

# **Sherwin Alumina: Too Great a Risk**

On Oct. 11, 2014, management at the Sherwin Alumina refinery in Gregory, Texas, locked out its skilled work force, members of the United Steelworkers (USW) Local 235A, in an attempt to force them to accept substantial cuts in wages and benefits. The union responded by offering to work while negotiations continued, but the company refused. Instead, Sherwin contracted with an outside company to hire temporary replacement workers. Most have never been in an alumina refinery prior to the lockout.

Sherwin is not the first company to lock out workers at an alumina refinery. In January 1999, management at the Kaiser Aluminum refinery in Gramercy, La., locked out its skilled work force, members of the United Steelworkers, in a similar attempt to cut their wages and benefits. The union likewise offered to continue to work while negotiations proceeded, but the company refused. Instead, Kaiser contracted with an outside company to bring in temporary replacement workers. Most had never been in an alumina refinery prior to the lockout.

On July 5, 1999, the digester area of the Gramercy plant exploded, injuring 29 employees. Many workers were sprayed with hot, caustic slurry and suffered third-degree burns. Several were blown out of the plant by the explosion. One was permanently blinded. The force of the explosion spread beyond the plant, but – luckily – there were no other plants or houses nearby. An investigation by the Mine Safety and Health Administration (MSHA) blamed the explosion on Kaiser's disregard of safe operating practices, the company's desperate attempts to maintain production during the lockout, and the lack of training for the replacement workers.

## **Refining Alumina – a Hazardous Process**

Aluminum metal begins as bauxite, a reddish dirt mined in a number of countries and brought to the United States by ship. An alumina refinery transforms the bauxite to alumina, or aluminum oxide, a white powder that is the feedstock for aluminum smelters, which produce the finished metal.

Bauxite is made into alumina in a series of digesters and other large vessels that operate at high temperatures and pressures. The process uses large amounts of hot sodium hydroxide, a highly caustic and corrosive chemical. The process used at Sherwin today is the same as the process used at Kaiser in 1999.

The biggest hazard in an alumina refinery is the hot, caustic pressurized slurry present in tanks, reactor vessels and pipes throughout the plant. The slurry can escape from valves, flanges, or leaks in the vessels and piping. The worst accidents can occur when the pressure in a vessel or pipe

becomes too great, and the equipment explodes with great force, which can blow workers off their feet, spray them with hot, caustic material, and spread shrapnel inside and outside the plant.

There is one important difference between the Kaiser and Sherwin refineries. The Kaiser refinery had no immediate neighbors. But the Sherwin plant is adjacent to a Dow Chemical plant with large tanks of chlorine, a gas so poisonous that it was used on the battlefields in World War I.

Alumina refineries can be safe places to work, and safe neighbors, but it takes constant vigilance and attention to safety-related maintenance. Small leaks have to be repaired immediately, vessel thickness has to be checked frequently, and pressures and temperatures have to be carefully monitored. Pressure-relief systems have to be maintained in perfect operating condition. Doing it right requires a trained, experienced, dedicated work force and a commitment to spending the time and effort to operate safely.

During a lockout, however, a company operates with temporary workers whose training and experience are nowhere near that of the locked-out work force. And the company may do whatever it takes to maintain production, as a way of showing the union that they can operate indefinitely without them. That's what caused the explosion at Kaiser. Whether a similar – or worse – tragedy will occur at Sherwin is just a matter of luck.

### **Sherwin Alumina's Safety Record**

Even in the best of times, there are risks associated with alumina production. The risks might not be so great if Sherwin had a good safety record to begin with. It does not. Over the year ending Oct. 1, 2014, MSHA inspectors spent 1,131 hours in the plant, uncovering hundreds of violations of MSHA regulations.<sup>1</sup> The agency has singled Sherwin out for special scrutiny under the Pattern of Violations (POV) criteria, and as of October 2014, the plant was close to an enhanced enforcement status, under which MSHA could temporarily close down operations for further serious violations. The refinery's Injury Severity Measure – a rate used by MSHA which tracks the most severe injuries – is 37 percent above the industry average.

The situation might be worse, were it not for the union. The USW has a strong safety and health committee and designated miners' safety representatives, along with contract language promoting safety and health. The union has tried hard to improve safety at Sherwin, working with the company when that is possible, turning to MSHA when necessary. Of course, the replacement workers have no union to advocate for safety.

Sherwin took over operations of the Gregory plant from BPU Reynolds in May 2007. Since then, the safety record at the plant has only gotten worse. For example, in the final three years of BPU Reynolds ownership, from May 1, 2004, through April 30, 2007, the plant was subject to

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<sup>1</sup> Alumina refineries perform the initial processing of ores from a mine. As a result, they are regulated by MSHA, not OSHA.

MSHA inspections a total of 30 times, and during only nine of those inspections were violations cited. Over that three-year period, only nine inspections were triggered by complaints about health, safety or hazardous conditions.

By contrast, in the most recent three years under Sherwin’s ownership, from 2012 through 2014, the plant has been subject to more than 245 MSHA inspections, and violations were found during 91 of those inspections. Of those inspections, 168 were triggered by complaints about health, safety or hazardous conditions, an 18-fold increase over the 2004-2007 period.

Since the lockout, safety complaints have continued. Between the beginning of the lockout on Oct. 11 and the end of 2014, MSHA received 17 complaints about health, safety or hazardous conditions.

<b>INSPECTIONS TRIGGERED BY COMPLAINTS</b>		
The number of inspections at Sherwin Alumina’s Gregory, Texas, facility that were triggered by complaints about safety, health or hazardous conditions, compared to the number of production employees. This chart compares the final three years of BPU Reynolds ownership and the most recent three years of Sherwin’s ownership.		
<b>BPU Reynolds Ownership</b>		
	<b>Hourly Production Employees</b>	<b>Inspections from Complaints</b>
<b>2004</b>	<b>573</b>	<b>2</b>
<b>2005</b>	<b>564</b>	<b>3</b>
<b>2006</b>	<b>578</b>	<b>4</b>
<b>Sherwin’s Ownership</b>		
	<b>Hourly Production Employees</b>	<b>Inspections from Complaints</b>
<b>2012</b>	<b>426</b>	<b>20</b>
<b>2013</b>	<b>449</b>	<b>16</b>
<b>2014</b>	<b>453</b>	<b>132</b>

(Source: Hourly employee records supplied by Sherwin to USW Local 235A.)

Further analysis of MSHA safety records reveals a major increase in Significant and Substantial or "S&S" citations or orders under Sherwin's ownership compared to that of BPU Reynolds.<sup>2</sup>

MSHA statistics show that in the final three years before the 2007 change in ownership, the Gregory facility received a total of 22 S&S citations or orders involving Sherwin employees. That total included five S&S citations/orders in the year that ended April 30, 2005, eight the following year and nine in the final year under BPU Reynolds.

MSHA reports reveal that under Sherwin's leadership, those numbers increased dramatically. In 2012, Sherwin received 19 S&S citations. In 2013, that number grew to 33. In 2014, Sherwin's S&S citations totaled 76, a nearly 10-fold increase over the numbers seen during BPU Reynolds' ownership.

Perhaps most troubling is that this dramatic increase in injuries came at a time when the number of employees and the number of operator hours worked at Sherwin was going down. In the last year of operations under BPU Reynolds, the average number of hourly production employees was 578.

In 2014, the average number of hourly production employees was 453. The increase in injuries, coupled with the decrease in employees and hours worked, resulted in the facility's Nonfatal Days Lost (NFDL) Injury Incidence Rate more than doubling, from 3.48 in 2006 to 8.50 in 2014, according to data the company provided to MSHA.<sup>3</sup>

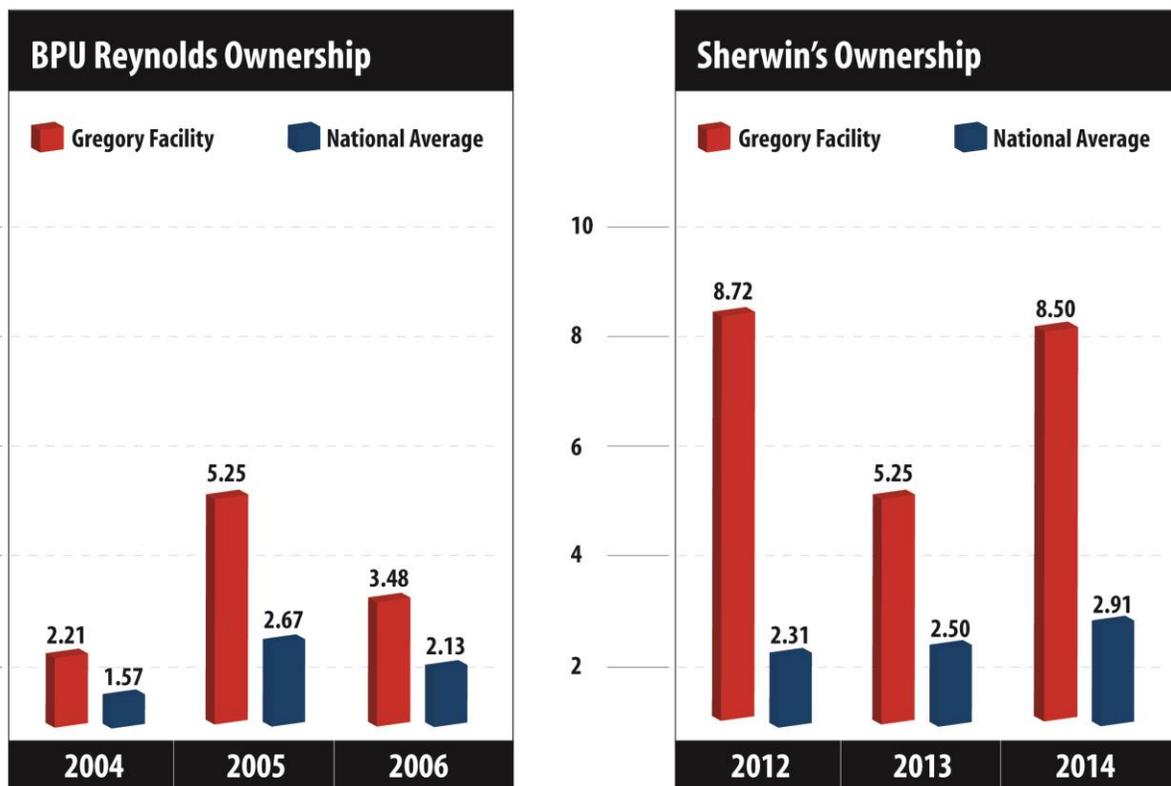
<b>SIGNIFICANT AND SUBSTANTIAL CITATIONS</b>	
MSHA records show an increase in Significant and Substantial (S&S) citations under Sherwin's ownership compared to that of BPU Reynolds. This chart shows S&S citations in the final three years before the 2007 change in ownership, along with the most recent three years under Sherwin's ownership.	
<b>BPU Reynolds Ownership</b>	
	<b>Total S &amp; S Citations and Orders</b>
<b>2004</b>	<b>5</b>
<b>2005</b>	<b>8</b>
<b>2006</b>	<b>9</b>
<b>Sherwin's Ownership</b>	
	<b>Total S &amp; S Citations and Orders</b>
<b>2012</b>	<b>19</b>
<b>2013</b>	<b>33</b>
<b>2014</b>	<b>76</b>

<sup>2</sup> For a detailed explanation of Significant and Substantial or "S&S" and other MSHA citations and orders, visit the MSHA web site at [www.msha.gov/PROGRAMS/assess/citationsandorders.asp](http://www.msha.gov/PROGRAMS/assess/citationsandorders.asp)

<sup>3</sup> MSHA calculates injury rates using a formula. For a full explanation of MSHA's NFDL injury rates and the formula used to calculate them, visit [www.msha.gov/drs/ASP/IRratesexplanation.asp](http://www.msha.gov/drs/ASP/IRratesexplanation.asp)

## INCREASED INCIDENCE RATES

The Non-Fatal Days Lost (NFDL) Incidence Rate at Sherwin's Gregory facility has increased since Sherwin took over ownership from BPU Reynolds. This chart shows the rate during the final three years under BPU Reynolds and the most recent three years under Sherwin's ownership, compared to the national rates for similar facilities.



In the final three years of BPU Reynolds ownership, the NFDL Injury Incidence Rate was slightly above the national average for similar types of facilities. For the most recent three years under Sherwin's ownership, the NFDL injury rate at the Gregory facility has regularly been at least double the national average for this type of facility, in some cases far higher.

According to MSHA data, in 2012, the incidence rate at Sherwin was 8.72, vs. a national average rate of 2.31. In 2013, the difference was 5.25 (Sherwin) vs. 2.50 (national).

Meanwhile, the number of operator accidents reported to MSHA has also increased, while the number of employees and hours worked have decreased. During the final three years under BPU Reynolds, reported operator accidents totaled 141. During the most recent three years under Sherwin, the total reported operator accidents was 182.

While these increases are alarming, the vast majority occurred while well-trained, experienced workers were on the job. Now that 450 of those workers have been locked out for three months and replaced with an inexperienced, temporary work force, Sherwin – a company with an already spotty record on safety – has made matters worse and truly is flirting with disaster.

## **Sherwin's Temp Agency – Strom Engineering**

Strom Engineering is the company Sherwin hired to provide temporary replacement workers during the lockout. Sources have reported that the replacement workers were given the minimum training required by MSHA, then put to work when Sherwin locked out the experienced union work force.

Sherwin is not the first company to use Strom Engineering replacement workers. Three such workers were seriously burned between February and March 2013 at American Crystal Sugar in East Grand Forks, Minnesota. American Crystal and Strom received citations for six serious safety violations, and penalties totaling \$34,200.

## **Sherwin's Parent – GlencoreXstrata**

Sherwin has been owned by the giant Anglo-Swiss conglomerate Glencore since May 2007. Glencore is the world's largest producer and marketer of commodities, such as copper, zinc, coal, oil, and grain. In 2013, Glencore had 190,000 employees in more than 50 countries, revenue of \$233 billion and net income of \$4.6 billion.

While it is difficult to get worldwide health and safety information from non-company sources, Glencore reported 53 fatalities worldwide in 2012-13. This number does not include protesters killed outside GX properties in Peru, South Africa and the Philippines.

Glencore has faced severe criticism for its environmental and human rights record around the world. In 2008, Glencore received the Public Eye Jury Award for its horrific practices in Colombia, where its mines have been criticized for causing pollution and health risks to communities. This year, Glencore finished second in the Public Eye online vote for “Worst Company in the World.”<sup>4</sup>

Allegations of firings, anti-union intimidation and tax evasion have followed Glencore to work sites all over the world, from the United States to Australia, Peru and South Africa.

## **Conclusion: Too Great a Risk**

Even with an experienced, well-trained union work force, refining alumina is a risky process. And even with an experienced, well-trained union work force, Sherwin's safety record has fallen below the national average for similar facilities for several years.

By locking out 450 well-trained, experienced workers and replacing them with an inexperienced, temporary work force, Sherwin Alumina is simply taking too great a risk, both for its workers and the surrounding community. The best solution for all is to end the lockout now.

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<sup>4</sup> For more information on Glencore's abuses and the Public Eye Jury Awards, visit [publiceye.ch](http://publiceye.ch)