CC (Barbara Serrato)

**Post Office**

TCNADM1.TCNDOM1

**Route**

<b>Files</b>	<b>Size</b>	<b>Date &amp; Time</b>
MESSAGE	1228	12/2/2008 6:50:25 PM

**Options**

**Expiration Date:** None  
**Priority:** Standard  
**Reply Requested:** No  
**Return Notification:** None

**Concealed Subject:** No  
**Security:** Standard

**Junk Mail Handling Evaluation Results**

Message is not eligible for Junk Mail handling

Message is from an internal sender

**Junk Mail settings when this message was delivered**

Junk Mail handling disabled by User

Junk List is not enabled

Junk Mail using personal address books is not enabled

Junk iCal Mail using personal address books is not enabled

Block List is not enabled

**Mail Envelope Properties (49364B7C.B3A : 217 : 45988)**

**Subject:** Re: FCI R&D  
**Creation Date** 12/3/2008 9:03:56 AM  
**From:** Leroy Smith  
**Created By:** lasmith@bop.gov

Recipients	Action	Date & Time
bop.gov		
TCNADM1.TCNDOM1	Delivered	12/3/2008 9:04:07
AM		
TCN1279 CC (Louis Winn)	Opened	12/3/2008 9:04:38
AM		
TCN2774 CC (Michael Moriarty)	Opened	12/3/2008 10:44:32
AM		
	Deleted	12/3/2008 10:53:12
AM		
	Emptied	12/3/2008 1:05:59
PM		
TCN3075 (Susan McClintock)	Opened	12/3/2008 12:46:06
PM		
	Replied	12/3/2008 12:46:56
PM		
TCN5205 CC (Paul Cobb)	Opened	12/3/2008 9:49:21
AM		
TCN5257 CC (James Marchetti)	Opened	12/3/2008 11:50:33
AM		
	Forwarded	12/3/2008 11:51:32
AM		
	Deleted	12/3/2008 3:21:07
PM		
TCN9562 CC (Barbara Serrato)	Opened	12/3/2008 9:43:06
AM		

Post Office	Delivered	Route
TCNADM1.TCNDOM1	12/3/2008 9:04:07 AM	bop.gov

Files	Size	Date & Time
MESSAGE	2888	12/3/2008 9:03:56 AM
Leroy Smith.vcf	208	12/3/2008 9:03:56 AM

**Options**  
**Auto Delete:** No



0, 2008

Tucson  
7012 E. 3rd St.  
Tucson, AZ 85710  
Tel: (520) 575-7100

Main Office  
325 E. Southern Ave., #115  
Tempe, AZ 85282  
Tel: (480) 839-7000

Mailing Address  
PO Box 28085  
Tempe, AZ 85285

Environmental:  
Management  
Planning  
Impact Statement  
Vulnerability  
Health & Safety

Mr. Jim Marchetti  
Facilities Manager  
Federal Corrections Institution  
8901 S. Wilmot Road  
Tucson, AZ 85706

Re: Mold Sampling

**Introduction**

Services:  
Permitting  
Compliance  
Enforcement  
Modeling  
Testing  
Monitoring  
Archaeological  
Biological  
Decontamination  
Risk Assessment  
Training  
ISO-14000 Support  
Indoor Air Quality  
Asbestos  
Lead  
Mold

On June 26, 2008 Applied EnviroSolutions, Inc. (AES) took air samples for mold spores, due to numerous water leaks from the roof. At that time, the highest concentration of mold spores was found to be in the air in the office areas. As a result, on July 22, 2008, AES conducted additional sampling, but concentrated efforts on the air handling systems. AES took seven samples for airborne mold spores and took ten swab samples from the ventilation diffusers. Samples were taken at the Administration Building, the Commissary and the two Safety offices. Air samples and swab samples were taken from the ventilation diffusers in the unoccupied Warden's office, Warden Winn's office and the Warden's reception area. Sampling was also performed in the file room, the equipment room and in Ms. Haag's office. After testing in the Administration Building, testing was performed in the two offices in the Safety Building and in the Commissary. The samples were then transported to a certified laboratory for analysis, and the resulting lab reports are attached.

**Sampling Results and Recommendations**

AES reviewed the laboratory analytical results, which indicate the presence of some level and type of mold in all of the air ventilators tested. Please see the table below for the sampling results. The types of mold identified were Penicillum Aspergillus, Cladoporium, Basidiospores, Alternaia, Curvularia, Smuts and Ascospores.

The sampling results of June 26, 2008 were compared to ambient mold concentrations and proved that there was mold growth in the building. The purpose of the sampling conducted on July 22, 2008 was to evaluate the mold concentrations in the air handling system, and were therefore not compared to the outside ambient air.

Site:  
Assessment  
Testing  
Clean Up

Licensed  
Contractor:  
150268  
199996



The wipe sample showed very high numbers of Cladosporium spores in the return air vent in the southern most Safety Office. The wipe samples also detected yeast and bacterial growth in the Administration Building ventilation system and yeast growth in the Commissary.

The number of fungal spores found at each sample location were as follows:

<b>SAMPLE LOCATION</b>	<b>SPORES PER WIPE SAMPLE</b>	<b>SPORES PER AIR SAMPLE</b>
Vacant Warden's office air vent	77	4
Warden's reception area air vent	77	75
Warden Winn's office air vent	Yeast	144
Supply room air vent	227 and bacteria	115
File room air vent	77 and bacteria	93
Ms. Haag's office air vent	538	No air sample taken
Commissary air vent one	774 and yeast	564
Commissary air vent two	154	No air sample taken
Safety office one air vent	11,000	417
Safety office two air vent	300	No air sample taken

AES recommends that all the related ventilation systems be thoroughly cleaned by a professional mold remediation company. Following that, it is also recommended that confirmatory testing be conducted to ensure that the cleaning was effective.

Please be advised that the routine maintenance and duct cleaning performed by HVAC companies may not be adequate to eliminate the mold completely. If requested, AES can recommend a reputable mold remediation company and oversee the cleaning activities.

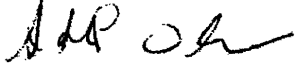
The physical health effects of exposure to mold can vary from person to person, depending upon the amount and types of mold present, and one's sensitivity and general state of health. There are no state or federal numerical standards for mold in Arizona



Please see [www.epa.gov/mold/](http://www.epa.gov/mold/) and [www.OSHA.gov](http://www.OSHA.gov) web sites for further information regarding mold and its effects on health and building materials.

If you have any questions regarding this report, resampling, remediation or any other indoor air quality related services, please do not hesitate to contact AES at (480) 839-7000.

Sincerely,



Steve Olson  
Project Manager



Client: Applied EnviroSolutions, Inc.  
C/O: a/p Martin Godusi  
Re: FCI-TUS-7-08; FCI Mold

Date of Sampling: 07-22-2008  
Date of Receipt: 07-23-2008  
Date of Report: 07-25-2008

**QUANTITATIVE SPORE COUNT REPORT**

Location:	1: Vacant Office				2: Sec. Office				3: WS Office				4: Supply Diffuser			
Comments (see below)	None				None				A				B			
Sample type	Swab sample				Swab sample				Swab sample				Swab sample			
Lab ID-Version†:	1969365-1				1969366-1				1969367-1				1969368-1			
Background debris (1-4+)	2+				2+				2+				2+			
Sample size	1 swab				1 swab				1 swab				1 swab			
Reporting unit	1 swab				1 swab				1 swab				1 swab			
Detection limit/unit	40				40				40				40			
	Count	Count/sample	Count/unit	%	Count	Count/sample	Count/unit	%	Count	Count/sample	Count/unit	%	Count	Count/sample	Count/unit	%
Hypal fragments		< 40	< 40	n/a		< 40	< 40	n/a		< 40	< 40	n/a		< 40	< 40	n/a
<b>TOTAL FUNGAL SPORES</b>	1	77	77	100	1	77	77	100		< 40	< 40	100	3	227	227	100
Alternaria	1	77	77	100												
Arthrinium																
Ascospores																
Aureobasidium																
Basidiospores																
Bipolaris/Drechslera group																
Botrytis																
Chaetomium																
Cladosporium													2	150	150	66
Curvularia																
Epicoccum																
Fusarium																
Myrothecium																
Nigrospora																
Other brown													1	77	77	34
Other colorless																
Penicillium/Aspergillus types					1	77	77	100								
Pithomyces																
Rusts																
Smuts, Periconia, Myxomycetes																
Stachybotrys																
Stemphylium																
Torula																
Ulocladium																
Zygomycetes																

Comments: A) Yeast Observed. B) Bacteria Observed. Yeast Observed.  
† A "Version" greater than 1 indicates amended data.

Client: Applied EnviroSolutions, Inc.  
 C/O: a/p Martin Godusi  
 Re: FCI-TUS-7-08; FCI Mold

Date of Sampling: 07-22-2008  
 Date of Receipt: 07-23-2008  
 Date of Report: 07-25-2008

**QUANTITATIVE SPORE COUNT REPORT**

Location:	5: File Diffuser				6: Ms. H Office				7: Comissary In				8: Comissary Diffuser			
Comments (see below)	C				None				A				None			
Sample type	Swab sample				Swab sample				Swab sample				Swab sample			
Lab ID-Version†:	1969369-1				1969370-1				1969371-1				1969372-1			
Background debris (1-4+)	2+				3+				2+				2+			
Sample size	1 swab				1 swab				1 swab				1 swab			
Reporting unit	1 swab				1 swab				1 swab				1 swab			
Detection limit/unit	40				40				40				40			
	Count	Count/sample	Count/unit	%	Count	Count/sample	Count/unit	%	Count	Count/sample	Count/unit	%	Count	Count/sample	Count/unit	%
Hyphal fragments		< 40	< 40	n/a		< 40	< 40	n/a		< 40	< 40	n/a		< 40	< 40	n/a
<b>TOTAL FUNGAL SPORES</b>	<b>1</b>	<b>77</b>	<b>77</b>	<b>100</b>	<b>7</b>	<b>538</b>	<b>538</b>	<b>100</b>	<b>10</b>	<b>774</b>	<b>774</b>	<b>100</b>	<b>2</b>	<b>154</b>	<b>154</b>	<b>100</b>
Alternaria					1	77	77	14								
Arthrinium																
Ascospores					1	77	77	14	1	77	77	10				
Aureobasidium																
Basidiospores																
Bipolaris/Drechslera group																
Botrytis																
Chaetomium																
Cladosporium					3	230	230	43	8	620	620	80	1	77	77	50
Curvularia																
Epicoccum																
Fusarium																
Myrothecium																
Nigrospora																
Other brown					1	77	77	14								
Other colorless																
Penicillium/Aspergillus types					1	77	77	14	1	77	77	10	1	77	77	50
Pithomyces																
Rusts																
Smuts, Periconia, Myxomycetes	1	77	77	100												
Stachybotrys																
Stemphylium																
Torula																
Ulocladium																
Zygomycetes																

Comments: C) Bacteria Observed. A) Yeast Observed.  
 † A "Version" greater than 1 indicates amended data.

Client: Applied EnviroSolutions, Inc.  
 C/O: a/p Martin Godusi  
 Re: FCI-TUS-7-08; FCI Mold

Date of Sampling: 07-22-2008  
 Date of Receipt: 07-23-2008  
 Date of Report: 07-25-2008

**QUANTITATIVE SPORE COUNT REPORT**

Location:	9: Safety One				10: Safety Two			
Comments (see below)	None				None			
Sample type	Swab sample				Swab sample			
Lab ID-Version†:	1969373-1				1969374-1			
Background debris (1-4+)	2+				2+			
Sample size	1 swab				1 swab			
Reporting unit	1 swab				1 swab			
Detection limit/unit	40				40			
	Count	Count/sample	Count/unit	%	Count	Count/sample	Count/unit	%
Hypthal fragments	17	1,300	1,300	n/a	< 40	< 40	< 40	n/a
<b>TOTAL FUNGAL SPORES</b>	<b>146</b>	<b>11,077</b>	<b>11,077</b>	<b>100</b>	<b>4</b>	<b>300</b>	<b>300</b>	<b>100</b>
Alternaria								
Arthriniium								
Ascospores								
Aureobasidium								
Basidiospores								
Bipolaris/Drechslera group								
Botrytis								
Chaetomium								
Cladosporium	145	11,000	11,000	99	2	150	150	50
Curvularia								
Epicoccum								
Fusarium								
Myrothecium								
Nigrospora								
Other brown								
Other colorless								
Penicillium/Aspergillus types	1	77	77	1	2	150	150	50
Pithomyces								
Rusts								
Smuts, Periconia, Myxomycetes								
Stachybotrys								
Stemphylium								
Torula								
Ulocladium								
Zygomycetes								

**Comments:**

† A "Version" greater than 1 indicates amended data.

**CHAIN OF CUSTODY**

www.EMLabPK.com



Cherry Hill, NJ: 1936 Olney Avenue, Cherry Hill, NJ 08003 \* (856) 671-1884  
 Phoenix, AZ: 1501 West Knudsen Drive, Phoenix, AZ 85027 \* (602) 651-4902  
 San Bruno, CA: 1150 Bayhill Drive, #100, San Bruno, CA 94066 \* (856) 888-6653  
 San Diego, CA: 5473 Kearny Villa Road, #130, San Diego, CA 92123 \* (856) 465-6653

LEVEL	WEATHER	Fog	Rain	Snow	W/nd	Clear
	None					
Light						
Moderate						
Heavy						

Name:  
Spore Trap



000446971

**CONTACT INFORMATION**

Company: <b>Applied EnviroSolutions</b>	Address: <b>325 E. Southern Ave, #115</b>
Contact: <b>Martin Gozusi</b>	Special Instructions: <b>Tempe, AZ 85282</b>
Phone: <b>480-839-7000</b>	

**PROJECT INFORMATION**

Project ID: <b>FCI-TVS-7-08</b>
Project Desc.: <b>FCI Mold</b>
Project: <b>Sampling</b>
Zip Code: <b>Date &amp; Time: 7-22-08</b>
PO Number:

**TURN AROUND TIME CODES (TAT)**

<b>STD - Standard (DEFAULT)</b>	Rushes received after 2pm on any weekends, will be considered received the next business day. Please alert us in advance of weekend arrivals needs.
<b>ND - Next Business Day</b>	
<b>SD - Same Business Day Rush</b>	
<b>WH - Weekend/Holiday</b>	

SAMPLE ID	DESCRIPTION	Sample Type (Below)	TAT (Above)	Total Vol/Inch Area (if applicable)	NOTES (Time of day, Temp, RH, etc.)
1	Vacant office	SW		N/A	
2	Sec. office				
3	W's office				
4	Supply diffuser				
5	File diffuser				
6	Ms. W's office				
7	Commissary In				
8	Commissary diffuser				
9	Safety One	✓			
10	Safety Two	✓			

Pump - Spore Trap Analysis	Spec-Temp Analysis - Other particles	Direct Microscopic Exam (Qualitative)	Quantitative Spore Count Direct Exam	1-Media Surface Fungi (Conna ID + App. spp.)	2-Media Surface Fungi (Conna ID + App. spp.)	3-Media Surface Fungi (Conna ID + App. spp.)	Culturable Air Fungi (Conna ID + App. spp.)	Conna-Swab and Counts (Culturable Air and Surface Bacteria)	Lignin/culture	Total Coliforms, E. coli (Presence/Absence)	Membrane Filtration (Please specify organism)	MPN (Conna) (Please specify organism)	Quant/Temp - Storage Section	Address Analysis - PCM Airborne Filar Counts (NIOSH 7400)	Airborne Analysis - PCM (EPA method 8207c-95-116)	PCR (please specify test)
----------------------------	--------------------------------------	---------------------------------------	--------------------------------------	--	--	--	---	---	----------------	---	---	---------------------------------------	------------------------------	---	---	---------------------------

SAMPLE TYPE CODES			
BC - BioCassette	CP - Contact Plate	T - Tape	D - Dust
A15 - Andersen	ST - Spore Trap: Zefon, Allergenco, Baird...	SW - Swab	W - Water
SAS - Surface Air Sampler		B - Bulk	SO - Soil
O - Other:			

RELINQUISHED BY: <i>M.P. Olin</i>	DATE & TIME: <b>7-23-08</b>
--------------------------------------	--------------------------------

RECEIVED BY: <i>S. Nava</i>	DATE & TIME: <b>7/23/08</b> <i>5:00</i>
--------------------------------	---

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U.S. Department of Justice

Federal Bureau of Prisons

Office of the Safety Department

Federal Correctional Complex  
Tucson, Arizona 85706

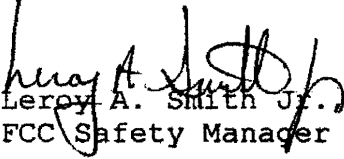
September 18, 2008

MEMORANDUM FOR ROBERT MCFADDEN,  
WESTERN REGIONAL DIRECTOR

CRAIG APKER, COMPLEX WARDEN

LOUIS W. WINN JR., WARDEN

FROM:

  
Leroy A. Smith Jr.  
FCC Safety Manager

SUBJECT:

Occupational and Indoor Air Quality  
Assessments - Work Area (Mold)

The purpose of this memorandum is to clarify additional air, wipe and bulk sampling in the Facility shop areas, Health Services and Yucca Unit. The sampling should be conducted to determine the type and level of mold toxins, with the current mold remediation projects. Any delay can cause mold growth to increase over time.

Wipe samples were conducted to evaluate the mold concentrations in the Business, Commissary and Safety/Facility air ventilation ducts. The wipe samples showed evidence of Cladosporium and Basidiospores, Alternaria, Curvularia, Smuts and Ascospores. When Cladosporium and Alternaria are present together they can be significant allergen.

It is recommended that we request the services of a qualified mold remediation company to conduct additional sampling for the assessment of indoor air quality and the possible presence of mold toxins in identified areas. The additional sampling will verify if mold is present, what type of mold and how it must be dealt with if the sampling results are positive.

If you have any questions, please contact me.

**Mail Envelope Properties**

(48CFD4F5.B3A : 217 : 45988)

**Subject:** Mold Assessments  
**Creation Date** 9/16/2008 3:47:02 PM  
**From:** Leroy Smith  
**Created By:** lasmith@bop.gov

<b>Recipients</b>	<b>Action</b>	<b>Date &amp; Time</b>
bop.gov DETADM.DETDOM1 PM	Delivered	9/16/2008 3:47:15
BOP1619 CC (Marty Vogel) AM	Opened	9/18/2008 5:31:12
AM	Forwarded	9/18/2008 6:41:51
bop.gov TCNADM1.TCNDOM1 PM	Delivered	9/16/2008 3:47:02
TCN0607 CC (Josias Salazar) PM	Opened	9/16/2008 3:49:50
PM	Emptied	11/7/2008 2:32:52
TCN1279 (Louis Winn) PM	Opened	9/16/2008 3:51:55
TCN2212 (Craig Apker) PM	Opened	9/16/2008 5:40:18
bop.gov WXR_ADM1.WXR_DOM1 PM	Delivered	9/16/2008 3:47:14
WXR5719 CC (John Clements) PM	Opened	9/16/2008 4:12:24
AM	Deleted	9/17/2008 8:41:28
AM	Emptied	9/17/2008 10:09:20
WXR6319 (Robert McFadden) PM	Opened	9/16/2008 4:00:22
hotmail.com PM	Transferred	9/16/2008 3:47:35



brlaw BC (brlaw@hotmail.com)

osc.gov Transferred 9/16/2008 3:47:34  
PM  
eflood BC (eflood@osc.gov)  
RMcClain BC (rmcclain@osc.gov)

usdoj.gov Transferred 9/16/2008 3:47:34  
PM  
Randall.Humm BC (Randall.Humm@usdoj.gov)

Post Office	Delivered	Route
DETADM.DETDOM1	9/16/2008 3:47:15 PM	bop.gov
TCNADM1.TCNDOM1	9/16/2008 3:47:02 PM	bop.gov
WXR_ADM1.WXR_DOM1	9/16/2008 3:47:14 PM	bop.gov

Files	Size	Date & Time
MESSAGE	1389	9/16/2008 3:47:02 PM
MOLD ASSESSMENT MEMO 9-18-2008.pdf	28394	9/16/2008 3:36:46
PM		
Leroy Smith.vcf	208	9/16/2008 3:47:01 PM

**Options**

**Auto Delete:** No  
**Expiration Date:** None  
**Notify Recipients:** Yes  
**Priority:** Standard  
**Reply Requested:** No  
**Return Notification:** None

**Concealed Subject:** No  
**Security:** Standard

**To Be Delivered:** Immediate  
**Status Tracking:** All Information



U.S. Department of Justice

Federal Bureau of Prisons

Office of the Safety Department

Federal Correctional Complex  
Tucson, Arizona 85706

September 19, 2008

MEMORANDUM FOR CRAIG APKER, COMPLEX WARDEN

LOUIS W. WINN JR., WARDEN

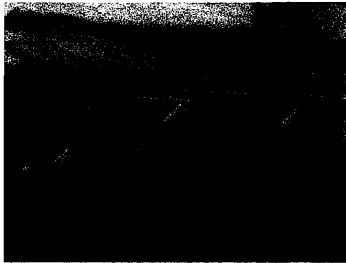
/s/

FROM: Leroy A. Smith Jr.,  
FCC Safety Manager

SUBJECT: Occupational and Indoor Air Quality  
Assessments - Work Area (Mold)

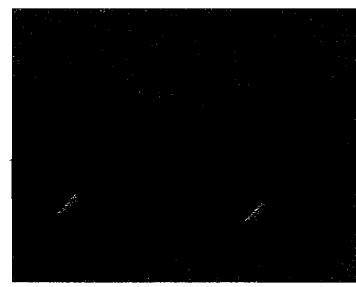
As of September 18, 2008, there have been three new areas where a mold toxin substance has been identified:

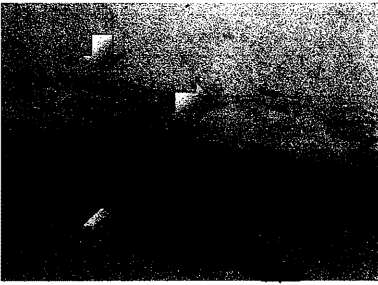
Yucca Unit Officers (North) ceiling -



The whole has been sealed off with 6mil poly and duct taped to the ceiling to help minimize any potential mold spores becoming airborne until further sampling can be conducted to determine the type and level of mold toxins present.

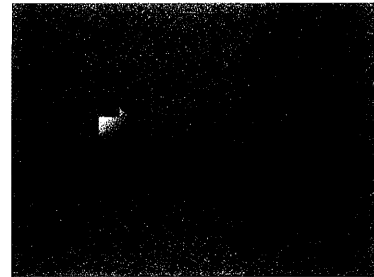
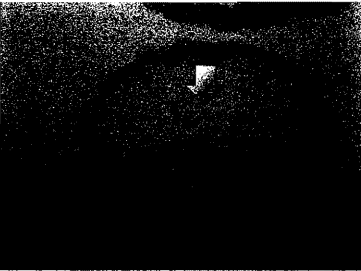
Palo Verde Unit Bathroom walls and ceiling -





Sections of the drywall for the ceiling and wall areas have been removed and replaced recently, which mold growth appears not to be isolated in one location. No additional drywall should be removed and replaced until additional sampling is conducted to determine the type and level of mold toxins present.

Carpenter Foreman's Office ceiling -



The mold toxin growth has developed around the ventilation duct and right support wall area. Additional sampling needs to be conducted to determine the type and level of mold toxins present.

There has been an increase of mold toxin growth throughout the FCI buildings in the past three months. The mold growth has not been isolated to small surface areas, but severe growth has been identified in the ceilings and in between the walls. The mold growth has been developing over time and any continued delay will cause further mold growth, which in time can potentially affect the health of our staff and inmates.

It is recommended that we request the services of a qualified mold remediation company to conduct additional sampling for the assessment of indoor air quality and the possible presence of mold toxins in the ceiling, walls and ventilation ducts throughout the institution areas. The additional sampling will verify if mold is present, what type of mold and how it must be dealt with if the sampling results are positive.

If you have any questions, please contact me.

cc: AW, Salazar  
AW, Beckwith  
FM, Marchetti  
Robert McFadden, Western Regional Director  
Dave Clements, Regional Safety Administrator  
Local Union

**From:** Leroy Smith  
**To:** Apker, Craig; Winn, Louis  
**CC:** Barnard, Mark; Clements, John; Cobb, Paul; Garcia, Kevin; Hollembaek...  
**Subject:** Fwd: Yucca North Laundry Room  
**Attachments:** Yucca North Laundry Room

I received notification of possible unhealthy working conditions in the Yucca North Laundry room. Based off the information received the air, wipe and bulk sampling should be conducted as soon as possible to determine the extent of possible airborne contaminants affecting the staff and inmate workers. Also, I still request consideration that a health and environmental risk assessments be conducted in all buildings at the FCI to determine the extent of mold exposure and in an attempt to ensure health risks are minimized. This area should be temporally closed until appropriate sampling can be conducted to determine the level of exposure, which appears to be causing staff and inmate workers health issues.

If there are any questions, please do not hesitate to let me know.

**From:** Louis Winn  
**To:** Leroy Smith  
**Date:** 10/19/2008 9:15 AM  
**Subject:** Re: Mold

Thanks

-----Original Message-----

**From:** Leroy Smith  
**Cc:** Josias Salazar <jxosalazar@bop.gov>  
**To:** Louis Winn <lwinn@bop.gov>  
**Cc:** Esther White <exWhite@bop.gov>  
**Cc:** Craig Apker <capker@bop.gov>  
**To:** James Marchetti <jmarchetti@bop.gov>  
**Cc:** David Clifford <DClifford@bop.gov>  
**Cc:** Daniel Beckwith <dbeckwith@bop.gov>  
**Cc:** Mark Barnard <MBarnard@bop.gov>  
**Cc:** John Clements <jdclements@bop.gov>

**Sent:** 10/18/2008 2:17:27 PM  
**Subject:** Re: Mold

Warden, Winn

It is my understanding that we have attempted to repair a roof that needs to be replaced. Until we have a good rain day we will not know if all leaks have been repaired. I believe we have not conducted any mold abatement in the Commissary or Yucca Unit. We just received the mold analytical data on Yucca Unit, Palo Verde, Health Services and Carpentry Shop areas, which the bulk sample results were off the chart. We can't forget about the roof repairs, abatement and cleaning of the mold in the Facility and Safety Department areas, which had the highest concentrations of mold until the recent test results were received yesterday. Many of these areas will require the removal of the dry wall (Ceiling and Wall), insulation, ceiling tiles. Then the ceilings, walls, floors and office equipment will need to be properly cleaned to help prevent additional mold growth. These areas will need to be sealed off during the abatement and cleaning process. Once the removal and cleaning has been completed additional personal air sampling will need to be conducted for staff and inmate workers, outside and inside air sampling will need to be conducted and wipe sampling up in the ceiling, vents walls and equipment will need to be to ensure the mold abatement process was successful. We will need to ensure staff and inmate workers are provided proper Personal Protective Equipment (PPE), which may require medical clearance and fit testing. Also, a mold cleaning solution will need to be purchased and applied for proper cleaning, which will require the Safety Department to review and approve the type of chemical being purchased to ensure we comply with the new EMS program.

\* I am requesting that additional funding be provided to conduct a thorough Health and Environmental Risk Assessment of all buildings at FCI, Tucson, which will ensure compliance with OSHA's and EPA's Occupational Exposure, Housekeeping and Indoor Air Quality regulatory guidelines. All of our analytical data from 2006 to present has shown mold growing in the drywall, ceiling tiles, insulation, ventilation ducts and to be airborne as well. There are several types of mold being found that will cause staff and inmates severe health affects over long term exposure, especially the staff and inmates that have preexisting health concerns. The same mold health concerns may affect other institutions Bureau-wide. The Arizona Department of Corrections has recently torn down at least one of their Housing Units for a variety of molds exposing their staff and inmates.

I trust this helps answer many questions or concerns.

Leroy A. Smith, Safety Manager  
FCC Tucson, Arizona

520-663-5190 (Office)  
520-663-5189 (Fax)

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its contents, is strictly prohibited. If you receive this message in error, please notify me immediately to make arrangements

for its return to me.

>>> Louis Winn 10/17/2008 4:31 PM >>>

As I understand it, we have repaired the commissary roof and completed remediation in the commissary. Additionally, we identified and repaired the source of the leak in the Yucca North office and completed remediation. Please provide me with final confirmation and then proceed with post abatement testing.

We also may want to conduct some additional training with orderlies to reinforce proper cleaning procedures, particularly in the bathrooms.

Lastly, if we have not already, change out any ceiling tiles that are discolored as the result of moisture.

Thank you



Tucson  
 7012 E. 3rd St.  
 Tucson, AZ 85710  
 Tel: (520) 575-7100

Main Office  
 325 E. Southern Ave., #115  
 Tempe, AZ 85282  
 Tel: (480) 839-7000

Mailing Address  
 PO Box 28085  
 Tempe, AZ 85285

October 6, 2008

Environmental:  
 Management  
 Planning  
 Impact Statement  
 Vulnerability  
 Health & Safety

Mr. Leroy Smith  
 Federal Corrections Institution  
 8901 S. Wilmot Road  
 Tucson, AZ 85706

Re: Mold Sampling

**Introduction**

Services:  
 Permitting  
 Compliance  
 Enforcement  
 Modeling  
 Testing  
 Monitoring  
 Archaeological  
 Biological  
 Decontamination  
 Risk Assessment  
 Training  
 ISO-14000 Support  
 Indoor Air Quality  
 Asbestos  
 Lead  
 Mold

On September 26, 2008 Applied EnviroSolutions, Inc. (AES) took a total of 14 samples, including air samples, swab samples and bulk samples for mold and mold spores in the following four structures:

1. Yucca Building, North Officer's Station
2. Palo Verde Building, Bathroom
3. Hospital Building, Hallway
4. Carpentry Shop Office

AES took one sample for airborne mold spores in each of the four building, one swab sample from a ventilation diffuser in each building and a bulk sample from each building. At the request of Mr. Leroy Smith, an additional bulk sample was taken in the Palo Verde Building. The samples were then transported to a certified laboratory for analysis, and the resulting lab reports are attached.

The total number of fungal spores found at each sample location was shown in Table 1, as follows:

**TABLE 1**

SAMPLE LOCATION	TOTAL SPORES PER WIPE SAMPLE	TOTAL SPORES PER AIR SAMPLE	TOTAL SPORES PER BULK SAMPLE
Yucca Office Ceiling	<40	900	290,000
Palo Verde Wallboard	51,000	290	67
Palo Verde Shower Stall	NA	NA	320,000
Hospital Hallway	77	170	None
Carpentry Shop Office	82,000	4,700	140,000

Site:  
 Assessment  
 Testing  
 Clean Up

Licensed  
 Contractor:  
 150268

The different types of mold, their locations and descriptions are provided in Table 2 below:

**TABLE 2**

Sample Locations	Yucca Office Ventilator Swab	Palo Verde Bathroom Ventilator Swab	Hospital Hallway Ventilator Swab	Carpentry Office Ventilator Swab	Yucca Ceiling Tile Bulk	Palo Verde Wallboard Bulk	Palo Verde Shower Bulk	Hospital IOP Office Window Putty Bulk
Type of Spores	Spores	Spores	Spores	Spores	Spores	Spores	Spores	Spores
Alternaria								
Arthrimum								
Ascospores				520				
Aspergillus / Penicillium								
Bipolaris / Drechslera								
Basidiospores								
Chaetomium					290,000	67		
Cladosporium		51,000		1,600				
Curvularia								
Epicoccum								
Fusarium								
Memnoniella								
Nigrospora								
Paeciliomyces								
Penicillium / Aspergillus types				80,000				
Smuts / Myxomycetes			77					
Stachybotrys							320,000	
Stemphylium								
Torula								
Ulocladium								
Miscellaneous								





Sample Number and Location	Carpentry Office Ceiling Tile Bulk	Yucca Office Air Sample	Palo Verde Bathroom Air Sample	Hospital Hallway Air Sample	Carpentry Office Air Sample	Outdoor Air Reference Sample
Type of Spores	Spores	Spores / m <sup>3</sup>	Spores / m <sup>3</sup>	Spores / m <sup>3</sup>	Spores / m <sup>3</sup>	Spores / m <sup>3</sup>
Alternaria	7,000					31
Arthrinium						
Ascospores						49
Aspergillus / Penicillium						
Bipolaris / Drechslera						22
Basidiospores						227
Chaetomium		513	156	62		4
Cladosporium	57,000			27		618
Curvularia						4
Epicoccum						
Fusarium						
Memnoniella						
Nigrospora						
Paecilomyces						
Penicillium / Aspergillus types	79,000	358	40	58		18
Smuts / Myxomycetes						76
Stachybotrys						
Stemphylium						
Torula						4
Ulocladium						
Miscellaneous						

### Sampling Results

AES reviewed the laboratory analytical results, which indicate that there are elevated levels of mold spores in all of the buildings tested. The laboratory also noted that there are unidentified species of bacteria growing in both the Palo Verde bathroom ventilator and the Carpentry Shop office ventilator, and yeast mold is growing in the Yucca office ceiling tile.

The Yucca office sample results revealed high levels of *Chaetomium* in both the ceiling tile and in the air. *Chaetomium* is a fungus type that includes approximately 80 different species. It is allergenic and an agent of onychomycoses (nasal infection), peritonitis, cutaneous lesions and potential agent in fatal systemic mycoses. Fatal deep mycoses due to *Chaetomium* have been documented. Brain abscess, peritonitis, and cutaneous lesions may also develop due to *Chaetomium*.



*Chaetomium* are found on a variety of substrates containing cellulose, including paper and plant compost. It has been reported to play a major role in the decomposition of cellulose-made materials. These fungi are able to dissolve the cellulose fibers in cotton and paper and thus cause the materials to disintegrate. The process is especially rapid under moist conditions. Commonly found on deteriorating wood products, *chaetomium* frequently emits a musty odor and is frequently found on water-damaged drywall and other construction products often used in the United States.

The samples taken in the Palo Verde building bathroom and shower also showed elevated levels of *chaetomium* in the air, as well as very high levels of *Cladosporium* in the ventilation system. *Cladosporium* is a common fungus that is a known and documented allergen which is usually associated with plants, wood products, and leather goods. The spores are easily made airborne and as such are a common cause of respiratory problems, allergic reactions and can be an agent for hypersensitivity diseases. It is as a parasite in infections of the skin, soft tissues and nails.

The sample taken in the Palo Verde shower also showed very high levels of *Stachybotrys*. *Stachybotrys* is a greenish-black, slimy mold found only on cellulose products (such as wood or paper) that have been wet for several days or more. It is common on plant debris and in soil, and is capable of producing one or more mycotoxins (chemicals that may cause symptoms or illness and death in people). It can grow on paper, sheet rock, and other high cellulose materials. Spores of wet mold do not easily enter the air, and are found where warm, moist air comes into contact with cooler air. Toxic effects at relatively low doses include rashes, mild neurotoxin effects such as headache, nausea, muscle aches and pains, and fatigue. The immune system may also be affected resulting in a decreased resistance to infections.

Other types of mold found in the Palo Verde samples include *Basidiospores*, *Curvularia* and *Penicillium*.

*Basidiospores* are produced by Basidiomycota, which include mushrooms, puffballs, stinkhorns, bracket fungi, other polypore, jelly fungi, boletes, chanterelles, earth stars, smuts, bunts, rusts, mirror yeasts, and the human pathogenic yeast, *Cryptococcus*.

*Curvularia* are among the causative agents of mycetoma, onychomycosis, keratitis, allergic sinusitis, cerebral abscess, cerebritis, pneumonia, allergic bronchopulmonary disease, endocarditis, dialysis-associated peritonitis, and infections may develop due to *Curvularia*. Importantly, infections may develop in people with intact immune system. However, similar to several other fungal genera, *Curvularia* has emerged as an opportunistic pathogen that infects immunocompromised hosts.

The swab sample taken in the Carpentry office showed very high levels of *Penicillium Aspergillums* in the ventilation system. *Penicillium* is one of the first fungi to grow on water-damaged materials and has been implicated in causing allergic reactions, hypersensitivity pneumonitis, and a variety of severe lung complications. *Penicillium* is a mold commonly found where water intrusion has occurred.



This mold is also capable of producing mycotoxins. *Penicillium* is a mold that is widely distributed in nature, and is often found living on foods and in indoor environments. It is the source of several antibiotics, significantly penicillin.

Very high levels of *Cladosporia*, as discussed above, were also found in the Carpentry Shop ventilator swab and in the air sample.

There is visible mold growing on the ceiling tiles in the Carpentry Office, which were identified as *Pennicillium and Cladosporia* by the laboratory.

The physical health effects of exposure to mold can vary from person to person, depending upon the amount and types of mold present, and one's sensitivity and general state of health. There are no state or federal numerical standards for mold in Arizona

Please see [www.epa.gov/mold/](http://www.epa.gov/mold/) and [www.OSHA.gov](http://www.OSHA.gov) web sites for further information regarding mold and its effects on health and building materials.

#### **Recommendations:**

AES recommends the following procedures:

1. Disinfect all areas of the buildings.
2. Repair any and all water leakages.
3. Have a professional remediation firm clean all visible molds.
4. Conduct post-abatement sampling to verify mold abatement effectiveness.
5. Maintain the humidity below 60%, if possible.
6. Maintain adequate ventilation.
7. Allow the proper amount of make-up air from the outdoors, per standards.
8. Change air filters frequently, or as recommended by the manufacturer of the air handling systems.

If requested, AES will recommend a reputable mold remediation company and/or take the responsibilities of supervising the cleaning activities.

If you have any questions regarding this report, re-sampling, remediation or any other indoor air quality related services, please do not hesitate to contact AES at (480) 839-7000.

Sincerely,

  
Steve Olson  
Project Manager



**Leroy Smith - Fwd: Re: Noise, Light, Ventilation Surveys**

---

**From:** Christi Andrews  
**To:** Smith, Leroy  
**Date:** 4/20/2009 12:09 PM  
**Subject:** Fwd: Re: Noise, Light, Ventilation Surveys

---

>>> John Clements 4/20/2009 10:17 AM >>>  
These look good to me Leroy!

Dave

>>> Christi Andrews 4/17/2009 3:20 PM >>>  
Hello. Leroy asked me to send you the 2007, 2008 & 2009 Noise, Light and Ventilation surveys. He would like you to review them to ensure they meet both ACA and Bureau standards. Please note 2009 was only a noise and light survey, no ventilation.

Safety-Weekly Update Due on Thursday's

Date: May 28, 2009

	Information/Status
Staff Performance -	Exceptional.
Department Projects	<ol style="list-style-type: none"> <li>1. Job Orientation and Chemical Audits of all Department and Details. <b>(Ongoing)</b></li> <li>2. Assisting Facilities in the Development of Well Water Plan. <b>(Draft will be completed May 21, 2009)</b> <b>(Be sent for Review on May 22, 2009) (Pending)</b></li> <li>3. Assisting Facilities on the Development of the Forklift Plan. <b>(Draft was completed May 11, 2009)</b> <b>(Being reviewed by Facilities and Associate Warden for signature) (Pending)</b></li> <li>4. Assisting Facilities to ensure Inmates are medically cleared to drive vehicles and equipment. <b>(Began May 20, 2009, for Program Review Item) (Pending)</b></li> <li>5. Responding to the Fire Marshal Inspection <b>(Being Routed for Review and Signature on May 14, 2009)</b> <b>(Sign copy received May 26, 2009)</b></li> <li>* 6. Continuing to monitor the Hearing Conservation Program to ensure staff and inmates receive their annual audio-grams. <b>(Health Service reported that 3/4 quarter of the list has been completed)</b></li> <li>7. The following staff need to be medically cleared, trained and fit tested - Ms. Macias, Ms. Mixon and Ms. Sage.</li> <li>8. Facilities needs to order and install Pull-Stations in the FCI UNICOR Factory. <b>(NFPA and Bureau Policy)</b></li> <li>9. Facilities needs to order and install appropriate alarm signaling device (Sprinkler System) in all outside FCI Buildings to the Control Center. <b>(NFPA and Bureau Policy)</b></li> </ol>
Staff Training	<ol style="list-style-type: none"> <li>1. Worker's Comp Training in June and September of 2009. <b>(Denied by Institution and Central Office staff)</b></li> <li>2. Purdue University Pest Control Course ordered April 2009. Received and Issued the booklets to staff on May 8, 2009.</li> <li>3. Staff are scheduled for the mandatory FEMA 300 course on June 8, 9 and 10, 2009.</li> </ol>
Staff Leave	<ol style="list-style-type: none"> <li>1. Moriarty - July 13-17, 2009 - September 28 through October 2, 2009 - November 23-27, 2009 and December 28-31, 2009.</li> <li>2. Andrews - September or early October 2009 for the birth of Grandchild - December 24 through January 1, 2010.</li> <li>3. Jensen - May 29, 2009 - June 1, 2009 and December 21-24 2009.</li> </ol>
Injury's (Who and status/tad)	<ul style="list-style-type: none"> <li>- injured hand at CMT- currently on COP - awaiting for CA-1 and supporting medical documentation.</li> <li>- pulled neck muscle while lifting books at Pima College for the Education Department - currently on TAD.- will be reevaluated in 30 days.</li> <li>Scrapped her back when the chair through her off - currently on TAD till June, 2009.</li> <li>injured shoulder during altercation with inmate. Currently out on COP. Waiting for update.</li> <li>- fractured leg while escorting the same inmate that assaulted Officer Keith. Had surgery on May 04, 2009.</li> <li>His doctor did not authorize light duty at this time.</li> <li>6 we are awaiting duty restrictions to consider him for a TAD.</li> <li>7 TAD was held. Not able to accommodate restrictions, referred to Employee Services. injured his back in SHU on 05/01/2009. He is currently on a TAD until cleared for full duty.</li> </ul>
Program and Operational Reviews	<ol style="list-style-type: none"> <li>1. Program Review in 2006 - received a "Good" rating. Received Safety Notification of Program Review from the Central Office on May 5, 2009.</li> <li>2. Operational Reviews in 2007, 2008 and 2009. Addition Operational Review Audit - <b>currently under final draft by May 4, 2009. (Completed)</b> <b>(Routed through Executive staff May 6, 2009)</b></li> <li>3. The remote assessment paperwork submitted to the Central Office on May 27, 2009.</li> </ol>

Duty Officer Inspections (Weekly)	1. Duty officer inspections are current.
Environmental Management System-	1. The Spill Prevention Counter Control Plan has been completed by Archer Inc and is currently being routed for signature by the Warden. 2. The Safety Department continues to monitor other Departments to ensure objectives and targets are met.

Delinquent Documents (Fire Drills)

1. Delinquent Fire Drills by Division:

A. FCI First Quarter Fire Drills -

AW Beckwith • ( **REPEAT** ) Barbershop  
( **REPEAT** ) • Lieutenants Office • ( **REPEAT** ) Commissary  
( **REPEAT** ) Laundry • ( **REPEAT** ) Visiting Room (mock)  
AW McClintock • ( **REPEAT** ) Yucca • ( **REPEAT** ) Cholla

B. CAMP First Quarter Fire Drills -

EA Sweepson • ( **REPEAT** ) Camp Admin Building

C. CAMP Second Quarter Fire Drills -

EA Sweepson • ( **REPEAT** ) Admin Building  
( **REPEAT** ) Visiting Room (Mock)  
AW Beckwith • ( **REPEAT** ) Camp Commissary  
AW Hollembaek • ( **REPEAT** ) Health Services (April and  
May ) ( Any documentation on file from 2006 to Present )

C. USP First Quarter Fire Drills -

AW Beckwith • ( **REPEAT** ) Visiting Room (mock) • ( **REPEAT** ) AW's Office  
AW McClintock • B Unit  
AW Sanchez • Recreation

A. FCI Second Quarter Fire Drills -

AW Beckwith • ( **REPEAT** ) Admin Building • ( **REPEAT** ) Food Service • ( **REPEAT** ) Visiting Room (Mock)  
AW McClintock • ( **REPEAT** ) AW's Building • ( **REPEAT** ) Mailroom • ( **REPEAT** ) Palo Verde • ( **REPEAT** ) Cholla  
AW Sanchez • **100% Thank You**  
AW Hollembaek • ( **REPEAT** ) Chapel • ( **REPEAT** ) Health Services (April and May )

B. USP Second Quarter Fire Drills -

AW Hollembaek • ( **REPEAT** ) Chapel • ( **REPEAT** ) Health Services (March • April and May)  
AW McClintock • B Unit • C Unit • ( **REPEAT** ) ISM  
AW Beckwith • ( **REPEAT** ) Admin Building • ( **REPEAT** ) Food Service • ( **REPEAT** ) Food Service Warehouse •  
( **REPEAT** ) Garage • ( **REPEAT** ) Visiting Room (mock) • ( **REPEAT** ) AW's Office  
AW Sanchez • Recreation

Delinquent Documents  
(Monthly Inspection Responses)

Delinquent Monthly Inspection Response by Division:

- A. AW Beckwith - **January & March** Food Service, **April** Food Service, **April** Correctional Services
- B. AW McClintock - **February** Cholla Unit , **March** E Unit & F Unit, **April** Employee Services, **April** Mesquite,
- C. EA Sweepson - **February** Camp
- D. AW Hollembaek - **April** Chapel, **April** Health Services,
- E. AW Sanchez - **April** UNICOR



**Mold Issues**

- 1. The January 12, 2009 Mold Report - The presence of Penicillium and Aspergillus in the Business Office Storage Room walls and carpet were still a concern of Applied EnviroSolutions Inc. They recommend more samples should be taken from the air registers and walls in the related 14 Business Office areas, before they will be able to conclude the presence or absence of molds. (Completed and Cleared)**
- 2. The March 9, 2009 Mold Report - The presence of Cladosporium - These spores are easily made airborne and as such are a common cause of respiratory problems, allergic reactions and can be an agent for hypersensitivity diseases. It is as a parasite infectious of the skin, soft tissues and nails. Additional cleaning, replacement of ventilation ducts and air sampling needs to be conducted for the Facility and Safety Offices. (Not Completed - Ongoing Priorities/Projects)**
- 3. The April 2, 2009, Mold Report - The presence of Cladosporium, Penicillium and Aspergillus - These spores are easily made airborne and as such are a common cause of respiratory problems, allergic reactions and can be an agent for hypersensitivity diseases, variety of severe lung complications and may produce mycotoxins. Additional ventilation duct cleaning and air sampling needs to be conducted for Maintenance Office, Carpentry Shop and SHU Library. (Completed and Cleared)  
(Not Completed - Ongoing Priorities/Projects)**
- 4. Mold Plan of Action Provided by Facilities - dated April 3, 2009:**
  - A. Safety and Facilities Offices - Please review line item #2 above.**
  - B. Roofing project for Safety and Facilities have not been completed.**

**BP-9's, Cop-outs,  
Correspondence, Tort Claims**

- 1. May 26, 2009, we received a BP-8 concerning the sanitation levels at the USP Food Service. A response was routed to Counselor Johannes on May 26, 2009.**



Safety-Weekly Update Due on Thursday's

Date: July 02, 2009

	Information/Status
Staff Performance -	Exceptional.
Department Projects	<ol style="list-style-type: none"> <li>1. Job Orientation and Chemical Audits of all Department and Details. <b>(Ongoing)</b></li> <li>2. Continuing to monitor the Hearing Conservation Program to ensure staff and inmates receive their annual audio-grams. <b>(The list of staff went out to all affected Department Heads) (The staff have been rescheduled for June 30, 2009)</b></li> <li>3. The following staff need to be medically cleared, trained and fit tested - Ms. Mixon. <b>(A new E-mail was sent to the appropriate Department Heads as of June 3, 2009)</b> <b>(A second e-mail was sent to the appropriate Department Heads June 11, 2009, still no response)</b> <b>(Mandatory Program Review step)</b></li> <li>4. Facilities needs to order and install Pull-Stations in the FCI UNICOR Factory. <b>(The Pull Stations have been received according to Mr. Marchetti)</b> <b>(Mandatory NFPA, Bureau, Program Review and ACA Standard) (Still Pending)</b></li> <li>5. Facilities needs to order and install appropriate alarm signaling device (Sprinkler System) in all outside FCI Buildings to the Control Center. <b>(Mandatory NFPA, Bureau, Program Review and ACA Standards) (Still Pending)</b></li> <li>6. Developed a Heat Stress Program. <b>(Currently under review)</b></li> <li>7. Developed Compressed Gas Plan. <b>(Currently under review)</b></li> <li>8. Developed Man lift Plan. <b>(Currently under review)</b></li> <li>9. Conducted a meeting concerning TAD and Long Term work related injury cases on July 1, 2009.</li> <li>10. All Federal and State regulatory guidelines for "USED OIL" have been issued to the Garage, USP/FCI Facilities and Safety Departments to ensure compliance with the Annual Used Oil Inspection and Program Review guidelines. <b>(Completed June 30, 2009)</b></li> <li>11. The UNICOR Associate Warden has asked the Safety Department to review the NIOSH, FOH and Bill Collier reports concerning the UNICOR Recycling Operations. These reports consist of Occupational Safety and Environmental recommendations. <b>(Ongoing)</b></li> <li>12. SCBA tanks have been taken to United Fire Inc. to have the tanks refilled.</li> <li>13. The Safety Program Statements have been received and will be issued at the next Department Head meeting to continue fostering positive communication and program goals within all disciplines.</li> </ol>

Staff Training	<ol style="list-style-type: none"> <li>1. Worker's Comp Training in June and September of 2009. <b>(This has been scheduled for September in Denver)</b></li> <li>2. Purdue University Pest Control Course ordered April 2009. Received and Issued the booklets to staff on May 8, 2009. <b>(Still Pending)</b></li> <li>3. According to Operations Manual 002-2009, dated January 29, 2009 - the following is "MANDATORY" Safety Management Program Training for Safety Trainees, Safety Managers, Assistant Safety Managers, Safety Specialists etc, which is required to be funded by the National Safety Office.</li> </ol> <p><b>Note:</b> Ms. McClintock did contact Mr. Day, which the following was discussed: Mr. Day would not support a waiver for the training to be approved.</p> <p>As follow up to our conversation...</p> <p>I spoke to Mr. Ron Day, National Safety Administrator, regarding the Mandatory Safety Training outlined in the OM. He stated that he knows the OM contains outlines training that is currently not offered.</p> <p>I expressed to him the fact we (safety) are coming up on a program review, and that ESD will be having a follow-up to their program review and mandatory training will be reviewed. He understood my concerns.</p> <p>Since you have had all the training, and your staff have you as a resource, we will continue to do business as usual, until such time as the OM info is updated.</p>
Staff Leave	<ol style="list-style-type: none"> <li>1. Moriarty - July 13-17, 2009 - September 28 through October 2, 2009 - November 23-27, 2009 and December 28-31, 2009.</li> <li>2. Andrews - September or early October 2009 for the birth of Grandchild - December 24 through January 1, 2010.</li> <li>3. Jensen - December 21-24 2009.</li> <li>4. Smith - July 1 - 14, 2009.</li> </ol>

Injury's (Who and status/tad)	<ol style="list-style-type: none"> <li>1. Currently working on TAD as phone monitor.</li> <li>2. Cleared for full duty beginning 06/23/2009. She went back to the doctor for a recurrence. Waiting for Documentation.  Injured shoulder during altercation with inmate. Currently on TAD.</li> <li>5. Fractured leg, recovering from surgery. Doctor will not release to light duty. Began LWOP 06/14/2009.</li> <li>6. - He is currently on a TAD until cleared for full duty.</li> <li>- Injured his back from a fall in Food Service on 06/04/2009. Currently on COP.  Injured back in SHU on 06/15/2009. Currently on COP.</li> <li>- Issued a CA-1 and CA-2 for a claim. No documentation received.</li> <li>- Injured his knee on 06/16/2009. Currently on COP. Held TAD on 06/30/2009.</li> <li>- Currently on OWCP Periodic Roles until her condition improves to return to work.</li> </ol>
<p>Program and Operational Reviews</p> <p>Safety Budget</p>	<ol style="list-style-type: none"> <li>1. Program Review in 2006 - received a "Good" rating.</li> <li>2. The remote assessment paperwork was submitted to the Central Office on May 27, 2009.</li> <li>3. Received Safety Notification from the Central Office that the Safety Program Review has been delayed until September 1 - 3, 2009.</li> <li>4. Operational Reviews in 2007 and 2008.</li> </ol> <ol style="list-style-type: none"> <li>1. Safety annual budget of 62,100.00.</li> <li>2. We spent 17,000.00 on the implementation of the mandatory Environmental Management System.</li> <li>3. We will be spending the fourth quarter budget of 16,200.00 to adequately supply the complex with the necessary disinfectant, hand soap and other sanitation supplies and containers. The safety departments budget has been hit very hard since the activation of the pandemic flue measures.</li> <li>4. This purchases will deplete the annual safety budget. To ensure we meet the needs of the institution during this crisis, I have deferred any purchasing of Wax or Stripper till adequate funding is reestablished. There will not be any surplus of trash bags, which will be effected by the Food Service feeding process.</li> <li>5. It is estimated that there will be enough supplies for the Complex to last through the middle or end of September depending how long these procedures will remain in place.</li> <li>6. Submitted purchase requests of \$9.2 for expenses incurred during the recent Pandemic Flu quarantine. This will be covered under the Central Office Project Code.</li> </ol>
Duty Officer Inspections (Weekly)	<ol style="list-style-type: none"> <li>1. Duty officer inspections are current.</li> </ol>
Environmental Management System-	<ol style="list-style-type: none"> <li>1. The Safety Department continues to work with other Departments to ensure objectives and targets are met.</li> </ol>

<p>Delinquent Documents (Fire Drills)</p> <p>Delinquent Documents (Monthly Inspection Responses)</p>	<p>1. Fire Drill are current:</p> <p>1. Monthly Inspection Response are current:</p>
<p><b>Mold Issues</b> *</p>	<p><b>1. The March 9, 2009 Mold Report - The presence of Cladosporium - These spores are easily made airborne and as such are a common cause of respiratory problems, allergic reactions and can be an agent for hypersensitivity diseases. It is as a parasite infectious of the skin, soft tissues and nails. Additional cleaning, replacement of ventilation ducts and air sampling needs to be conducted for the Facility and Safety Offices. (Not Completed - Ongoing Priorities/Projects)</b></p> <p><b>2. The April 2, 2009, Mold Report - The presence of Cladosporium, Penicillium and Aspergillus - These spores are easily made airborne and as such are a common cause of respiratory problems, allergic reactions and can be an agent for hypersensitivity diseases, variety of severe lung complications and may produce mycotoxins. Additional ventilation duct cleaning and air sampling needs to be conducted for Maintenance Office, Carpentry Shop and SHU Library. (Completed and Cleared)</b></p> <p><b>3. Mold Plan of Action Provided by Facilities - dated April 3, 2009: (Current Project)</b></p> <p><b>A. Safety and Facilities Offices - Please review line item #2 above.</b></p> <p><b>B. Roofing project for Safety and Facilities. (Completed)</b></p>
<p><b>BP-9's, Cop-outs, Correspondence, Tort Claims</b></p>	<p><b>1. Non Pending at this time.</b></p>