Testimony of
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Madame Chair and members of the committee, thank you for the opportunity to appear before you this morning. My name is Kim Nibarger. I am a member of the United Steelworkers (USW), and a Health and Safety Specialist for our International Union's Health, Safety and Environment Department in Pittsburgh.

The USW represents about 850,000 members in the United States and Canada employed in virtually every industrial segment of the workforce – steel of course, but also, paper, mining, aluminum and other nonferrous metals, chemicals, plastics, tires and rubber, glass, health care, and petrochemicals. Among oil refineries, the USW represents about 30,000 workers employed at more than 20 companies in the U.S.

It was nearly three years ago that I was last here, speaking on supposed Lessons Learned from the horrific accident at BP, Texas City. I spent a majority of my time speaking on lessons not learned or as a colleague of mine has said, 'failures we must never forget'.

I had just arrived at my parent's home in Anacortes, Washington in the early morning of April second this year when I heard an explosion and knew immediately that something bad had happened at one of the local refineries. This was of particular concern to me as I was an operator at the now Shell refinery in November 1998, when we had a release and fire that killed 6 of my coworkers. Little did I know that the sound I had just heard would signal an even more deadly accident.

The 7 fatalities at the Tesoro refinery in Anacortes Washington is the latest multi-fatality accident in the refining industry. But since then there have been fires and explosions reported at 12 US refineries as well as the fire and explosion of the Deepwater Horizon drilling rig. There have been 29 fires and explosions reported in refineries so far this year. In the majority of these no one was hurt but that was primarily a matter of luck. Personnel were not in the area at the time or were able to get to a fuel isolation point quickly, for example. Meanwhile these refinery accidents have caused 9 fatalities and sent at least 5 workers to the hospital.

The details of these accidents are frightening and instructive but it would take far too much time to recount them all this morning. Instead, I want to concentrate on fixing the problem.

- Lessons not learned, or as I said, failures we must never forget.

The high number of fatalities at Tesoro was the result of too many people being where they didn't need to be. One of the findings of the BP Texas City accident was that there were unnecessary people in the area during a start-up. Start-up is an especially hazardous time in an oil refinery. There are several other accidents where this was true, yet we continue to have people in an area that they don't need to be at a time they don't need to be there.

This is just one example of recurring actions that have led to accidents, injuries and fatalities. We still see releases and fires from the continued use of atmospheric vents on process units. Operating procedures are not being reviewed and updated to assure that the correct steps to follow are in place. The management of change (MOC) process (required to be performed for any change not in kind) is not forceful enough to identify what may go wrong when a change is made; they revolve more around justifying making the change.

As a result of another U.S. Chemical Safety Board (CSB) recommendation from BP Texas City, we have seen trailers for the most part moved out of predicted blast zones only to be replaced by tents which are allowed by a newly written API Recommended Practice.

- Tougher standards

The oil industry is basically self-regulated. Through a consortium of oil companies, known as the American Petroleum Institute (API) recommended practices are written and adopted that are voluntary to control safety in the oil industry. They argue that this gives them the flexibility to upgrade to new technology without having to rewrite the rules, but rarely does the industry upgrade to current recognized and generally accepted good engineering practices (RAGAGEP) as required.

I think a prudent individual understands that when you write the rules to govern yourself, you typically are pretty lenient. It is like the fox guarding the hen house; it might not stop a few chickens from disappearing.

Process safety management (PSM) is a standard in the Code of Federal Regulations (CFR) found in 29 CFR 1910.119, which is covered in a little over 3 pages. The standard was developed with the intent of preventing or minimizing the consequences of catastrophic releases of toxic, reactive, flammable or explosive chemicals. It addresses 14 elements and is termed a performance based standard because the employer writes their own plan on how to achieve the objective defined.

OSHA needs to exert more control over the standards for health and safety in the oil industry. The process safety management standard must be updated and made stronger. A new measurement of process safety performance needs to be developed by OSHA for this industry. The traditional OSHA 300 injury log which tracks personal injuries like slips, trips and falls is not an indicator of process safety.

My refinery, like so many others including BP Texas City, had a very low personal injury number just prior to killing 6 workers. The expanded use of contractors in the facilities is also skewing the numbers; BP Texas City did not see their injury rate number go up after the fifteen fatalities because the workers killed were contractors and do not show up on the host company accident and injury log.

By using leading process safety indicators such as activation of pressure relief systems or safety interlock systems, you are looking at what in the process was out of the operating parameter to cause or allow the excursion. This gives the opportunity to go back and correct the system failure that allowed the excursion to take place. This is one way refineries could better track their potential for a serious accident.

There are supposed leading indicator programs in place now but they lack the rigor and discipline necessary to give an accurate picture of process safety. They also do not require public reporting which the USW feels could help drive the industry to a higher standard. When the public is aware of how you operate they can help pressure you to be better.

The USW was involved in an initiative with the API recommended by the CSB to develop leading indicators for process safety. The CSB asked API and the USW to work together in a consensus process but the API instituted a formal voting process where on almost every issue a dozen or more oil companies just outvoted the union. The USW finally withdrew when it became obvious that the standard would not go further in identifying or improving reporting.

The USW also tried to address this issue during national contract negotiations with the industry in 2009. They refused to make any comprehensive improvements in health and safety language. After the Tesoro Anacortes tragedy, the USW again approached the companies to request to bargain on health and safety language to try and put a stop to the seemingly never ending process safety incidents in the refineries. We are awaiting their answer.

- Rigorous regulation

The Protecting America's Workers Act (PAWA) legislation that is currently before Congress must be passed. We hear many complaints about OSHA not doing enough but one of the biggest problems is the limit to what OSHA can currently do and the limited response required of a company to OSHA citations.

OSHA has instituted a National Emphasis Program (NEP) for oil refineries. The national program has completed 55 inspections, but only 14 of those have been settled. The other inspection citations have all been contested by the company issued the penalty. This means that the company is not required to take any action to abate the hazardous situations identified that have the potential to harm workers and the community.

The first 20 NEP inspections resulted in 456 citations being issued, of which 344 were for PSM violations. The elements most cited to date have been mechanical integrity, process safety information, operating procedures and process hazard analysis.

In most cases the contest period results in citations being negotiated away and fines reduced. OSHA does this with the union's reluctant blessing because it is the only way to get the most serious hazards fixed. But there is a serious downside. Where is the incentive to fix items or even follow the rules when it costs so little or requires no action on the company's part if they do not follow the rules?

- Safer alternatives

Most refiners have substituted a safer alternative for chlorine used in water treatment, which can affect not only the workers in the plant but also the surrounding community due the nature of the product. There is also a concern on the part of the union about the reluctance of industry to explore safer alternatives to an even more dangerous chemical, hydrogen fluoride (HF) used in the alkylation process.

USW has a project in place to bring attention to the public about the hazardous consequences to the surrounding communities, up to 25 miles according to some risk management plans (RMP), from a release of this chemical.

This one process – alkylation using HF – may be the single most dangerous process in all of American industry. A major release of HF in a populated area could injure or kill thousands. There are safer alternatives in solid acid catalyst, but there have been limited commercial pilots conducted and there does not appear to be much engagement by the refining community to try and advance this safer process. HF is the cheapest alternative for a catalyst in alkylation. It appears that this is a profit driven decision, and if there is a major release, it will have the same effect on refiners as the failure of the Deepwater Horizon is having on offshore drilling; all companies will be affected

- Drive to the bottom

Solomon numbers, something every refinery worker knows. An arbitrary set of guidelines around number of employees, maintenance costs and other operating factors related to the cost of a barrel of oil processed. The goal is being in that first quartile. Problem is that the first quartile is always moving. Consequently the other numbers, like employees and dollars spent on maintenance is moving too, down, to try and compete with the 'benchmark'.

This has driven employers to reduce workforces and reduce money spent on repairs and upkeep to dangerously low numbers.

More automation added to the process is used as an excuse to reduce the number of personnel operating a process unit. Problem being that many RMP's submitted by the companies rely on operator intervention as the means to control a worst case release

scenario. Today, those operating personnel are simply not there and the ones remaining have too much area to cover, requiring them to be in more places than they can possibly be.

The Environmental Protection Agency (EPA) is beginning an investigative process at the nation's refiners that will hopefully expose this dangerous practice in identifying companies who no longer meet the requirements of their RMP and have not taken steps to remediate the situation. The USW looks forward to this review with the goal of making the plants we represent safer not only for our members but also the communities that house their friends and families.

- Fatigue

The issue of fatigued workers has come up in a number of refinery accidents as well as other industries; most notable lately is the airline industry. There is a simple solution to the fatigue issue in refineries, staff all open shifts.

Units have rosters which designate a certain number of people required to man the unit. This includes coverage for vacation periods. Over the years hourly operators have taken on more responsibility related to training, procedure writing, turnaround planning and new construction projects.

While we feel that this work is important and requires a worker that can bring first hand knowledge, too often when these people are pulled out of the rotation their jobs are filled with overtime, not by replacing the person in the roster. This leads to more overtime as the replacement workers are now in a rotation and open shifts, often time in the schedule plus the vacation periods are all covered with overtime from the rest of the unit operators.

This leads to excessive days of work in a row. The CSB cited fatigue from long consecutive workdays, 12 hour shifts for 29 consecutive days, as one probable contributor in the BP Texas City accident. In addition to the already long 12 hour shifts at most sites, this can also mean 16 and 18 hour days to cover that open shift. This is not acceptable. Hiring of a few more operators to fully staff units would not only drastically reduce the fatigue concern, it would benefit the economy by putting some more people into good family wage jobs.

To sum up; we are not seeing new causes of accidents in the refining sector. The causes of accidents are the same time and time again.

An increased commitment to mechanical integrity is needed, assuring that we are inspecting the right equipment in the correct locations at the proper times.

It is like changing oil in a car. When you have a new automobile, you are cautious about changing the oil at 3,000 miles, when you have a ten year old automobile, you don't change oil at 10,000 miles; it is more critical as the automobile ages that proper

maintenance schedules are maintained. This is the situation we are experiencing in the refining sector.

These plants are getting older and yet over the years the 'oil change' in this case, unit turnarounds, are being pushed out further and further; in some cases from 2 to 3 years to 3 to 5 years. Not the most reliable way to treat 'an old car'.

Refining hydrocarbons is an inherently dangerous operation. Imagine filling a coffee can about half full of gasoline, putting the lid on and setting it on the barbecue to cook. Multiply that by ten million. This is essentially what is going on in an oil refinery. That is why there are required safeguards to monitor the pressure, temperature and flow. That is why it is critical to assure the equipment is in good operating condition. This process can be operated in a safe manner, but it requires a commitment on the part of the employer to know for certain that they are doing all they can to maintain the equipment and equip the operators to be able to do the job that is required.

The results of the OSHA NEP inspections have supported the claims the Steelworkers have been making for a number of years and more vocally since the 2005 BP Texas City fatalities. The companies have not embraced process safety. They have put systems in place to document actions that are argued as compliance.

Being able to generate a computer spreadsheet with electronic signatures for training is not the same as providing training to assure the employee understands and adheres to the current operating procedure. One of the most cited compliance violations in the NEP is around the issue of operating procedures; so if the employees are being trained on out of date procedures, where is the benefit to anyone?

The intent and spirit behind the standard is not being filled.

Until there are controls in place to make it less profitable to disobey the standard, these actions will continue.

Fines need to be increased and citations affirmed when issued so that penalties are not reduced to so low a level it is cost effective to not comply. And when an accident occurs from a violation of a standard and a worker or community member is seriously injured or killed there needs to be jail time for the managers who allowed a disregard of the standards. This is no different from a driver who injuries or kills someone in a car accident; neither intentionally intended to hurt someone, but their careless actions caused or allowed it to happen.

Only when the consequences of allowing workers to be injured or killed on the job are severe enough will companies take serious action to change their safety culture.

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Attachments: 'beyond Texas City', 2010 fires/fatalities