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Risk Management Plan - Risk Identification & Planning

Project: Building Evaluation - Jacobs Engr., CTR

Schedule Start Date: 21-Jun-05

Location: Detroit Metro ATCT

Hazard	Potential Risk	Likelihood	Severity	Risk Level	Likely causes	Preventive/Mitigation Action(s)	Contingency Plans
Potential Airborne Contaminate	Release of mold spores during intrusive exploration	A Extremely Improbable	4 Hazardous		(1)cutting of drywall in vicinity of identified areas.	All intrusive activities will be performed using dust control techniques including the use of a zip saw or spiral cut saw and hepa vacuum. Scope photography will be utilized where necessary to minimize the impact to cut surfaces.	*
Means of Egress	Fire Life Safety system will be impacted when elevator shaft or adjacent floor level firewall is penetrated.	B Minor/Low Likelihood	3 Major		1) probing/ penetration of fire wall in shaft. 2) Probing/penetration of adjacent wall at floor level 3) Fire rating lost	The stairwell is the egress path and will remain unobstructed during this evaluation. There will be no penetration inside the shaft. All observations will be done from the floor level wall adjacent to the elevator shaft. This is a firewall however only the first (of the two drywall sheets) will be penetrated. Following observation, all cuts in and other drywall openings made in the course of this evaluation will be repaired with the same quality and fire rating as existing material.	As an additional planned mitigation action, AF has checked the radios and will conduct daily checks as further assurance.
Potential Airborne Contaminate	What if additional mold is found during work activities	A Extremely Improbable	1 No Safety Effect		extent of mold problem is unknown	RE will ensure that any new "find" of mold during remediation is propely contained with plastic and taped as necessary.	*

Safety Risk Management Plan
Project Execution Work Plan for DTW

1.0 KICK-OFF

The project kick-off consists of the pre-survey telcon with the FAA and the on-site AF coordination meeting as part of the survey activity.

1.1 Prior to the site survey, Jacobs and the FAA will hold a telcon to go over the timetable and project execution work plan:
1.2 FAA provides all related as-builts and prior related assessments

2.0 SITE SURVEY

2.1 Jacobs's team, as follow:

- Environmental - Jana Lienemann
- Mechanical - Andy Szente
- Architect - Ward Stallworth
- Carpenter – David Bennett

2.2 Time table

Tuesday, June 21, 2005

- Hold on-site AF coordination meeting, 1PM EDT, Tuesday afternoon.
- Conduct preliminary walk-through of areas outside the elevator shaft
- Pre-survey and locate exterior accessibility around the elevator shaft walls that are accessible for intrusive observation "outside" of elevator shaft.
- Return to site at 11PM, accompanied by a carpenter.
- Survey the entire elevator shaft between 11PM and 1AM (Wednesday), identify shaft wall areas of interest for further or intrusive exploration.
- As deemed appropriate cut openings in exterior layer of elevator shaft drywalls in vicinity of identified areas of interest for intrusive observation. All intrusive activities will be performed using dust control techniques including the use of a zip saw or spiral cut saw and hepa vacuum. Use digital camera photography for observation and/or scope photography.
- After observation, repair cuts in elevator and other drywall openings made in the course of this evaluation. All replacement drywall will be of same quality and fire rating as existing.
- As required, heap vac will be used during cutting and cleaning operations. Carpenter may return to the site to complete repairs and paint.

Wednesday, June 22, 2005

- Return to site on morning of June 22, and conduct general survey of all accessible areas observed to have, or where evidence of water leaks, stains, moisture issues were observed or reported.
- Meet with AF Environmental Technicians to evaluate mechanical systems.
- Depart site, conclude survey Wednesday afternoon, June 22, 2005.

3.0 REPORT

Jacobs will submit a report of observations, findings and recommendations for path forward and mitigation for observed issues.

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WONDER MAKERS
ENVIRONMENTAL

June 16, 2009

Mr. Vince Sugent
7768 Pleasant Lane
Ypsilanti, MI 48197

RE: Review of the Safety Risk Management Plan, Project Execution Work Plan for DTW ATCT by Jacobs Engineering on June 21 and 22, 2005; WM project GC09-8593

Dear Vince:

A Risk Management Plan – Risk Identification & Planning document was generated by the FAA to assess the hazard, likelihood, risk level, likely causes, preventive/mitigation action(s), and contingency plans for potential hazards created during intrusive activities to be conducted in conjunction with a mold investigation at the DTW ATCT by Jacobs Engineering. A lack of knowledge and experience in the use of engineering controls during the disturbance of mold contamination is evident after reviewing the document. In addition, this lack of knowledge and experience in dealing with disturbed mold contamination adversely affected the health of the DTW ATCT building occupants.

From the Risk Management Plan – Risk Identification & Planning chart the hazard of potential airborne contamination, which is identified as a potential risk of release of mold spores during intrusive exploration, was rated with a likelihood of extremely improbable. The intrusive exploration activities to be used were identified as the use of a zip saw or spiral cut saw and HEPA vacuum. These would be inadequate engineering controls during an invasive mold inspection of the drywall systems within the ATCT, allowing for disturbance of mold-contaminated drywall out in the open rather than within negative pressure enclosures.

Unfortunately the Agency did not share this flawed plan with NATCA so that its hazardous elements could be corrected before such an ill-conceived process could be employed. Using engineering controls similar to those described above, Michael Cecil, CIH, conducted a mold inspection in the DTW ATCT on December 8-12, 2008. On December 13, 2008, 11 individuals who work in the DTW ATCT filed CA1's with complaints of headaches, chest tightness, respiratory issues, etc.

It is clear that these health effects were a direct result of the uncontained disturbance of mold-contaminated drywall during Mr. Cecil's mold inspection. Inadequate engineering controls were used and a lack of knowledge and experience in the use of engineering controls was demonstrated during that invasive mold inspection of drywall systems in the

DTW ATCT that was evident in the Risk Management Plan developed by the FAA for the Jacobs Engineering investigation.

As such, the negative consequences of a poor plan were borne by the building occupants due to the secrecy of the Agency and the unwillingness of FAA managers to consider dissenting opinions from independent experts.

Sincerely,

Michael A. Pinto, CSP, CMP
CEO

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OPINION AND AWARD OF THE ARBITRATOR

ISSUE

The parties have been unable to agree upon a statement of the issues to be determined by the arbitrator in this matter. The Union states the issues as:

> "1. Did the Agency fail to make every reasonable effort to provide and maintain safe and healthful working conditions from September 2004 to present as it relates to the discovery, pre-abatement and abatement of mold in the Detroit Tower and TRACON facilities under the terms of the parties' Collective Bargaining Agreement, Articles 9, Section 1A, Article 53, Article 102, FAA Order 3900.19, Executive Order 12196, Public Law 91-596, the OSHA general duty clause, related OSHA regulations and related FAA policies? If so, what is the remedy?
>
> "2. Are the employees who worked in the Detroit Tower on January 22, 2005, entitled to hazardous duty pay pursuant to the parties' 2003 Collective Bargaining Agreement, Articles 9, Section 1A, Article 81, Article 102 and related FAA policies? If so, what is the remedy?
>
> "3. Did the Agency fail to make every reasonable effort to provide and maintain safe and healthful working conditions as it related to the Detroit Tower union office under the terms of the parties' Collective Bargaining Agreement Articles 9, Section 1A, Article 53, Article 102, FAA Order 3900.19, Executive Order 12196, Public Law 91-596, the OSHA general duty clause, related OSHA regulations and related FAA policies? If so, what is the remedy?"

The Agency states the issues as:

> "1. Did the Agency fail to abide by P.L. 91-596 and Executive Order 12196, concerning occupational safety and health, and regulations of the Assistant Secretary of Labor for Occupational Safety and Health, or fail to make every reasonable effort to provide and maintain safe and healthful working conditions from September 2004, to present, as it relates to the discovery, pre-abatement and abatement of mold in the Detroit Tower and TRACON facilities, if not what is the remedy?

"2. Are the employees who worked in the Detroit Tower on January 22, 2005, entitled to hazardous duty pay pursuant to Article 81 of the parties' 2003 Collective Bargaining Agreement? If so, what is the remedy?

"3. Did the Agency fail to abide by P.L. 91-596 and Executive Order 12196, concerning occupational safety and health, and regulations of the Assistant Secretary or Labor for Occupational Safety and Health, or fail to make every reasonable effort to provide and maintain safe and healthful working conditions as it related to the Detroit Tower union office? If not, what is the remedy?"

The parties' statements of the issues both encompass essentially the same overriding issue, as well as a secondary issue. The arbitrator finds that the overriding issue is:

"Has the Agency violated the applicable provisions of the Collective Bargaining Agreement and applicable law, rules, orders and regulations by failing to make every reasonable effort to provide and maintain safe and healthful working conditions in the Detroit Tower, TRACON and Union offices since its discovery of mold contamination in September, 2004? If so, what is the appropriate remedy?"

The arbitrator further finds that the second issue is:

"Are the employees who worked in the Detroit Tower on January 22, 2005, entitled to hazardous duty pay under Articles 9, 81 and 102 of the Collective Bargaining Agreement, or other applicable law, rules, regulations or orders? If so, what is the appropriate remedy?"

The parties stipulated that the five grievances filed by the Union concerning mold contamination at the Detroit Tower and TRACON facilities are to be consolidated for hearing in a single hearing conducted by the arbitrator. They have stipulated that this matter is properly before the arbitrator for final and binding arbitration, and that there are no issues concerning either the procedural or substantive arbitrability of the dispute. They have

further stipulated that the arbitrator may retain jurisdiction over this matter for purposes of resolving any disputes which may arise concerning implementation of the arbitrator's award.

RELEVANT CONTRACT PROVISIONS

(Jt. Ex. 1)

ARTICLE 13
UNION PUBLICATIONS AND INFORMATION AND USE OF AGENCY'S FACILITIES

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Section 5. In facilities where unused suitable space is available in non-work areas, the Union shall be permitted to use such space for the placement of file cabinets or other similar equipment. Such space may be an office if the Agency determines one is available. The Agency shall make a reasonable effort to provide excess desks, chairs, file cabinets or other similar equipment for Union use. . . . The Agency reserves the right to withdraw from such space arrangements whenever the space is required.

ARTICLE 53
OCCUPATIONAL SAFETY AND HEALTH

Section 1. The Agency shall abide by P.L. 91-596 and Executive Order 12196, concerning occupational safety and health, and regulations of the Assistant Secretary of Labor for Occupational Safety and Health and such other regulations as may be promulgated by appropriate authority.

Section 2. The Agency shall make every reasonable effort to provide and maintain safe and healthful working conditions. Factors to be considered include, but are not limited to, proper heating, air conditioning, ventilation, air quality, lighting and water quality.

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Section 9. In the event of construction or remodeling within a facility, the Agency shall insure that proper safeguards are maintained to prevent injury to bargaining unit employees.

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Section 13. Indoor air quality concerns identified by the local Occupational Safety and Health Committee, including those involving "sick building syndrome," shall be investigated using advisory standards of the American Society for Heating and Refrigerating and Air-conditioning Engineers, and EPA and OSHA guidelines. All test results shall be provided to the local union as soon as they are available.

ARTICLE 81
HAZARDOUS DUTY PAY

Section 1. Hazardous duty pay differential(s) shall be paid by the Agency in accordance with 5 CFR Part 550, Subpart 1.

ARTICLE 102
EFFECT OF AGREEMENT

Section 1. Any provision of this Agreement shall be determined a valid exception to, and shall supersede any existing or future Agency rules, regulations, directives, orders, policies and/or practices which conflict with the Agreement.

OTHER RELEVANT MATERIALS

Public Law 91-596 (Occupational Safety and Health Act)
(Jt. Ex. 20)

Section 5

(a) Each employer:

(1) shall furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees

(2) shall comply with occupational safety and health standards promulgated under this Act.

FAA Order 3900.19B
(FAA Occupational Safety and Health Program)
(Jt. Ex. 17)

Chapter 1 - General

8. Policy. This order sets the policy for the framework of the overall agency OSH program.

A. General. The FAA is committed to providing for the occupational safety and health of employees. . .

Chapter 33 - Toxic and Hazardous Substances Exposure Control Program

3300. GENERAL. This chapter covers the establishment of a Federal Aviation Administration (FAA) program to control employee occupational exposures to toxic and hazardous substances that may occur through inhalation, by absorption through the skin, by ingestion, or through surface contact with the skin. . .

3304. PROGRAM REQUIREMENTS

a. General. The following process is to be utilized for establishing a program to evaluate employees exposure to toxic and hazardous substances in FAA workplaces.

(1) Evaluate the workplace to identify the presence or potential for toxic and hazardous substances. If the presence of a toxic or hazardous substance(s) is identified, appropriate testing should be conducted by technically qualified safety personnel. . .

(2) If the exposure determination reveals that acceptable levels are exceeded, a hazard control program should be established to remove or reduce the hazard, or substitute the substance with a less hazardous material. . .

e. Exposure Control

(1) To achieve compliance with exposure limits specified in paragraph 3304b, engineering controls must be evaluated and implemented whenever feasible. . .

(2) When engineering controls are not feasible, nor sufficient to reduce exposure to within acceptable limits, administrative controls (such as, rotation of workers, employee training, etc.) shall be evaluated and implemented.

FAA Order 3550.10
(Pay Administration)
(Jt. Ex. 18)

Section 2. Pay for General Schedule Employees for Irregular or intermittent Duty Involving Physical Hardship or Hazard.

312. Definitions

a. Duty Involving Physical Hardship means a duty which may not in itself be hazardous but which causes extreme physical discomfort or distress and which is not adequately alleviated by protective or mechanical devices.

Executive Order 12196 - Occupational Safety and Health Program for Federal Employees.
(Jt. Ex. 19)

1.2 Heads of Agencies.

1-201: The head of each agency shall. . . furnish to employees places and conditions that are free from recognized hazards that are causing or are likely to cause death or serious physical harm. . .

(e) Assure prompt abatement of unsafe or unhealthy working conditions. Whenever an Agency cannot promptly abate such conditions, it shall develop an abatement plan setting forth a timetable for abatement. . .

FACTS

By agreement of the parties, five grievances were consolidated for hearing by the arbitrator[1]. All of the grievances arose in the Tower and TRACON facility at Detroit-Metro Airport, and all concern the discovery of mold contamination within the facility and the Agency's efforts to abate the contamination.

Grievance No. GL-05-072 (Jt. Ex. 2) was filed by the Union on behalf of all bargaining unit members on December 20, 2004. It asserts that between September 28, 2004 and December 11, 2004 "black mold"[2] was found on the 4th and 9th floors of the facility, that the mold infestation "may have caused a 'sick building syndrome,'" and that the Agency has not made "every

[1]The hearing was conducted over a period of two days. In addition, the arbitrator has received approximately 4000 pages of exhibits and 500 pages of transcript. The parties stipulated to the admissibility of both the Union's exhibits and the Agency's exhibits, with the further agreement that either party could rely upon those exhibits without providing foundational testimony. Thus, a substantial portion of the evidence relied upon by the parties in their briefs was not the subject of testimony at the arbitration hearing.

[2]The specific molds involved are acremonium, penicillium, stachybotrys and ulocladium. Stachybotrys is considered a "toxic" or "black" mold.

reasonable effort to provide and maintain safe and healthful working conditions" in the facility. The grievance asks that the Agency "comply immediately" with all relevant laws, rules regulations and orders concerning mold in government facilities, that it restore 120 hours of sick leave to all bargaining unit members at the facility and reimburse employees for medical expenses incurred in connection with the mold problem. The Agency's response dated January 7, 2005 indicates that necessary remediation efforts have been made. Therefore, the grievance is denied. (Jt. Ex. 3)

Grievance No. GL-05-118(Jt. Ex. 4)was filed on February 9, 2005. It sets forth a detailed history of events beginning with the discovery of mold in the facility on September 28, 2004, including an incident on January 22, 2005. On that date, a contractor hired by the Agency was performing abatement work in the elevator shaft of the facility, using a chemical which caused employees to suffer a variety of symptoms and resulted in the evacuation of the facility. The grievance requests that three Agency employees be removed "from their current positions and banish them from any decisions or work that involves the safety of any Federal Building or personnel." It also requests continuous testing and monitoring of air quality within the facility, sealing of contaminated areas and abatement of any molds that are discovered. The Agency's response dated February 24, 2005, agrees

to the Union's demands that air quality be monitored and that monthly inspections be conducted, but it denies the grievance in all other respects.

Grievance No. GL-05-119 was also filed on February 9, 2005 (Jt. Ex. 6). It seeks the same relief as requested in the previous two grievances. Additionally, it requests that all members of the bargaining unit receive hazardous duty pay for their hours of work from September 28, 2004 until the mold is abated. That grievance was denied on February 24, 2005. (Jt. Ex. 7).

Grievance No. GL-05-943 (Jt. Ex. 9) was filed on June 14, 2005. It asserts that the Agency's efforts to remediate the mold problem in May, 2005 was negligently and inadequately performed. It requests that the Agency take 13 remedial actions, including cleaning the Union offices, and performing the work described in the other grievances that had been filed as of June, 2005.

Grievance No. GL-05-986 (Jt. Ex. 12) was filed on July 11, 2005. It outlines the discussions held between the Agency and the Union since September, 2004. It asserts that the mold problem has not been abated, and requests 18 remedial measures, including the removal of a fourth Agency employee from the remediation project, the sealing and cleansing of affected areas and the placement of air scrubbers in the facility. It also requests that the Agency remove and bar various Agency personnel "from any decisions or work that involves the safety of any Federal

Building," that it reimburse employees for medical expenses, provide free medical checkups and care to all employees for a period of five years, restore to the bargaining unit all sick leave taken since September, 2004, and pay them hazardous duty pay retroactively to September, 2004. The grievance was denied on July 27, 2005. (Jt. Ex. 13).

All of the grievances were appealed to the Third Step grievance process and were denied at that stage. Thereafter, the Union invoked arbitration. (Jt. Ex. 8,10,11,14, 15, 16).

The air traffic control facility is an eleven story building. The top floor, or "cab" is a glass enclosed structure from which air traffic controllers monitor and control the movement of aircraft into and out of the airport and while they are on the ground. The TRACON is a radar room located on a lower floor of the building from which controllers monitor and control aircraft outside the range of the cab radar. The rest of the building consists of offices, equipment rooms, training rooms, break rooms, storage rooms and an office set aside for the Union to conduct its business. All floors are served by elevators which run through an elevator shaft in the center core of the building. The shaft is a metal framed structure. Its interior and exterior walls are covered with gypsum board or "sheet rock". The interior lining of the elevator shaft is fire retardant sheet rock. The parties agree that gypsum board is generally considered to be a porous material.

Chronology of Events

The dispute giving rise to these grievances has its origin in a routine safety inspection conducted by the Agency and representatives of the Union on September 28, 2004. On that date, Musa Abuzir, the primary inspector reported that "during our annual OSH Inspection at Tower we found a SUSPECTED Black Mold at the Ninth Level, Room 928 on the Dry Wall." (Ag. Ex. 1) He reported that the room would be posted with a "Do Not Enter" sign pending further investigation. On the following day, Abuzir reported that suspected mold areas had been found in Room 927 and Room 428. He directed that the affected areas be posted, and he reported that samples had been taken by MoldQuest International, Inc., for further analysis. On October 13, 2004, Abuzir reported that the lab tests had confirmed the presence of various molds, including "black" mold spores. He recommended that "the Drywalls at both floors (Ninth and the Forth [sic] Levels be removed by a licensed Mold Abatement Contractor," and that access to those floors be restricted pending abatement of the mold[3].

The Agency retained MoldQuest International, to investigate the contamination and propose remedial actions. MoldQuest's report (Ag. Ex. 2), dated October 10, 2004 confirms the presence of "significant amplification of" various molds, including

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[3]The contaminated rooms were used as locked storage rooms. Neither had HVAC equipment or ductwork in it. (Ag. Ex. 6)

black mold in Room 928. It notes that exposure to black mold and its related toxins may result in "allergic reactions, toxic symptoms and/or infection in susceptible individuals."[4] The report concludes that the "affected wall materials were highly saturated for an extended period of time." Therefore, the report recommends that adjacent areas also be inspected for mold and water damage, and that all affected materials should be removed under "containment (negative air) conditions."

In response to the MoldQuest report, the Agency adopted a "Statement of Work" seeking bids for the mold remediation work. (Ag. Ex. 3) The bid solicitation called for the work to begin approximately December 10, 2004. It called for bidders to agree to remove all mold affected areas, including a double layer of gypsum board, as well as any insulation or other material contaminated by mold spores. All work was to be performed in accordance with applicable rules and regulations and was to be overseen by Abuzir as the Agency's representative. Additionally, the solicitation called for all work to be supervised by an industrial hygienist certified by the American Board of Industrial Hygienists. Representatives of the Union were to be briefed by the contractor concerning the work to be performed, and all work was to be

[4]The main body of the report indicates that the toxic effects of molds may result from short term exposure to high levels of mold spores, or from long term exposure to low levels of the spores. It further indicates that in order for those effects to occur, the spores must be inhaled, ingested or subjected to physical contact by the affected individual.

performed under isolation procedures, including the use of air scrubbers, negative air pressure, HEPA filters and plastic sheeting. The bid was awarded to MIS Environmental Services, Inc. (Ag. Ex. 5).

MIS began performing its work on January 19, 2005. However in the course of removing contaminated drywall, it discovered additional contamination on the walls adjoining the elevator shaft (Ag. Ex. 6). During additional investigations on January 21, 2005, the Certified Industrial Hygienist discovered that the interior walls of the elevator shaft were contaminated. She recommended that the interior of the elevator shaft be washed down and treated with a biocide to kill the mold. Therefore the Agency hired Catastrophe Cleaning and Restoration Services ("Coach's") to decontaminate the elevator shaft (Ag. Ex. 9).

Coach's began its work at approximately 10:30 a.m. on January 22, 2005. According to the Agency's records (see, Ag. Ex. 6) Coach's presented the Agency with Material Data Safety Sheets (MSDS) for the chemical, MIRGO-SR, which it was using to decontaminate the shaft. The MIRGO-SR contained alcohol and glutaraldehyde, both of which were considered low risk chemicals by the Environmental Protection Agency. (Ag. Ex. 7) No Agency representative observed Coach's employees when they mixed the chemicals. The scrub down and spraying of elevator shaft walls was completed at approximately 12:50 p.m. on January 22, 2005.

At approximately 12:55, management received a call from the tower cab supervisor indicating that some of the employees in the cab were complaining about the smell of the decontamination chemicals and were feeling dizzy and light headed. The supervisor indicated that he had sent some employees home, but by 1:30 p.m. enough employees were complaining about the effects of the chemical[5] that the decision was made to close the tower and transfer its operations to the old tower located at the airport. The tower was evacuated within two hours. In the meantime, Coach's installed an air scrubber in the tower and requested that the Fire Department respond to the scene. The Fire Department personnel were unable to test for chemicals in the air, but found no evidence of carbon dioxide or explosive gasses. After additional air scrubbers were installed and the tower was allowed to be aired out, operations resumed in the tower at approximately 7:00 p.m. (Ag. Ex. 8) The Agency reported that eight employees had sought medical care as a result of their exposure to the biocide. (Ag. Ex. 12)

Safety Program Manager Charles Bragdon investigated the incident on January 24, 2005. He reported that according to the website for MIGRO-SR, there are two versions of the MSDS for the product. The most recent MSDS does not indicate that the product contains glutaraldehyde. However, Bragdon indicated, even if the

[5]Not all employees on duty were affected by the chemical emissions. In fact, the four individuals who were working with the chemicals did not use protective devices and did not experience any ill effects from the chemicals.

older MSDS is used. The concentrations of toxic chemicals in the MIGRO-SR are well below recognized safety standards for the chemicals. Bragdon notes that the "odor thresholds for both of these chemicals are much lower than the exposure limits. This means that just because you can smell them does not mean that there is a significant exposure." (Ag. Ex. 11

In a further effort to assure that the black mold had been removed from the tower, the Agency employed Tillotson Environmental Occupational Consulting (TEOC) to conduct further tests within the facility. TEOC examined the facility on January 22, 23 and 24, 2005. TEOC reported that in its examination of January 22, it found a low level of Basidiospores in the 4th floor equipment room, indicating that "contamination of surfaces apparently did not occur during the abatement and initial removal of the contaminated drywall was done correctly." (Ag. Ex. 20 However, some areas of contamination continued to exist. Therefore, TEOC recommended that a remediation specialist recommended by the Union's expert, Michael Pinto, be hired to complete the removal of drywall, drywall dust and molds.

TEOC's report on its January 24, 2005 inspection; found low levels of black mold contamination in three locations that had been isolated during the previous inspection. TEOC concluded that the contamination level "is not a problem with air quality", but it recommended continued use of air scrubbers with HEPA filters on the

fourth and ninth floors. TEOC recommended that in the long term, the Agency should "eliminate any leaks/moisture and perceived/known mold contamination." (Ag. Ex. 21)

TEOC performed its final monitoring on January 25, 2005. It issued a lengthy report (Ag. Ex. 22). With regard to the possible air contamination caused by Champ's use of MILGO-SR, TEOC concluded that the symptoms described by employees "did not correlate with the potential symptoms of overexposure to MILGO-SR biocide." TEOC further notes that the four individuals directly involved in applying the MILGO-SR did not suffer ill effects. Therefore, TEOC concludes, "The fragrance/lemon scent [in the MILGO-SR] may have caused a psychological/somatic effect in those personnel affected." Tape samples taken in 6 areas of the facility all resulted in no black mold being discovered, although other mold spores were found. Therefore, TEOC concluded that the MILGO-SR treatment had not caused illness among employees, and had been successful in removing black mold from the facility. TEOC recommended locating and repairing the source of water in the elevator shaft and elsewhere, and the removal of contaminated drywall on the fourth and ninth floors, as well as in the elevator shaft. It also recommended modification of the HVAC system to eliminate water condensation within the walls and elevator shaft.

At the same time TEOC was conducting its inspection, both OSHA and the Agency's Technical Operations unit were also conducting independent investigations. (See, Ag. Ex. 12) A sample of the MILGO-SR solution used for cleaning the elevator shaft was also submitted for chemical analysis to Chemir Analytical Services (Ag. Ex. 23) That analysis found small concentrations of isopropyl alcohol and no glutaraldehyde in the sample. (Ag. Ex. 24). The OSHA inspector concluded that although the Agency failed to provide proper training for the use of the MILGO-SR and did not adequately review the MSDS for the actual product used, the material that was used was less toxic than the product described on the MSDS that was provided by Coach's. Therefore, "it was highly unlikely that the employees could be over exposed" to the biocide. (Ag. Ex. 25).

By March 7, 2005, the Technical Operations staff developed a plan for decontaminating the facility. In a power point presentation (Ag. Ex. 28) presented at a meeting of Agency representatives on March 16, (Ag. Ex. 29 the Technical Operations staff proposed a two track plan for removing and preventing mold contamination. Noting that black mold had been discovered in unused storage areas on the 4th and 9th floors, and that various species of mold had been found in the elevator shaft, the Technical Operations staff proposed that the Agency engage in a process of identifying and correcting the source of moisture in the facility while continuing to abate the existing contamination. In the short

term, the staff proposed that efforts be made to identify and fix all leaks found in the building, that thermal barriers be placed in appropriate locations and that the unventilated areas of the building be provided with a method for moving air, such as fans and dehumidifiers. The staff indicated its belief that accumulations of water in the elevator shaft were being caused by condensation when warm moist air and colder dry air mixed in the elevator shaft.[6] Thus, it proposed as a long term plan that a mechanical engineer be retained to make recommendations for improving the HVAC system or for providing appropriate air movement to prevent condensation from occurring inside the elevator shaft. In order to remediate the existing contamination, the staff proposed continuous air monitoring and tape testing of the affected areas, removal of contaminated drywall and sealing of other drywall. It noted that the primary constraints preventing immediate achievement of the plan were budgetary, and the need to maintain operational priorities during the remediation process. (Ag. Ex. 28, 29).

Having approved Technical Operations' remediation plan, Agency representatives met frequently throughout March and April, 2005 to implement the plan, deal with unanticipated problems and

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[6]The process by which the condensation occurs, the staff speculated is that the elevator shaft is vented at the top and bottom. During the summer months, the movement of the elevator cab in the shaft acts as a piston, drawing warm, moist air into the shaft from outside, where it meets the dry air-conditioned air in the shaft. The process is reversed in the winter, when cold, dry air is drawn into the shaft by the movement of the elevator cab and meets the heated moist air from inside the building. The elevator shaft has no active HVAC or air movement system. It relies solely upon the piston action of the elevator cab to draw air into and push air out of the shaft.

monitor the progress of the plan. Teleconference meetings were held On March 17, March 18, March 23, March 24, March 28, March 30, April 4, April 5, April 6, April 8, April 11, April 14, April 19, April 27, and April 28, 2005 (Ag. Ex. 31, 34, 36, 39, 41, 45-47, 50, 51, 53-58) Work on the project was projected to begin approximately May 16, 2005, after the Agency had solicited and obtained sufficient proposals from contractors seeking to perform the work.

During the course of the discussions, the Agency received reports from two Certified Industrial Hygienists (Ag. Ex. 32, 37) confirming that low levels of mold were found in air samples and tape tests of the facility. At approximately the same time, OSHA issued a "Notice of Unsafe or Unhealthful Working Conditions (Ag. Ex. 43) informing the Agency that it had violated OSHA regulations by failing to have correct MSDS sheets for the MILGO-SR used in the January abatement process and that it had failed to provide adequate training to the employees who used that chemical. The notice did not indicate that the presence of mold in the facility created an unsafe or unhealthful working condition.

By April 19, 2005, the Agency had completed its specifications for the short term abatement and remediation project. (Ag. Ex. 71) Its representatives met with representatives of the Union on May 2, 2005. (Ag. Ex. 57) The remediation project was described at some length and the participants at the meeting

were provided with a written risk assessment for each aspect of the project. Participants were informed that appropriate isolation procedures, including enclosing the work areas in plastic, using air scrubbers and requiring that all workers wear protective clothing would be required. The contract for MIS Environmental to perform the remediation work was issued on May 13, 2005. (Ag. Ex. 61) Additionally, the Agency contracted for an independent Certified Industrial Hygienist to supervise the work. (Ag. Ex. 60)

Between May 16 and May 25, 2005, Technical Operations performed the short term mitigation project. (Ag. Ex. 62, 63, 65, 66) The work was performed under the supervision of a Certified Industrial Hygienist and, according to the progress reports, was performed in accordance with the specifications of the plan approved by management and Technical Operations. The progress reports indicate that appropriate methods were employed to minimize infiltration of mold into uncontaminated areas, and that all personnel used protective clothing. (See, e.g. Ag. Ex. 62, 65) Contaminated drywall and insulation were removed from the third, fourth and ninth floors and air samples were taken for analysis. No black mold was found in the samples drawn from the third and fourth floors, but the black mold was found in the samples from the ninth floor. (Ag. Ex. 67) Other molds found in the building were in similar concentrations to the outside air. Therefore, the Agency directed that the ninth floor be recleaned. (Ag. Ex. 67)

On May 23, May 25 and May 26, 2005, additional air samples were taken on the ninth floor, in the elevator shaft and in the Cab. (Ag. Ex. 68, 69, 70) The results of the air sampling were reported to the Agency by Safe Technology, Inc. On June 13. Safe Technology concluded that "on the days of testing, the average indoor total count was about 24 times lower than the average outdoor total count." (Ag. Ex. 73; see, also, Ag. Ex. 77)

In preparation for the remediation and prevention plan, the Agency retained Jacobs Engineering to conduct an evaluation of the moisture problems experienced in the facility. Jacobs' report (Ag. Ex. 78) notes that evidence of mold contamination and water staining was found in the elevator shaft. Jacobs recommended that the interior walls of the elevator shaft be washed with a bleach solution in order to remove all existing mold. It further recommended that the Agency conduct regular, periodic inspections throughout the building to determine if mold growth was returning.

In order to reduce moisture buildup, Jacobs recommends, the HVAC system should be revised, the exterior walls and foundation should be water sealed, and a new cooling coil should be installed in the outside air intake. Jacobs estimates the cost of the entire project will be approximately $490,000 (Ag. Ex. 78). The Jacobs report and its recommendations were approved by the Mold Remediation Project Team on September 12, 2005. (Ag. Ex. 79)

Monthly inspections of the facility began in October 2005. During the November 12, 2005, inspection, a water leak was discovered and possible mold growth was identified. (See, Ag. Ex. 80-83). The water leak was fixed and all cleanup activities were conducted on November 12 and 13. On December 12, the Agency adopted a work plan to remove the contamination on the third floor. (Ag. Ex. 84) The contract to remove the contamination was granted to MIS on January 6, 2006. (Ag. Ex. 87) That contract was completed on January 26, 2006. (Ag. Ex. 88)

Throughout the period from October, 2005 through June, 2006, the Agency conducted visual inspections of the facility. A Union representative was present during each of those inspections. (Ag. Ex. 80, 82, 86, 89, 91, 92, 94, 97) Additionally, at the request of the Agency, the Federal Occupational Health ("FOH") component of the U.S. Public Health Service conducted an examination of the facility on February 1, 2006 and the Office of the Inspector General of the U.S. Department of Transportation visited the facility on February 13-16, 2006. (Ag. Ex. 96, 98) A private entity, DMJMH+N was hired by the Agency to conduct a review of the building exterior "envelope" and HVAC system on February 27-28, 2006 (AG. Ex. 93) and OSHA inspected the facility on March 21, 2006. (Ag. Ex. 75)

DMJMH+N presented its findings in a report issued on April 24, 2006 (Ag. Ex. 93) The report concludes that there are numerous locations on the exterior of the building which may allow water to leak into the building, both at its foundation level and at higher levels. The exterior walls on the first nine floors of the building were not insulated during the original construction of the building, thereby creating an enhanced potential for water leakage or condensation. The report recommends extensive efforts to seal and waterproof the exterior walls and footings of the building. It further recommends that insulation be installed on all exterior walls on all floors and that some walls or doors be removed in order to facilitate air flow throughout the structure. Dehumidifiers and pumps to remove condensed water are suggested.

The FOH report was released on May 9, 2006. (Ag. Ex. 96) FOH concurred in many respects with DMJMH+N. Thus, FOH found that various locations on the exterior of the building needed sealing and waterproofing. After summarizing its testing technique, FOH found:

> "All of the measurements taken for F° [Temperature] RH [Relative Humidity] CO^2 and CO were all well within acceptable guidelines for Indoor Air Quality as established by the American Society of Heating, Refrigerating and Air-conditioning Engineers. . . Visual observations of the areas where past mold abatement had taken place along with review of the documents provided by FAA and interviews with facility staff found that all appropriate methods and measures were followed to ensure the health and safety of the federal employees in the facility. . . During the various abatement projects approximately 2' of water damaged and/or mold contaminated wallboard was removed above the floor decking.

> From our evaluation it was found that when new wallboard was installed in the abated areas, it was done so in a manner that has the wall board in direct contact with the floor decking. . . . This direct contact allows for a 'wicking' of moisture between the wallboard and the floor . . . Typical installation allows a ½" to 3/4" gap between the bottom of the wallboard and the floor. . . . All of the measurements taken indicated that the current moisture content/levels within the wallboard materials in the facility were well below alarm levels. . .
>
> The observation of the elevator shaft was conducted. . . . The shaft wall surface is covered with unpainted 'fire rated' gypsum wallboard. Located at the floor levels within the shaft are several areas of visible moisture staining and water trailing. . . . with visible signs of dried mold growth. . . . This dry or dormant visible fungal material within the shaft is what would be considered minimal in size in any one area. . . . However, there are no current signs of any ongoing water infiltration or leaking. . . . Moisture readings were conducted on numerous areas of the fire rated wallboard in the elevator shaft. Again these reading[s] indicated moisture levels well below the MoistureCheck alarm level. . . .indicating essentially dry wallboard. . . . It is the opinion of FOH that these areas of old mold growth are not currently viable or 'growing'. . .
>
> It is further concluded . . . that the remedial activities to abate the water damaged building material and fungal issues at the facility were conducted properly and within 'Best Practice' of the FAA and contract industrial hygiene professional[s] involved in these efforts. . . . It is the opinion of FOH that . . . industry standard guidelines were followed during all remediation activities. . . . In review of all data provided, these abatement activities were successful. . . . It is our opinion that . . . the airborne fungal concentrations inside the facility would be significantly less than those found outside the structure and that the biodiversity of the types of fungi present would be similar or consistent. . .
>
> In summary, the abatement activities conducted at this facility were performed properly and in a safe manner to ensure the health and safety of the federal employees."

On May 8, 2006, a day before the FOH report was received, the Agency finalized a contract with MIS to perform additional remediation work, including cleaning of drywall inside the elevator

shaft. That work was performed between May 17 and May 26. (Ag. Ex. 95). A Certified Industrial Hygienist observed the work as it progressed, and noted no violations of the protocols required under MIS's contract. (Ag. Ex. 109)[7]

OSHA submitted its report on its investigation of the facility on June 19, 2006. (Ag. Ex. 75) The report notes that no mold samples were taken because no visible mold contamination was discovered. It recommended, however, that the Agency eliminate all sources of water intrusion into the facility and that it make improvements in the HVAC system to avoid the possibility that water condensation would provide a source of moisture needed for mold growth.

Likewise, the report of the Office of the Inspector General of the Department of Transportation, issued on July 11, 2006 (Ag. Ex. 98) noted that mold contamination had been effectively eliminated, but that "until the moisture source has been controlled, mold will continue to be an ongoing problem." It noted that the Agency had developed a plan for sealing and caulking the exterior of the facility, replacement of damaged wallboard and improving the HVAC system to "manage humidity." "Completing those

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[7]Ag. Ex. 109 was not submitted to the arbitrator at the time of the arbitration hearing, but was submitted with an Agency motion to supplement the record after the conclusion of the hearing. The Union objected to the supplementation of the record. The arbitrator is allowing the record to be supplemented with the exhibit, as the exhibit merely clarifies the sequence of events, but does not include substantive information that might affect the outcome of the case.

projects,"the report noted "is essential to fully remediate mold at the Facility." Of the 146 employees in the facility, the report indicated, 6 had reported health problems which they attributed to mold contamination. The Department of Labor found that 3 of the 6 Workers Compensation claims had been allowed, one had been denied and two were still pending.

The Department of Health and Human Services, National Institute for Occupational Safety and Health (NIOSH) issued its report of its investigation of the facility on July 24, 2006 (Ag. Ex. 99) NIOSH conducted its investigation as a result of complaints it received from members of the bargaining unit in September and October, 2005. NIOSH reviewed information provided by the Union, as well as the information provided by the Agency and various outside contractors who had worked on the remediation project. The NIOSH report indicates:

> "When considered collectively, the various reports and documents provided to NIOSH describe a situation whereby leaks in the building envelope had allowed water to enter the ATCT, wick into drywall, and create a suitable substrate for mold growth. . . This situation has existed since sometime in 2004 (possibly earlier), and can be expected to continue or recur until all leaks have been repaired, HVAC deficiencies corrected, and all mold sources located and successfully remediated. Until this remediation takes place, the employees who experience upper airway symptoms when exposed to mold may continue to experience them.
>
> "Although surface sampling confirmed the presence of mold in certain interior locations. . . we did not find bioaerosol sampling results to be helpful in assessing the extent to which mold may have contributed to health problems among employees. I most cases, bioaerosol sampling is not useful as an environmental evaluation method, as few criteria are

available to assist in the interpretation of the data. Without exposure guidelines for mold in air, it is not possible to distinguish between 'safe' and 'unsafe' levels of exposure. . . and the mere presence of bioaerosols in samples does not prove a causal relationship with complaints. . . A more cost-effective approach is to visually locate bioaerosol sources (microbial contamination) and eliminate the sources following remediation guidelines developed by organizations such as the U.S. Environmental Protection Agency. . .

A review of the submitted symptoms profile [for employees] revealed that prior to January 22, 2005, some employees had low-level non-specific symptoms such as fatigue and headaches. On January 22, 2005, there was an outbreak of upper respiratory tract irritation symptoms. . . Since then there have been reports of current and ongoing symptoms that start a few hours into the work shift and diminish when away from work. Additionally, reports of new-onset asthma and Chlamydiae pneumoniae pneumonia were deemed related to employment in the ATCT. The NIOSH physician could not substantiate such diagnoses based on the medical records provided.

The Institute of Medicine. .. Has found that some upper respiratory tract symptoms such as those reported by FAA employees. . . are associated with damp indoor environments and the presence of mold or other agents in damp indoor environments. . .

The medical records provided to us did not substantiate the diagnosis of C. pneumoniae pneumonia among some FAA employees. . . . It should be noted that C. Pneumoniae is a bacterium, not a fungus (mold).

Regarding the other reported symptoms, the IOM concluded that the evidence of an association between damp indoor environments or exposure to moldy environments and [various symptoms] is either inadequate or insufficient. It should be noted that the absence of sufficient evidence of an association is not synonymous with lack of an association. . . Therefore, the conclusion that mold is not a threat to the health of ATCT employees, as stated in an FAA letter dated December 16, 2006, is not substantiated by scientific evidence. It is imperative to provide employees a work environment free from mold and environmental factors that cause mold growth."

Having received the various evaluations discussed above, the Agency adopted a "Risk Management Plan" dated July 26, 2006. (Ag. Ex. 100) The plan calls for the Agency to remove and replace all caulk and "backer rod" materials in the facility, repairing and washing the pre-cast concrete sections, priming and sealing the building, installing new roof membrane and taking other actions to clean and seal roofs and walkways. It also calls for sealing various vents and adding ventilation equipment to prevent the condensation of water in the elevator shaft. Throughout the project, the plan indicates, air quality is to be monitored and an alternate facility is to be used when noxious or toxic chemicals are being applied[8]. The caulking and sealing work was completed on approximately November 9, 2006 (Ag. Ex. 107). On February 13, 2007, the Agency Joint Acceptance Board recommended acceptance of the HVAC work, including the cleaning of all ducts in air handling units, the installation of heaters on levels 3 through 10 of the elevator shaft and removing and replacing two other air handling units. (Ag. Ex. 108).

Evidence submitted by the Union does not contradict the chronological sequence of events detailed in the Agency's exhibits. However, the Union has submitted a substantial amount of evidence which, it claims, establishes the Agency's failure to employ all

[8]Presumably, the Agency will maintain air traffic control operations by using the old tower at the airport.

reasonable engineering and safety standards during the remediation process. In projects involving more than 100 square feet of mold contamination significant safety precautions are required. These include the use of warning signs, enclosing work areas in plastic barriers, using personal protective gear while working in contaminated areas and employing air scrubbers and negative pressure equipment to keep contaminants from migrating from contaminated areas to clean areas.

The Union's witnesses testified that none of the required safety precautions were used during the Agency's initial remediation project in 2005 and early 2006. Plastic sheeting was taped to the walls surrounding contaminated sites, but the sheeting fell down in various area and was not reaffixed to the walls. Employees of the abatement contractors failed to use personal safety equipment in the contaminated areas or failed to use that equipment properly. Various employees of the contractors were observed wearing protective coveralls, but not zipping them to neck level. Others failed to wear the cloth hoods attached to the coveralls, thereby allowing mold to adhere to their skin and hair.

Likewise, the Agency used a biocide without warning its employees of the noxious or toxic nature of that chemical. The Agency did nothing to ameliorate the effects of the chemical until employees had become physically ill. The chemical, itself, was not

as described on the MSDS, but contained benzene, a known toxic chemical. (Un. Ex. 23, 25)

The Union's experts, Wonder Makers[9], performed air quality tests during the early stages of the remediation process. It found that because the contractors were not employing proper safety techniques, they could have been spreading mold spores throughout the building, including areas that were not previously contaminated. (Un. Ex. 26). The Agency's decision to chemically treat, but not remove porous wallboard, likewise, increased the potential for additional contamination of the building. (Un. Ex. 50, 126, 142, 144, 167, 204) When the Union notified the Agency of deficiencies in safety procedures, and even offered to provide air scrubbers to the project, the Agency failed to respond to the Union's concerns and rejected its offer of air scrubbers. (Un. Ex. 50, 142, 165-67, 204, 394)

Likewise, the Agency has become increasingly less cooperative with the Union as remediation efforts have proceeded. The initial discovery of the mold problem was made by the safety committee which consisted of both Agency and Union representatives. Although that committee has continued to conduct inspections, the

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[9]Wonder Makers' representative, Dr. Michael Pinto, was the Union's primary witness at the arbitration hearing. Dr. Pinto received his PhD from Kennedy Western University, a "long distance university" which offers its courses by computer to remote locations. Pinto is the author of numerous books and articles on the causes, effects and remediation of mold contamination in buildings. He has also lectured at numerous courses and seminars, has served as a consultant to the Agency and other organizations with respect to mold contamination issues and has overseen a number of remediation projects. The Union's critique of the Agency's remediation efforts is based largely upon Pinto's testimony.

Agency has ceased allowing Wonder Makers to participate in planning or decision-making. It has allowed Wonder Makers to participate in inspections, but it has not allowed anyone representing the Union to take photographs or conduct air sampling tests in the facility. Wonder Makers' recommendations to remove the interior wall board lining of the elevator shaft have been disregarded, even though such measures have been successful in removing mold contamination in other similar facilities and are recommended in various texts and guides concerning mold remediation. (See, Un. Ex. 11-16) Wonder Makers' recommendations that air scrubbers and negative pressure techniques have also been disregarded.

Having reviewed the Agency's reports, some photographs and the statements of witnesses, Pinto has concluded that the Agency's efforts to eliminate the mold have been poorly conducted. He believes that because the Agency has failed to remove contaminated wallboard from the elevator shaft and has failed to identify the source of the moisture that is fostering mold growth, the Agency's efforts to date have been less than fully effective. Five or six employees have continued to report mold related illnesses, such as asthma and allergies[10]. Therefore, Pinto testified, he believes the building is still contaminated.

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[10]Pinto acknowledged that there is no existing medical evidence that allergies and asthma are caused by mold, even the so-called black or toxic mold species.

Controller Louis M. Bird testified that since January, 2005, he has noticed that he and a number of other controllers in the cab suffer from coughing, sneezing and itching while they are at work. The symptoms decline after the controllers leave the cab and return to their homes. Likewise, controller Robert Haefner testified that until September, 2004, he was in "excellent" health. Since that time, he has suffered headaches, sinus congestion, rashes, pharyngitis and a collapsed lung. He has been diagnosed as having chronic inflammatory illness due to exposure to black mold. Kim Eberhart testified that he is medically unable to work due to allergies, asthma and reactive air way disease brought on by the mold contamination. He is currently on leave and receiving Workers' Compensation benefits. Various other employees also testified that since January, 2005, they have suffered a wide range of symptoms, including allergic reactions, asthma and reactive airway disease, all of which they attribute to the mold contamination in the facility.

Tim Herrin, a certified industrial hygienist for Gandolph Associates, testified on behalf of the Agency. He testified that there is no single standard of care for mold remediation, but that the standard varies from situation to situation. He believes the Agency has taken all reasonable precautions to assure that the facility is not contaminated.

POSITIONS OF THE PARTIES

Union Position

Article 53 of the Collective Bargaining Agreement, coupled with the provisions of FAA Agency Order 3900.19B impose special obligations upon the Agency to take all reasonable actions to assure the health and safety of employees at the Detroit Tower and TRACON facility. The Agency has failed to comply with those obligations and it should be "made to correct the problem in a proper manner."

Under the contract and applicable statutes, rules and orders, the Agency is required to furnish to employees places and conditions of employment that are free from recognized hazards that may cause death or serious physical harm. It is required under the contract to make "every reasonable effort" to provide a safe and healthful working environment. Mold is a recognizable hazard which the Agency is required to remediate or abate. See, AFGE and DHHS, SSA, 89 FLRR 2-1428 (1989); Dept. Of the Treasury, IRS, Philadelphia Service Center and NTEU, Chapter 71, 41 FLRA 710 (1991); AFGE Local 1164 and SSA Region 1, 101 FLRR 2-1122 (1999).

In determining whether the Agency has complied with its obligations, the focus of attention should be on the nature and extent of the hazard and of the safety precautions taken by the Agency, rather than upon the number of employees who may have been affected by an unsafe or unhealthy condition. The Agency is required to assure that proper safeguards are in place during

construction, abatement or remediation procedures. Those safeguards include notifying the Union or the employees when chemicals are being used, accommodating employees whose health may be affected by the chemicals and using the chemicals in accordance with manufacturers' guidelines. In determining how to assure employee health, the Agency must not only apply its own Orders and procedures, but it must also apply the standards adopted by OSHA and the "consensus standards" or "industry standards" applicable to the hazard involved.

It is generally accepted that molds can create dangerous or unhealthy conditions in a work environment. The so-called black molds, or toxic molds pose the greatest threat to workers. However, other types of molds may incite allergic reactions or may indicate the existence of moisture problems which, if not solved, will lead to more serious mold infestations. Many organizations, including OSHA, EPA, the New York Dept. Of Health and the Centers for Disease Control and Prevention all warn of the need to prevent mold exposure and workplace contamination.

The Union acknowledges that there are no federal regulations governing the mold remediation industry. However, the absence of regulations does not indicate that there are no standards applicable to the industry. The Agency has agreed to follow EPA, OSHA and industry standards in removing mold contamination. All standards agree that mold cannot be effectively

abated unless the source of moisture in which molds breed is identified and eliminated. Safeguards must be in place during remediation to prevent the spread of mold contamination and to protect workers in contaminated buildings. Dr. Pinto testified, without contradiction, that employee safety is the primary objective of mold remediation and that the goal of all remediation efforts is to enable employees to work in the facility "without the continuation of symptoms" of mold exposure.

The authorities generally agree that when remediation is completed, there should be no visible signs of mold growth within the facility. Remediation is not considered effective unless the mold levels within the facility are equal to or less than those found in the ambient outside atmosphere. OSHA advocates the removal of porous materials that are contaminated, rather than the chemical treatment and cleaning of those materials. Thus, wallboard that has been contaminated should be removed and replaced with uncontaminated materials. The EPA recommends that containment procedures be utilized to prevent the spread of mold spores and dust from contaminated areas to uncontaminated areas within a facility. Those procedures include the use of impermeable barriers, HEPA air filtration systems and negative air pressure systems during remediation. All potentially affected areas should be continuously monitored and visually inspected to determine the

presence of mold contamination and to assure that all contaminated areas are decontaminated.

The Agency has failed to comply with the generally accepted and reasonable standards for mold remediation. In particular, the Union asserts, the Agency has failed to locate the source of the water infiltration in the facility that has led to the growth of mold colonies. The pattern of water stains within the facility indicate that water has infiltrated the building over an extended period of time and continued to occur even after remediation efforts were commenced. There is no evidence in the record that the Agency has resolved the problems of water infiltration, and, in fact, there is evidence that infiltration continued as late as May, 2007 (See, Un. Ex. 110 and 116)

Additionally, the evidence establishes that on numerous occasions, contractors and Agency representatives failed to comply with basic containment procedures. During the initial remediation efforts in early 2005, the contractor failed to place containment barriers around areas that were being treated for mold contamination. Warning signs were not placed in or around the work areas and even when barriers were placed in work areas, the barriers were allowed to fall out of place and were not put back in place. Contaminated wallboard was not removed and replaced until May, 2005 (Un. Ex. 29) and the wallboard was never replaced in the

elevator shaft. Instead, the Agency elected to spray a chemical in the elevator shaft without warning employees of the potential hazard created by the chemicals and without taking any precautions to assure that chemical fumes would not affect employee health. It was only after employees fell ill that the Agency decided to evacuate the facility and use air scrubbers to remove the noxious chemicals from the building.

The end result of the Agency's remediation efforts in early 2005, the Union contends, was an exacerbation of the situation. According to Pinto, mold spores were found in air samples taken on the 10th floor after the chemical treatment, whereas there had been no infiltration onto that floor prior to the chemical spraying of the elevator shaft. During the process of spraying the elevator shaft, the Agency actually spread mold spores to areas not previously contaminated, thereby placing employees in greater jeopardy than had previously existed.

As the remediation projects continued, the Union argues, the Agency demonstrated its "lack of respect for the employees' health and safety." On various occasions, the Union asked the Agency to adopt more stringent containment and safety standards, and it even offered to pay for air scrubbers to be placed in the facility. The Agency did not respond to the Union's requests and it, in fact, declined the Union's offer to provide air scrubbers. Over time, the Agency became less cooperative with the Union, so

that it ultimately refused to allow Pinto to observe or participate in the remediation projects and it failed to keep the Union informed of the progress being made in eliminating mold contamination. The Agency's disregard for employee health and safety continued even after employees complained of the ill effects they were suffering.

Under the Collective Bargaining Agreement, the Union argues, the Agency has a duty not only to eliminate existing mold colonies, but also to assure that the facility is safe and healthful on an ongoing basis. The Agency has failed to assure either that the existing mold has been removed or that the facility is safe and healthful. In particular, the Agency has refused to remove the inner lining of the elevator shaft, despite the continuing presence of mold in the shaft. All of the relevant authorities recommend that contaminated porous materials, such as gypsum board be removed and not merely washed or sanitized. The Agency refuses to remove wallboard in the elevator shaft despite the previous contamination of that wallboard and the undisputed evidence that the wallboard has been saturated with water. Even if there are no visible signs of mold on the exterior side of the wallboard, it is highly likely that mold is growing between the layers of wallboard in the elevator shaft. No effort has been made to remove the saturated wallboard.

Likewise, the Agency has failed to identify and eliminate the sources of moisture in the facility, particularly in the elevator shaft. All of the experts agree that remediation cannot be effective unless the source of moisture is eliminated.

Reviews of the remediation projects by OSHA, NIOSH and the Assistant Inspector General do not support the Agency's claim that it has made every reasonable effort to abate the mold problem. Those reports confirm that the source of water intrusion has not been identified. At least one of the reports was prepared without input from employees who are suffering from mold exposure, and none of the reports addressed Wonder Makers reports that containment practices were deficient during remediation. Likewise, none of the reports considers the obligations of the Agency under the Collective Bargaining Agreement to utilize "consensus standards" in evaluating the progress of the remediation projects.

In sum, the Union argues, the Agency has failed to employ the applicable standards in planning and executing its remediation project. It has failed to remove contaminated porous materials, to eliminate moisture intrusion into the building or to continuously monitor the building to determine if mold contamination remains. It should be ordered to take all steps reasonably necessary to assure that the building is free of mold contamination and will not become contaminated in the future.

Because the facility has been continuously contaminated by black or toxic molds and because the Agency employed improper procedures in attempting to chemically eliminate the mold contamination, the Union argues, all members of the bargaining unit are entitled to hazardous duty pay. Hazardous duty is defined in 5 CFR 550.902 as duty "involving. . . exposure to fumes, dust or noise that causes nausea, skin, eye, ear or nose irritation." Hazardous duty pay is owed if the employee subjected to such exposure is required as a part of his job duties to work in an environment that involves such exposure, unless exposure to fumes or chemicals is taken into account as part of the process of classifying the employees' jobs. The job description for Air Traffic Controllers does not include any duties or responsibilities involving the use of noxious or harmful chemicals or mold, but they have been required to accept exposure to molds and chemicals in order to perform their normal duties. Under such circumstances, the arbitrator possesses the authority to order the Agency to petition OPM to allow it to pay hazardous duty pay because employees have suffered actual exposure to hazardous or noxious fumes. In particular, those employees who were working in the cab or TRACON on January 22, 2005, when chemical fumes forced the evacuation of the facility should receive hazardous duty pay for the time they were exposed to the chemical vapors.

The Agency's witnesses testified that members of the bargaining unit could not have fallen ill due to exposure to toxic chemicals. Those witnesses testified that the MSDS for the chemical involved does not list any harmful chemical as a constituent of the MILGO-SR that was purportedly sprayed in the elevator shaft. That contention is belied by the fact that members of the bargaining unit actually became ill when the chemicals were sprayed, the MSDS upon which the Agency relies is not the appropriate MSDS, and no one from the Agency actually observed whether the contractor was using MILGO-SR or some other substance. The substance that was purportedly used included benzene, a chemical which appeared on neither of the MSDS documents presented at the hearing of this matter.

The Union also seeks relief for the Agency's failure to assure that the Union office on the tenth floor of the facility was safe and healthful. It asserts that there is no dispute that the office was contaminated by mold, including black or toxic mold. Although the Agency initially offered to relocate the office, it reneged when the Union raised questions concerning the safety of moving contaminated materials and requested the Agency to test the contents of the office for contamination and abate any mold contamination that was found. Ultimately, the Union was forced to obtain and pay for tests and abatement efforts for all of the contents of its office.

Having proven that the Agency has not only failed to comply with its own policies and procedures for mold abatement, but also has failed to comply with Article 53 of the Collective Bargaining Agreement, the Union seeks extensive remedies. Specifically, it asks the arbitrator to order the Agency "to comply with Article 53 and FAA Order 3900.19B. The Agency should be ordered to "promptly develop and implement a remediation plan consistent with the consensus standards of the industry. The plan should include at least the following:

> "1. Identification (if not done) and correction of the water intrusion in the elevator shaft and anywhere else in the . . . facilities;
> 2. The removal of all porous materials including gypsum board, wallboard and elevator shaft liner that was and is infected with mold contamination;
> 3. a reengineering strategy for the abatement plan to adjust for hidden mold if it is found. . .
> 4. Enactment of safety measures in compliance with the size of the project. . .
> 5. post-remediation air testing to make sure that overall mold count has gone down as compared to outdoor species and that the rank order of the mold is the same.
> 6. A mechanism to re-examine the project if employees remain symptomatic after the remediation is allegedly completed;
> 7. NATCA be provided copies of the remediation plan before implementation, allowed to observe the remediation process and take pictures during the process as well as be provided copies of test results and report."

Additionally, the Union requests that the Agency be ordered to continuously monitor for potential mold and water intrusions in the facility and conduct periodic air tests of the facility. Employees who inform the Agency that they are predisposed to mold related

illnesses should be accommodated by being assigned work in areas that are not exposed to mold contamination. The agency should be required to use air scrubbers and other safety equipment. The Union should also be reimbursed for the expenses it incurred in locating and removing all mold contamination in its office and its property located in the office.

With regard to payments to employees, the Union requests that all employees who worked in the facility on January 22, 2005, be paid hazardous duty pay for all time spent in the tower and TRACON facilities. Employees who took sick or annual leave due to the chemical exposure should have that sick leave restored to them. If necessary, the arbitrator should order the Agency to petition OPM to allow hazardous duty pay for January 22, 2005.

Agency Position

The overriding issue in this case is whether the Agency "failed to make every reasonable effort to provide and maintain safe and healthful working conditions from September 2004 to present as it relates to the discovery, pre-abatement and abatement of mold in the Detroit Tower and TRACON facilities under the terms of the parties' Collective Bargaining Agreement." The Union's case "is flawed in three fundamental respects." First, the Agency argues, "the Union['s statement of the issues presented improperly seeks to impose contractual obligations on the Agency that simply do not exist." Secondly, the Union has failed to meet its burden

of proving that a contract violation occurred. Finally, even if it is assumed that the Union has established a contract violation, "almost all of the remedies that the Union demanded. . . are either unavailable through Arbitration or the Union failed to present evidence to prove an entitlement to them."

The Agency acknowledges (Ag. Br. p. 19) that it has an obligation under law to comply with the various Agency orders, executive orders, and other regulations upon which the Union relies. However, it argues that obligation is not a contractual obligation enforceable through the grievance and arbitration process. Rather, "proposals that paraphrase or set forth the terms of a Government-wide regulation are distinguishable from proposals that merely require an agency to comply with existing Government-wide regulations." In the first instance, a contractual obligation is established. In the latter instance there is no contractual obligation but merely the obligation of all Agencies to abide by the law which controls them. AFGE Local 3509 and Social Security Administration, 46 FLRA 1590 (1993)

The issue presented in this case is an issue of contract interpretation. Therefore, the burden rests on the Union to establish by a preponderance of the evidence that the Agency has violated the contract. The Union has failed to meet its burden of proof.

The Union's principal witness at the hearing was Michael Pinto of Wonder Makers. The Union presented Pinto as an expert witness concerning mold remediation and abatement procedures. Pinto has no technical education except a PhD from a "long distance learning" institution. He is not a Certified Industrial Hygienist, a Registered Environmental Health Specialist, a Registered Sanitarian, a licensed engineer, or a Board Certified Environmental Engineer. He also has no formal medical training or training in microbiology or public health, and he is not a chemist. The laboratory at Wonder Makers is not an accredited environmental laboratory. In short, the Agency submits, Pinto lacks the credentials to establish expertise in any of the subjects about which he testified.

Pinto offered substantial criticism of the Agency's efforts to abate the mold in January 2005. At the time, the Agency agreed with most of Pinto's criticisms. Because it was concerned about the quality of the work being performed, it contracted with a Certified Industrial Hygienist to oversee the remediation work as it was being performed by the contractor, Coach's Catastrophe Cleaning & Restoration Services. Because the Agency found Coach's work to be unacceptable, it immediately hired another remediation company, which was recommended by Pinto, to correct Coach's work. Coach's failure to perform the remediation work properly was noted

by the Agency and was immediately remedied by the hiring of an Hygienist and a new contractor to abate the mold.

On January 22, 2005, the facility was evacuated because fumes from the chemical being used to abate mold in the elevator shaft was causing employees to become ill. Management acted reasonably in evacuating the tower, having first learned of the problem at approximately 12:55 p.m. and having issued the order to evacuate the facility at 1:40 p.m. Employees were not allowed back into the tower until the Fire Department had taken air samples and the Agency had placed an air scrubber in the Tower CAB. In light of the difficulty involved when an airport tower is closed and reopened a few hours later, the Agency's actions to prevent employees from being exposed to dangerous chemicals were reasonable.

The Agency asserts that Pinto's critique of the Agency's remediation efforts is not based upon personal knowledge of the situation. Much of Pinto's criticism was based upon photographs taken by others, as to which he had no information concerning the context of the photographs. He did not know what had occurred either before or after the photographs were taken. For example, Pinto was critical of the Agency's purported failure to maintain strict containment of the abatement areas. While there were breaches in the containment barriers, those breaches were repaired as soon as they were discovered. Pinto complained that the Agency

did not engage in monthly air sampling, but he failed to note that the Agency conducted repeated air samplings, including one sampling within a week after the 2005 remediation began. Air quality was tested in January, 2005, once in March, twice in May and once in June. Moreover, NIOSH has noted that air sampling is an ineffective means of determining the presence of mold contamination. There are no nationally recognized criteria for interpreting the data received as a result of air samples. At best, air samples may be used to compare one area of a facility with another, or with the outdoor air. According to NIOSH, the sample results have not been shown predictive of medical problems in individuals exposed to mold contamination.

Pinto testified that the Agency's efforts were deficient because the Agency failed to identify the source of moisture in the tower. In fact, the moisture abatement expert hired by the Agency issued his report in August, 2005, and made numerous recommendations for the prevention of moisture incursions into the building. All of the recommendations were adopted and followed by the Agency.

After the May, 2005, abatement process, Pinto had additional criticisms of the Agency's efforts to abate the mold. The record of monitoring and testing in 2005, reveals that as of May, mold spores could be found only in part of the 10th floor. All other mold had been removed or abated.

One of Pinto's major criticisms of the remediation efforts made after May, 2005, was that the Agency refused to remove and replace the inner lining of the elevator shaft, at least in those areas where mold was known to be present. The inspectors found in June, 2006, that no viable mold colonies continued to exist in the facility, and that the wallboard, itself was dry and uncontaminated by living spores. The EPA has also indicated that removing and replacing wallboard is one, but not the only, method of mold abatement. Sanitizing the affected areas is an acceptable alternative if the drywall has not been significantly damaged by water or mold.

The Union has also failed to support its claim that mold contamination at the facility has had adverse effects on employee health. Ten employees testified that their health has been affected by the mold contamination, but the Union presented medical evidence to that effect with respect to only one of those employees. In cases involving alleged exposure to toxins, the burden rests upon the proponent of the claim to establish that he was exposed to a toxin, that the toxin is capable of causing the particular illness of which the proponent complains, and that the proponent was exposed to sufficient levels of the toxin to have caused his illness. Parker v. Mobil Oil Corp., 837 N.E.2d 1114 (NY, 2006); Bpgmer v. Titleist Club, LLC., 2006 Ohio - 7003 (Oh. App., 2006); Gass v. Marriott Hotel Services, Inc., 2007 WL 1343675;

Kemmerer v. State Farm Insurance, 2004 WL 87017 (E.D. Pa. 2004; Allison v. fire ins. Exchange, 98 S.W. 3d 227 (Tex. App. 2002). At best, the Union has proven "general causation" through Pinto's testimony that "black mold" is capable of causing illness. The Union has not established that any of the employees were in contact with living mold spores or that the contact, if it occurred was sufficient to cause the ailments of the employees.

Moreover, the Union's medical evidence ignores the possibility that elements other than mold may have caused the ailments about which Plaintiff's witnesses testified. In order to prevail on its primary claim, the Union was charged with the burden of establishing a connection between mold in the facility and the employees' illnesses. Unless other hypotheses can be ruled out as possible explanations for the employees' symptoms, the Union will be unable to prove the causal nexus between the presence of mold and the illnesses suffered by the employees. See, Cavallo v. Star Enterprise, 892 F.Supp. 756 (E.D. Va. 1995). In light of the fact that only 16 employees of almost 200 were suffering mold-related symptoms, it is likely that causes other than mold in the workplace had affected the health of the employees.

Even if the Union had proven that the Agency violated the contract, the Agency asserts, none of the remedies requested by the union is proper. The Agency contends that the Union has made 55 requests for relief in the five grievances, including requests

duplicated in more than one grievance. The requested remedies may be divided into eight general categories.

The "principal remedy" sought by the Union is its request that the Agency grant substantial control over the mold abatement process to the Union. For example, in grievance GL-05-118 (Jt. Ex. 4) it demands that the Agency to immediately seal contaminated rooms and elevator shafts until the abatement process is completed. Other grievances request that the Agency be ordered to allow the Union and its designees to test, evaluate and inspect the facility (Jt. Ex. 9), to observe and/or participate in all evaluations and remediation work (Jt. Ex. 10) and install air scrubbers in various areas designated by the Union. (Jt. Ex. 12) Overall, the Union asks that the Agency be ordered to make the Union "an equal collaborator" in formulating and executing a mold remediation plan.

Under the law and the Collective Bargaining Agreement, the Agency contends, management of the Agency's facilities is vested solely in the Agency. The Agency's safety responsibilities are not a subject open for bargaining or negotiations. Therefore, an arbitrator may not properly order the Agency to collaborate with the Union concerning safety issues. See, NFFE Local 2052 and Bureau of Land Management, 30 FLRA 797 (1987); AFGE Local 1345 and Ft. Carson, 48 FLRA 168 (1993). The Union may not obtain through arbitration rights which it may not obtain through negotiation. Therefore, any request by the Union to become a participant in the

abatement process, or to dictate the manner or means by which that abatement is to be achieved cannot be awarded by the arbitrator.

The Union may ask OSHA to determine whether abatement is required, whether the Agency's remediation plan is adequate and whether the Agency's implementation of the plan is sufficient. It cannot usurp management's rights by seeking remedies through an arbitrator that it could not bargain for at the bargaining table.

The second category of relief requested by the Union pertains to the use of its experts and consultants. It asks that the arbitrator order the Agency to grant the Union's consultants access to the facility and to permit those consultants to engage in air quality and other testing within the facility. That same relief was the subject of an Unfair Labor Practice charge filed by the Union in April, 2006 and resolved by a settlement agreement (Ag. Ex. 105) in November, 2006. The Union's request, therefore is rendered moot by the settlement agreement.

The Union also requests that all employees be restored sick leave eligibility for the period during which the mold problem has remained unresolved[11]. However, the Union has failed to present evidence showing than any employees actually used sick leave as a

[11]In various grievances, the Union has phrased its request differently. Thus, in GL-05-072 (Jt. Ex. 2), it requested restoration of 120 hours of sick leave eligibility, while in GL-05-986, it requested restoration of sick leave used by bargaining unit members from January, 2001, until the remediation is completed.

result of an Agency action. Therefore, the Union is not entitled to the relief it requests.

Likewise, the Union's request that employees be reimbursed for medical expenses, including travel to doctors' offices, prescriptions and over the counter medications, should be denied. The Union has failed to present evidence substantiating that any employees incurred such expenses in connection with the mold contamination. Moreover, the FLRA has held that these types of damages are payable, if at all, through the workers' compensation system, and not through the grievance and arbitration process. Internal Revenue Service and NTEU Chapter 71, 41 FLRA 710 (1991); Internal Revenue Service and NTEU, 40 FLRA 633.

The Union has also requested that members of the bargaining unit be paid hazardous duty pay[12]. That remedy would be improper because members of the bargaining unit have not performed hazardous duty. The FLRA has held that hazardous duty pay is awarded under OPM regulations when employees are assigned to irregular or intermittent duties involving "working with or in close proximity to toxic chemical materials". In the present case, no employee was assigned duties which required her to work with or

[12]Once again, the Union's request appears in various forms. One grievance requests hazardous duty pay solely for time worked by members of the bargaining unit in the tower on January 22, 2005, when the infiltration of chemical fumes resulted in evacuation of the tower. Another seeks hazardous duty pay for the entire period the mold contamination has remained unabated.

in close proximity to toxic chemical materials. Moreover, there is no evidence that employees were exposed to toxic chemicals.

Because there is no evidence that any employee lost the opportunity to work premium pay hours as a result of the mold contamination, the Union's request for lost premium pay should be denied. Additionally, under the Agency's appropriations acts, employees may be paid premium pay only for hours actually worked, and any award of "lost" premium pay would be contrary to law. See, FAA and NATCA, 60 FLRA 20 (2004).

Finally, the Agency asserts, there is no basis for the Union's request to be reimbursed for the expenses it incurred in connection with cleaning its 10th floor office. The Collective Bargaining Agreement requires the Agency to make a work area available to the Union if space is available. It does not require that the Agency perform any other duties with respect to the space it provides. The arrangement is not a leasehold arrangement subject to the common law and statutory duties of landlords to tenants. It does not impose upon the Agency any obligation to maintain the Union's office. Therefore, the expenses incurred by the Union in connection with cleaning its office should be borne solely by the Union.

In sum, the Agency contends, it "understands that the Union, and its paid consultant, Mr. Pinto, would have preferred that it handle the mold issue at the Detroit facility differently."

However, the Agency did not bind itself to comply with the Union's preferences or Pinto's recommendations. Rather, the Collective Bargaining Agreement requires the Agency to "implement governmental health and safety standards," and not the subjective preferences of the Union or its experts. The arbitrator's role is to determine whether the Agency responded to the mold contamination problem in a reasonable way, not in a way which is preferred by the Union.

During the almost three years since the mold problem was first identified, four independent agencies have investigated the situation. None of them has found that the Agency was failing in its duty to provide a safe and healthful work environment to its employees. OSHA has issued no citations for improper handling of the mold problem. The Office of the Inspector General has approved of the Agency's remediation plan and has urged the Agency to continue implementing that plan. NIOSH has found no medical evidence supporting employees' claims that their health has been adversely affected by the mold. Finally Federal Occupational Health has found that the abatement activities conducted at the facility were properly and safely performed to ensure the health and safety of the employees. The grievances should be denied.

DISCUSSION

During a routine inspection of the Tower and TRACON facility at Detroit Metro Airport in September, 2004, the parties'

discovered that mold colonies had become established in storage rooms on two of the floors of the facility. That discovery has now led to five grievances, an unfair labor practice charge, three inspections by outside agencies, four abatement or remediation plans and the expenditure of tens, if not hundreds of thousands of dollars. The five grievances are presently before the arbitrator for determination.

Most of the facts concerning all five grievances are not in contention. There is no dispute that a mold infestation was discovered in September, 2004. Mold was found on the inner walls of two storage rooms and in the inner lining of the elevator shaft. Among the mold species found in the colonies were at least two species that are known as "black" or "toxic" molds, as well as other species which are common in the environment. It is generally accepted that the black mold species may cause illness in humans, particularly allergic reactions, asthma and respiratory problems. The scholarly works do not agree whether only the active or viable spores of the black molds may cause health problems, or whether the dead or inactive spores also may cause reactions in humans.

There is no dispute that before the mold contamination was discovered, none of the members of the bargaining unit complained of symptoms of mold reaction. Since the discovery of the contamination, 16 of the more than 140 employees in the facility have complained of symptoms which may be attributed to

exposure to black mold. One doctor, a specialist in mold borne disease, has stated his opinion that the members of the bargaining unit who have been examined by him were suffering from mold related illnesses. Other doctors who have examined members of the bargaining unit have been less definite in their opinions, but have offered the opinion that their patients' ailments might be attributable to airborne contaminants, such as black mold.

After the contamination was discovered, the Union consulted with its expert, Michael Pinto, of Wonder Makers. Pinto was permitted by the Agency to participate in inspections conducted in late 2004, and to offer suggestions and proposals for the remediation of the mold contamination. During subsequent inspections, Pinto was not allowed to observe and the Union was not allowed to take photographs. Three of the four remediation plans ultimately adopted by the Agency were created without Pinto's input and without his having observed the inspections. After an unfair labor practice charge was filed by the Union (Ag. Ex. 105), the parties entered into an agreement dated November 21, 2006, whereby the Agency agreed to allow Pinto to have access to the facility for purposes of conducting independent tests to determine whether the mold contamination had been abated and for the purpose of observing the tests performed by the Agency or its experts.

The first remediation plan was adopted in late 2004, and the work was performed in early 2005. By all accounts, the

remediation effort was unsuccessful and was poorly performed. The plan called for washing the contaminated areas and removing contaminated drywall from the storage rooms. The contractor was required to prevent further contamination of the facility by enclosing the work area in plastic and using other methods to prevent contaminants from entering into the rest of the building. On various occasions during the remediation, the contractors failed to employ proper containment techniques, allowing contaminated materials to be hauled out of the building on open wheel barrows, allowing the plastic sheeting to fall down and not be re-sealed, and allowing employees to enter and leave the containment field without using appropriate personal protective equipment.

On January 22, 2005, the contractor used a chemical wash to cleanse the interior wall of the elevator shaft. It is not clear whether the contractor used the proper chemical mix or made the mixture in proper proportions. Employees in the tower and TRACON were not informed that the chemical wash was being used, and they were not given any instructions to avoid contact with the chemical or its fumes. Ultimately, the fumes infiltrated the tower cab, causing a number of employees to feel ill. As employees began complaining, management decided to evacuate the building and move operations from it to the old tower facility elsewhere on the airport site. Some employees were sent home during their shift because they were feeling too ill to work. Others evacuated the

building and continued their shifts at the old tower. The tower was reoccupied later in the day, after the Fire Department had determined that none of the dangerous gasses it could test for were present in the tower[13], and after air scrubbers had been brought in to filter the air and force the noxious fumes out of the cab.

Over the following two years, the Agency, with the advice of the EPA, the Office of the Inspector General and other agencies, as well as outside contractors and Certified Industrial Hygienists, developed three additional remediation plans. Each plan involved increasingly extensive work both inside and outside the building. Contaminated areas were washed, damaged drywall was removed from the offices and storerooms, air filtration systems were temporarily installed in the building, and the air quality was monitored.

The contractors employed in those remediation efforts were required to use proper containment technology, including the sealing of infected areas, the use of personal protective equipment and the use of plastic containment materials. Although the appropriate procedures were generally followed, there were breaches in the procedures at various times. For example, some of the plastic sheeting became detached and was not immediately restored to its proper place. Some of the contractor's employees failed to wear the hoods that are attached to their personal protective

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[13]The Fire Department tests were able to determine whether carbon monoxide, natural gas and other chemical contaminants were present. The tests could not be used to detect the presence of the chemicals purportedly contained in the chemical wash.

equipment, thereby risking contamination of their hair with mold spores and then carrying those spores out into the building when leaving the containment area. Other Agency employees were allowed to enter the containment area without protective equipment, and not all contaminated areas were continuously marked with warning signs.

Early in the process, it was determined that moisture had been puddling at various locations in the elevator shaft. That moisture was deemed the source of the mold contamination in the elevator shaft. Other walls inside the building showed evidence of water infiltration at or near the areas where mold colonies had grown. There was general agreement among all entities involved that all efforts to remove the mold would be mere temporary solutions unless the infiltration of water and moisture into the building could be resolved. Nonetheless, the remediation efforts undertaken in mid and late 2005, continuing until May, 2006, did not include any plan to determine the source of or eliminate the infiltration of water.

The final remediation plan adopted in 2006 addressed the moisture problem. Management and its advisors surmised that moisture was infiltrating the building through cracks in the concrete foundation and walls of the building and through the seals between the windows, vents and other exterior outlets of the building and the walls and roofs to which they were attached. They

also concluded that moisture was collecting in the elevator shaft as a result of condensation caused when cold air and warmer air mixed in the elevator shaft as the elevator cab moved up and down in the shaft. Therefore, the 2006 remediation plan called for a visual inspection of the entire building to locate all cracks and unsealed seams. It called for the cracks to be sealed and for the seams between the concrete panels comprising the exterior walls of the building to be caulked and made water tight. Likewise window seals, vent seals and other joints were to be re-caulked and sealed. Finally, heaters were to be installed in the elevator shaft, so that condensation would be less likely to occur. That work was completed in February, 2007.

By the end of February, 2007, all visible mold colonies within the building had been removed. In some instances, the contamination was removed by washing the walls or infected areas. In other locations, contaminated drywall was removed and replaced with new drywall. All visible cracks in the concrete exterior of the building had been sealed and all joints in the exterior wall had been caulked or sealed. Finally, heaters had been installed to moderate the temperature variations within the elevator shaft, so that moisture would not condense and puddle in the elevator shaft. The Agency had agreed to periodic monitoring of the air quality within the building, as well as regular inspections of visible areas to detect any signs of mold contamination. Nonetheless, the

Union asserts that the Agency has failed to provide a safe and healthful work environment.

The largest area of dispute concerns the elevator shaft. When mold was first discovered in the elevator shaft, it had grown on the exposed wallboard facing the open area of the shaft. There were signs that the wallboard had been "wicking" water from puddles on the flooring and beams of the elevator shaft. Pinto advised the Union that water damage to the wallboard itself was likely, and that there may be mold growing inside the wall. The Union has consistently requested that the interior liner of the shaft be removed and replaced with non-porous materials or new fire rated drywall. The Agency has declined to remove and replace the liner because, it contends, the fire safety of the elevator shaft could be compromised, and the elevator would have to be closed and sealed for the time required to remove and replace the interior wallboard. It contends that any mold which was growing between the layers of the elevator shaft walls have been deprived of moisture and have died. The spores are sealed inside the wall and cannot cause harm.

The Union counters that the generally accepted remediation standards call for the removal and replacement of all contaminated or water-damaged porous materials. Therefore, the liner of the elevator shaft should be replaced. The parties' dispute concerning the lengths to which the Agency must go to remediate the mold is at the core of the present grievances.

The bulk of the Union's contractual claim rests on Article 53 of the Collective Bargaining Agreement. It provides:

ARTICLE 53
OCCUPATIONAL SAFETY AND HEALTH

> **Section 1.** The Agency shall abide by P.L. 91-596 and Executive Order 12196, concerning occupational safety and health, and regulations of the Assistant Secretary of Labor for Occupational Safety and Health and such other regulations as may be promulgated by appropriate authority.
>
> **Section 2.** The Agency shall make every reasonable effort to provide and maintain safe and healthful working conditions. Factors to be considered include, but are not limited to, proper heating, air conditioning, ventilation, air quality, lighting and water quality.
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> *****
> **Section 9.** In the event of construction or remodeling within a facility, the Agency shall insure that proper safeguards are maintained to prevent injury to bargaining unit employees.

In general terms, the grievances assert that the Agency violated Sections 2 and 9 by failing to make every reasonable effort to "provide and maintain safe and healthful working conditions" within the facility, and by failing to "insure that proper safeguards are maintained to prevent injury to bargaining unit employees."

Section 1 amplifies those requirements. It requires the Agency to abide by P.L. 91-596, which requires agencies to furnish "a place of employment which [is] free from recognized hazards," to comply with OSHA standards and with Executive Order 12196. EO 12196 requires agencies to "furnish to employees places and conditions that are free from recognized hazards," and to assure prompt "abatement of unsafe or unhealthy working conditions."

The Agency has not seriously disputed that the presence of black or toxic mold in workplace is a hazardous condition in that it may cause illness or injury to employees who are exposed to the mold spores[14]. It also has not disputed that it has a duty to adopt and execute an abatement plan to eliminate mold infestations when they are discovered. It also has not seriously disputed that its initial efforts to abate the mold were ineffective, but it contends that the building has been freed of harmful levels of toxic mold as a result of the four abatement plans that were executed between September, 2004 and February, 2007.

The Union disputes that contention. It asserts that the Agency has not complied with "consensus" standards for the abatement of mold in buildings inhabited by humans. It notes that during the abatement process, there were numerous violations of containment standards, that OSHA standards for the placement of warning signs, for sealing contaminated areas and for removing contaminated materials were not followed. Most significantly, it contends, the Agency has failed to comply with consensus standards by failing to determine the sources of moisture within the building and by failing to remove and replace the fire rated drywall product which lines the elevator shaft.

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[14]The Agency has asserted that there is some dispute within the scientific community concerning the effects of toxic molds on humans. However, it is clear that OSHA and NIOSH, both agencies of the Federal Government, recognize toxic mold as hazardous and as potentially having adverse health effects on humans who are exposed to it.

The arbitrator agrees with the Union that at the time the mold infestation was discovered, the Agency owed a duty to its employees in the bargaining unit to adopt and implement an abatement or remediation plan designed to eliminate the toxic mold species that had been discovered. Article 53 requires that the employer provide a safe and healthful work environment. When a hazardous condition is discovered, Article 53 requires that the condition be remedied. The Agency's own Occupational Health and Safety order, FAA Order 3900.19B, confirms that the Agency has taken it upon itself to remediate toxic conditions as promptly and effectively as is reasonable.

Had the Agency failed to adopt or implement an abatement plan after the mold infestation was discovered, the arbitrator would have little difficulty deciding the issue in this case. The Agency would have been ordered to create and implement such a plan. However, the Agency adopted an abatement plan and put it into effect by January, 2005, a little more than two months after the mold infestation was discovered. It continued to adopt, amend and implement remediation plans throughout 2005 and 2006, finally declaring the abatement complete in February 2007. In adopting new and more stringent abatement plans between January 2005 and February, 2007, the Agency acknowledged, and the arbitrator would find, that the Agency had a continuing duty to abate the hazardous mold condition until the condition ceased being a hazard.

The Union does not claim that the Agency failed to act promptly or diligently in adopting, revising and implementing at least four abatement plans. However, it claims that the plans were inadequate and incomplete, and that the implementation of the plans was deficient. The arbitrator agrees that various of the abatement plans were inadequate or incomplete, and that there were violations of generally accepted standards for the abatement of hazardous materials such as mold and asbestos. However, the arbitrator is also persuaded that mold abatement involves a substantial amount of "art" as well as science. It is apparent to the arbitrator that as an abatement project progresses, unanticipated problems arise and must be dealt with. There is no one proper way to abate mold, but, at most, there are some generally accepted standards of behavior among those who are "experts" in the field of mold abatement.

Over the course of the more than two years the Agency has been attempting to remediate the mold problem, it or its contractors breached some of the generally accepted standards. Contamination barriers were allowed to fall out of place and not be promptly replaced, potentially contaminated materials were exposed in uncontaminated areas of the building. Workers failed to properly utilize personal protective equipment. None of those breaches has been demonstrated to have caused any recognizable damage or injury to any employee or to the Union.

Therefore, even if there were breaches, and even if the proper forum to address those breaches is the grievance process[15] the Union has failed to establish that it is entitled to any remedy. Unlike OSHA and other regulatory agencies, the arbitrator lacks the authority to investigate or punish violations of agency regulations. OSHA, in particular, possesses authority to levy fines upon agencies which fail to comply with OSHA regulations. The arbitrator's authority is limited to the assessment of actual damages or losses caused by the Agency's failure to comply with the regulations. As there has been no evidence that the Union or the members of the bargaining unit suffered any actual loss or damage by virtue of the failure of contractors to use proper containment technology, the Union is not entitled to a remedy for those breaches of the abatement plans.

The Union asserts that members of the bargaining unit have suffered illness not only because various contractors failed to apply proper containment technology, but also because employees have been exposed to toxic mold throughout the two years since the first contamination was discovered. It requests that the arbitrator order the Agency to reimburse those employees for their medical expenses and restore their sick leave to them.

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[15]The Agency asserts that violations of procedures prescribed in the regulations of other Agencies are not enforceable through the grievance and arbitration process, but through enforcement proceedings commended within the agencies promulgating the rules and standards.

The testimony of the affected employees is persuasive anecdotal evidence that the employees have suffered ill effects from the mold contamination[16]. However, the grievance and arbitration process is the incorrect forum in which to address the issues of compensation for medical expenses and lost work time. Undoubtedly, if the various ailments are proven to be caused by mold contamination within the workplace, they are work-related illnesses or injuries. Requests for redress for work-related illnesses and injuries are appropriately addressed to the Department of Labor under the Federal Employees' Compensation Act, the federal Workers' Compensation program. See, Internal Revenue Service and NTEU Chapter 71, 41 FLRA 710 (1991).

The Union also complains that it and its experts have been excluded from participating in the development of remediation plans and that, in fact, the Agency has refused to accept voluntary offers of assistance from the Union in performing the abatement work. The Union notes that it offered to obtain and pay for air scrubbers to assist in assuring that contaminants would not enter the facility from areas under remediation, but the Agency declined that offer.

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[16]The Union presented no witnesses to scientifically or medically establish the connection between the employees' ailments and the mold contamination. However, one physician provided a written statement to that effect, and there is a substantial body of scientific literature reporting the connection between airborne mold and the various illnesses described by the employees.

Article 53 does not include any provision requiring the Agency to negotiate with the Union or otherwise permit the Union to participate in the formulation or implementation of abatement plans. Rather, it imposes upon the Agency the duty to use every reasonable means to assure employees a safe and healthful work environment. As a general matter, issues concerning facilities management and operation are solely within the purview of management under the management rights provision of the Collective Bargaining Agreement, as well as by statute. The FLRA has held that such matters are not a proper subject of collective bargaining. See, NFFE Local 2052 and Bureau of Land Management, 30 FLRA 797 (1987); AFGE Local 1345 and Ft. Carson, 48 FLRA 168 (1993). If the Agency has no duty to bargain its obligations to provide a safe work environment during contract negotiations, it has no duty to bargain with the Union concerning the manner in which it performs its obligations to provide a safe work environment. Therefore, the Agency's failure or refusal to permit the Union to participate in developing remediation plans is not a violation of the Collective Bargaining Agreement.

However, the Union filed an Unfair Labor Practice charge against the Agency (Ag. Ex. 105) asserting that the Agency's refusal to allow Wonder Makers to observe the February 2, 2006 inspection of the facility "puts the Union at a disadvantage" because it allows the Agency to "control what information is put

out about the seriousness of the [mold] condition. . . By not allowing the Union's experts present does not grant the Union the opportunity to properly collect data, evidence and information for the support of grievances, litigations and arbitrations."

The Unfair Labor Practice Charge was never adjudicated by the FLRA. Instead, the parties entered into a settlement agreement under which the Agency agreed to allow Wonder Makers "reasonable access" to the facility "for the purpose of conducting independent tests for mold and moisture at the facility and for the purpose of observing tests conducted by the Agency." The Agency agreed, in essence, that it would not impede the Union's ability to obtain a determination by its expert whether remediation efforts have been successful. That agreement remains in effect. The arbitrator concludes that it satisfies the Agency's obligation to address grievances concerning health conditions within the facility in good faith.

The Union cites two aspects of the remediation plans which, it contends, the Agency has failed to properly address under the existing regulations and "consensus" of scientific experts. It asserts that a proper remediation plan must include removal and replacement of all porous materials which may have been contaminated by mold or moisture. The wallboard lining the elevator shaft is considered a porous material, both by the relevant regulatory bodies and by the wallboard industry. The

Agency has not taken action to remove and replace the fire rated wallboard which lines the elevator shaft. Additionally, applicable standards require that the Agency identify the sources of moisture within the contaminated areas and take action to prevent infiltration of water into those areas.

The Agency responds that its contractual obligation is to provide its workers a safe and healthful work environment. The reference in the contract to specific orders and statutes does not carry with it the obligation, under the contract, to comply with any and all recommendations or regulations that may exist concerning mold remediation. In fact, it asserts, there is no consensus standard for mold remediation. To the extent that OSHA regulations are referenced in FAA Order 3900.19, Executive Order 12196 or P.L. 91-596, the FLRA has held that no contractual obligation pertains to those references. See, AFGE Local 3509 and Social Security Administration, 46 FLRA 1590 (1993). Rather, the agencies charged with enforcing those regulations possesses the authority to require the Agency to comply. In the present case, OSHA, NIOSH and the Office of the Inspector General have all approved the efforts made by the Agency to remediate the mold problem.

That OSHA, NIOSH and the Inspector General have approved the Agency's remediation plans does not fully resolve the question whether the Agency has employed "every reasonable effort" to

provide a safe and healthful working environment. Rather, the issue remains whether the Agency should have taken additional action to remediate the mold problem, even though its efforts satisfied the various regulators who have reviewed the remediation plans.

Under the contract, the Agency is not required to employ every "possible" means of assuring a safe and healthful work environment. It is required to employ every "reasonable" means. It asserts that it has complied with that requirement, while the Union, and its expert, Michael Pinto, assert that the Agency should have replaced all of the wallboard lining the elevator shaft and it should have identified every possible source of moisture within the structure and should have acted to make the building free of all sources of water infiltration.

The parties' use of the word "reasonable" recognizes that it is necessary to engage in a type of cost/benefit analysis in determining what measures should be taken to provide a safe and healthful work environment. The parties recognize that not every possible measure is desirable, but that the measures which should be taken are those which achieve the desired benefit at the least cost to the Agency, and ultimately to the public which relies on the Agency to assure a safe air transport system. It would be possible, for example, for the Agency to demolish the present tower and rebuild it in a different way to prevent mold infiltration.

However, there would be a substantial financial cost to such a remedy, and there would be substantial interference with the Agency's ability to accomplish its mission during the building process. On the other hand, the Agency attempted to wash the areas of visible mold contamination at a minimal cost and with little interference with the Agency's performance of its functions, but such a remedy has proven ineffective in removing the mold contamination.

The current abatement plan attempts to balance the costs of remediation against the benefits to be achieved. The Agency has adopted an approach which allows continued operation of the tower and TRACON facility with minimal interference with the operational needs of the facility, while assuring, in the opinion of the Agency's experts, that mold contamination will not affect the safety and health of employees.

The arbitrator concludes that at this point, the Agency has employed every reasonable means of abating the mold and preventing future problems. However, the arbitrator's conclusion must be tentative because sufficient information does not exist to make a final determination. As indicated by the chronological history of the remediation process, it is apparent that the remediation is a "work in progress." The Agency began its efforts by employing the least costly method it believed would solve the

mold problem. After commencing that effort, the Agency determined that its minimalist approach would not be sufficient, and it developed a more thorough approach. That process, likewise, proved insufficient and a more extensive remediation program was adopted. When that process still proved insufficient, the Agency developed its final remediation plan. The success of that plan is yet to be determined.

At present, all visible mold contamination has been removed. All porous material which is known to have been contaminated by mold has been replaced, and all potential sources of water infiltration have been sealed and made water tight. The Agency has installed ventilation and heating equipment in the elevator shaft in order to prevent the condensation of airborne moisture in the shaft. If those measures prove to have been successful, then it may be concluded that the Agency employed every "reasonable" effort to abate and prevent mold contamination. If mold contamination persists, then it may be concluded that other remediation processes are required.

Insufficient time has passed to allow the Agency, the Union or the arbitrator to determine whether the Agency's abatement

plan is successful. At this point, the facility has not been subjected to winter weather conditions, wide variations in temperatures inside and outside the facility and other climatic conditions which may demonstrate that water infiltration continues or has been prevented. Tests performed in the spring and early summer of 2007 indicate that the abatement process has been successful, but until the facility has been subjected to the entire range of conditions which it normally faces, those tests are inconclusive. Should moisture or mold infiltration recur, then it will be incumbent upon the Agency to make further efforts to remediate the problem, including, if necessary, the removal and replacement of the wallboard lining the elevator shaft and/or the redesigning of portions of the building to prevent water from infiltrating into areas where it is allowed to pool and form a breeding ground for mold.

If, after the facility has been exposed to the full range of conditions, mold and moisture infiltration do not recur, then it may be concluded that the Agency has employed every "reasonable" means of making the facility safe and healthful for its occupants. The settlement agreement concerning the Unfair Labor Practice charge is the most effective means by which the parties may ultimately determine whether further remediation is required. As Wonder Makers will be able to conduct its own tests and observe the tests conducted by the Agency, it will have access to sufficient

information to draw an informed conclusion whether the mold problem has or has not been solved. Until that time, the arbitrator finds that the Union has not proven the need for the Agency to replace the interior lining of the elevator shaft or to take other steps to prevent moisture infiltration.

The Union has requested that the members of the bargaining unit receive hazardous duty pay as a result of having been required to work in a contaminated work environment since September, 2004. It recognizes that the Agency lacks the authority to award hazardous duty pay without the approval of OPM. It appears to the arbitrator that there is some basis for the Union's request. OPM regulations permit the OPM to award hazardous duty pay under circumstances where the job description of an employee does not involve the performance of dangerous work, but circumstances cause an unusual hazard to exist. For example, a civilian air traffic controller who is assigned air traffic control duties in a war zone is not performing hazardous work, but it is apparent that he is being required to engage in hazardous duty. Whether the OPM would consider it hazardous for an air traffic controller to be required to work in a mold contaminated building is an issue which should be raised with OPM and it cannot be decided by the arbitrator. Therefore, in this case, the arbitrator defers to the OPM, but will direct that the Agency, in conjunction with the Union, formulate a request to the OPM to

approve hazardous duty pay for employees who have worked in the facility since September, 2004.

The Union also requests that employees who took sick leave on January 22, 2005, be restored that leave. The arbitrator agrees that those employees who were forced to take sick leave because the Agency's contractor failed to take appropriate measures to prevent noxious fumes from escaping the elevator shaft and entering the tower cab and TRACON should not be charged sick leave. If the Agency, through its contractor, created the need for the sick leave, it should not impose the cost of that leave upon the employee victims of the fumes. The employees who are entitled to restoration of their sick leave are those employees who were working in the facility at or before the time the facility was evacuated on January 22, 2005 and who claimed sick leave on that date. All sick leave used by them on that date should be restored and their absences should be considered as paid leave.

The Union also requests that it be reimbursed for the expenses it incurred in decontaminating the contents of its office. The Agency responds that by providing the Union with an office on a "space available" basis, and by providing the Union with office furniture and equipment as available, it did not assume the duties of a landlord, and it should not be held responsible for "damage" caused by the mold infiltration.

The arbitrator agrees with the Union that it should be reimbursed for its expenses in abating the mold infestation. The Agency's obligation under Article 53 is to provide a safe and healthful work environment. As discussed above, part of that obligation requires it to abate mold contamination, once it is aware of that contamination. The Agency could not fully abate the contamination without decontaminating the Union's office, and it could not assure that the office was not contaminated unless all mold infestations within the office were removed. The Union performed a part of that function by having the contents of the office decontaminated. As the Agency would have been required to engage in the same process if the Union had not undertaken it, the arbitrator finds that the Union should be reimbursed for the expenses it incurred in decontaminating its office.

Finally, the Union requests that it be reimbursed for the expenses it has incurred in presenting the testimony of Michael Pinto at the arbitration hearing. It asserts that the Union would not have incurred those expenses "but for the Agency's continued refusal to properly remediate the mold at the facility." The arbitrator has concluded that the Agency did not refuse to properly remediate the mold, and that it remains to be determined whether additional remediation efforts are necessary. The arbitrator does not find a basis to conclude that the Agency has acted in bad faith in taking an incremental approach to the mold remediation, rather

than immediately adopting the method proposed by Pinto. Pinto's testimony at the hearing was extensive, informative and useful, but ultimately not persuasive that the Agency has refused or failed to perform its contractual obligations. Therefore, the arbitrator finds no contractual or equitable basis for ordering the Agency to pay the Union's expenses in presenting Pinto as a witness.

AWARD

The grievance is sustained in part and denied in part. The arbitrator finds that as of the date of the hearing of this matter, the Agency has not violated Article 53 of the Collective Bargaining Agreement, subject to the following:

1. The Agency shall continue to comply with the Settlement Agreement in the Unfair Labor Practice proceeding. That agreement (Ag. Ex. 105) requires that the Agency grant Wonder Makers access to the facility to conduct such tests as Wonder Makers deems necessary to determine whether the facility is still encountering mold and/or moisture contamination, and that the Agency allow Wonder Makers to observe tests conducted by the Agency for it to make its determination whether the facility has mold or moisture infiltration problems.

2. The Agency shall continue to engage in air quality and other testing of the facility as provided in its final abatement plan. It shall provide copies of the test results to the Union or its designated agent.

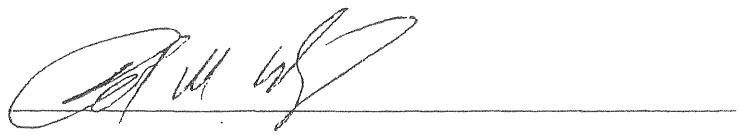
3. The Agency shall restore all sick leave claimed on January 22, 2005 to all employees who were working in the facility at and before the time the facility was evacuated on January 22, 2005, and who took sick leave before the tower cab and TRACON were reopened on that day.

4. The Agency shall reimburse the Union for the expenses it incurred in removing mold contamination from the contents of the Union office located at the facility.

5. The Agency, in conjunction with the Union shall formulate a request to OPM for OPM to authorize hazardous duty pay for members of the bargaining unit who have worked in the facility between September, 2004 and the final acceptance of the mold remediation activities by the Joint Acceptance Inspection Board on February 13, 2007.

In all other respects, the grievances are DENIED.

ENTERED at Colorado Springs, Colorado, this 5th day of October, 2007.



Daniel M. Winograd, arbitrator