

Communities at Risk?

Potential Hazards in
Metropolis, IL and Paducah, KY
from the Honeywell Lockout



Crosses near the plant represent workers who have battled or died from cancer. Now, even as Honeywell replaces them with out-of-state temps, local workers fight to honor their memory by ensuring the facility's safe operation.

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UNITY AND STRENGTH FOR WORKERS

With Highly Skilled Workers Locked Out, Honeywell Uses Inexperienced Temps for Uranium Conversion

In Metropolis, Illinois, 228 members of the United Steelworkers (Local 7-669) have been locked out from their jobs at the only uranium conversion facility in the United States. Honeywell International, Inc. has replaced these experienced and highly trained workers with hundreds of temporary laborers who lack adequate experience and have been cited for receiving illegal assistance on the exams that allowed them to begin working.

This report is therefore intended to provide information on the health, safety, and environmental hazards posed by Honeywell's use of temporary labor. Background information on the work that occurs at this facility and the importance of maintaining an experienced and local workforce at the Metropolis Works plant is also included.

Given the sensitive work that occurs at this facility – where highly toxic, combustible, and corrosive chemicals are used to process uranium for use in nuclear fuel – Honeywell's use of temporary replacement staff poses a potential hazard not just within the plant, but for the entire Metropolis and Paducah areas, as well.

While a major release of just one chemical could kill or injure thousands of residents and cause irreparable environmental damage, the company has locked its gates and blocked longtime employees from entering their worksite as part of an irresponsible campaign to slash costs.



Use of Inexperienced, Temporary Workers Raises New Concerns

The U.S. Nuclear Regulatory Commission (NRC) has noted that the uranium conversion process is highly sensitive: Aside from the well-known radiological dangers associated with refining uranium, the processes occurring at Metropolis also involve “strong acids and alkalis,” as well as “extremely corrosive chemicals that could cause fire and explosion hazards.”¹

For this reason, the NRC halted production following the start of the lockout on June 28, 2010. However, in September, Honeywell’s team of temporary replacements was finally granted permission to resume normal operations within the facility.

But the restarting of production has not been without incident.

On September 5, 2010 – shortly after the temporary workforce had reopened the plant – hydrogen and fluorine were accidentally recombined, causing an explosion that reportedly shook the ground outside of the facility and could be heard up to a mile away. A number of concerned residents called 911 and state police to report the explosion.²

Honeywell claimed that the explosion was a routine “noise,” but fearful residents – with support from the local union – called on the company to reinstate its experienced workers.

Then, in November of 2010, Honeywell was cited by the Nuclear Regulatory Commission for illegally coaching and assisting its replacement workers on the exams that had ultimately allowed them to begin operating the facility.³

According to the NRC, replacement workers “became confused” during their testing and were given illegal assistance. Further, the temporary workers were “unable to locate” several components and had to be coached as to the locations and the appropriate procedures.³

The citation also notes that members of the temporary staff were allowed to enter evaluation rooms while others were being tested, and to watch others as they performed their on-the-job evaluations, thus “affording them the opportunity to hear and listen to oral evaluation questions prior to their own examination” and “compromising the task performance portion” of the exams.³

These revelations cast further doubt on Honeywell’s already questionable assertions that its temporary workers were properly trained, but the company and the NRC failed to take further action, stating that the replacements in question had since been reeducated.

Still, the new information left many in the community on edge and fearful that the company was not giving adequate attention to the hazards posed by the removal of its experienced staff.

These fears came to fruition shortly thereafter, when a release of hydrofluoric acid on December 22, 2010, triggered emergency sirens and activated the facility’s emergency mitigation towers, which are designed to spray water in an attempt to knock down escaping gas.

While the company claimed that the release was small and confined to the plant, it acknowledged that the extremely dangerous chemical leaked for nearly two hours before it was stopped.⁴

Although neither incident resulted in any reported injuries, they nevertheless represent a powerful reminder of the importance of utilizing trained and experienced workers who not only know the facility, but also care about protecting the safety of their homes and local community.

Summary of Hazardous Chemicals Used and Stored at Metropolis Works

Hydrofluoric Acid:

Honeywell uses hydrofluoric acid to refine uranium ore. It is an extremely hazardous chemical that can react with water to produce toxic and corrosive gases. It can severely irritate and burn the skin and eyes – it is often used to etch glass – and inhalation or exposure at higher levels can cause potentially fatal conditions including pulmonary edema, severe chemical burns, and fluoride poisoning. Hydrofluoric acid reacts violently with strong bases and with metals, producing flammable and explosive hydrogen gas.⁵

As of June 2010, the company reported that up to 1,124,000 pounds of hydrofluoric acid (HF) at a time were in use in processes at its Metropolis Works site.⁶ Honeywell has acknowledged that a release of just 16 % of this amount of HF could impact as many as 128,000 people in the surrounding 25 mile radius.⁷

Uranium Hexafluoride:

The primary product produced at Metropolis Works is uranium hexafluoride (UF₆), a radioactive substance that is used to produce nuclear energy. Radiation can cause cancer, mutations, kidney damage, and reproductive problems including birth defects, miscarriages, and damage to sperm and eggs.⁸

Uranium hexafluoride is also highly corrosive and reactive. When it comes into contact with fire, water, or moist air, it can produce poisonous gases including hydrofluoric acid. It reacts violently with water and numerous chemicals, and can cause severe burns and serious radiation exposure upon contact with skin.⁸

Fluorine:

Also used in the uranium conversion process at Metropolis Works, fluorine is a “highly reactive chemical and a dangerous explosion hazard.” It reacts violently with a number of chemicals (many of which are also used or stored at Metropolis) and can explode, ignite, and enhance the combustion of other materials in the event of a

fire. Fluorine produces poisonous gases both in fire and upon contact with water, meaning that normal firefighting methods could create added dangers if used at the facility.⁹

Honeywell makes liquid fluorine and has reported quantities of up to 20,000 pounds on-site, exceeding the quantity that triggers the Risk Management provisions of the Clean Air Act by twenty times.^{6, 10}

Sulfuric Acid:

Like fluorine and hydrofluoric acid, sulfuric acid is corrosive and highly reactive. Though not combustible in its pure form, it is a dangerous explosion hazard that can strongly enhance the combustion of other substances. Further, sulfuric acid is a known carcinogen: Though a variety of cancers can occur as a result of exposure to carcinogens like sulfuric acid, it has been specifically linked to cancer of the larynx.¹¹

Potassium Hydroxide:

The EPA is currently investigating Honeywell for improperly storing potassium hydroxide (KOH), an extremely corrosive chemical that can be found in diluted form in powerful drain cleaners. It produces poisonous gases in fire, and reacts violently with strong acids including HF and sulfuric acid, which, as noted, are also among the chemicals used widely at Metropolis.¹²

Ammonia:

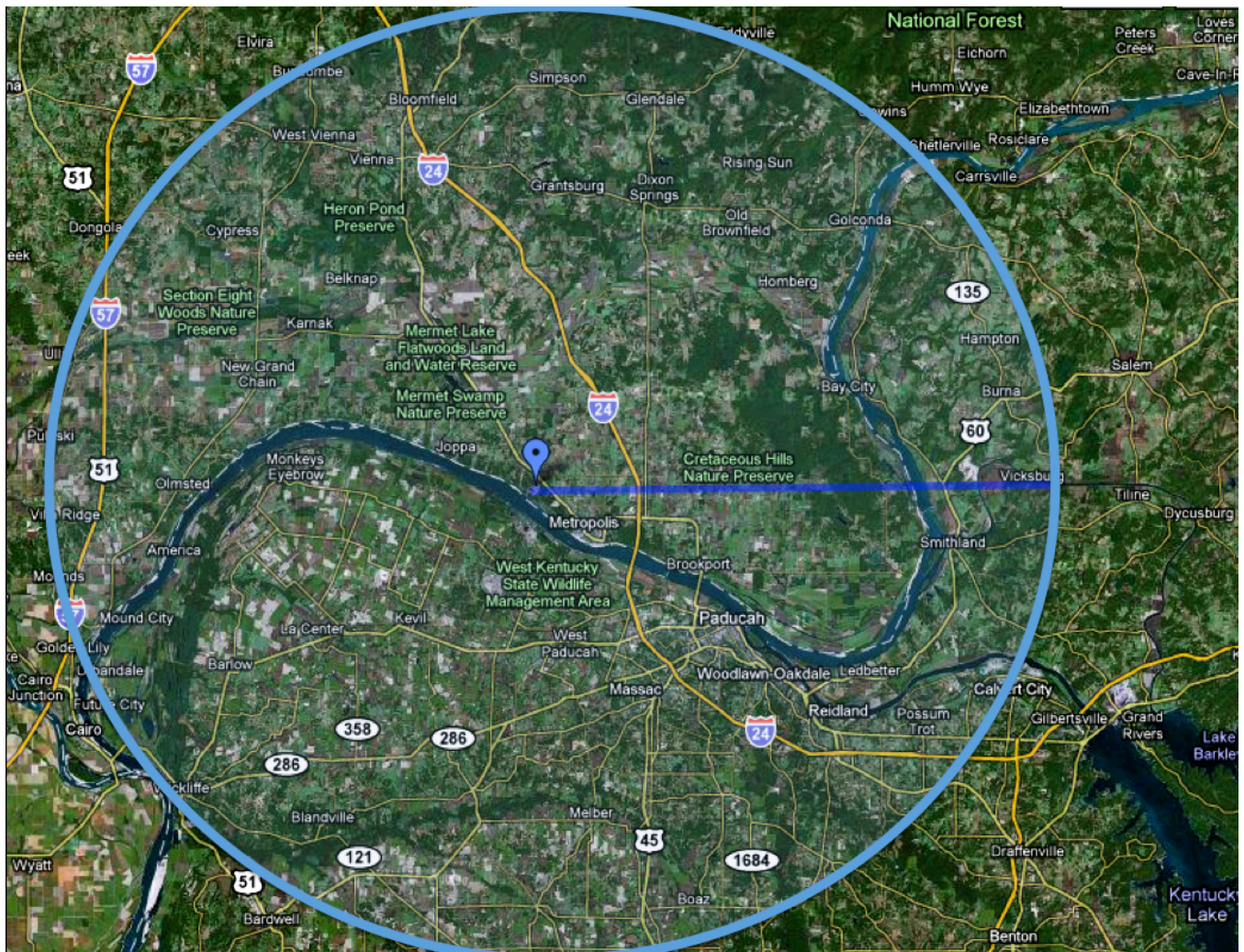
Honeywell reports that as much as 300,000 pounds of ammonia can be in use at its Metropolis site, nearly 30 times the amount that triggers the Risk Management provisions of the Clean Air Act.^{6, 10} It causes irritation and burns upon contact with skin, and repeated or high-quantity exposure to ammonia can cause permanent lung damage and an asthma-like allergy. It can ignite and burn “with explosive force” and produces poisonous gases (nitrous oxides) in fire. It reacts violently with halogens (like fluorine) and acids (including HF and sulfuric acid) that are also used and stored within the facility.¹³

Honeywell Notes that a Release of Hydrofluoric Acid Could Impact Large Area

While workers inside the facility face the greatest risks from potential exposure to the noted materials, it is clear that the chemicals used at Metropolis Works also represent a possible hazard for the larger community.

As noted, Honeywell has gone so far as to acknowledge that more than 128,000 residents within a 25-mile radius of the plant could be catastrophically impacted if even 16 percent of the hydrofluoric acid in use were to be released.⁷

Given this potential for disaster, the union believes that the need for experienced and knowledgeable workers – who can be trusted to use and store these chemicals properly – simply cannot be overstated.



Locked Out Workers Focus on Safety

Recognizing these potential dangers, as well as the need to keep their coworkers and local communities safe, the members of Local 7-669 have been committed to actively promoting safety.

In 2002, after nearly a year of planning, the international and local union collaborated with Honeywell to launch the Triangle of Prevention (TOP) program at Metropolis Works.

This innovative safety and prevention program included a full-time health and safety representative, five trainers, and twenty four incident investigators, with sixteen coming from the plant's workforce and eight from the company's management.

According to workers, the program was unprecedented in its scale and represented a significant culture shift within the facility.

Prior to its launch, workers were mostly detached from safety planning: They reported that their suggestions often went unaddressed, or that many employees refrained from speaking out for fear of discipline from management.

However, following the launch of TOP, workers noted serious improvements at the site.

"The training made us more aware of the potential hazards around us, and how incidents can affect the community," said Mike Riley, a recent retiree who was active in safety planning and served as a union representative for the TOP program. "Safety consciousness began to rise, and we were beginning to see that we had a say in safety. We had someone we could go to

regarding safety issues, knowing that it would be looked at and that we could receive an answer in return."

"All kinds of hazards were finally removed after they had been identified by workers," noted Darrell Lillie, a longtime employee and the president of the local union.

"We participated because we wanted to be safety activists."

Even in 2003, following a release of uranium hexafluoride due to equipment failure, the TOP program allowed workers and management to engage in open dialogue regarding further improvements. Numerous improvements were made and a full revitalization of training programs followed the incident.

By 2006, workers had achieved 1,000,000 man-hours without a lost time injury: a record that had never been achieved at Metropolis Works. Workers attributed this success to TOP, which ultimately recommended over 1,000 corrective actions and achieved a 90% completion rate.

But these successes were short-lived, as a new plant manager unilaterally shut down the program in August of 2008 and implemented new procedures that focused mainly on punishing employees for alleged safety violations. Workers therefore became afraid to report possible safety issues, due to fear that they could face retaliation from management.

Alarmed at the deteriorating safety conditions in the facility, the union filed a grievance in an effort to preserve the Triangle of Prevention program, which is used in more than fifty USW workplaces with broad support from both employees and management.

Still, even as workers fight to maintain the program, there is little doubt that it provided employees not only with a voice in safety issues, but also with invaluable skills and training.

Conclusion: “I’d Feel Safer if the Guys on the Outside Were In”

With ill-qualified temporary replacements now handling millions of pounds of volatile, toxic, and radioactive materials – as an experienced and committed staff stands outside, blocked from returning to their jobs – the union believes that the community is right to be concerned about potential hazards.

Further, with estimates showing that the cost of continuing this lockout may have already exceeded the cost of maintaining the healthcare and pension benefits earned by its workers by more than \$30 million, Honeywell’s actions seem particularly reckless.

But even after two serious accidents and revelations that its temporary staff was poorly trained and illegally coached through examinations, the company appears determined to keep its longtime employees locked out.

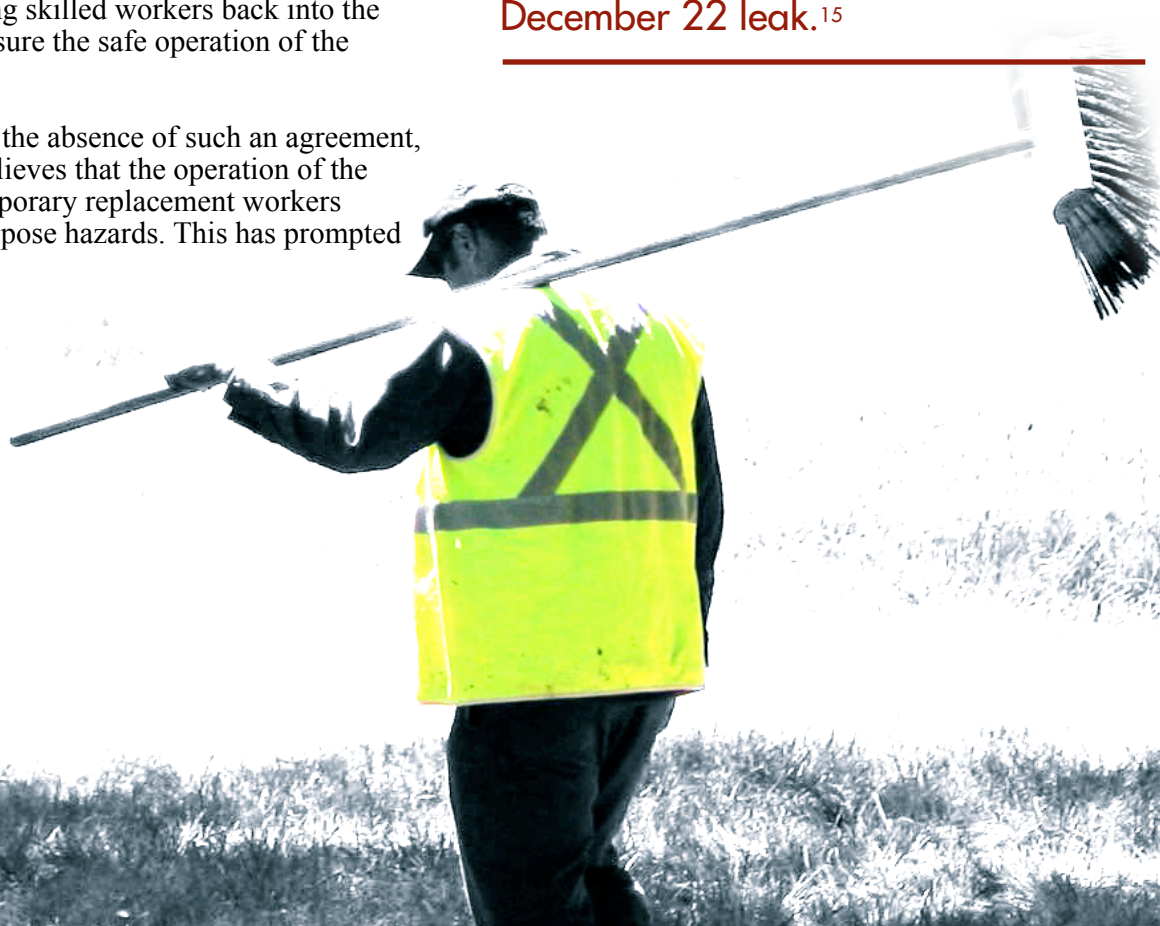
Still, the United Steelworkers and the members of Local 7-669 remain committed to bargaining and have repeatedly expressed to the company their sincere desire to reach a fair agreement that will bring skilled workers back into the plant and ensure the safe operation of the facility.

However, in the absence of such an agreement, the union believes that the operation of the plant by temporary replacement workers continues to pose hazards. This has prompted

the local and international union – with support from countless others – to call on organizations including the Nuclear Regulatory Commission (NRC), the Occupational Safety and Health Administration (OSHA), the Environmental Protection Agency (EPA), and the Chemical Safety Board (CSB) to use the full breadth of their power to see that the facility is operated safely, or not operated at all.

“If they remember everything, it’ll probably run,” said Jerry Baird, a local resident and small business owner, of the temporary laborers currently operating the plant. “If they don’t, they’ll probably kill us all.”¹⁴

“I’d feel safer if the guys on the outside were in,” added Larry Douglas, the Director of Emergency Management for Massac County, following the December 22 leak.¹⁵



References

1. "Uranium Conversion." U.S. Nuclear Regulatory Commission. <http://www.nrc.gov/materials/fuel-cycle-fac/ur-conversion.html>
2. Elk, Mike. "Explosion Rocks Honeywell Uranium Facility Run by Scab Workers." The Huffington Post. 07 Sept. 2010. http://www.huffingtonpost.com/mike-elk/explosion-rocks-honeywell_b_707893.html
3. "NRC Inspection Report No. 40-3392/2010-002 and Notice of Violation." U.S. Nuclear Regulatory Commission. 10 Nov. 2010.
4. Marchmon, Jay. "Honeywell Issues Statement About Plant Leak." WPSD Local 6. 22 Dec. 2010. <http://www.wpsdlocal6.com/news/local/Honeywell-issues-statement-about-plant-leak-112354924.html>
5. "Hazardous Substance Fact Sheet: Hydrogen Fluoride." New Jersey Department of Health and Senior Services. <http://nj.gov/health/eoh/rtkweb/documents/fs/3759.pdf>
6. "RMP Facilities for Metropolis, IL." The Right-to-Know Network. <http://www.rtknet.org/db/rmp/rmp.php?citystate=Metropolis%2C+IL>
7. "Honeywell's Offsite Consequences Analysis for Metropolis Works Facility." 10 June 2010. Filed with the Environmental Protection Agency and obtained from EPA Reading Room.
8. "Hazardous Substance Fact Sheet: Uranium Hexafluoride." New Jersey Department of Health and Senior Services. <http://nj.gov/health/eoh/rtkweb/documents/fs/1970.pdf>
9. "Hazardous Substance Fact Sheet: Fluorine." New Jersey Department of Health and Senior Services. <http://nj.gov/health/eoh/rtkweb/documents/fs/0937.pdf>
10. "Consolidated List of Chemicals Subject to the Emergency Planning and Community Right-To-Know Act." Environmental Protection Agency. <http://www.epa.gov/ceppo/pubs/title3.pdf>
11. "Hazardous Substance Fact Sheet: Sulfuric Acid." New Jersey Department of Health and Senior Services. <http://nj.gov/health/eoh/rtkweb/documents/fs/1761.pdf>
12. "Hazardous Substance Fact Sheet: Potassium Hydroxide." New Jersey Department of Health and Senior Services. <http://nj.gov/health/eoh/rtkweb/documents/fs/1571.pdf>
13. "Hazardous Substance Fact Sheet: Ammonia." New Jersey Department of Health and Senior Services. <http://nj.gov/health/eoh/rtkweb/documents/fs/0084.pdf>
14. Frosch, Dan. "In Superman's Hometown, a Labor Dispute Over Health." The New York Times. 08 Aug. 2010. <http://www.nytimes.com/2010/08/09/us/09metropolis.html>
15. Adams, Lauren. "Honeywell Leak Blamed on Equipment Problems." WPSD Local 6. 23 Dec. 2010. <http://www.wpsdlocal6.com/news/local/Honeywell-Leak-blamed-on-equipment-problems-112399969.html>

For more information on the lockout at
Metropolis Works, please visit www.usw7-669.com or
contact the local union at admin@usw7-669.com.

