Testimony of Kim Nibarger, United Steelworkers
Before the
U.S. Senate Committee on Environment and Public Works

Oversight of Federal Risk Management and Emergency Planning Programs to Prevent and Address Chemical Threats, Including the Events Leading Up to the Explosion in West, TX and Geismar, LA

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Chairman Boxer, Ranking Member Vitter and members of the committee, thank you for the opportunity to testify at this hearing. My name is Kim Nibarger. I am a health, safety and environmental specialist for the United Steel, Paper and Forestry, Rubber, Manufacturing, Energy, Allied Industrial and Service Workers International Union, or USW for short. We are the largest and most diverse industrial union in the US. The relevant fact for this hearing is that we represent the majority of organized workers in the petrochemical industry, as well as hundreds of thousands of workers who use chemicals on the job. My own background is in the refining industry; I worked in a West Coast oil refinery for 17 years.

First, I would like to point out that the two events under discussion; the explosions at the West Texas fertilizer plant and the Williams Chemical facility are in no way isolated incidents. On April 17 of this year, 12 workers were burned at the ExxonMobil Beaumont refinery, two of whom subsequently died from their injuries. On April 27, eight workers were sent to the hospital after an explosion and fire at the Chevron Port Arthur refinery. And on this past Monday an explosion at a fertilizer plant in Indiana killed one person.

Since 2008 the oil industry has reported an average of over 45 fires a year; so far 2013 appears to be right on track with 22 fires through the 21st of June. These are industry self-reported and do not include many smaller seal fires or electrical fires that USW members bring to our attention. This also does not include oil rigs, pipelines or storage terminal fires nor does it include fires in chemical plants.

These sometimes deadly and potentially catastrophic events take place all too often in this industry. The first response from industry after a tragedy is that the safety of their employees is their top priority. The widowed wives and children left without a father or mother may feel differently. More must be done to prevent these types of incidents from occurring in the first place.

The USW recently released a study entitled, "A Risk Too Great, Hydrofluoric Acid in U.S. Refineries." Twenty three USW sites were surveyed, which represent nearly half of the fifty US refineries that use hydrofluoric acid (HF) as a catalyst in the alkylation process.

EPA requires companies using or storing highly toxic chemicals to develop a risk management plan (RMP) in part to gauge how far a worst case release might travel and how many people

might be in harm's way. For HF releases from US refineries, the range is three to 25 miles, depending mostly on the amount stored. Twenty-six million people live within the vulnerable zone of these US refineries, many in urban areas like Philadelphia, Memphis, Salt Lake City, and the Houston – Galveston corridor. These locations would be impossible to evacuate quickly in the event of a major release. No other chemical operation puts as many people at risk.

The sites were asked to rate on a descending scale from very effective or very prepared to very ineffective or very unprepared their sites were in taking the necessary steps for maintaining safety in the facility. Questions asked dealt with mechanical integrity, effectiveness of existing safety systems, preparedness of emergency responders, both on and off site. Rarely was the highest level reached. In an alarming number of cases, workers rated the site as unprepared or ineffective.

From this survey, we made seven recommendations to improve safety in these facilities. Two of them, investigate and learn about safer alternatives to HF and pilot test alternative solutions speak to the heart of the problem; there are safer alternatives for manufacturing available.

A pilot project and even conversion is not expensive compared to the possibility of a Macondo-type event at one of these refineries using HF acid. Solid acid catalyst and liquid ionic catalyst are two possible options. They have been piloted successfully and only lack industry's commitment to make the change. But industry has been resistant, citing the cost for conversion. Eight oil companies operate 18 of the study refineries. In total, these eight companies had gross operating profits in 2011 of approximately $150 billion.

The USW also released a survey in October of 2007 of the oil refineries we represent in the US. Following the BP Texas City disaster 70% of the local unions we surveyed reported that their facilities were less than very prepared for emergencies. Time and again we hear from our members that staffing is not adequate on a day to day basis, overtime is excessive and they do not have enough people on the units for emergencies. The companies tell us that they do not staff for emergencies. I cannot think of a more critical situation to be staffing for.

As seen at the West fertilizer plant and the fire last year at the USW-represented Chevron refinery in Richmond California, the events at these facilities can have a far reaching impact on the communities. These potential impacts are the very reason the EPA requires companies to develop a RMP. While the EPA does many plant inspections during a year I would dare say that most of these are air or water inspections as opposed to RMP inspections. To a great extent the limited numbers of inspections are tied to budget and staffing conditions, not unlike what we hear with federal OSHA.

The regulatory process relies on much self-reporting which in essence allows the industry to self-regulate. As seen in the November 2012 EPA RMP inspection report on the ExxonMobil facility in Baton Rouge, 40 CFR (Code of Federal Regulations) 68.79 which addresses Compliance Audits says; "The owner and operator shall certify they have evaluated compliance with the

provisions of this subpart at least every three years to verify that procedures and practices developed under this subpart are adequate and are being followed."

The refinery has done two OSHA Process Safety Management (PSM) audits but had never completed a compliance audit for RMP, which are required every three years. In order to assess compliance, EPA reviewed the PSM audits since the regulations are similar. The EPA evaluation found that not only were required elements missing altogether, but even where an element was addressed, the company did not follow the appropriate technical procedures and practices that are required to be reviewed, developed and followed.

One of the problems with the OSHA PSM standard (29CFR 1910.119) which governs the health and safety of facilities using a specified volume of highly hazardous chemicals is that it is performance based. The standard tells you what to do but how it is done is left up to the company. This is necessary to a degree in that it allows the employer to bring in new technology or what is termed recognized and generally accepted good engineering practices (RAGAGEP) to make improvements under the standard. What we typically see are employers riding on past practice as this was RAGAGEP at the time it was put in place, so they don't need to upgrade it now. There are certainly some elements of PSM that could be made prescriptive and standardized throughout the industry.

But this calls back to the difficulty with inspections; OSHA is underfunded and under staffed. The PSM standard requires considerable technical expertise to enforce and there are not enough adequately trained compliance officers to address the PSM covered sites, as is the case with RMP under the EPA.

And then there is the Process Safety Management standard itself; it is written to require certain plans but there is no requirement that these plans be good, only that certain items are addressed. For example, as long as a site has done a Management of Change (MOC) on a replacement other than in kind, they are seen as meeting the standard for compliance or regulatory purposes; there is no requirement to do a beneficial or comprehensive MOC. A simple check-the-box checklist is sufficient. There is no required rigor that has to be built into a MOC.

The USW has been involved with a consortium of groups in California involved in sending comments to Governor Jerry Brown in the aftermath of the Chevron Richmond refinery accident. Even though no one was killed in this event, 15,000 community folks sought medical attention. Nineteen workers who were in the area at the time escaped death or serious injury due to sheer luck.

Our coalition has sent a broad number of proactive steps that can be taken to improve refinery safety and we applaud the state of California for embarking on this journey.

While we have made mention of OSHA and EPA being underfunded and short staffed which hinders their ability to sufficiently do inspections, I want to emphasize that part of following a

performance based standard is performing. You can have a great written plan but if you are not following it, it is of little benefit.

Let's go back to Chevron Richmond. The company had a written Mechanical Integrity program that covered inspection of piping. Some engineers raised concerns on a number of occasions that the section of pipe that ultimately failed should have come under more scrutiny. Somewhere along the line a decision was made to not do further inspections or replace the pipe.

We hear that workers have the "Stop Work Authority", that if they identify an unsafe condition, they can have the work stopped until it is safe to continue. That was not the case for our members at Chevron. Workers wanted to take the unit offline but were overruled. While we as workers may have the authority, we certainly do not have the power. This is the fallacy in talking about a safety culture; it is based on a harmonized model. Without the power, the authority means nothing.

While we complain about the lack of regulatory involvement, what about the companies responsibility to act? The same when the leak was discovered; the decision should have been made to depressure and shut the unit down based on material and volume. To maintain the idea that it is safer to operate a unit with a hole in the pipe – which is not going to get better – than to shut a unit down is absurd. If that is the case, you need to take a serious look at your operating procedures and parameters.

Calling this type of operation risk based management is not managing the risk at all. It is just taking a risk.

The core issue is that too often, huge quantities of toxic and/or flammable materials are stored on site posing a needless risk to workers and communities – particularly when reducing quantities or using safer alternatives is possible.

Thank you again for the opportunity to raise some fears workers have about the state of process safety in the petrochemical industry.

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