Airport Safety Starts with Safer Working Conditions

NYCOSH
New York Committee for Occupational Safety and Health

ABOUT NYCOSH

The New York Committee for Occupational Safety and Health (NYCOSH) is a membership organization of workers, unions, community-based organizations, and workers' rights activists. NYCOSH uses training, education, advocacy, technical assistance, and organizing to improve health and safety conditions in our workplaces, our communities, and our environment. Founded 35 years ago on the principle that workplace injuries, illnesses, and deaths are preventable, NYCOSH works to extend and defend every person's right to a safe and healthy workplace and community.

REPORT AUTHORS

David M. Newman, M.A., M.S., NYCOSH Industrial Hygienist
Charlene Obernauer, NYCOSH Executive Director
Tony Straka, NYCOSH Safety and Health Specialist

NYCOSH, 61 Broadway, Suite 1710, New York, NY 10006
212-227-6440 (o) ▪ 212-227-9854 (f) ▪ nycosh@nycosh.org ▪ www.nycosh.org

DEDICATION

This report is dedicated to Cesar Valenzuela, Ruben Dario Sanchez, and all airport workers who have been injured or killed on the job.

Cesar Valenzuela, a 51-year-old employee of Menzes Aviation in Los Angeles, was killed in 2014 at Los Angeles International Airport after being thrown from a baggage tug that did not have a functional seat belt. The company was fined $77,250 by Cal/OSHA for broken seat belts, and for inaccurately reporting the worker's death as a heart attack.

Ruben Dario Sanchez, a cabin cleaner employed by a contractor at LaGuardia Airport, was struck and killed by a water truck in October 2012. The contractor was cited and fined by OSHA under the general duty clause for failing to keep the work site "free from recognized hazards."

TABLE OF CONTENTS

Executive Summary 5

Key Findings 5

Key Recommendations 6

Introduction 7

Job Tasks 7

Hazardous Exposures for Workers 8

Cleaning and Disinfecting Products 8

Bloodborne Pathogens 10

Safety 12

Musculoskeletal Disorders 14

Diesel Emissions and Carbon Monoxide 15

Other Potential Hazards 16

Temperature Extremes 16

Noise 17

Workplace Stress 17

Health and Safety Training 18

Recommendations 19

Conclusion 21

Report Methodology and Limitations 22

Executive Summary

Recent Occupational Safety and Health Administration (OSHA) investigations, enforcement actions, and settlement agreements against aviation contractors and airlines at airports around the country underscore the dangerous nature of airport work and the need for better oversight of private contractors operating at airports across the United States.

Due to airline and airport outsourcing that began in the 1980s, responsibility for services critical to the safe and efficient operation of our airports is now in the hands of numerous private contractors who pay lower wages, offer fewer benefits, and provide employees with inadequate training compared to when these jobs were performed by workers directly employed by the airlines or the airports. There are 12,000 workers employed by more than 40 different contractors at John F. Kennedy (JFK) and LaGuardia (LGA) Airports. These men and women are responsible for providing crucial ground crew passenger services like cabin cleaning, wheelchair assistance, baggage handling and terminal cleaning to millions of domestic and international passengers traveling into and out of the New York region.

In August and September of 2014, NYCOSH conducted interviews with workers employed by some of the largest airline contractors operating at JFK and LGA. The interviews indicate that unsafe working conditions are pervasive in contracted out airport ground operations. These hazardous conditions have known remedies and are preventable. They put ground crew passenger service workers at unnecessary risk of injury, health harm, or death and may also put travelers and airport visitors at elevated risk. In many cases, these conditions violate OSHA requirements.

Contractors, airlines, and airports have not done enough to eliminate or reduce these risks to the health and safety of workers and travelers. Contractors have primary responsibility for the safety, health, and well-being of their workers. However, airports and airlines must also play active roles in ensuring that the health and safety of their contractors' employees and of travelers are properly protected.

NYCOSH's recommendations are aimed at reducing risk and ensuring the safety and health of workers, passengers, and all individuals who utilize New York City's airports.

Key findings

- **Passenger health and safety may be compromised by lapses in workplace health and safety.** Wheelchair attendants are not given proper materials to consistently disinfect wheelchairs after passengers urinate or defecate in them, and terminal cleaners are not provided with enough materials and use the same towel on sinks that are used on toilets.
- **Workers do not receive adequate training for the hazards they face.** Wheelchair attendants receive inadequate and inconsistent trainings, most notably not being trained on what to do if passengers get sick or relieve themselves in their chairs. Terminal and cabin cleaners are exposed to chemicals without adequate training or proper personal protective equipment.
- **Workers are exposed to unidentified chemicals and are not provided with adequate personal protective equipment.** Chemicals utilized by some contractors are unlabeled and other contractors label chemicals in languages that the workers do not understand. In March of 2014, OSHA issued 14 citations to a

cleaning contractor, including serious violations for failing to assess the workplace to determine if hazards are present and failing to provide employees with personal protective equipment when using hazardous cleaning products.

- **Workers are exposed to blood and other potentially infectious materials and are not provided with personal protective equipment.** Wheelchair attendants are not provided with disposable, impermeable gloves even though they sometimes come in contact with blood and needles on the job. A cleaning contractor was issued OSHA citations in March 2014 for lack of a written exposure control plan for job classifications that are exposed to blood while performing cleaning operations and for failing to provide appropriate personal protective equipment.
- **Workers are exposed to temperature extremes outdoors and in parked aircraft.** Contractors do not provide ventilation, air conditioning, or heat for aircraft cabin cleaners. Contractors do not provide winter uniforms for baggage handlers working outdoors and do not permit them to use personal clothing such as jackets or gloves for warmth.
- **Contractors may not have conducted required workplace hazard assessments.**

Key recommendations

- **Employers must provide workers with necessary materials to properly do their job to prevent compromised health and safety for passengers.**
- **Employers must provide health and safety training for the hazards that workers face.** The OSHA Bloodborne Pathogens Standard (29 CFR 1910.1030) requires employers to provide annual training to workers who may be exposed to blood or other potentially infectious body fluids. The OSHA Hazard Communication Standard (29 CFR 1910.1200), which addresses chemicals in the workplace, requires employers to train workers about the chemicals they use or may be exposed to.
- **Employers must identify workplace chemicals, eliminate or reduce exposure, and provide personal protective equipment when necessary, along with training in its limitations and proper use.** The OSHA Hazard Communication Standard requires that all chemical containers be labeled; that workers have timely on-site access to Safety Data Sheets, which provide comprehensive safety and health information for each chemical product; and that employers maintain a written hazard communication program.
- **Employers must eliminate or minimize exposure to blood and other potentially infectious materials.** Per the OSHA Bloodborne Pathogens Standard, employers must determine which work tasks might be "reasonably anticipated" to expose employees to infectious materials. They must establish a written Exposure Control Plan explaining how they will eliminate or minimize employee exposure.
- **Employers should ensure that workers are protected against exposure to temperature extremes.** Employers should follow OSHA and FAA guidelines regarding health hazards, including cold stress and heat exposure, by using engineering controls such as ventilation, heating, and air conditioning and by supplying or permitting protective gear such as winter coats, gloves, and hats.
- **Employers must conduct workplace hazard assessments to determine whether hazards are present, or are likely to be present, that would require the use of personal protective equipment, such as gloves that protect against chemical or biological hazards.** The employer must verify through a written certification that the required workplace hazard assessment has been conducted, per the OSHA Personal Protective Equipment - General Requirements Standard (29 CFR 1910.132).

Introduction

Airline ground crew passenger service workers are no longer directly employed by the airlines they serve. Instead, in recent years airlines have eliminated many unionized ground crew jobs and farmed them out to non-union contractors. Employees of these contractors generally have lower wages, fewer benefits, less training, and harsher working conditions.

To assess potential health and safety issues, NYCOSH interviewed ground crew passenger service workers in four passenger service job titles at LaGuardia and JFK airports – aircraft cabin cleaners, terminal cleaners, baggage handlers, and wheelchair attendants. Most ground crew passenger service workers are employed by contractors working for various airlines.

The NYCOSH interviews with contractor ground crew passenger service workers at LaGuardia and JFK airports indicate that they work under surprisingly hazardous conditions. NYCOSH found that these hazardous conditions are unnecessary, are preventable, and may violate Occupational Safety and Health Administration (OSHA) regulations. NYCOSH also found that these hazardous conditions put travelers as well as workers at risk.

Job Tasks

Wheelchair Attendants aid and transport elderly, ill, or infirm passengers who require wheelchairs at the airport. Attendants assist passengers in transferring them into or out of the wheelchair. They wheel the passengers either to the gate or onboard the plane by transferring to a smaller "aisle chair" and then into the plane seat. They are sometimes also responsible for transporting passenger's carry-on luggage at the same time.

Esteban, Baggage Handler/ Wheelchair Attendant, LGA

Baggage Handlers assist passengers with handling, processing and transportation of their luggage and/or ensuring that bags do not get jammed on conveyor belts. A handler may engage in lifting, twisting, pushing, and pulling motions to manually move as much as several thousand pounds of luggage over the course of a work shift.

Cabin Cleaners are primarily responsible for cleaning the inside of aircrafts, including galleys, bathrooms, seats and cubbies, and removing trash. Depending on the scope of the cleaning, a cleaning crew may be inside a plane for as little as 7 minutes or as long as 4 hours. Some workers evacuate toilet waste into sewage tank trucks. Others fill water storage tanks.

Mercedes, Cabin Cleaner, LGA

Airport Terminal Cleaners clean public and employee bathrooms, terminal floors, elevators, and stairs, sidewalks outside terminal, and outdoor cigarette bins. They also empty garbage bins, transport garbage bags to dumpsters, and lift the garbage bags to shoulder height for disposal into the dumpster.

Hazardous Exposures for Airport Workers

Cleaning and disinfection products

Airport workers, including wheelchair attendants, cabin cleaners, and terminal cleaners are exposed to harsh and potentially dangerous cleaning and disinfecting products in the course of their work. Workers reported that they did not receive any training in chemical safety or in the proper use of cleaning products, are not given enough cleaning products to properly clean their assigned areas, and are unaware of the ingredients of the products they are using.

If workers do not know what products they are using, they cannot know the hazards associated with the products they are being asked to use. When workers do not know the hazards present, they cannot know how to use these products effectively and safely. Workers also stated to NYCOSH that they suffered eye, skin, and respiratory irritation from contact with these cleaning products.

The unknown chemical products utilized by cabin cleaners sometimes cause immediate and obvious harm. One worker noted that the chemical was so strong that if she got it on her skin, she would immediately get a rash. If it got on her nail, her nail would break.

"I'll be coughing, coughing, coughing. It seemed like the more I worked, the more I'd be coughing." – Cabin Cleaner

"The liquid they use doesn't say what it is. It's in clear plastic bottles, and it's blue and clear. It smells like ammonia." – Cabin Cleaner

A cabin cleaner at LGA provided NYCOSH with photos of injuries that she believes were caused by the chemicals she uses at work

In June 2010 a cabin cleaner at the Dane County Regional Airport in Wisconsin died from exposure to cleaning chemicals. The OSHA accident investigation summary found, in part:

> A crew of four or five employees used a few different cleaning supplies to clean different areas of the plane, such as the lavatories, trash containers, floors and windows. Personal protective equipment used was limited to rubber gloves. An investigation determined that employees routinely used more of the concentrated chemical than the manufacturer's instructions indicated. This cleaning crew employee started feeling ill on approximately March 6, 2010. The employee had been using a cleaning chemical that was sprayed from a spray bottle while cleaning the lavatories of the planes. The cleaning chemical was 3M Brand Disinfectant Cleaner No. 5. The employee experienced symptoms including swelling and discoloration of the nose, cheeks and eyes and burning sensations on the face and in the nasal passage. The employee went to a physician for treatment multiple times following the exposure. The employee was placed on restricted duty to not work around the cleaning chemicals, but was still working in the planes where cleaning chemicals were used. The use of the concentrated cleaning chemical in the small enclosed area of the lavatory was determined to be the cause of the illness. The employee was hospitalized on May 12, 2010 with dry cough, shortness of breath, weight loss and hazy infiltrates in the lungs associated with the illness. The employee's condition gradually worsened and the employee passed away on June 3, 2010. The coroner determined the cause of death to be hypoxic respiratory failure due to the occupational chemical exposure. The employer discontinued the use of the cleaning chemical.

The OSHA Hazard Communication standard (29 CFR 1910.1200) regulates how chemicals are used in the workplace. It requires that employers label all chemical containers; train employees about the chemicals they use and about how to prevent exposure; give workers timely on-site access to Safety Data Sheets, which provide comprehensive safety and health information for each chemical product; and maintain a written hazard communication program. If workers don't speak English, worker training must be conducted in a language and at a literacy level workers understand.

Nelly, Terminal Cleaner, JFK

Jose, Cabin Cleaner, LGA

Worker allegations were corroborated by the Occupational Safety and Health Administration (OSHA) when it inspected Terminal 8 at JFK Airport in March 2014. OSHA issued 14 citations to a cleaning contractor, including serious violations for failing to assess the workplace to determine if hazards are present and failing to provide employees with personal protective equipment when using hazardous cleaning products. The manufacturer's safety data sheets for the cleaning products identified in the OSHA citations state that overexposure may cause: eye irritation, including pain, swelling, and tearing; skin irritation, including pain and swelling; and respiratory irritation, including coughing and difficulty breathing. The safety data sheets also recommend good ventilation, while noting that specialized ventilation and/or respirators sometimes may also be necessary. Rubber or other impervious gloves and splash goggles are also recommended. Emergency eyewash stations are recommended where undiluted product is handled.

Since wheelchair attendants do not have access to cleaning products, they ask other workers to borrow supplies when passenger blood, vomit, urine, or feces are present. Wheelchair workers reported that no one has direct responsibility for cleaning wheelchairs, either on an as-needed basis when feces or urine are present or on a regular basis. Wheelchair workers also reported that they did not receive training on safe use of cleaning chemicals. Terminal cleaners also reported using unlabeled chemicals and complained about not being given enough supplies to adequately clean airport bathrooms.

"Some days we get a liquid to clean the toilets; some days we don't. The blue liquid has a strong smell of a very strong chemical. It irritates me — bothers my eyes. It hasn't happened to me but some people get bumps when the liquid touches their skin. " – Terminal Cleaner

Bloodborne Pathogens

Bloodborne pathogens are microscopic organisms that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus (HBV), human immunodeficiency virus (HIV), and Ebola virus. Airport workers are frequently exposed to potentially infectious blood and body fluids, as well as to vomit and urine. While most cabin cleaners that NYCOSH interviewed had been trained on what to do if they come into contact with potentially infectious material, terminal cleaners and wheelchair attendants had not been trained. Additionally, wheelchair attendants were not provided with personal protective equipment such as impermeable disposable gloves, despite their potential for exposure to bloodborne pathogens. Worker testimony identified numerous hazardous situations which could result in their exposure or public exposure to blood or other potentially infectious materials.

Sharlene, Wheelchair Attendant, JFK

The OSHA Bloodborne Pathogens Standard (29 CFR 1910.1030) requires that employers create an Exposure Control Plan. However, workers stated they were not trained on and were not aware of any exposure control plan.

"One time, someone got cut in the wheelchair. He cut his hand, and there was blood everywhere, on his hands and arms. I just went to the bathroom and washed my hands". – Wheelchair Attendant

"I had a passenger have an accident [urinate or defecate] in a wheelchair while I was wheeling him around. I had to spray his seat with cleaner that I borrowed and wipe it with paper towels." – Wheelchair Attendant

Not one of the wheelchair attendants that NYCOSH interviewed was provided with disposable gloves by the employer, despite being required to physically touch passengers and sometimes coming into contact with blood or other potentially infectious bodily fluids.

One worker was told that she was not allowed to wear gloves, even if she provided them herself. She explained:

> *"They tell us that we can't use gloves [when we push the wheelchairs] because the passenger will feel embarrassed. But what about our health? One day I had a passenger who kept puking. I kept handling her bags and I couldn't wear gloves." – Wheelchair Attendant*

Gian, Baggage Handler, LGA

The March 2014 OSHA inspection at JFK Terminal 8 confirmed many of these allegations. The 14 citations issued to a cleaning contractor included lack of a "written exposure control plan for job classifications (i.e., aircraft cabin cleaners, airport terminal cleaners) that are occupationally exposed to bloodborne pathogens and other potentially infectious materials while performing cleaning operations" and failing to provide appropriate personal protective equipment, including adequate hand protection for terminal and cabin cleaners while cleaning potentially contaminated surfaces and materials.

The contractor was also cited for failure to provide puncture-resistant containers for disposal of contaminated sharps, "i.e., diabetic syringes and needle sticks found during the cleaning of aircraft cabins and terminal restrooms by cleaning staff" and for failure to train employees about the hazards of bloodborne pathogens.

Terminal cleaners' testimonies also validated the March 2014 OSHA violations, reporting that they routinely encounter blood, urine, feces and diarrhea, sputum, and vomit inside and outside toilets and on floors and walls. They also routinely encounter used syringes.

> *"One time, I was going to change the toilet paper. There was a needle in there and it stuck my finger. It bled and I went to my supervisor and made a report." - Terminal Cleaner*

Terminal cleaners' testimonies alleged that they are exposed to hazardous working conditions and that these conditions impact the general public. Cleaners are provided with 3 different color-coded towels to ensure that different cleaning towels are used for toilets, sinks, and floors. However, as cleaning towels get dirty over the course of the work day, they may be rinsed out together in the same bathroom sink, thereby fostering fecal cross-contamination of toilets and sinks in the public bathrooms. They also report using the same bucket for cleaning floors, sinks, toilets, and mirrors.

Cleaners reported that sometimes they are provided with fewer than three towels, forcing them to intermingle towels used to clean toilets, floors, and sinks. This practice increases the potential for fecal contamination and thus for potential exposure to bloodborne pathogens in unanticipated places, such as in sinks and on faucets in public bathrooms.

> *"When the supervisor gives us one towel, it's clear that we should clean both the toilets and the sink with the same towel." - Terminal Cleaner*

Similar lapses exist with regard to the training and exposures of aircraft cabin cleaners.

"There is no good training for cabin cleaning. You take a class and take a test about security on the plane but they actually never taught us how to clean." – Cabin Cleaner

"Sometimes people throw away their hypodermic needles in seats and in pockets. Workers get pricked sometimes. We are supposed to have a special box to throw away these needles. Some planes have them and some don't. [The contractor] doesn't provide us a box to throw away these needles. If we do find a needle we'll just wrap it in paper towels and throw it away with the other garbage." – Cabin Cleaner

Safety

Trucks and passenger vans are used to transport cabin cleaners to and from aircraft, along with supplies, soiled items, and garbage. Trucks are equipped with lifts to raise or lower items and personnel between the truck and the aircraft. Cabin cleaners are at risk of injury or death from improper use of and improper conditions on the trucks and lifts, including lack of seats, lack of seat belts, open truck rears, lifts that do not mate with aircraft openings; and lifts that are not equipped with railings for fall protection. These conditions can result in falls from the lift, falls inside the moving vehicle, being thrown from the moving vehicle to the tarmac, and being struck by a moving vehicle on the tarmac.

Andrea, Cabin Cleaner, JFK

"I drive a truck every day from the base to the planes. There are about 7 trucks. About 5 of the trucks don't have back doors. Instead there is a blue tarp that works as a back door. This is dangerous because the cabin cleaners sit inside the part of the truck that lifts up. In case the truck jerks they can fall out of the truck. These workers have no seats, no belts so they hold onto each other when the lift goes up." – Driver

"There should only be a 12 inch gap between the lifted truck and the [aircraft] cabin door. When the lift doesn't work properly there can be a very big gap between the truck and the plane. Only one of the trucks has a ramp that can close the gap." – Driver

"Every day I ride either the passenger vans or trucks from the [contractor] base. I usually ride the trucks. Each leg of the ride takes 5 to 15 minutes. I have fallen while riding inside the truck because many of the trucks don't have seats. A few of the trucks have benches. Only one of the trucks with benches has seatbelts. About 8 or 10 workers ride the trucks and there is only enough room for 4 people to sit on the benches. The other cleaners sit on the blankets we deliver, sit on boxes, sit on the floor, or we end up just standing." – Cabin Cleaner

In February 2014, Cesar Valenzuela, a ramp agent at Los Angeles International Airport (LAX), was thrown from the vehicle he was operating without using a seatbelt and was killed. A California OSHA (Cal/OSHA) investigation determined that the seatbelt was not functional because of missing parts and because the employer did not require, and often discouraged, the use of seatbelts.

In March 2014, OSHA issued a serious citation to a contractor at LGA for use of truck lifts to move personnel. The citation stated "Employees required to ride inside of powered industrial trucks (i.e., high lift trucks) during transportation to airplanes for the cleaning of aircraft cabins were not provided a safe place to ride inside the rear of the truck exposing the employees to hazardous conditions."

Cabin cleaners also work on the tarmac beneath the aircraft to pump water into the plane or to pump sewage from aircraft toilets. In October 2012, Ruben Dario Sanchez, a cabin cleaner employed by a contractor at LGA, was struck and killed by water truck. The contractor was cited and fined by OSHA under the general duty clause for failing to keep the work site "free from recognized hazards."

In winter, cabin cleaners work on icy ramps making falls a regular occurrence.

One worker described her experience in detail:

"I was waiting for an airplane to arrive on the ramp, where we wait in the rain and snow. It was slippery because it snowed and they didn't clean the ramp. This happens almost every time it snows. People fall every day, but this was the first time that I fell.

I slipped down and fell on my side. I tried to get up and couldn't because it was so slippery. Someone from the airplane tried to help me and helped me go to the supervisor's office. My leg hurt, but I was able to walk. They took me to the hospital and I found out I dislocated my arm. It kept hurting and they sent me home with a lot of pain killers.

I tried to go back to work with the pain after 1-2 days. They didn't pay me for my time off. They said that they would give me less work, but when they asked me to mop, I couldn't and I had to say no. I was working more slowly, and someone told me that I had to move faster. I couldn't, so they filed a complaint against me.

Then, they took me to the supervisor's office and asked me why I didn't move faster. I said it was because of the accident. The supervisor and lead agreed that I was working more slowly after the accident and they didn't file another warning. Still, I'm moving slower than before. The lead is always yelling at us to move faster. The whole day, they scream at us to move faster.

One month after, I went back to the doctor again. I got an MRI. I had two ripped ligaments in two different parts of my arm. They recommended surgery, but I'm just doing physical therapy. I did physical therapy in the beginning three days a week, but now I do therapy one time a week.

They still haven't paid for the hospital visit. I'm getting bills, but the supervisor hasn't paid for it. Managers told me to bring the bills. I did that two times, but I still haven't been paid.

They blame us, and tell us that we should be more careful, but you're carrying things in both hands and walking at the same time. It's icy and dangerous." –Cabin Cleaner

Musculoskeletal disorders

Musculoskeletal disorders (MSDs), also known as repetitive strain injuries (RSIs), affect the muscles, nerves and tendons. Work-related MSDs (including those of the neck, upper extremities and lower back) are one of the leading causes of lost workday injury and illness. Exposure to ergonomic risk factors increases a worker's risk of injury. Risk factors include heavy lifting, bending, reaching overhead, pushing and pulling heavy loads, working in awkward body postures and performing the same or similar tasks repetitively. If unrecognized and left untreated, MSDs can be debilitating, causing permanent damage to the worker's body.

"In my wrists, I have a lot of pain. I can't knead flour anymore, and I love to cook, and I can't even knead flour because my wrists hurt so much." – Wheelchair Attendant

Baggage handlers regularly do heavy lifting such as carrying bags that are over 75 pounds. They, and wheelchair attendants, also lift, push, and pull passengers and wheelchairs that together can weigh 200 to 400 pounds. This work can cause musculoskeletal injures to the shoulders and back.

Wheelchair attendants also perform heavy lifting with awkward postures; they are expected not only to push passengers in wheelchairs, but to juggle their baggage at the same time. Workers spoke about pulling a suitcase with one hand while they push a passenger in a wheelchair with the other. Others spoke of having only a few fingers free to carry bags.

"I was taking a passenger over to Terminal 2 and the passenger was in her regular chair and she was too heavy for me. She also had her bags, and I had to use one arm to push the chair and the other arm to pull the bag. It didn't hurt me then, but the next morning, I woke up and I vomited and felt like I couldn't breathe. I went to the emergency room. The company never reimbursed me for my medical bills." – Wheelchair Attendant

Wheelchair attendants at JFK and LGA moving passengers in wheelchairs and luggage at the same time

Additionally, workers were not trained on how to properly lift bags to avoid unnecessary injury.

"I wasn't trained. There are signs posted, but there is no training."–Baggage Handler/Wheelchair Attendant

Similarly, terminal cleaners are expected to lift heavy bags of garbage over their shoulders and into large dumpsters. All categories of workers interviewed reported having some pain from the job.

"We are always tired and sore from walking and lifting." - Terminal Cleaner

"Sometimes I feel pain in my wrists and my fingers hurt." – Baggage handler/ Wheelchair attendant

Garbage can emptied by terminal cleaners at JFK

Diesel emissions and carbon monoxide

Diesel emissions are a known carcinogen, or cancer-causing agent, and carbon monoxide (CO), a byproduct of incomplete combustion, is an asphyxiant (i.e., can cause death by suffocation). Low levels of exposure can cause headaches, lightheadedness, fatigue, impaired judgment, motor skill deterioration, and loss of consciousness. A common source of carbon monoxide is emissions from internal combustion engines in vehicles and equipment.

It is likely that baggage handlers may be exposed to elevated levels of diesel emissions and/or carbon monoxide. For example, one worker reported to NYCOSH interviewers that his baggage claim station is located in a large indoor space. He stated that trucks regularly idle immediately outside and that enough diesel exhaust enters the indoor space to raise the temperature by several degrees. Another worker explained that he regularly gets headaches from being outside near the planes, where he is exposed to vehicle and aircraft exhaust.

"In the wintertime, we wait outside out in the open. It smells like gasoline. I get headaches if I work 2-3 days in a row outside. They're really bad. Every time I'm out there for a few days, I get the same headache." – Baggage Handler

Other Potential Hazards

Temperature Extremes

Airport workers are regularly exposed to extreme heat and/or extreme cold. Although there are no applicable OSHA standards, exposure to temperature extremes is a recognized hazard, causing conditions that may result in death or cognitive impairment in the absence of protective measures.

Aircraft cabin cleaners told NYCOSH that they may remain inside parked planes for varying periods of time, sometimes up to 4 hours. During these periods, aircraft heating, air conditioning, and ventilation systems are not consistently operating and indoor temperatures may approach or be worse than outdoor temperatures. One worker described being so hot in a plane she was cleaning that she felt like she would pass out.

Federal Aviation Administration advisory circular 121-35 states that "Air carriers should be aware of possible health hazards to passengers and crew [during ground operations] and make every effort to ensure that aircraft cabins are well ventilated at all times. FAA recommends the removal of passengers from an airplane within but no later than 30 minutes after a ventilation failure or shutdown on the ground."

Heat. Excessive exposure to heat can cause a range of heat-related illnesses, from heat rash and heat cramps to heat exhaustion and heat stroke. Heat stroke involves an increase in the body's temperature. It can result in death and requires immediate medical attention**.** Symptoms may include confusion, inability to think clearly, passing out, collapse, or seizures. Heat exhaustion is less serious than heat stroke but still requires attention. Symptoms may include headache, dizziness, nausea, vomiting, irritability, confusion, or fainting.

Cold. Prolonged exposure to freezing or cold temperatures may cause serious health problems such as trench foot, frostbite, and hypothermia. In extreme cases, exposure results in hypothermia, which can be fatal. Danger signs include uncontrolled shivering, slurred speech, clumsy movements, fatigue and confused behavior. If these symptoms are present, immediate medical assistance should be obtained.

Cabin cleaners and baggage handlers alike consistently reported working in extreme cold.

Michael, Baggage Handler/ Wheelchair Attendant, LGA

Muhammad, Baggage Handler/Wheelchair Attendant, LGA

Joaquin, Baggage Handler/ Wheelchair Attendant, LGA

"It's worse in the winter. There's no heat. I wear two pairs of gloves that I buy. My fingers have turned blue. This happens every time I get on the cold plane. Almost every day in the winter." – Cabin Cleaner

Workers are required to wear company-provided clothing. However, many are not given the appropriate clothing to ensure that they are warm enough on the job. When they bring their own coats, gloves, or hats, many are scolded for not wearing company clothing that they never received.

"If it's cold, you want to wear your coat. But if you put on your coat, they tell you that you have to wear the company coat. But they don't give you a company coat. So you're just cold." –Baggage Handler

Noise

Baggage handlers and cabin cleaners regularly work in environments with extreme noise levels from airplane engines. Exposure to high levels of noise can cause permanent hearing loss. Noise-induced hearing loss cannot be surgically corrected or helped with hearing aids. However, workers are not provided with hearing protective devices such as earplugs to protect them against preventable hearing loss.

"It's so loud where I work that I put in my earphones. They're not plugged in; I just wear them to cut the sound. But when my supervisor sees them in, I get yelled at. But what am I supposed to do? They don't give me earplugs." – Baggage Handler

Exposure to loud noise can also cause physical and psychological stress and hypertension, reduce productivity, interfere with communication and concentration, and contribute to workplace accidents and injuries by making it difficult to hear warning signals. It can significantly impair the ability to communicate by reducing the capacity to interact with friends, family, and co-workers and can eventually lead to psychological and social isolation.

The OSHA Occupational Noise Exposure standard, 29 CFR Part 1910.95, sets limits on the intensity and duration of noise that workers are permitted to be exposed to. Under certain circumstances, employers are required to measure noise levels, provide hearing protective devices and training, and offer audiometric testing.

Workplace Stress

Job stress results from the impact of working conditions on the worker. Harmful physical and emotional responses can occur when the requirements of the job do not match the capabilities, resources, or needs of the worker. Certain working conditions have been found to be stressful to most people. These include aspects of the work process (heavy workload, understaffing, infrequent rest breaks, long work hours and shiftwork), management style (low pay, few benefits, lack of family-friendly policies, inadequate training, favoritism, racism), career concerns (job insecurity and lack of opportunity for growth or advancement), and environmental conditions (unpleasant or dangerous physical conditions such as noise, temperature extremes, air pollution, or ergonomic issues).

Maria, Terminal Cleaner, JFK

Although cabin cleaners, terminal cleaners, wheelchair attendants, and baggage handlers did not identify workplace stress *per se* as an issue during the NYCOSH interviews, they repeatedly expressed concerns about many of the risk factors and working conditions listed above. Airport workers regularly felt disrespected and taken advantage of on the job, experiencing frequent negative feedback, understaffing, favoritism, and racism. As one worker explained:

*"One day, [my supervisor] told a story to me and two other wheelchair attendants. One person was Jamaican and the other was from Ghana. I am Haitian. The supervisor was bringing her daughter to school and her daughter said 'Mommy, why are there so many n*ggers here?' She told her baby that she shouldn't say n*ggers in public, but to say African American. And then she laughed and said that her sister calls her every day to hear the baby say n*gger." –Wheelchair Attendant*

Health and Safety Training

Prevention of workplace illnesses and injuries requires that workers be trained to recognize workplace hazards and to know how to abate or eliminate them. Many OSHA standards require employer-provided health and safety training. These include, but are not limited to, the Hazard Communication Standard, the Bloodborne Pathogens Standard, the Personal Protective Equipment - General Requirements Standard, and the Respiratory Protection Standard. Workers in the wheelchair attendant, terminal cleaner, cabin cleaner, and baggage handler titles all complained of lack of health and safety training or of inadequate training. In particular, none of the wheelchair attendants and terminal cleaners interviewed had received bloodborne pathogen training.

Waldert, Wheelchair Attendant, LGA

"They showed me how to assist the passenger and how to place them in the wheelchair, but I got no training on what to do if someone goes to the bathroom in their chair." – Wheelchair Attendant

"People need more training. Many people don't know how to do their job." –Baggage Handler

"I think there is a video. I never saw it." – Cabin Cleaner

Recommendations

- Workers have a **legal right to safe workplaces.** Employers must ensure that workplaces are as safe as possible and must, *at a minimum*, follow all health and safety regulations.
- Employers must conduct **workplace hazard assessments** to determine whether hazards are present, or are likely to be present, that would require the use of personal protective equipment, such as gloves that protect against chemical or biological hazards. The employer must verify through a written certification that the required workplace hazard assessment has been conducted, per the OSHA Personal Protective Equipment - General Requirements Standard (29 CFR 1910.132).
- Employers must provide **health and safety training** for the hazards that workers face. The OSHA Bloodborne Pathogens Standard (29 CFR 1910.1030) requires employers to provide annual training to workers who may be exposed to blood or other potentially infectious body fluids. The OSHA Hazard Communication Standard (29 CFR 1910.1200), which addresses chemicals in the workplace, requires employers to train workers about the chemicals they use or may be exposed to. All OSHA-required training must be conducted in a language and at a literacy level that workers can understand.
- Employers must **identify workplace chemicals, eliminate or reduce exposure, and provide personal protective equipment** when necessary, along with training in its limitations and proper use. The OSHA Hazard Communication Standard requires that all chemical containers be labeled; that workers have timely on-site access to Safety Data Sheets, which provide comprehensive safety and health information for each chemical product; and that employers maintain a written hazard communication program.
- Employers must **eliminate or minimize exposure to blood and other potentially infectious materials.** Per the OSHA Bloodborne Pathogens Standard, employers must determine which work tasks might be "reasonably anticipated" to expose employees to infectious materials. They must establish a written Exposure Control Plan explaining how they will eliminate or minimize employee exposure. Adherence to precautionary and protective measures for bloodborne pathogens are likely to be of increasing importance for both workers and travelers as Ebola Virus Disease continues to spread in Africa.
- Employers should ensure that workers are protected against exposure to **temperature extremes.** Employers should follow OSHA and FAA guidelines regarding health hazards, including cold stress and heat exposure, by using engineering controls such as ventilation, heating, and air conditioning and by supplying or permitting protective gear such as winter coats, gloves, and hats.
- Employers should reduce worker exposure to harmful **noise** levels by controlling noise at the source (turning off engines when feasible, using quieter equipment), by distancing workers from the source of noise, and by providing hearing protective devices such as earplugs and earmuffs along with training on their limitations and proper use. Employers must comply with the requirements of the OSHA Occupational Noise Exposure Standard (29 CFR 1910.95) when worker exposure exceeds the "action level" of 85 decibels averaged over 8 hours.

- Employers must ensure **fall protection** when mechanical conveyances are used to lift or lower cabin cleaners or other personnel. In general, use of a powered industrial truck, such as a high lift truck, to lift or lower personnel is permitted only if the machine supporting the personnel platform was designed for that purpose, if both the machine and platform meet requirements for capacity, construction, access, use, and fall protection, and if neither have been altered or modified without authorization since manufacture. Only a trained and authorized person is permitted to operate a powered industrial truck.

- Employers must provide **proper, safe ground transportation** to and from planes for cabin cleaners. In general, personnel platforms on powered industrial trucks (mobile power-propelled trucks designed to carry, push, pull, lift, or stack materials) should not be used to transport personnel from one location to another. Passenger vans and trucks must be equipped with seats and seatbelts and should be enclosed on all sides. Passengers should be seated with seatbelts buckled on.

- Employers must comply with the requirements of the OSHA Walking/Working Surfaces Standard (29 CFR 1910 Subpart D) which requires that **walking and working surfaces** be kept free of hazards. In particular, employers should ensure that ramps and other surfaces are de-iced and cleared of snow, ice, and moisture which could cause slips, trips, or falls.

- Employers should implement proactive ergonomics programs to **prevent or reduce musculoskeletal injuries.** An ergonomics program should include identification of risk factors like pushing, pulling, or lifting luggage or other heavy loads, frequency and weight of loads, handling loads below knee height or above shoulder height, and handling with arms extended away from the body or twisting the upper body. Solutions might include minimizing carry distances, modifying equipment to eliminate handling loads below knee or above shoulder height, team lifting or use of mechanical lift equipment, training in safe handling techniques, and adequate breaks and rest periods.

- Employers should eliminate or reduce worker exposure to **diesel emissions and carbon monoxide.** Employers should assess the workplace to identify all potential sources of carbon monoxide and diesel and other emissions. Employers must provide training to exposed or potentially exposed workers about the hazards and symptoms of exposure. Idling of fossil fuel-powered vehicles and equipment should be prohibited; vehicles and equipment should be powered off when not in active use. Use of fossil fuel-powered vehicles and equipment should be prohibited inside buildings, in partially enclosed areas, or near outside air intakes. Consideration should be given to switching over to battery- or electric-powered vehicles and equipment where practical. Consideration should be given to implementing emissions-based maintenance programs; these can reduce workplace exposures by 50 percent or greater. Consideration should be given to use of diesel exhaust filters, although these require high maintenance, low sulfur fuel, and diesel oxidation catalysts.

- **Occupational stress** is a health condition that results from the impact of working conditions on the worker. The work process, management style, career concerns, and environmental conditions can all contribute to occupational stress. NYCOSH supports the guidelines of the National Institute for Occupational Safety and Health (NIOSH, a federal agency), which recommends that employer actions to reduce job stress "should give top priority to organizational change to improve working conditions."

Conclusion

Unsafe working conditions are pervasive in contracted out airport ground operations. These hazardous conditions have known remedies and are avoidable and preventable. They put ground crew passenger service workers at unnecessary risk of injury, health harm, or death and may also put travelers and airport visitors at elevated risk. In many cases, these conditions violate OSHA requirements. Contractors, airlines, and airports have not done enough to eliminate or reduce these risks to the health and safety of workers and travelers.

Airport workers are the proverbial "canaries in the coal mine" for travelers and airport visitors. In general, any hazards that airport passengers may be exposed to, from infectious disease to slips, trips, and falls, airport workers are likely to be exposed to first. Workers are also likely to be the group most at risk. Correcting hazardous conditions to prevent worker exposure may be the most effective first step in also preventing traveler and airport visitor exposure to hazardous conditions.

By law, employers are required to provide safe and healthy workplaces for all workers. However, a core component of the contracting out process is delegation of responsibility. This can make it difficult to determine who is responsible for worker and traveler health and safety at airports.

When airports or airlines contract out, they do not cede control (what OSHA calls "supervisory authority") over the terminal or the aircraft. An airport still bears responsibility to ensure proper cleanup and disinfection of blood or other potentially infectious body fluids in a terminal lavatory. An airline still bears responsibility to prevent heat-related illness by providing air conditioning for cabin cleaners on hot days. Entities that hire contractors are responsible for ensuring that contractors utilize technical expertise and safety knowledge and implement safe work practices.

OSHA calls an employer that retains general supervisory authority over the worksite a "controlling employer." A controlling employer has the ability to prevent or correct a hazard or to require another employer to prevent or correct a hazard. When the Port Authority hires a contractor to clean a terminal or when an airline hires a contractor to clean an aircraft cabin, they do not cede control of the terminal or the aircraft to the contractor. They retain ultimate responsibility.

According to OSHA, a controlling employer must satisfy a "duty of reasonable care." OSHA acknowledges that this duty is "less than what is required of an employer with respect to protecting its own employees." Nevertheless, "the controlling employer must exercise reasonable care to prevent and detect violations on the site."

Contractors, airlines that hire them, and the Port Authority of New York and New Jersey share responsibility for protecting worker safety and health. Contractors have primary responsibility for the safety, health, and well-being of their workers. However, airports and airlines must also play active roles in ensuring that the airport contractors are properly protecting against any and all hazards that could impact the health and safety of airport workers and the traveling public.

Report Methodology and Limitations

NYCOSH reviewed Bureau of Labor Statistics, Federal Aviation Administration, and OSHA data on injuries and fatalities at airports in New York and other cities, as well as OSHA citations. NYCOSH also reviewed Safety Data Sheets for the chemical products identified by OSHA in its March 2014 citations at JFK.

NYCOSH conducted in-depth interviews with 16 airport ground crew passenger service workers. Each interview lasted approximately one hour. One set of interviews was conducted at the airport where workers were employed. Two sets of interviews were conducted at the NYCOSH offices. Sixty nine percent of workers interviewed were male, thirty one percent were female. All workers interviewed were persons of color. Interviews were conducted in English and Spanish. NYCOSH also reviewed written statements submitted to OSHA by ground crew service workers as part of the OSHA complaint process.

NYCOSH did not have access to work areas of airport facilities. Therefore we were not able to directly observe or evaluate working conditions, equipment, or tasks. Lack of access also precluded monitoring for diesel emissions, carbon monoxide, noise, or temperature.

NYCOSH was not able to obtain or evaluate OSHA-required employer documents such as chemical hazard communication programs and bloodborne pathogen exposure control plans. Two workers requested copies of these documents from their employers. In one instance, the request was accepted but no documents were provided. In the second instance, the request was refused. OSHA regulations require that these documents be made available to workers, upon request.