# CSB Public Hearing:

Donaldson Enterprises, Inc. Fireworks Disposal Explosion and Fire Investigation Report

Washington, DC

January 17, 2013

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# List of Participants

# 1 List of Participants

# **RAFAEL MOURE-ERASO**

**CSB** Chairperson

## **BETH ROSENBERG**

**CSB Board Member** 

#### **MARK GRIFFON**

**CSB Board Member** 

#### **DANIEL HOROWITZ**

**CSB Managing Director** 

## **DONALD HOLMSTROM**

CSB Director of Western Regional Office of Investigations

#### LAUREN GRIM

CSB Investigator, Western Regional Office of Investigations

## **AMANDA JOHNSON**

CSB Investigator, Western Regional Office of Investigations

## **DAN TILLEMA**

CSB Investigator, Western Regional Office of Investigations

# 2 Opening Remarks

Good afternoon. Good afternoon, everyone. I want to greet people here and people in our webcast. My name is Rafael Moure-Eraso. I am the Chairperson of the Chemical Safety Board. I would like welcome all you here in this room and I also welcome all the 360 people that are connected to our webcast across the United States including Hawaii. I am inviting you to this US Chemical Safety Board public meeting here from Washington, DC. I have some opening remarks, but before beginning, for those of you that are here in this meeting room, I want inform everyone on the location of safety exits. If we have a regular, normal meeting, you will exit through the door that you came in through the left. But if, however, there would be an emergency, a fire or something happening here, there will be an additional exit to the right. So we are going to have a total of two exits. So you should be aware of that.

As I said, we particularly want to welcome our webcast viewers watching the proceedings in Honolulu, Hawaii, where the time is five hours earlier. There are people from different locations here from the United States that are also connected and also we have the family members of the victims of this terrible tragedy that we are covering today, that we'll be talking about today that will be watching the webcast as well as reporters from the Hawaii media who have been covering this accident since its outset.

So, we are here to listen to the final report presentation on the Chemical Safety Board investigation into an accident that took the lives of five workers: Bryan Cabalce, Kevin Freeman, Justin Keli'i, Robert Leahey, and Neil Sprankle.

I would like to ask the audience for a moment of silence in memory of these victims.

Thank you. Four of these men were in their 20s and another in his 50s. I want again to express the CSB's condolences to the family members and friends of these men. They worked for the Donaldson Enterprise Incorporated Company, which was engaged in performing work under a federal government contract to dispose of illegal fireworks. I have seen the report prepared by our staff and anticipate that after you take in the presentations of the findings, you will share with me the belief that this tragedy should never have come to pass and that these workers should be alive today.

Please look at your agendas that you picked up at the door and you will hear the sequence of what we are going to be covering today. First we will hear from the investigation team, their findings and their recommendations. After that presentation from the investigation team, the board will ask questions of the investigators. Then we'll be inviting interested persons to speak and we will also hear if they wish to speak and we hear that they do want to speak from the family members from Honolulu who would like to comment on the report of the accident that took the lives of their loved ones. After the public comments, the board will discuss the issues and recommendations that have been proposed and then the board will vote on the final report. A majority vote is required for passage of the investigation.

# **Opening Remarks**

Sitting with me on the podium here is the investigation team that I will introduce later. And at this table here is to my right the CSB General Counsel, Mr. Richard Loeb. And Dr. Beth Rosenberg and Mr. Griffon that are Board members. This is the first public meeting following the appointment of Dr. Beth Rosenberg. President Obama appointed her in January 2013. I have known Dr. Rosenberg for a long time as we shared an academic life together at the University of Massachusetts at Lowell and also to our professional lives in occupational health over the last 20 years. She is totally committed to worker safety and health and will be a tremendous asset for the board. Dr. Rosenberg, would you like to make some comments?

#### 2.1 BETH ROSENBERG

Okay. I want to begin by offering my sincere condolences to the families and friends of the victims of this terrible accident. I'm so sorry for your loss and I hope the work that we do here prevents something like this from ever happening again. I'm honored to be here today to take part in this public meeting. As Chairperson Rafael Moure stated, my name is Beth Rosenberg and I have recently been appointed as a CSB Board member. I'm looking forward to being an active member of the Board and an advocate for worker safety. I've spent most of my professional life teaching and studying occupational safety and health because I think that death and injury on the job is completely unacceptable. My life's work dovetails perfectly with CSB's mission of preventing accidents and saving lives. The incident we are talking about today was a terrible tragedy. I look forward to the investigation team's presentation. Thank you.

#### 2.2 RAFAEL MOURE-ERASO

Thank you, Dr. Rosenberg. I would like to ask my colleague on the Board, Dr. Mark Griffon, if he would like to speak before we begin the proceedings.

#### 2.3 MARK GRIFFON

Thank you, Mr. Chairman. I, too, would like to offer my condolences to the families and friends of the victims. This was a tragic and preventable incident. Hopefully the CSB's recommendations with regard to improved regulations, safety practices and contractor selection and oversight will prevent this type of incident from happening again. I also hope that the lessons detailed in our report are shared with and learned by other industrial sectors, since I'm certain that the problems identified in this report are not unique to the fireworks disposal operations. Thank you.

# 3 Introduction of Investigative Team

#### 3.1 RAFAEL MOURE-ERASO

Thank you, Board Member Griffon. With that, I would now like to introduce our investigation team. With us today, we have four investigators from our Denver regional office. Don Holmstrom at my extreme right who is the investigative supervisor from Denver; Dan Tillema is an investigator; Amanda Johnson is an investigator, Lauren Grim, an investigator, too. I would like to say that they have spent many months and hours on these investigations in Honolulu and back at the Western Regional Office in Denver. They have absorbed a massive amount of information, analyzing it and drafting the 90-plus page report that upon approval will be available on our website. And that is the report that we are going to be voting today. So, I would like to pass the meeting to Mr. Holmstrom for the investigative team to proceed with their presentation. Mr. Holmstrom.

## 3.2 DONALD HOLMSTROM

Thank you, Chairman Moure-Eraso. Hello and thank you for attending today's presentation on the Donaldson Enterprises incident investigation. My name is Don Holmstrom. I'm the Director of the Western Regional Office of the Chemical Safety Board located in Denver, Colorado. This incident occurred on April 8, 2011, and a team of four CSB investigators arrived in Honolulu three days later on April 11. During the first several weeks of the investigation, the team analyzed physical evidence at the site and conducted interviews with key witnesses. In May, the investigation team physically entered the magazine, after ATF had mitigated the hazards that were present. Since then, the team has traveled across the country conducting interviews and meetings with experts from locations including Los Angeles, San Francisco, Nebraska, Kansas, Michigan, Ohio, Virginia, Louisiana, and Washington, DC.

The team examined existing fireworks disposal methods and practices, researched disposal-related standards and regulations and analyzed the consideration of safety and contractor selection in oversight processes, and researched similar incidents involving fireworks disposal. I would like to note the investigation team has had great cooperation from other groups and agencies throughout the duration of the investigation, including ATF, EPA, the Department of Treasury, the National Fire Protection Association, Hawaii Occupational Safety and Health, the Hawaii Department of Health, and the Honolulu police and fire departments.

Three investigators will be presenting their findings on the DEI investigation to the Board. The speakers are Dan Tillema, Amanda Johnson, and Lauren Grim. All three of these investigators are based out of the CSB's Western Regional Office in Denver. And, now, I'd like to introduce the team lead, Investigator Dan Tillema. Dan

# 4 Incident Introduction

#### 4.1 DAN TILLEMA

Thank you, Don. On April 8, 2011, a tragic incident occurred in Waipahu, Hawaii, during disposal of seized fireworks. These fireworks were confiscated by federal law enforcement because they were much more hazardous than their labeling represented.

Our investigation into this incident has uncovered numerous safety gaps related to the regulation of fireworks disposal, insufficient consideration of safety-related criteria and contractor selection and oversight, and a complete lack of industry standards covering this type of work. These deficiencies enable a company with no fireworks disposal experience to develop unsafe work practices that endangered workers and ultimately resulted in this tragedy.

Today, we will present to you the details of the incident itself as well as the key findings of our investigative work. Following a Board question and answer period, we will complete our presentation with the reading of our proposed recommendations to the Board. These recommendations are specifically designed to close these gaps and prevent future similar incidents. We will begin with a short video presentation that contains animation depicting the incident.

#### 4.2 **CSB SAFETY VIDEO: DEI**

NARRATOR: Display fireworks enjoyed by millions across the country. But fireworks are explosives that require great care in handling and storage and particularly when attempting to dispose of them.

April 8, 2011, a tragedy in Waipahu, Hawaii, near Honolulu. An explosion and fire killed five workers at a hillside storage facility used by Donaldson Enterprises, Incorporated, or DEI. The company had been hired by a federal contractor to dispose of illegal fireworks seized by the government. The Chemical Safety Board investigated and found that there are no national standards for safely disposing of fireworks and the company's procedures were extremely unsafe.

MOURE-ERASO: Fireworks have been around for centuries, so we were surprised to learn that there are no good practice procedures for their disposal. And we also found that the federal government did not require fireworks disposal contractors to demonstrate that they could perform the work safely.

NARRATOR: When federal agencies seize illegal imports, they are typically turned over to a single large federal contractor for storage, sale, or disposal. That contractor is the VSE Corporation of Alexandria, Virginia. From 2007 to 2010, federal customs agents seized three imported fireworks shipments entering Honolulu from China. The fireworks had been labeled for consumer use, but actually were far more powerful professional display grade. The illegal fireworks were eventually turned over to VSE for disposal. VSE subcontracted the work to DEI, a small Hawaii-based company that specialized in the destruction of military explosives.

#### **Incident Introduction**

AMANDA JOHNSON: VSE procurement selected DEI for several reasons. DEI was a local company already storing the seized fireworks in the Hillside facility and its proposal was determined to be the best overall value for the government. VSE was unaware that despite DEI's military ordinance background, the company had no experience with fireworks disposal.

NARRATOR: With no good practice standards to follow, DEI improvised a disposal plan and submitted it to VSE, which approved it, deferring to DEI as the expert. DEI's plan was to soak the fireworks in diesel fuel up to 48 hours, desensitizing them so they could be burned without exploding. Work began in the summer of 2010 under a tent outside of the cave-like storage facility, or magazine, where DEI had been keeping the fireworks. After soaking the fireworks, DEI personnel transported them a local shooting range to be burned. But there was a problem. Some fireworks were not just burning but were exploding. The diesel fuel was not penetrating the aerial shells well enough. DEI then decided to disassemble these firework tubes by hand and cut one-inch slips in the aerial shells so the diesel fuel would soak in better. But CSB investigators found that the company did not follow good process safety principles by analyzing the hazards of this new disposal method.

AMANDA JOHNSON: Disassembling the fireworks was a major change to the disposal process. Good safety practice would have called for a thorough hazard analysis as well as a comprehensive review of the potential safety impacts of the proposed change.

NARRATOR: But this was never done. Instead, in March 2011, to speed up the process, DEI changed its protocol yet again. Now DEI workers began filling separate cardboard boxes with aerial shells and loose black powder, a highly explosive mixture of charcoal, sulfur, and potassium nitrate used to propel the fireworks into the air.

AMANDA JOHNSON: Once again, DEI did not analyze the safety implications of a procedure change. This procedure dramatically increased the explosive hazards inside the magazine.

NARRATOR: Ali Reza is an explosives expert and worked with the CSB on the DEI investigation.

ALI REZA: As you're physically breaking up the fireworks and separating these charges, you're exposing yourself to the black powder. Once you have loose black powder in contact with materials that can create friction, then ignition is extremely likely.

NARRATOR: On the morning of April 8, 2011, under the tent outside of the magazine, five DEI employees were taking apart one-inch firework tubes known as Sky Festivals. A sixth worker was cleaning up inside. Using metal tools, the DEI workers cut the firework tubes and separated out the aerial shells and the black powder. Around 8:30 AM as the workers continued to take the fireworks apart, it started raining. The six DEI employees began moving the boxes of black powder, aerial shells and partially disassembled fireworks to just inside the magazine. One used a metal hand-truck. In addition, the workers brought in folding metal chairs, a rolling office chair and the metal tools. Five employees remained inside the magazine as the supervisor stepped outside to make a phone call. Just before 9 AM, there was a loud explosion. Fireworks began shooting out of the magazine entrance as the supervisor scrambled to escape. As the blaze spread, fireworks continued to ignite. The explosion and fire fatally injured the five Donaldson employees inside the magazine. One victim was in his 50s. The other four were young men were in their 20s. The CSB determined the explosion was likely

#### **Incident Introduction**

triggered when pyrotechnic powder on the floor of the magazine was ignited by heat, shock or friction as DEI employees moved materials around inside. Another possible ignition source was static from household trash bags that were being used to line the boxes of black powder.

AMANDA JOHNSON: While the exact ignition source could not be determined, strong possibilities include friction from the office chair rolling over the loose explosive powder on the magazine floor or a metal spark from the hand truck which was blown over 100 feet from the magazine entrance when the explosion occurred.

*NARRATOR:* Once the powder ignited, fire likely spread to the boxes of disassembled firework components, setting off the mass explosion.

AMANDA JOHNSON: The CSB found the root causes of the explosion went far beyond DEI's flawed procedures. For instance, we found there are no federal, state, or local codes, regulations, or standards that established safety requirements or provide guidance on proper ways to dispose of fireworks.

ALI REZA: There is a significant backlog of seized fireworks that are being stored legally in magazines all across the country because there is no good mechanism to dispose of them.

NARRATOR: Around the country, accidents continue to occur when fireworks disposal methods are improvised in the absence of regulations and good practice guidelines. For example, on the 4<sup>th</sup> of July in 2012, a volunteer was killed in an explosion when he and others were using an earthen pit to dispose of fireworks that had not functioned properly during a display in Lansing, Kansas.

ALI REZA: Some fire departments and police departments have developed procedures where they try to destroy illegal fireworks. And the problem that you run into is because there is no industry best practice or industry guidelines; they use their judgment in developing procedures. And, clearly, what we saw in Hawaii is the judgment that was exercised was not good enough and it caused five workers to lose their lives.

MOURE-ERASO: The explosion and fire that killed five Donaldson Enterprises employees was preventable. The CSB believes that workers involved in fireworks disposal deserve to be better protected.

### 4.3 **DAN TILLEMA**

This graphic from our report shows a side view of the magazine just before the incident. As you heard in the video, DEI modified its fireworks disposal process and created the elements necessary for a mass explosion. By separating out and accumulating the explosive black powder in the aerial shells, DEI created an explosion hazard much greater than the original fireworks themselves presented. The hazards created by these work activities were never adequately identified or controlled and this inadequacy allowed for the sequence of events on the day of the incident. The simple introduction of rain resulted in DEI workers essentially trapping themselves behind stacked boxes of accumulated explosives near the magazine exit, making a safe escape impossible. And now I will turn it over to investigator Amanda Johnson to discuss the investigation team's key findings.

# 5 CSB Investigation Team's Key Findings

#### 5.1 AMANDA JOHNSON

Thank you, Dan. As a result of our investigation, the team has identified a number of key findings, which I will now review. To begin, while OSHA's Process Safety Management Standard or PSM applies to activities related to fireworks manufacturing, it does not apply to fireworks disposal. PSM requires a robust hazard analysis of a process as well as a thorough analysis of any proposed changes to that process, known as Management of Change. Had PSM been applicable, DEI's changes to its fireworks disposal process would have required an extensive safety review.

DEI was also not required to conduct a thorough process hazard analysis of its fireworks disposal procedures. While DEI did conduct an internal review of its fireworks disposal activities, it was not sufficient. DEI failed to identify the hazards of disassembling fireworks by hand and accumulating their explosive components that are easily ignitable. The analysis also failed to control those hazards that were identified and did not require adequate protective clothing or emergency provisions.

DEI's modification to its fireworks disposal process resulted in the disassembly of fireworks and the separation and accumulation of highly explosive and sensitive firework components, mainly black powder lift charge and aerial shells. According to the Department of Transportation, black powder by itself is considered to be a 1.1 mass explosion hazard. This process greatly increased the explosion hazard inside the magazine. Furthermore, DEI did not ensure its personnel disposing of the fireworks possessed the training, experience and knowledge of procedural safeguards for the safe conduct of the work.

The CSB along with the ATF in its investigation report on the incident concluded that the explosion was likely triggered by loose explosive pyrotechnic powder on the magazine floor ignited by heat, shock or friction. The initial ignition likely propagated to the boxes containing explosive fireworks components near the magazine entrance, which resulted in the mass explosion. Hawaii Occupational Safety and Health tested 12 tools found inside the magazine after the incident and determined that 11 of those were capable of producing a spark; and, therefore, being an ignition source within the magazine.

While many ignition sources are possible, we believe the likely scenarios include a spark generated by movement of the metal hand truck that was used to move boxes in and out of the magazine. Friction from a rolling office chair located inside the magazine rolling over powder on the floor and static electricity from plastic garbage bags that contained the black powder.

When items are seized in the US by federal law enforcement agencies, they are typically managed under a Federal Seized and Forfeited Property Program within the Department of Treasury or the Department of Justice. The program relevant to our investigation is the Treasury Executive Office for Asset Forfeiture or TEOAF. TEOAF is responsible for ensuring that a wide variety of property

# CSB Investigation Team's Key Findings

seized by federal law enforcement, from handbags and perfume to vehicles and fireworks, is effectively handled, stored, and, if necessary, disposed of.

TEOAF does this by contracting a company, in this case, VSE Corporation, to manage the property through the subcontracting of vendors.

The Federal Acquisition Regulation, (FAR) which governs federal contracting does not specifically require a federal contracting officer to consider safety performance measures and qualifications when determining the responsibility of a potential contractor, nor does the Department of the Treasury supplement to the FAR, known as the Department of the Treasury Acquisition Regulation System, or the DTAR. In addition, neither of these regulations imposes sufficient requirements for safe practices and contractor oversight with respect to the unique hazards associated with hazardous materials.

This can be contrasted with the Department of Defense (DoD) Federal Acquisition Regulation Supplement or DFARS, which considers additional safety and contractor oversight for all DoD acquisitions involving the use of ammunition and explosives. The DFARS requires contracting officers to incorporate the DoD Contractor Safety Manual for Ammunition and Explosives into all contracts under which ammunition and explosives are handled.

The DoD Safety Manual provides safety requirements and guidance to minimize accidents that could damage property or cause injury to DoD personnel or the public during DoD contract work involving ammunition and explosives.

This finding is reflected in VSE's selection and oversight of DEI. VSE procurement conducted a non-technical review of DEI and the competing offer that did not address health and safety. VSE selected DEI as the subcontractor because DEI's proposal was determined to be the best overall value for the government. DEI's offer was the lowest price and most time-efficient and DEI was already storing the fireworks at the time. VSE procurement personnel were not aware that DEI had no fireworks disposal experience prior to the awarding of the subcontract. In addition, VSE did not utilize experts to assist them in this process.

The DEI investigation is not the first time the CSB has evaluated contractor safety and selection and oversight. In October of 2007, a chemical fire inside a tunnel at Xcel Energy Hydroelectric Plant in a remote mountain location west of Denver, Colorado, killed five and injured three workers. The CSB found in its investigation into the incident that despite a deficient safety record, a contractor was selected to perform work based primarily on a low-cost bid. The contractor's poor safety qualifications were causal to this incident. The CSB recommended to the Colorado Public Utilities Commission and Xcel Energy in its 2010 report that contracting requirements be established to ensure that safety factors are effectively considered in the selection of contractors. The CSB noted in its report an increasing trend by industry, trade associations, safety standards and regulations requiring the use of safety criteria in contractor selection.

The CSB found that there is a substantial regulatory gap that exists pertaining to fireworks disposal. The CSB could not identify any regulations or standards that establish adequate safety

# CSB Investigation Team's Key Findings

requirements, provide guidance on proper ways to dispose of fireworks or address the hazards associated with the disassembly of fireworks and the accumulation of explosive firework components. For example, the National Fire Protection Association (NFPA) has created safety standards governing fireworks display, storage and manufacturing; however, none address the safe disposal of fireworks.

Finally, seized fireworks are considered hazardous waste. Therefore, DEI was required to obtain a Resource Conservation and Recovery Act (RCRA) Hazardous Waste Disposal Permit from Hawaii's Department of Health prior to beginning its disposal work. The Department of Health (DOH) issues 90-day emergency disposal permits for those seeking to dispose of waste fireworks because DOH considers these fireworks to be an imminent threat to human health and the environment. However, these permits do not incorporate robust safety provisions such as those contained within the OSHA PSM standard, despite the extremely hazardous nature of the materials that are covered by these permits.

That concludes our presentation on investigative findings and analysis. We would now like to take any questions from the Board.

#### 6.1 RAFAEL MOURE-ERASO

Okay, so, we're going to proceed for questions. I would like to take my privilege as the Chair to ask the first one. Your key finding number one, you expressed that the team observed that had PSM been applicable, the Donaldson Enterprises changes of procedures to disassembly would have required a safety review. So, my question is why then not recommend a change in the existing OSHA PSM standard.

#### 6.2 DAN TILLEMA

So, that topic in general is covered in section 5.1 of the report where we go over the existing process safety management standard and I jotted a couple notes specific to that one and in anticipation of this. But the PSM, the CSB can make far-reaching recommendations and look first to address gaps in existing regulations to protect from hazards. Currently, RCRA addresses the disposal of hazardous waste such as these seized fireworks. These regulations lack sufficient protections for the highly hazardous work such as disposing of seized fireworks. And, as we say in section 5.1 of the report, the language of the PSM standard, the OSHA Process Safety Management Standard and the OSHA interpretation letter that we reference there has specifically excluded the disposal of fireworks from PSM coverage, and primarily because this work is not considered manufacturing.

We also want to point out that there are important advantages of covering the disposal of fireworks in RCRA with additional protections. People seeking to dispose of fireworks would need to seek out and apply for a permit and permits would need to be reviewed and approved. This provides an important opportunity we feel for the reviewer to assess the work and ensure that adequate provisions are in place. And with OSHA, there is no pre-review or approval of the activity before the hazardous work begins. Is there anything we should add to that? Does that address the question?

#### 6.3 RAFAEL MOURE-ERASO

Yes, thank you. Would any member of the Board like to ask questions about the findings?

#### 6.4 MARK GRIFFON

Yes, Mr. Chairman. I have a few questions. Just first, I think this was mentioned in the video but I think it warrants at least maybe a little more expansion by the team, just the magnitude of this problem nationally. I got the sense from the video as well as conversations with you all that this isn't a unique situation in Hawaii. I wondered if you could expand on that a little bit, how much of a problem is out there?

#### 6.5 AMANDA JOHNSON

I would say it's not only a problem just for the issue of seized illegal fireworks. As you can see from the Lansing, Kansas, incident that's mentioned in both the report and the video, this is also an issue where fireworks that don't go off during a display must be disposed of and you have individuals improvising ways to dispose of those fireworks that are not safe. And, while we don't have a specific number of fireworks-related incidents, dealing with fireworks is an extremely hazardous activity. And just in the last year, we've seen two incidents that have resulted in multiple fatalities. So we feel it's extremely serious. And when individuals, as you've seen, local law enforcement agencies are not even sure now what to do with these fireworks, so they store them. So you're finding states across the country accumulating

fireworks both consumer grade and commercial display grade in magazines, and hundreds of thousands of pounds of fireworks are being stored now. I believe it's a serious issue that must be addressed. Does that answer the question?

#### 6.6 MARK GRIFFON

Yes, that was very good. Thanks.

#### 6.7 AMANDA JOHNSON

Did you want to add to that, Dan?

#### 6.8 DAN TILLEMA

No, I think you covered it. I was going to say we do cover this in section 2.3.

#### 6.9 MARK GRIFFON

Thank you. And, also, just a couple questions on the findings. For the contractor, Donaldson Enterprises, did you review – you mentioned their safety and qualifications – I wonder if they had a history of incidents or safety violations prior to this tragedy.

#### 6.10 AMANDA JOHNSON

DEI. As we mentioned in the report, once VSE awarded DEI the subcontract, they did review in their own incident history database to see if there was any mention of any adverse incidents relating to DEI. And they found none. This was after awarding the subcontract, mind you.

#### 6.11 MARK GRIFFON

Oh, after the fact. That's important.

#### 6.12 AMANDA JOHNSON

Yes. And I don't know personally of any other incidents.

#### 6.13 DAN TILLEMA

Our understanding is they had a good safety record prior to this incident.

#### 6.14 AMANDA JOHNSON

But this work involved remote ignition of unexploded munitions, not fireworks-related disposal.

#### 6.15 MARK GRIFFON

Right, so this was out of the realm of their normal work activities. And just to follow along those lines, the oversight contractor, VSE. You mentioned in the report and it's probably spelled out in detail but did they review and/or approve the first plan and then the modification thereof and were they qualified to review or approve these plans?

#### 6.16 AMANDA JOHNSON

A few different questions there.

#### 6.17 MARK GRIFFON

Sorry, I lumped them all together.

# 6.18 AMANDA JOHNSON

Oh, no, that's fine. After awarding of a subcontract, DEI did create a fireworks disposal plan that they submitted to VSE's regional office in California and this office took that plan, summarized it into something called the Property Destruction Plan and that was submitted to VSE's risk management office here in Alexandria for review and approval. That plan consisted of soaking firework tubes whole in diesel and burning them at a local shooting range. And that was it. These modifications were made during the disposal process and VSE was notified of these changes but it was more of a "This is for your information" type of notification, it was not for approval. And VSE personnel who were receiving this information or these emails on these changes would not have had the knowledge or expertise to recognize hazards associated with this change that led to disassembly and accumulation.

#### 6.19 DAN TILLEMA

And DEI communicated on a regular basis via email with VSE to their office in Riverside, California. And the modifications, particular when of importance prior to the incident where they were separating and accumulating the aerial shells and black powder was communicated via an email but it was more as a communication and not an official change to a procedure seeking approval.

# 6.20 AMANDA JOHNSON

Or seeking review for approval.

# 6.21 MARK GRIFFON

Right, just for their information. No action was taken by VSE at all.

# 6.22 DAN TILLEMA

Correct.

#### 6.23 MARK GRIFFON

Thank you. Defer to the Chair. Thank you.

# 7 Questions & Answers by CSB Board, Staff and the Public

#### 7.1 RAFAEL MOURE-ERASO

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Questions & Answers by CSB Board, Staff and the Public

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Questions & Answers by CSB Board, Staff and the Public

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# 7.22 DAN TILLEMA

Correct.

#### 7.23 RAFAEL MOURE-ERASO

We've finished this round of questions and at this time I would like to introduce Investigator Lauren Grim who will be presenting the investigation recommendations. So, Miss Grim, please.

#### 8 Recommendations

#### 8.1 LAUREN GRIM

Thank you, Chairperson Moure. Based on our analysis and findings, the investigation team proposes to the Board the following recommendations. The first six recommendations aim to improve the contractor selection and oversight process by addressing the consideration of safety criteria. The first recommendation is to the Federal Acquisition Regulatory Council, a multi-agency committee that oversees the Federal Acquisition Regulation (FAR). The FAR governs federal contracting.

#### 8.1.1 Recommendation 1

Establish an additional contractor responsibility determination requirement under Subpart 9.104-1 of the Federal Acquisition Regulation addressing contractor safety performance. The analysis under this requirement should focus on incident prevention and environmental and system safety. At a minimum, the language should specifically require the review of a prospective contractor's:

- Environmental and safety programs
- Safety record and incident history
- Ability to use safe methods for any work involving hazardous materials including explosives; and,
- Suitable training and qualifications for the personnel involved in the work, including prior relevant safety experience.

#### 8.2 Recommendation 2: Department of Treasury Office of Procurement Executive (OPE)

Establish a formal policy requiring that: Solicitations for contracts dealing with the storage, handling and disposal of explosive hazardous materials including fireworks incorporate rigorous safety-related contractor selector provisions such as those provided in the DoD's Contractor's Safety Manuals for Ammunition and Explosives, Section C1.5, "Pre-Award Safety Survey;" and, contracts dealing with the storage, handling and disposal of explosive hazardous materials including fireworks include a provision requiring that any subcontract, regardless of tier, for the storage, handling and disposal of explosive including fireworks be selected based on rigorous safety-related contractor selection provisions such as those provided in the DoD's Contractor Safety Manual for Ammunition and Explosives, Section C1.5, "Pre-Award Safety Survey."

#### 8.2.1 Recommendation 3

Establish a formal policy requiring that contracts and subcontracts dealing with the storage, handling and disposal of explosive hazardous materials, including fireworks, incorporate rigorous safety-related contractor oversight provisions such as those provided in the DoD's *Contractor Safety Manual for Ammunition and Explosives*, Section C1.6, "Pre-Operational Safety Survey," and C1.7, "Post-Award Contractor Responsibilities" to provide effective oversight of subcontractors handling and disposing of explosives and hazardous materials.

#### Recommendations

#### 8.2.2 Recommendation 4

When the NFPA guidance developed by the National Fire Protection Association for the safe disposal of fireworks as recommended under DEI Recommendation 7 is completed, incorporate this document by reference into the formal policies established by DEI Recommendation 2 and DEI Recommendation 3.

#### 8.2.3 Recommendation 5: Treasury Executive Office for Asset Forfeiture (TEOAF)

Require additional provisions within the TEOAF seized property management contract, such as a contract line item number that provide for the prime contractors to use experts to assist the prime contractor's personnel in the selection and oversight of subcontractors who handle, store, or dispose of explosive hazardous materials, including fireworks pursuant to the main contract.

# 8.2.4 Recommendation 6: VSE Corporation

Use experts to:

- Assist VSE procurement in selecting vendors to properly handle, store, and dispose of explosive hazardous materials, including fireworks, pursuant to prime contract requirements; and,
- Assist VSE personnel in overseeing the work to ensure it is being conducted safely.

The following five recommendations aim to help close the identified fireworks disposal, regulatory and industry standards gaps.

# 8.2.5 Recommendation 7: National Fire Protection Association (NFPA)

Develop a new standard or incorporate within existing standard best practices for the safe disposal of waste fireworks that are consistent with environmental requirements. At a minimum, this guidance or standard should:

- Discourage the disassembly of waste fireworks as a step in the disposal process.
- Minimize the accumulation of waste explosive materials and encourage practices that reduce, recycle, reuse, or repurpose fireworks; and,
- Incorporate input from ATF, EPA, and other agencies, experts and available resources on fireworks disposal methodologies.

#### 8.2.6 Recommendation 8

Once fireworks disposal best practices under DEI recommendation 7 is completed, develop and implement an outreach plan to promptly communicate the new NFPA practices to relevant government agencies and private entities that dispose of waste fireworks.

#### 8.2.7 Recommendation 9

Revise the Resource Conservation and Recovery Act (RCRA) Subtitle C regulations to require a permitting process with rigorous safety reviews to replace the use of emergency permits under 40 CFR §270.61 for the disposal of explosive hazardous materials, including fireworks. At a minimum, the new process should require the use of best available technology, safe disposal methodologies as well as safety management practices such

#### Recommendations

as those required by OSHA's Process Management Standard 29 CFR §1910.119. For example, hazard analysis and control and management of change.

#### 8.2.8 Recommendation 10

Until DEI recommendation 9 can be implemented, develop and issue a policy guidance document to provide a regulatory process with rigorous safety reviews to replace the use of emergency permits under 40 CFR §270.61 for the disposal of explosive hazardous materials, including fireworks. At a minimum, the new process should require the use of best available technology, safe disposal methodologies as well as safety management practices such as those required by OSHA's Process Safety Management Standard 29 CFR §1910.119. Ensure its effective communication to all EPA regional administrators, state environmental agencies, and organizations within the fireworks industry.

# 8.2.9 Recommendation 11

Effectively participate in the National Fire Protection Association's standard development process to develop guidance on the safe and environmentally sound disposal of fireworks as recommended under DEI recommendation 7.

## 8.2.10 Recommendation 12: Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF)

Effectively participate in the National Fire Protection Association's standard development process to develop guidance on the safe disposal of fireworks as recommended under DEI recommendation 7. And that concludes the Investigation Teams proposed recommendations. We would now like to take any additional questions and comments from the Board.

# 9 Questions & Answers: CSB Board

## 9.1 RAFAEL MOURE-ERASO

We will proceed to the additional questions they might have. Does any Board member have any questions for the Investigation Team?

#### 9.2 MARK GRIFFON

I have a few questions. You might have touched on this in the first round of questioning but I just want to make it clear in my mind. Why did the team decide to focus the recommendation regarding regulatory oversight to EPA specifically to require a permitting process for the disposal of fireworks, rather than other regulatory oversight options?

#### 9.3 DAN TILLEMA

Really, it does dovetail with what we said earlier that the OSHA PSM standard does not apply to the disassembly of fireworks. It is a manufacturing standard and we felt there were existing regulations that just needed to be improved within the RCRA environment that could address this problem more readily. The key issue that I think that we really feel strongly about is this issue that people have to first seek out a permit before they can dispose of fireworks and that gives the opportunity for a review process to take place where a reviewer is looking at what the proposal is and has the opportunity to make recommendations and make sure that safety practices are adequate.

#### 9.4 MARK GRIFFON

So, you're saying one of the strengths of the current recommendation is that it requires an application for the permit that requires a review process to take place and approval by the-

#### 9.5 DAN TILLEMA

Exactly. Do you guys want to add to that?

#### 9.6 AMANDA JOHNSON

As we state in the report, RCRA legislative history as well as some RCRA regulations are going to support the conclusion that RCRA is not only an environmental statute, it also supports the safe disposal of these hazardous materials. So we really are looking to strengthen those regulations, rather than trying to change an OSHA letter of interpretation.

# 9.7 MARK GRIFFON

And, then, just to follow-up on that. I mean just thinking from the worker safety angle, I wonder if you considered – I know you talked to OSHA PSM – but if you considered a recommendation to OSHA 1910.120, I think it would be Part P that covers RCRA TSD facilities. In other words, updating that as opposed to making a recommendation to the permitting process in the RCRA.

#### 9.8 AMANDA JOHNSON

We looked at 1910.120. Currently, as I understand it, it would apply to a treatment storage disposal facility, which DEI would not be. So, this particular incident was outside the scope and application of

1910.120 as we believed after researching it. It would not require any sort of review of a hazard analysis or management change. So, again, looking at the regulations, we really went back to RCRA, which already covers disposal of hazardous waste and would hopefully entail some sort of review as you're applying for a permit to treat or dispose of extremely hazardous materials. We really looked to strengthen those, rather than trying to focus on an OSHA standard.

#### 9.9 DAN TILLEMA

And I would just add to that that similar to our answer in the PSM question earlier, with OSHA, there is no pre-review or approval of the activity before the hazardous work actually begins. So that's a key difference.

#### 9.10 MARK GRIFFON

That's a very important point. Can you tell me if, assuming this RCRA recommendation, the EPA recommendation is adopted, would these operations then fall under the 1910.120? I mean it might be an overarching set of requirements for them. I believe it may be applicable.

#### 9.11 AMANDA JOHNSON

That's a good question. I'm not sure if I can answer it.

#### 9.12 DAN TILLEMA

I think we'd have to look at that more.

#### 9.13 AMANDA JOHNSON

We might have to talk to EPA about that.

#### 9.14 MARK GRIFFON

Thank you. I have another one but I'll defer to the Chair.

#### 9.15 RAFAEL MOURE-ERASO

No, just continue.

#### 9.16 MARK GRIFFON

I just have a question on the recommendation to the FAR. I wondered if you could for the record here today, if you can speak to the breadth of the problem with regard to federal contractor oversight.

#### 9.17 AMANDA JOHNSON

We don't have specific numbers in terms of contractor work with us but we touched upon this in the Xcel report where we talked about there was a business roundtable report that determined back in 1982 that contractors with a history of positive safety performance were more likely to perform the work safely. And this was addressed in Xcel. We showed that the private sector, including construction user's roundtable American National Standards Institute, they're developing guidelines and standards to address the use of safety criteria for selecting contractors. And we believe this work is so hazardous that really we want to see the federal government contracting process catch up to the private sector. These incidents, we like to call them "low frequency/high consequence." They do happen occasionally and they are extremely severe and we really want to see this addressed throughout the government, which is why we made this recommendation. And, Dan, you might want to add to that.

#### 9.18 DAN TILLEMA

The only thing I would add is the report lays out well that the private sector has learned these lessons and they're ahead of where the federal sector is and we'd like to see the government contracting catch up.

#### 9.19 MARK GRIFFON

And just one final follow-up to the FAR recommendation. Looking at your recommendation language, specifically, how does the recommended changes to the FAR differ and strengthen the existing language in the FAR section 9.104-1 that speaks to contractor responsibilities?

#### 9.20 AMANDA JOHNSON

As we lay out in the report, FAR Sub-part 9.101-4 discusses the elements that need to be addressed when determining responsibility of a prospective contractor; and, those include adequate financial resources, business ethics and integrity, a performance record and organization, accounting, operational controls, etc. What we're hoping to do with this recommendation – I can go to the exact language – is develop an additional element to add to these seven elements that would require a contracting officer to review environmental and safety programs, safety record and incident history, ability to conduct the work safety, training and qualifications and relevant safety experience. So, really, we're trying to add to what's already there in hopes of making it more robust in terms of safety.

#### 9.21 DON HOLMSTROM

I would just add to that that flowing from our analysis in Xcel, we found they used a best-value process in which the contractor had a bad safety record because of other factors including low price was selected, even though they had a zero as a safety record and a number of fatality incidents. And even by Xcel, they rated them on a zero to five scale as a zero. And so we recommended a pre-qualification process that it's a go/no-go process. Either you meet certain standards and you're qualified or you're not as a more effective way to screen out unsafe contractors. And we think this provision, this specific provision that's mentioned in the FAR has that same character of being of a go/no-go determination of responsibility; and, thus, would provide a more effective real prevention of contractors who lacked a sufficient safety record from being considered and receiving contracts in the federal system.

#### 9.22 MARK GRIFFON

Very good. Thank you.

#### 9.23 RAFAEL MOURE-ERASO

I would like perhaps to add to your questions, Mark, that would it be fair to say that this investigation and this issue is not a problem on the specific fireworks industry but it's basically a problem that illuminates issues on federal contracting? Would you think that would be a fair statement?

### 9.24 DAN TILLEMA

I would say we start off with a significant issue in the fireworks industry but also as a significant part of the work Amanda has done is looking at the government contracting aspect. And there were just a lack of adequate safety provisions in the contracting process.

#### 9.25 RAFAEL MOURE-ERASO

Thank you. Are there any more questions from the Board? Okay, so, we'll proceed. At this time, I would like to call on the Chemical Safety Board Managing Director, Dr. Daniel Horowitz. I'm going to ask him

to preside the presentation of public statements and also any comments or questions from the families from Honolulu. Dr. Horowitz.

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#### 10.1 DANIEL HOROWITZ

Thank you, Mr. Chairman. We have approximately 10 people here in the room that have signed up for remarks. We also have families joining us via the Web in Honolulu and they are joined to the room by audio and video link. I don't think we're able to actually get their video but we are able to exchange audio with those family members. I think I will begin, if it's all right with you, by asking the family members who have joined us from Honolulu if they would like to pose any remarks or questions concerning the investigation. And I'll turn it over to Mr. David Pettinger, our facilitator in Honolulu.

#### 10.2 DAVID PETTINGER

Thank you, Daniel. I'm here with the families. I'd like to invite anyone here to make a statement or ask a question, pose a question to the Board or the investigating committee.

#### 10.3 DANIEL HOROWITZ

David, can you repeat the question. It was inaudible here. I think we could make that out, sir. Could you just say your name so we get it correct in the hearing record.

#### 10.4 WAYNE

What training, qualifications and experience that VSE has for overseeing the contracts everybody files.

#### 10.5 DANIEL HOROWITZ

Thank you, sir. The question, if I heard it correctly, related to the qualifications and background of the contractor firm, VSE, making the selection of Donaldson. Was that correct, sir?

#### **10.6 WAYNE**

What experience did he have about fireworks, if any at all?

## 10.7 DAN TILLEMA

Well, we'll just trace back a little bit farther. But DEI's main business is with unexploded ordinance. What they would typically do is go out onto these fields in Hawaii where there might be unexploded ordinance and they would identify the ordinance and set explosives to the ordinance and then remotely detonate them. They have familiarity with explosives.

# 10.8 DANIEL HOROWITZ

Could you clarify, sir? Were you asking about the subcontractor, DEI, or the prime contractor, VSE Corporation?

#### 10.9 DAN TILLEMA

Okay, I will strike that first answer. VSE, they've confiscated fireworks in the past. The people we interacted with and the people directly handling the contract don't have any explosives or fireworks experience whatsoever.

#### 10.10 AMANDA JOHNSON

And we address that in our recommendations to Treasury Executive Office for Asset Forfeiture as well as VSE Corporation.

#### 10.11 DANIEL HOROWITZ

Does that answer the question, sir?

#### **10.12 WAYNE**

Yes, it did.

#### 10.13 DANIEL HOROWITZ

Thank you. David, are there other questions from the audience in Hawaii?

#### 10.14 DAVID PETTINGER

Yes, I think we have one more.

#### 10.15 STEVE

My name is Steve. My question is whether the investigative team found things and methods for the disposal of fireworks that were safer than the things and methods that DEI was using.

#### 10.16 DANIEL HOROWITZ

Okay, I think we all heard the question. And we did research this point in some detail, so I'll ask the team to speak to that.

#### 10.17 AMANDA JOHNSON

It was interesting. We actually spoke with a number of different companies-fireworks manufacturers, explosives disposal companies, and local law enforcement. And it was interesting that we found an array of different disposal methodologies depending on who we spoke with, which ranged from functioning the fireworks as designed to soaking them in diesel and burning them, soaking them in water, digging a pit, burying them. Am I missing any? Which to us, just again kind of reflected the fact that there is no standard out there and in the absence of a standard, individuals are kind of making it up as they go along. And I would say in terms of a safer method-

#### 10.18 DAN TILLEMA

I guess the one that is most appealing to me is what we saw at Heritage in Nebraska where once the fireworks were taken out of the magazine and into their processing facility, they essentially removed the plastic wrapping, put the fireworks into a vat of hot water, which then renders them non-explosive. They add a microbiological recipe to that, put it back into storage. The biological recipe basically breaks down the explosives into a fertilizer product that they put back into the agricultural market. It was a pretty attractive process. We didn't actually get to see it while they were processing when we were there. But the concept was very attractive. We understand the military has a contract with General Dynamics in Joplin, Missouri, that has a very sophisticated incinerator system to destroy ammunitions and explosives. And that would be another very reputable way to go. Significantly higher cost than what DEI had done and what would be available at Heritage.

#### 10.19 DANIEL HOROWITZ

I think it does get to the point that without a standard, there is no effective driver to take this sector above the easiest, quickest, or tragically in this case, least safe process. So that undergirds a lot of the recommendations that we're making. David, are there other questions from the room there or comments of any type?

#### 10.20 DAVID PETTINGER

I think that's all, Dr. Horowitz. Thank you very much.

#### 10.21 DANIEL HOROWITZ

Thank you. We have approximately 10 speakers from the room. A couple of points. You're not required to have signed up on this yellow sheet in order to comment. Anyone may comment. And even if you haven't signed up, we'll open up the floor after we've gone through this list. You are welcome, those of you on the World Wide Web, to submit your questions by email. You can send them either to comments@csb.gov – we also put out the email questions@csb.gov. I understand either one of those will work. So send those in. I don't have any that have been emailed as yet but feel free to do that. If you're in the room and you prefer to email from your smart device rather than come up to the microphone, that's fine as well. Our commenters in the room, I'll just go down the list. Ken Shuster of EPA.

#### 10.22 KEN SHUSTER

I am Ken Shuster. I'm with the EPA and I'm a charter member of EPA, senior staff member. I'm the RCRA Office, the Office of Resource Conservation and Recovery. That's where I've been for the last 43 years. I have basically a statement, not a question. I had the opportunity to discuss the various aspects of this case with the staff of the Chemical Safety Board. Today, I just want to clarify one point for the record. EPA has a comprehensive set of regulations that apply to the treatment, storage and disposal of reactive and explosives, which includes fireworks. These regulations are issued under the authority of the Resource Conservation and Recovery Act. They require a permit that contains – I appreciate the comments from Dan about how good the process is for issuing permits – the permit applicant proposals proposes how they're going to safety handle these and there is a back and forth and it ultimately results in permit conditions and all this is up front and so I appreciate your comments on how good that process works. These permits contain conditions that assure the treatment and disposal operations are safe and protective of human health and the environment. As Amanda said, we consider human health to include safety. Especially pertinent to this case, for example in our regulations, we say, quote: The owner-operator must take precautions to prevent accidental ignition or reaction of ignitable or reactive waste. This waste must be separated and protected from sources of ignition or reaction, including but not limited to, open flames, smoking, cutting and welding, hot surfaces, frictional heat, sparks (meaning static, electrical or mechanical), spontaneous ignition, for example from heat-producing chemical reactions and radiant heat.

The fact of the matter is that Donaldson Enterprises was operating without this requisite permit when the explosion occurred. In fact, last September, Donaldson Enterprises and two of the Donaldson officials were indicted for engaging in an un-permitted treatment of hazardous waste.

We appreciate working with the CSB. This is a very important report that you have done and we look forward to continuing our efforts. Thank you.

# 10.23 DANIEL HOROWITZ

Thank you. And, certainly the CSB team appreciates the great relationship with EPA during this case as well. Thank you. And, now, Spencer Watson from DOT.

#### 10.24 SPENCER WATSON

I'm Spencer Watson, chemist with the Pipeline and Hazardous Material Safety Administration's Office of Hazardous Material Safety in the Engineering and Research Division. I have some questions for the investigative team, just in the way of background. Of course, our department regulates the transportation of explosives and fireworks but our jurisdiction ends at the loading and unloading dock and not storage or process. But we have some collateral interest in whether you did investigate possibly from some unexploded materials, unexploded fireworks, whatever they were called – Skyfalls or something. Was any quantitative analysis done on if you had unexploded devices which you were able to determine what the chemical compositions were involved in their manufacture and did you verify their chemical compositions and if you did, did you also verify their explosive properties according to United Nations classification procedures.

#### 10.25 DANIEL HOROWITZ

We did undertake physical and chemical studies. The chemical studies actually are still ongoing, so we hope to publish those results at a later date. I think some of the physical studies were completed. I don't know if the team wants to speak to that.

#### 10.26 DAN TILLEMA

I would say it starts off with we have some access to the ATF testing data that was used in the prosecution of the importer. So we started off with that and then we engaged in chemical testing and physical testing of our own, as Dr. Horowitz said. The physical testing is showing some significant sensitivity with the aerial charges, the aerial explosives and the aerial shells; and, less so with the black powder lift charge. The chemical testing is still undergoing development of protocols to do the testing. And I don't know if that work is going to be done in the next two or three months -- it could go another six months.

What we did is we looked at whether or not any of our recommendations would be affected by the outcome of that testing and we don't believe it will be. But, that is still ongoing. And there's a section in the report that shows where the results will be posted on the website when we have them.

#### 10.27 RAFAEL MOURE-ERASO

And I believe you heard that one of the appendix's reports presents the ATA's composition data. Is that correct?

# 10.28 DAN TILLEMA

We discussed it, yes.

#### 10.29 SPENCER WATSON

Thank you. Let me offer our assistance if needed or if we can be helpful in that regard because our office reviews all new fireworks applications for both structure and composition and we have a wealth of experience in knowing what different fireworks components are typically used and their individual and collective hazards that present themselves. There are probably 40 or 50 different chemicals that could be

contained in any pyrotechnic composition, depending on what the affects-the color affects, the aural affects, the other miscellaneous affects. And we them pretty well catalogued and have a pretty good idea what presents to either mitigate them or desensitize them. Thank you.

#### 10.30 DANIEL HOROWITZ

We appreciate that. I think we'll take you up on it, actually. We've found it a significant challenge to find laboratories that specialize in this sort of work, so we really welcome your technical assistance. And if you can leave your contact information, we'll follow-up.

#### 10.31 DAN TILLEMA

Just to add. We have been working with the Department of Transportation since the day we arrived in Honolulu at the site. I'm forgetting his last name. His first name is Ed. Do you remember his last name, Don? And we worked with you to select labs. And Dr. Mary Beth Mulcahy, who is on our staff back in Denver, has been in regular communication.

## 10.32 SPENCER WATSON

Our new office director, Dr. Cara Leblanc, is very interested in this project and is very supportive of the mission and furthering our knowledge and of the disposal of fireworks procedures and policies.

## 10.33 DANIEL HOROWITZ

Well, we appreciate that. Thank you. Next, Mike Wright of the United Steelworkers.

#### 10.34 MIKE WRIGHT

Dr. Horowitz, I actually have questions and comments on two separate issues. One is this report, which is a splendid report. The other is some questions and a possible suggestion about some of the unfinished reports. I would rather defer that second part till after everyone else has spoken on this report. I don't want to detract from the report. So I can do it all later on or I can do just -

#### 10.35 DANIEL HOROWITZ

Why don't you do as you like. If you'd like to comment on this report, you can have a second go at the end of the panel.

#### 10.36 MIKE WRIGHT

Great. Thank you. First, my name is Mike Wright. I'm the head of the Health Safety and Environment Department of the United Steelworkers. Despite our name, we represent people in a large number of industrial sectors including paper, rubber, the majority of organized chemical workers and the majority of workers in oil refineries. So we have a pretty big interest in the Board. In fact, there are more Board investigations concerning our facilities, both completed and essentially uncompleted than for any other union and certainly for any corporation. So, we are a big fan of the Board and we may be your biggest client.

This is a very good report. This deals with a very important subject. Contractor safety is something that we worry about a lot. We hope the Board can also turn its attention to contractor safety, not just in the federal government but in private industry as well. Sadly, my staff and I investigate about 60 fatal and serious

accidents a year. Roughly half of those are fatal. We have found that contractors and people outside the normal workforce, like even people making deliveries are disproportionately killed and injured in those accidents. So, contractor safety is very important. This report makes a very important contribution to it.

I do have one very small quibble and that is that the process safety standard actually covers more than manufacturing. It probably would not have covered this particular activity for a variety of reasons but we would hate to see the report give the impression that people who aren't engaged in manufacturing but store and use large quantities of highly hazardous chemicals aren't covered – in fact, they are covered. Thank you.

#### 10.37 DANIEL HOROWITZ

Thanks, Mike. And I think the report does make that point. The OSHA letter, and I know there are OSHA representatives here; I believe replies specifically to disassembly and disposal of fireworks. So we didn't mean to leave the impression that the standard was circumscribed otherwise. But thank you for raising that.

Next is Julie Heckman of the American Pyrotechnics Association.

#### 10.38 JULIE HECKMAN

Hello. I just had one comment I wanted to follow-up. And, Dan and Amanda, it's good to see you again. I'm also a member of the NFPA Technical Committee on Pyrotechnics, so we were engaged at reviewing your recommendations in advance. One comment that you did make today, Dan, was that you thought that this was also an industry problem and not just confiscation problem. And I would beg to differ. I think the real issue is with confiscations and with law enforcement and fire service bringing all this product and not knowing how to dispose of it. The industry itself generates very, very little hazardous waste. And when they do have to dispose of it, it's all done in accordance with the RCRA regulations. We've worked closely with those agencies in the past and we would hire a contractor such as Clean Harbor, somebody who is very familiar with dealing with the type of waste generated in the firework industry and taking care of it and making certain that the industry member gets the paperwork that it was disposed of properly. I just wanted to clarify that.

And I also believe it is an issue for confiscations. Fire service has a lot of stuff. They have no idea what they're looking at and unless that chemical analysis is completed to know what is the proper classification, how volatile is the material, you don't know how to dispose of it. It's very, very difficult.

#### 10.39 DAN TILLEMA

Just to add to that. When I mention the industry, I'm heavily biased by the incident in Lansing where after the display, a fireworks show, they were getting rid of the fireworks that did not function properly, which that, as we learned, that methodology they developed, he had worked with a fireworks manufacturer in the past and that's where that came from. He had other disposal methodologies he had worked on in the past that resulted in problems and accidents and he had evolved to this process, which had been performing satisfactorily for him until this incident where these shells discharged and killed one of the volunteers.

## 10.40 JULIE HECKMAN

Right and I saw that presentation when you presented to the NFPA. And as you saw, the whole technical committee was in shock and was appalled that that was even a practice that existed. In my 25 years, I've never seen that happen. I've not seen it in writing. And, it's my understanding those were volunteers; they weren't professionals who do this as a living. So, yes, it's something industry has got to work harder on to make certain that people who don't do this professionally all the time have some knowledge on things that you absolutely should avoid.

#### 10.41 DANIEL HOROWITZ

Thank you for the comment. And I think one point we would also add is even the confiscation problem is a very massive problem. As you know, I think we learned yesterday, was it 14 tons, Amanda, in a single seizure. Is that figure correct --18 tons of fireworks? And that's just one seizure, which there are a large number of seizures, obviously. The next commenter is John Morawetz of the International Chemical Workers Union and the United Food and Commercial Workers. John.

## 10.42 JOHN MORAWETZ

Good afternoon. First, I'd say that I'm not an expert in the fireworks industry. However, this is a layperson interested in health safety. I'm interested in seeing the beginning description of the scope of the hazard. And what I little I know, it's not uncommon to see in newspapers at least once year that workers handling fireworks are killed. So, if we narrow the focus just to disposal, that may be true, I'm not sure. But, clearly, it's a worldwide hazard. It's a very explosive, dangerous compound and accidents do happen.

Number two is although we don't represent anybody in the fireworks industry, we do represent people in the explosives industry. Most tragically, at the end of the Vietnam War in Georgia, there was a facility that made magnesium flares. Those flares, it basically was a normalization of fires in the facility where people ignored them or they had a rudimentary evacuation route, and what happened was, during some fires, they evacuated the facility, they didn't go far enough. And I don't have the exact numbers but I believe more than 20 people were killed, both members and salaried members. So, clearly, explosives are a huge hazard. Most recently, I do know that the director of Health and Safety for our council at the USAW has investigated these two accidents and explosive facilities in the Midwest where people have lost fingers when they're loading up explosives and grenades and different armaments. I applaud the report, although I haven't seen it, on the root cause analysis, of what you've done here and the recommendations. I think that's really been a strength of the Board, it should be continued. And especially the kind of analysis that points to contracting out. Contracting out for not necessarily just fireworks, but it's a generic problem and recommendations that say that integrated at every step of the road as you detail many organizations, safety and health needs to get normalized, it needs to be integrated as a criteria for how everybody gets work and performs work safely.

Three, I would say I'm not completely convinced yet by the arguments of the investigative team, with all respect to the good work that you did and I hope you take it that way, of the discussion of EPA versus OSHA. That EPA's regulations I think by law are oriented much more exclusively, almost totally, to the protection of the environment; where OSHA is protection of the worker. And I do understand and I defer to the EPA staff that is here, their experience, that there are requirements of safe handling. But in terms of more thorough regulations, I think that it really is OSHA's mandate and I'd be surprised to see in OSHA. More particularly, I think this is just one more example why as you correctly said before an incident, there's an assessment, there's evaluation of safe practices, there's one more example where I think the work

that OSHA is doing on promulgating what's called I2P2 – Injury and Illness Prevention proposal is important, that this kind of operation needs to be evaluated fully and the workers protected.

And, last, I will take the option Mike deferred to in terms of outside this report, although I welcome this report and just scanning the list of the outstanding investigations that are on your website that have not been completed. This ranks chronologically about third, which means I believe there are a large number – 11, 12 reports that are older than this dating back to 2008. So I look forward to the Board addressing that and figuring out with the very limited manpower and funds that you have, being able to figure out how we can address these older reports. Thank you.

## 10.43 DANIEL HOROWITZ

Next is Mr. Neil Gordon of the Project on Government Oversight.

## 10.44 NEIL GORDON

Good afternoon. My name is Neil Gordon and I'm an investigator at the Project on Government Oversight also known as POGO. POGO is an independent nonprofit organization committed to achieving a more accountable and transparent federal government. As such, POGO has a keen interest in federal contracting issues, particularly contractor responsibility. The Chemical Safety and Hazard and Investigation Board has presented its findings on the April 2011 explosion and fire at the Waikele storage bunker in Hawaii that killed five people handling illegal fireworks seized by federal authorities. The five men were performing this work as a Treasury Department subcontractor. The company was called Donaldson Enterprises, Inc.

Tragic incidents like this remind us that the government's excessive reliance on contractors to perform an increasing range of services. It also underscores the need for the government to periodically review the regulations that enable it to effectively hire and oversee its contractors, and when necessary, make adjustments to those regulations. One of those regulations imposes a standard of fitness on vendors who want to do business with the federal government. Before awarding a contract, the government must first make a determination that the prospective contractor is responsible. Subpart 9.1404-1 of the Federal Acquisition Regulation (FAR) lists several criteria that must be present in order for a contractor to be deemed responsible. Among the criteria are whether the contractor has the necessary organization experience, accounting and operational controls and technical skills. Although this provision lists safety programs as one of several examples, POGO believes that a contractor's record of environmental and workplace safety compliance should be accorded greater weight in responsibility determinations.

In 2010, the Government Accountability Office found that almost 40 percent of the 50 largest OSHA fines imposed during fiscal years 2005 through 2009 involved companies that received federal contracts in the fiscal year 2009. In light of the Hawaii tragedy and other recent serious instances of contractor, environmental and workplace safety violations too numerous to mention but which POGO catalogs in our federal contractor misconduct database, contractor safety compliance programs and violation history should be among the first things the contracting officer checks when making the responsibility determination.

Of course for the government to be able to review relevant contractor responsibility data, it must have it close at hand in a convenient, easy to use and centralized database. The government currently has such a database in the Federal Awarding Performance and Integrity Information System (FAPIIS) which became operational in 2010 and which also POGO played a fairly large role in helping to bring about. FAR Subpart 9.104-6 requires contracting officers to check FAPIIS before awarding any contracts that exceed

the simplified acquisition threshold. While it is unlikely that FAPIIS could have prevented this tragic incident in Hawaii, contracting officers now have at their fingertips a powerful resource that could help prevent future similar incidents. They will certainly now be more informed about the background of Donaldson Enterprises which will have to report in FAPIIS any state or federal, civil, criminal or administrative sanctions resulting from the disaster. However, contractors are not required to report environmental or safety violations if they are not connected with the award or performance of the contract or grant. Fortunately, the statute creating FAPIIS, Section 872 of the fiscal year 2009 National Defense Authorization Act permits the FAR council to expand the scope of information reported in FAPIIS.

In the final rule implementing FAPIIS, the FAR council stated its willingness to further enhance the utility of FAPIIS by expanding the current scope of reporting to include other violations of laws as opposed to violations only in the context of federal contracts and grants. POGO supports expanding both the responsibility determination requirement in FAR Subpart 9.104-1 and the FAPIIS reporting requirement in 52.209-7.

In conclusion, POGO was grateful for this opportunity to highlight the need for the government to improve the way it evaluates contractor responsibility, integrity and performance. We hope that this will be among the lessons learned from the tragic incident in Hawaii. Thank you very much for your time.

#### 10.45 DAN HOROWITZ

Thank you, Mr. Gordon. Next is Darius Sivin of the UAW.

## 10.46 DARIUS SIVIN

I'd like to begin by addressing Recommendation 11, which encourages the EPA to effective participate in NFPA Standard Development Process on the safe and environmentally sound disposal of fireworks. I would like to recommend that that recommendation be addressed to OSHA and NIOSH as well because I believe they have expertise to add to that that isn't contained solely in EPA. In addition to that, I'd like to add my voice to those who have complimented the investigative team on its excellent job, particularly with regard to contractor responsibility and with others who have pointed this out as well, I would like to say I look forward to the completion of the other Board reports that we're all still waiting for. Thank you much.

#### 10.47 DANIEL HOROWITZ

And the next commenter is George Faraday of Change to Win, the union coalition.

#### 10.48 GEORGE FARADAY

Hello, my name is George Faraday. I'm the past director with Change to Win Labor Federation. We are affiliates representing 5 million members, many of whom work in extremely hazardous industries including meat processing, transportation, and construction. And I should also say many of our members work on federal contracts and subcontracts. So I would like to echo some of the remarks just made on the investigators' recommendations on strengthening responsibility review as regards safety criteria. And, currently, the federal government largely relies on an expo facto system of enforcement of labor and safety violations where they can initiate debarment and exclusion proceedings after the event.

Obviously in the case of health and safety in particular, this prevention is what's needed, not punishment after the event. And with regards to prevention, quite a quick search of VSE's record found that it had

issues even when there was an applicable safety standard within a couple of years of the award of this subcontract. And VSE has contracted for \$5.5 billion worth of federal business in the last 10 years, so I realize it must have a lot of work. But the problems in particular: a detailed consent order between VSE and Virginia Waste Management Board over settling 13 violations of hazardous waste material regulations and requiring a penalty of \$17,500, which is probably not a large amount to a corporation of VSE's size; however, if VSE was on notice that these kinds of violations were going to be seriously looked at every time a new federal contract was awarded, that would be a very powerful incentive to ensure that it was observing the highest possible standards in its own operations and in its selection of subcontractors.

And I also note that DEI appears according to USA spending records to be still conducting federal work on prime contracts for munitions disposal and received payments as recently as late last year, which I find highly disturbing under the circumstances.

So, I'll reiterate our support for the strengthen responsibility requirements and also stress in particular that these requirements should be applied rigorously to subcontractors. Subcontractors need to be known at the time of the bid, or if they have to be selected in the course of a contract, the federal government should take direct responsibility for looking at the qualifications of those subcontractors. Thank you.

## 10.49 DANIEL HOROWITZ

Thank you. Next is Carla Walter of the Center for American Progress.

## 10.50 CARLA WALTER

My name is Carla Walter and I am from the Center for American Progress and I work on the American Worker Project there. American Progress is a nonpartisan education and advocacy organization dedicated to improving the lives of Americans through ideas and action. And the American Worker projects specifically focuses on research to increase the wages, benefits and security of American workers, as well as their rights at work.

Through my work at the American Worker project, I have conducted extensive research on the topic federal contractor responsibility requirements. So, we're here today to really lend our support to the Chemical Safety Board's Recommendation 1 to the Federal Acquisition Regulation Council to established additional contractor responsibility determination requirements that address contractor safety performance issues.

We think that this is a very important, but, honestly, a modest first step in improving contractor responsibility. Member Griffon asked specifically about the scope of this problem. And the scope of this problem definitely extends beyond the fireworks industry, beyond chemical safety to the contracting industry as a whole. Currently every year, the federal government spends more than \$500 billion on contracting everything out from janitorial services to the design and manufacture of defense systems. And according to the Office of Federal Contract Compliance Programs, over one in five American workers, or 22 percent, are employed by a company that has a contract with the federal government; yet, for far too long and far too often, we see that the government has been awarding contracts to low road companies that egregiously violate the law, damage the environment, and treat their workforce poorly.

And what commenters like Neil and George before me have been getting to is that companies like Donaldson Enterprises because of lax FAR regulations that don't give contracting officers appropriate tools to evaluate contractor responsibility awards can continue to receive government contracts, even after tragedies like this one. I believe Neil cited a 2010 report from the Government Accountability Office that

looked specifically at this issue and it looked at the 50 largest workplace health and safety penalties between 2005 and 2009, and what it found is that eight companies receiving those top penalties continued to receive government contracts. And this report then dove into looking at case studies and it found companies in the health industry, in security, in food services or in food production, in doing construction projects. All had these same sorts of problems.

For example, one food supplier uncovered by the GAO report was cited for a hundred health and safety violations between 2005 and 2009, and in 2004, was cited by OSHA for violations that resulted in the death of a worker who was asphyxiated in chicken debris by falling into a pit of chicken debris. Yet the company continued to receive government contracts valued at 500 million in the year 2009.

So, I would also like to add in one additional point that the government can improve the quality of services provided by contractors and prevent waste of taxpayer dollars by analyzing contractors' responsibility records. This was identified by the federal government as early as 1984 in an audit by the HUD inspector general who found a direct correlation between labor law violations and poor quality construction on HUD products, and found that these quality defects on these sites contributed to excessive maintenance costs going forward.

We really applaud the CSB's efforts to improve contractor responsibility review in order to protect workers, prevent future tragedies and provide taxpayers a good value. Thank you so much for this opportunity to comment.

## 10.51 DANIEL HOROWITZ

Thank you very much. Next from the room is Dr. Michael Lipsky.

#### 10.52 MICHAEL LIPSKY

Thanks very, Dr. Horowitz, for letting me come in even though I didn't sign up early. I hadn't intended to say something but was very impressed with the work that is on display here today and I want to appreciate the report and the hard work that went into it. But I was intrigued by the avoidance of what seemed to me an obvious point about the responsibility of the industry to ensure that its products are disposable when they don't work properly. I can imagine that there will always be unexploded fireworks and that all over the country there are places where people are storing them because they don't know what to do with them.

It seems to me an obvious point to ask the question that when there are unexploded fireworks, and there will always be such that they be readily disarmed according to processes that the industry develops; and such products that don't meet that standard should probably not be allowed to be sold. I don't know where in the structure of government this comment actually should land. But it did seem to me as a specialist in public policy, that one wants to look at such a reality. Thank you for the time.

#### 10.53 DANIEL HOROWITZ

I don't know if the team wants to comment on that point at all. The great majority of fireworks are imported from overseas, from China, actually. So I don't know to what degree we have regulatory authority there. But I don't know if the team encountered this issue.

#### 10.54 DAN TILLEMA

I think that's the heart of our NFPA recommendation. There are manufacturers' representatives that are going to work together with all the various parties to develop a best practice on disposal. It was what Ms. Heckman was pointing out.

#### 10.55 MARK GRIFFON

I think it would be important that they also consider that design aspect to the extent it's done in the United States, anyway, that they consider, they design it so that it's more easily disposable. I think that was one of your points.

#### 10.56 DANIEL HOROWITZ

In this case, though, I think it's important to emphasize these were contraband fireworks. They fall into a bit of a regulatory void in that sense. Next is Peg Seminario from the AFL-CIO.

#### 10.57 PEG SEMINARIO

Good afternoon. I'm Peg Seminario. I'm the Safety and Health Director for the AFL-CIO and wanted first to commend the Board staff investigators on the great work that you've done and the thoroughness of your investigation and the recommendations that you have put forward, and would encourage the members of the Board to support the recommendations.

A couple of points I wanted to mention on the issue of contractor safety, as my colleague, Mike Wright, raised earlier. The problem with contracting arrangements and safety and health is a problem not just with federal contractors but also with all contractors. It's an area that we're trying to get a much better handle on. This past year for the first time, the Bureau of Labor Statistics came up with some information on the number of workplace deaths that resulted among workers who were working as contractors, and that was essentially 10 percent of those individuals. And they're going to be doing further analysis of those deaths to find out what kind of sectors. And I would just encourage you to be in touch with BLS and get ahold of that information to see if there's the ability to get additional information in the area of contracting because of the work that you've done and the significance of those problems.

With respect to your specific recommendation for the FAR council to amend its regulations on contractor responsibility, I fully support those recommendations. This is an area the AFL-CIO has worked in a long time, and back in the 1990s trying to get enhancements in the regulations. And, so, would certainly support that being done now.

Also to say that in addition to the recommendations that you put forward here, I do think it's important that there be in the regulations requirement to look specifically at compliance history. You talk about a record of safety and health but you don't talk about compliance with law as a factor, not just with respect to that particular contract but as another person who spoke earlier indicated, their broader compliance record is a record of their practice and their responsibility. And that should not look specifically at workplace safety and the environment; it also has to look at basically worker rights and standards because another area to look at is whether there have been violations of discrimination, of retaliation. There has just been a new federal statute that's been enacted under the Defense Authorization Act that expands whistleblower protections to federal contractors. And, so, looking at those requirements and making sure that they are being put in place effectively for workers and others to speak out about hazards that exist, problems that exist I think is really an important element to bring into this.

Certainly we have a long history and the Board has a long history of knowing that there are significant problems with contractors, many of them federal contractors. So, I think this recommendation and its application and implementation would really be particularly very important at this point in time.

With respect to OSHA's role in all this, we do think that they are an important part of workplace safety and health apparatus. So I think it is important to look at what they could do in this particular area to enhance the protections particularly with respect to explosives. There is a very complicated legal relationship between OSHA and the ATF as to who covers what. And, so, it's something that if it's going to be looked at, needs to be done carefully because it may not be just that an OSHA standard itself doesn't apply; the OSHA act itself may not apply in the area of storage of certain kinds of explosives, which you may have run into.

I think sorting that out and articulating that relationship very clearly is important, as looking forward to who should be doing what in this area and who can do what. And, so, I would encourage you – if that isn't in your report – to amend it or add that in so there's a clear sense of who has the ability to take action in this area and also to engage in enforcement and oversight in this area.

And, lastly, just to echo the point raised by a number of my colleagues that the Board does terrific work. Your reports are so, so important and provide a basis for action, not just at that facility but also in industries, and have been critical to the protection of workers. Just to encourage you to complete those that are pending as quickly as possible so that the recommendations can put forward and the protections in place for the workers that have been impacted by these catastrophes and to prevent similar catastrophes in the future. Thank you.

#### 10.58 DANIEL HOROWITZ

Thank you very much. I will touch on one point that you mentioned. The report does briefly discuss that issue of the preemption of OSHA on fireworks storage. You all don't have the report. It will be on our website if it's approved by the Board later today. That section will be available for your review at that point.

At this point, I think I will go through. I just got a couple messages from our Internet audience. Dennis McKenzie writes, "Can the word 'transport' be added to recommendations R2, 3, 5 and 6 in relation to the following statement, "Storage, handling and disposal of fireworks or explosives." the transport of these items can be separately contracted for and should be identified separately than handling."

I think the brief answer to that is I'm sure there's probably not conceptual opposition but typically on matters of transportation, we defer to another agency, the National Transportation Safety Board and they have a similar relationship with DOT on the regulatory side. I don't know if the team wants to add. Okay.

Our next question comes from Frank Pribyl, I guess it is. Are there any relevant disposal techniques or methods used by US firework manufacturers. For example Grucci and Zambelli – I guess they're pronounced. I don't know if we looked at that issue.

## 10.59 AMANDA JOHNSON

I did speak with Zambelli. I'm trying to remember now specifically what they did. But I can expand on what I said or repeat what I said before. We found a number of different disposal methods, depending on who we spoke with, including manufacturers. Some manufacturers I spoke with swore that they would never use diesel and they soak fireworks in water to dispose of them. Some function as designed. Some

ship them off to a local incinerator. Actually, I spoke with one whom if the fireworks aren't going to be used, they disassemble them and recycle the powder. So, there's such a wide array of possibilities and disposal methods that I saw or I learned about when speaking with some of these companies. And that is detailed somewhat in the report.

# 10.60 DANIEL HOROWITZ

Thank you. I don't know if you wanted to add anything from the Pyrotechnics Association standpoint on that point.

#### 10.61 JULIE HECKMAN

A number of the professional manufacturers, if they are going to do onsite disposal, will work with EPA. Some of them have incinerators that they are authorized to use with very limited amounts of aerial shells or components at a time. But it's all done, permitted and it's very, very specific to the materials that they are using and the shells are going to be different. Like Dr. Watson said, we have so many different formulas, it's going to depend on the type of material you are trying to destroy, what type of technique is going to be safe.

## 10.62 DANIEL HOROWITZ

Thank you. And the next question if from Richard Hanoski and he writes, "It sounded like a cell phone was being used outside the magazine. Was electromagnetic radiation from the cell phone considered as a possible initiator?" And he actually has two other questions but I know we looked at that issue.

## 10.63 DAN TILLEMA

I would just say once folks see the report, they'll see that there's a great many ignition sources that are possible. That particular cell phone was in the truck, so the supervisor goes out to the truck and gets it and then goes out on the platform and makes the phone call.

## 10.64 DANIEL HOROWITZ

He also asks, "What were the qualifications of the workers to do this disposal work and did VSE check their qualifications." That is also discussed at length in the report, so I might refer the questioner there. That will be up on our website shortly but I don't know if you want to just say in a sentence. The question was about the qualifications of the workers to do this disposal work and whether VSE checked their qualifications.

## 10.65 DAN TILLEMA

I can readily answer the qualifications to do the work. We're dealing with UXO technicians except for the one supervisor who had an EOD background and the one man was just a general laborer. Those are their qualifications. I know there were qualification reviews by VSE but employees came in and out and I would have to check the record to know for sure that each of those people was reviewed.

## 10.66 DANIEL HOROWITZ

And his last question is somewhat hypothetical but he asks, "Why didn't VSE issue a stop work order when the disposal procedures changed from the approved plan." I don't know if we went down that avenue. Obviously it didn't happen.

## 10.67 DAN TILLEMA

I would say that in order for someone to issue a stop work order, they have to recognize that there's a problem. And, therein is the problem is when VSE is made aware of these changes, they don't have anyone familiar enough with this type of work and this hazardous activity to recognize that that might present a problem.

#### 10.68 DANIEL HOROWITZ

And this addressed, is it not, in your recommendation where the Treasury Department would require their prime contractor, VSE in this case, to develop or have that expertise or contract that expertise.

#### 10.69 DAN TILLEMA

As well as provide a funding mechanism for that expert.

#### 10.70 DANIEL HOROWITZ

I am not seeing other questions at this time. I think we have another commenter in the room and that is Katherine McFate of the Center for Effective Government.

## 10.71 KATHERINE MCFATE

Good afternoon. Thank you. My name is Katherine McFate. I'm the President and CEO of the Center for Effective Government that was formerly known as OMB Watch. For 30 years, we have been promoting openness and accountability in government and improved rule-making procedures. I also co-chair a coalition, something called the Coalition for Sensible Safeguards that represents 70 civil society groups, that mission is to defend and protect our system of standards and safeguards in the US. So, the first thing I'd like to do is like others here is commend you on the quality of the work that you've done. It's an excellent report. But I'd also like to commend you on the video that you did. This is an example of the kind of public communication and outreach that we'd like to see every federal agency engage in. You've taken a really complex technical report and made clear the role that government oversight could and should have played in preventing this accident. I think by doing so, you've let the American public and the families of these victims understand what the federal government through the CSB is trying to do to improve our understanding of these tragedies so that we can prevent them in the future. So we thank you for that.

Second, at the Center for Effective Government, we endorse and applaud your proposed recommendations for changing the federal acquisition regulations. We think this is a really urgent matter like many of the other people who have spoken from civil society, that if we had had better FAR contractor responsibilities rules in place, they might have prevented this explosion from occurring because both government and prime contractors would have had to ensure that the firm contracted to perform the task actually had the capability to perform and/or oversee this very complicated and dangerous work.

CSB's recommendations, recommended amendments to the FAR, Section 9.104 contained in the report would begin to establish the standards for real responsibility for agency staff and private contractors. The proposed reforms constitute only a small subset, however, of the contractor responsibility rules that were established at the end of the Clinton Administration and unfortunately very quickly repealed. So we would actually support even stronger health, safety and environmental compliance standards for contractors. But we do think that the proposed rules represent an important step in the right direction.

There is no justification for providing public money to private companies that fail to comply with the laws of the land. Five men died in this incident. Five Americans lost their lives; scores of family members and friends are going to grieve their absence forever. This could have been prevented. Oversight and responsible contracting should prevent these future tragedies. We encourage the Board to vote favorably on this report and to actively embrace the proposed reforms of the FAR to ensure that when firms compete for public contracts, citizens can be certain that the winners will adhere to the highest standards of safety and performance. Thank you for the opportunity to comment.

#### 10.72 DANIEL HOROWITZ

Yes, sir, please come up and say your name, if you would.

#### 10.73 MITCHELL BROWN

Thank you, sir. My name is Mitchell Brown and I am an investigator with the United States Department of Transportation, specifically the Pipeline and Hazardous Material Safety Administration. Mr. Watson is my colleague. First of all again, I'd like to commend you all for the work you did on this investigation. I will tell you that your findings are spot-on. I am a member of our explosive field team and I'm responsible for the eastern region from Maine to Virginia and encompassing West Virginia. I will tell you if I go out and conduct inspections for a week of those companies within the fireworks industry, I will see six to eight different methods of rendering the pyrotechnic inert. So, it is an industry problem, so your findings are correct. I would just like to echo with what Mr. Watson said. We're here for you. We're the ones that issue the approvals for these items coming in. We're the ones that go out and make sure that the items in are approved items. And, again, we look forward to working with you and you can reach out to us because not everybody is a Grucci, not everybody is a Zambelli. There are companies that are not part of the APA and they're out there and they're engaged in this and it is a serious problem. Thank you.

#### 10.74 DANIEL HOROWITZ

Yes, sir, come up to the microphone if you would and spell your name, please.

## 10.75 BRUCE LIPPY

My name is Bruce Lippy. I am the Director of Safety Research for CPWR, which is the Center for Construction Research and Training. I'm here to speak a very short presentation here for Pete Stafford. Pete is the Director of Safety and Health for the Building and Construction Trade Department of the AFL-CIO. And he had a scheduling conflict today and couldn't make it. The building trades department of the AFL-CIO would like to express its support for the recommendation to modify the appropriate sections of the FAR. We think it's really important to include qualifications of contractors based on their safety and health performance. This approach is absolutely consistent with other initiatives now under way across the whole construction sector and it's becoming more and more widely recognized that this is an absolutely critical step to making sure that we have good safety and health performance on construction sites. So, we want to offer our assistance in any way we can to further this goal of seeing real change in the FAR. And, on a personal note, I've been training workers since 1978 and I wanted the Board to know that your videos and particularly the animations are about the most effective tools that I personally have used in that period of time. So, please keep those up. Lots of trainers are using them. I just wanted to let you know. Thank you.

#### 10.76 DANIEL HOROWITZ

Next question from the Internet comes from Gordon Hang, I believe of the Honolulu Star-Advertiser Newspaper. And he writes, "What enforcement authority or teeth, if you will, does the Board have? Are these strictly recommendations; and, if so, what assurances or expectations do you have that the federal agencies will make the changes?" The legal answer to that I suppose is that they are recommendations. However, when our statute, recommendations for rule-making by the Environmental Protection Agency in this case, or OSHA must receive a reply within 180 days either accepting the recommendation or expressing the reasons why the agency won't proceed. Obviously we hope the recommendations are accepted. But, in addition to this period of investigation, which has been almost a year and a half to two years, after the reports are approved – if this report is approved, we have a vigorous program of advocacy for our recommendations in tracking and monitoring. We will be in communication with the recipients of these recommendations and we will be asking them in detail what they are doing to implement them. And, ultimately, that will be evaluated by the Board in one or more additional votes as they move, we hope, on to acceptable completion. I don't know, Dr. Moure, if you'd like to.

## 10.77 RAFAEL MOURE-ERASO

Yes. So, there are no more questions?

#### 10.78 DANIEL HOROWITZ

There are no more. I don't know if you wanted to add on the point of advocacy and implementation.

## 10.79 RAFAEL MORE-ERASO

The obligation that we have with the community and the public also require that we keep the public informed about these recommendations and we are supposed to openly and publicly advocate for the, which we do. And we hope that the scientific quality that our recommendations are based on and also basically the power of prevention that our recommendations we believe have is strong enough to compel the people that receive them to act on them. And we have a track record in which we found that the great majority of the recommendations that we have put out and we have advocated for are being acted upon and complied with.

#### 10.80 DANIEL HOROWITZ

Yes, and actually this year, we passed an important milestone through our recommendations program. Their work, several of the staff who are here today, we passed 72 percent positive implementation of those recommendations. Over time, even without a regulatory authority – or teeth, as the questioner puts it – we do get these adopted and we do see that there are concrete safety changes made. I don't see any other questions in email. I think there's another gentleman. Sir, did you want to come up to the microphone?

#### 10.81 FRANK PIAZZA

Good afternoon. My name is Frank Piazza. I'm a member and I work for the Department of Defense Explosive Safety Board. We're actually the proponent of the reg that you reference in your recommendations. In your particular paragraph, recommendation C1.5, we also identify in there the auditor, if you will, of those pre-award surveys. And I was just curious – in your recommendation, are you going to also add in some qualifications or some necessary auditor to perform those pre-award contract

surveys? For us, it's the Department of Defense Contract Management Agency, DCMA. They perform those for us. That would be my only either recommendation or question.

#### 10.82 DANIEL HOROWITZ

Any comment on that?

## 10.83 AMANDA JOHNSON

It's a good recommendation. I think we did our best to come up with recommendations that dealt with the issues. That's something specifically that we didn't include in these recommendations but it could be something when we're advocating for them later on after the report that we can try and focus on.

## 10.84 DANIEL HOROWITZ

Yeah, I think that's a really important point. Of course some of these recommendations are quite detailed and they almost look like rules in themselves but of course they aren't really. And they'll go through a process of implementation and back and forth. So, a lot of the suggestions that we heard today both about that topic and the contractor responsibility topic are certainly very interesting and things that we may be revisiting as we go through that process. Go ahead, sir.

## 10.85 RANDY CRAMER

Randy Cramer, a concerned citizen of Alexandria, Virginia. Just a quick question, Amanda, because my understanding of RCRA-- I don't have the 40 CFR in front of me – is that anyone stores, treats and disposes of hazardous waste requires a permit and this site, they were storing hazardous waste, treating by taking it apart with the intention to dispose. Yet, I thought I heard you say this was not considered a TSD. So I was wondering why you thought that.

## 10.86 AMANDA JOHNSON

Well, because the actual permit that they had was actually an emergency permit to burn the fireworks; and that's all that the permit detailed. To me, that would not make them a TSDF under the regulations but I could be misinterpreting that.

#### 10.87 RANDY CRAMER

Well, if that permit expired and then they continued to do some work, they're out of compliance for not having a permit for treating and storage with the intent of disposing hazardous waste. It doesn't sound like that's coming out that they're in complete violation and not in compliance with the current regulations. So those regulations don't need to be changed, they just need to be implemented.

#### 10.88 DANIEL HOROWITZ

I think – and the report speaks to this point – is the permit because even when the emergency permit was in place, it did not impose the kind of substantive safety requirements that would have prevented this accident. That's the really the change that we're after through the regulatory recommendation.

## 10.89 RANDY CRAMER

Not the fact that they were storing and treating hazardous waste illegally?

# 10.90 DAN TILLEMA

When this whole work first started, they had a permit back in June 2010. And all of the bad safety practices that we saw – the disassembling of fireworks, the accumulation of the explosive powder, and the accumulation of the aerial shells, the ignition sources – all of that occurred underneath that permit. And there was no review of the safety processes that we would deem as adequate, which is why we're asking for additional safety oversight with the permitting process.

## 10.91 AMANDA JOHNSON

Right. And in speaking with DOH personnel who issued the permit, they told us specifically they did not focus on any of that and that RICRA was basically their focus was environment, not safety.

## 10.92 DONALD HOLMSTROM

I was just going to add I think one of the more important things to take away from this is not that there might have been some type of permit process and some type of safety requirements that are part of the RICRA process; but this is a high hazard activity, akin to something that otherwise except for the fact that disassembling or destroying fireworks is not covered by PSM would be covered by the PSM standard, which has a number of very rigorous elements for safety. And our major point is those aren't present and those requirements are not present within the RICRA framework. In fact, within EPA's own RNP program, those same elements are listed, so that we're talking about RNP like- or PSM type requirements that should be followed. That's the main take-away from this activity is that things like hazard analysis, management exchange, etc., were elements that could have made a difference in this case. And the report is very detailed on how those elements and management systems if implemented, those elements from the PSM standard would have made a difference here – hazard evaluation, training, etc. Those are specific requirements for high hazard activity where the very safety deficiencies could have been identified and controlled prior to the activity taking place.

### 10.93 DANIEL HOROWITZ

Any others? Mike, do you want do your second comment?

#### 11.1 RAFAEL MOURE-ERASO

So, we will now move for a formal vote on the CSB investigation and the report on the DEI Fireworks Disposal Explosion and Fire. I ask for a motion and a second to approve the CSB report and formal safety investigation. Do I hear a motion?

#### 11.2 MARK GRIFFON

I'd like to make a motion, Mr. Chairman.

## 11.3 RAFAEL MOURE-ERASO

Board Member Griffon has made a motion.

#### 11.4 MARK GRIFFON

I would like to move that the Board approve the CSB Investigation on the Donaldson Enterprises, Incorporated, Fireworks Disposal Explosion and Fire Report, Number 2011-060I-HI, along with all associated recommendations and the associated video.

#### 11.5 RAFAEL MOURE-ERASO

Thank you. Is there a second?

## 11.6 BETH ROSENBERG

I second that motion.

#### 11.7 RAFAEL MOURE-ERASO

I will call the General Council, Mr. Richard Love, to record the vote.

#### 11.8 RICHARD LOEB

Each member, please signify your vote by saying I approve or disapprove the motion. Board Member Griffon.

#### 11.9 MARK GRIFFON

I approve.

## 11.10 BETH ROSENBERG

I approve.

## 11.11 RAFAEL MOURE-ERASO

I approve.

## 11.12 RICHARD LOEB

It appears that the vote has passed.

## 11.13 RAFAEL MOURE-ERASO

Okay, so the vote and the report then is adopted. Before some closing statements, I would like to ask Mike Wright who has an additional comment.

#### 11.14 MIKE WRIGHT

Thank you. The quality of this report and the importance of the recommendations are part of why I want to raise this issue; and the issue is the uncompleted reports that the Board is currently working on. There are 14 such reports. Twelve of them are older than 20 months; six of those 14 are steelworker facilities where we represent the workers, five of those are older than two years, one is older than five years. This is a real problem for the Board's mission. Workers in those facilities deserve to know what happened, deserve the kind of comprehensive report and the kind of recommendations that this board does so well. The Board's mission is to prevent similar accidents in the future. We can't really do that as effectively as we should without having these reports completed. And I think there's an even more compelling reason: the families who lost their loved ones, the workers who lost their colleagues and coworkers feel abandoned by the Board, they feel like the government began an investigation and then walked away from it. We get phone calls like that every couple of days. And you've gotten a letter from at least one local union to that effect. I don't want to say the Board report will bring closure. Nothing really brings closure to families in this kind of situation. But at least it will give people some notion of what happened to their loved ones, why it happened and what can be done to prevent that in the future. That's why we think completing these reports is so important. I want to ask for three things.

Number one, there ought to be a comprehensive review of each of the uncompleted reports, focusing on why it's not yet completed, what can be done to make it completed, and what can be done to change the Board's internal procedures to speed up reports in the future. And by the way, we don't blame this on any individual. We certainly don't blame it on your excellent investigative staff. We know how hard they work, we know how committed they are to this. This is a management problem. I don't mean a manager problem; I don't mean it's a problem of the managers of the Board, but it is a problem in the way that the investigations are managed. It's a systems problem. You folks are really good at root cause analysis. Apply it to this.

Second, we would like to have the results of that investigation, if you will, of the Board's internal processes put out for public comment and discussed at a public meeting. In fact, we think there ought to be a lot more public meeting. This meeting, just as the report as a terrific example, just as the recommendations are excellent, this meeting is the kind of thing that the Board out to be doing a lot more of. So, we'd like to see that done in a public meeting.

And, let me finally ask and the alternative, if these reports cannot be completed expeditiously, will you at least turn over the investigative files to us and to the companies involved with personal information about your witnesses redacted so that if the Board can't complete these, at least we can. That's not our preferred alternative. We're very big fans of the Board's work. We would like to see you all finish these reports. But the information in your investigations is critical to worker safety and health, is important to the families and the coworkers of the victims and it needs to get out some how. Thank you.

## 11.15 MARK GRIFFON

Mr. Chairman, could I?

## 11.16 RAFAEL MOURE-ERASO

Yes. I would like to do it first if I might. Thank you for your words, Mr. Wright. And you should know that this is a problem, the problem or the backlog of investigations is a problem that has always on my mind since I came to direct the agency two and a half years ago. When I came in, there were 22 cases in the backlog. And we have been able during this two and a half years to finish nine investigations of those, we have reopened a number of them and now our backlog is 13 investigations. We are at this moment, finishing a very important and long investigation – probably the biggest investigation that we have every run that required a lot of our resources that is the Macondo Deep Water Investigation. We are looking at a first final draft and it's a matter of months before this investigation will be finished. You probably are aware that ever since I've been in the management of the agency, we have been facing a number of budget issues that has constrained our staffing and our resources to conduct these investigations. These budget issues have gone from continuing resolutions that we have to function that have been twice applied during the time I have been there, going to cliffs and now considering facing sequestration of our funds. But I would like to say that we are moving ahead as fast as possible. I would like to say that I wish that the way to address the backlog were to do it chronologically; but it's a lot more complicated than that. And I would like to assure everybody that our investigations will continue to be meaningful and that will continue being addressed to save lives and that we are on job on this. Did you want to add something?

#### 11.17 MARK GRIFFON

Yes. Just that – and I heard not only from Mr. Wright but a few other comments – and I just want to say I also really appreciate this kind of public meeting and process and we receive great input from the commenters, the stakeholders, and the public. I think this process is vital to our mission and a big reason of why I came here. Transparency and open government is a point of emphasis with President Obama and this administration. And I want to say I'm fully committed to doing the Board's business in as transparent manner as possible. I must, however, say that in my two and a half years on the Board, I voted on items on a notation vote more than 150 times and I've only done a handful of votes in the public. And I think we need to do better on that. That's not satisfactory to me. Going forward, I really believe we have to push for more regular Board business meetings, as I think Mike Wright was suggesting. We currently have several items that need to be discussed in a public meeting, including a presentation and discussion on a plan on dealing with our backlog. And I'm not even sure the exact number of cases. I have a slightly higher number but I think to bring that plan forward and to discuss and deliberate on it in public I think would give us a lot more credibility with our stakeholders as well; they'd know what we are doing. I plan to work with my colleagues on the Board to develop a schedule for these regular Board business meetings in the very near future and I hope that we can have the first such meeting within six weeks of this meeting. I just wanted to make that statement.

#### 11.18 RAFAEL MOURE-ERASO

All right, I think that is the last agenda item that we have before the closing statement. I would like to make a closing statement from the DEI investigation. Shift gears back to DEI. As stated in the CSB video that has been mentioned here, the video named Deadly Contract will be on our website, that was presented by the investigation team. The CSB was surprised to find that the federal government did not

require contractors to demonstrate that they have an adequate safety plan or a past record to perform the hazardous jobs of disposals of fireworks safely.

I believe that the main lesson of this tragedy is that work performed by contractors should adhere to adequate regulations and guidelines for safe operations in a rigorous system that includes an effective process safety management program. I will echo the findings of the staff and the statements that we heard today that says that there always been concerns in the private sector that contract workers receive strict safety protections, at least as effective or as good as for the permanent company employees. I believe that same concern should be extended to federal contractors. Federal contract selection should include a rigorous safety oversight process that includes environmental and occupational safety programs, safety record and incident history of the contractor, evidence of adequate hazardous material handling procedures, and evidence of adequate safety training for the task at hand.

The CSB will work towards seeing that these recommendations are acted upon so that lives will be saved in the future. I would like to thank everybody for coming to this meeting. And I have to give a special thanks to the families of the workers that died in this explosion from Honolulu. I would like to thank also the CSB investigation team of the Denver Western Office for their work, and also to the CSB Communications Department for setting up this meeting. I would like to also give my thanks also to the participants, all the participants that gave us public comments here and on the Web, and also the members of the press accompanying us here covering this meeting. So, always wanted to do this – this meeting is adjourned.