Good Morning. It is good to be here, my first time in Aggieland, and more importantly, my first time to visit the Mary Kay O’Connor Center. I’m sorry that I can’t spend more time here. As Sam said, I spent four years on the Chemical Safety Board and the Mary Kay O’Connor Center was a place that we all very much admired. I have wanted to come here and meet Sam and see how the place is run. I want to thank Dr. Mannan for inviting me to speak here and express my appreciation on behalf of OSHA for all the great work that Mary Kay O’Connor Center does.

As we are all aware, safety -- process safety management, refinery safety, safety of chemical plants, is one of the top issues I think in the minds of not only safety professionals in this country, but with all the events of the last several years, of all Americans. At OSHA, next year is our 40th anniversary. We look back with a great sense of pride at the successes we have made, but also, with some disappointment that were still 4,400 workers killed in the workplace last year. All of those numbers are coming down, but there are still far too many thousands of workers killed needlessly on the job area every year. We will be having many memorials, events, and other observances for our 40th anniversary, dedicated to the lives that have been lost, the lives that are lost every year, and the millions of workers that are injured every year, but also to the responsible employers out there who do put safety and health first, and who really are working in this country, first and foremost, to make the workplace safe for workers. And, it is again my pleasure to come to places like this, where you all come together, really the best and the brightest in the American safety culture, to share information and solutions on how to prevent workplace catastrophes.

I want to bring greetings from Dr. David Michaels. He is sorry he could not be here. It is a very busy travel season, but he does follow this institute and these issues very carefully. David actually just finished heading the U.S. delegation to the Sixth EU-US Joint Conference on Health and Safety at Work, which was held a couple of weeks ago in Boston. There were professionals, health and safety experts, industry, union, and government from all over Europe and the United States, here to discuss a lot of the issues that the United States is dealing with, and Europe as well. We had a lot to learn and they had something to learn from us too, but the important thing was that we spent that time in Boston bringing together different perspectives and strengths, much the same as we are doing here over these few days. So let me share with you a little bit about what we are doing, what we’ve been doing over the last couple of years in the Department of Labor at OSHA, what our plans are, and really what our roadmap is for trying to improve safety and health conditions in the United States.

Earlier this month, the Department of Labor announced its strategic plan, a six year strategic plan that contains our goals and priorities for the next several years. Normally I shudder whenever anyone mentions those two words, strategic plan. I go into hiding because it has always been symbolized as paperwork and bureaucracy, and administrative stuff as opposed to real work, but we have managed to focus on in our strategic plan, the essential issues that are important for the Department of Labor to be
concerned about, and important issues for workers in this job. First and foremost, very simply, everyone in America deserves the opportunity to secure a good job. Employers have the responsibility to comply with the law and protect their workers from health and safety hazards, and all workers deserve a fair wage and a safe workplace. And, all businesses deserve a level playing field rather than competing against those who would gain an unfair advantage by breaking the laws. Those are the very basic principles of our strategic plan.

When the Obama administration started, Secretary Hilda Solis took the reins of the Department of Labor. Secretary Solis is the daughter of union members, blue collar workers from Southern California. She wasted no time in setting her priorities for the Department of Labor and for OSHA. She wanted this department and this agency to really go back to its basics, focusing on setting protective standards to protect workers and strong enforcement of those standards. That all sounds very easy, but of course we are a very small agency faced with dealing with the health and safety conditions of about seven million workplaces in this country and 130 million workers. We have to figure out how to leverage our resources, again, to focus in on setting standards and the enforcement of those standards.

This year and last year have been especially challenging. This year we saw seven workers killed in an explosion at a refinery in Anacortes, Washington, 29 coal miners killed in Upper Big Branch in West Virginia, 11 more workers killed on the Deepwater Horizon and 6 workers who lost their lives in a gas explosion at the Kleen Energy power plant construction site in Connecticut. Of course these are just the big events that have happened, the events that get the headlines, while every day we lose somewhere around 12 workers on the job. What these events have in common of course, which all of you are very familiar with, is that they are low frequency, high consequence events. They are powerful reminders to all Americans of the risks that workers face every day on the job. For us, however, they provide special challenges on how to predict and prevent these types of catastrophes. What these events tell us though, is that despite all of the efforts that we have been making over the last four years, there is much more that needs to be done in the realm of health and safety, to prevent these kinds of incidents.

Last May, I addressed members of the National Petrochemicals and Refiners Association in San Antonio. I pointed out to them that in just the three months prior to the meeting, 58 workers had died in explosions, fires and collapses in refineries, coal mines, oil wells, oil rigs, power plants, and construction sites. OSHA has been very carefully monitoring the safety and health conditions of refineries and chemical plants, and not just the refineries where there have been fatalities, but also refineries where workers have been scalded and burned and otherwise injured. We are tracking these catastrophes, we are tracking these individual incidences, and we are looking for trends. Since the tragic explosion of BP Texas City in 2005, OSHA has identified over 20 serious incidents at refineries around the country, which not only included fatalities, but which involved serious injuries or very close calls that could have resulted in serious injuries and fatalities. In all these cases, in disaster after disaster, and in the close calls as well, our investigations point to process safety related hazards. Most troubling in many cases, is the real systemic safety and health problems in refineries across the country. OSHA’s main response to the Texas City and other incidents has been in the form of a national emphasis program. In 2007, OSHA launched a national emphasis program that focused on refineries. The idea was to inspect almost every refinery in the United States, or at least part of every refinery of the United States.
We also recently launched another national emphasis program that deals with highly hazardous chemicals. This NEP, mainly for chemical plants, won’t be as thorough as the refinery NEP because there are too many chemical plants around the country to visit them all. Again, we want to have a presence there. We want to send a message that chemical plants need to focus on safety and health, and most of them need to focus on process safety management. Regarding the refinery NEP, today we have opened inspections to 53 refineries. We still have five remaining, all of which are here in Texas. These inspections have resulted in an average of 17 violations per inspection with average penalties of $166,000. Given the tragically amplified number of opportunities to learn from catastrophes in the industry, and the recognized potential for injuries or deaths from well known hazards, these numbers are disturbing. To keep finding the same hazards over and over again is disturbing.

We are also finding issues within the chemical plant NEP. We have had 136 inspections as a part of the NEP, with nine violations per inspection. What are the lessons we have been learning from the national emphasis programs? I’m going to go through some of the main highlights or lowlights of what we have learned, some of the issues we have identified and what we are trying to do about them. There are three main issues that we have been finding. First, most of these I think will be obvious to all of you, effective process safety programs and strong workplace safety and health culture are critical to the success of preventing these catastrophic events. Second, industries need to learn from their mistakes. We know the major causes of these problems. We know the remedies. Lessons are not learned, and even when the lessons are learned, they are not always applied. Third and this is also obvious, the numbers don’t tell the whole story, especially if you are focusing on a low DART rate, days away from work rates, injuries and illness statistics. These are not the numbers that will lead industry to identify the issues that are causing problems or how to solve the problems.

First, let’s look at effective process safety management systems and workplace safety culture in a little more detail. Most of you are familiar with the Baker panel report that came out after the BP Texas City explosion. That report and other subsequent reports focused quite a bit on corporate safety and the corporate safety culture. There is a lot of talk these days about safety culture. I think it is much more sophisticated to listen to those of you people who are dealing with refinery safety and process safety management, to listen to all of you talk about culture. It seems like everyone talks about culture and everyone has a slightly different meaning when they are talking about culture. We are focusing on, and I know you all have read a lot about the work that the Mary Kay O’Connor institute has done, but we are also looking at some of the work done by Professor Andrew Hopkins, which we have found to be very useful. The workplace safety culture is not just an educational program that gets everybody to recite and follow the safety first posters that are around the wall. It is a set of practices that defines the organization and influences the individuals that make up the organization. This is something that we are trying to focus on in refineries and chemical plants. The whole idea of safety culture and the way things are done in the workplace is something that all workplaces in this country need to learn.
Number two, which seems obvious, but does not quite make it through in a lot of workplaces in this country, is that industry must learn from its mistakes. Again, we have been running this national emphasis program for several years now. We were, for the first year, deeply troubled by the low levels of compliance that we were finding in many refineries, especially considering this was coming several years after the explosion in Texas City. Time and time again, we kept finding the same violations. So, we put together a letter and sent it out to all the refineries around the country, both that we had and hadn’t visited, outlining what we were finding and outlining what we were looking for, and more or less putting them on warning. And yet, as we went again to refinery after refinery, we still kept finding the same problems over and over. There is a lot of talk about a learning culture. That is one of the things that we talk about in workplace culture. Obviously, there are too many refineries that have not learned the value of a learning culture, again, not learning from their own mistakes, or the mistakes that others have made around the country. The most problematic things we are finding, I’ll break down into four main areas: mechanical integrity, process safety information, operating procedures, and process hazard analysis. Mechanical integrity, we found over and over again failure to perform inspections and tests, and failures to correct inefficiencies in a timely manner. Process safety information, failure to document compliance with recognized and generally accepted good engineering practices. Operating procedures, a major problem in the Texas City event, failure to establish and follow procedures for key operating phases such as emergency shut downs, and using inaccurate and out of date information. Process hazard analysis includes the lack of attention to human factors and facility siting and failing to address PHA findings and recommendations in a timely manner. These are all issues not only well known in industry, but also were highlighted after the Texas City explosion. These issues are very clear. They have been communicated to the industry, but are issues we are still identifying in inspection after inspection. Here at Texas A&M, you also have Trevor Kletz. I have done a lot of reading of his writings. I read his books a lot when I was on the Chemical Safety Board, and he also stressed the importance of learning and remembering the lessons of the past. These are things that seem obvious to us, certainly at OSHA. We look back at previous events and previous catastrophes, especially the good reports that have been done by the Chemical Safety Board, the Baker commission, and those lessons are all out there to be learned.

Finally, we look at the problem with numbers. This is something that kind of gets under my skin. Basically, what we are talking about here is what we measure, how we measure it, and how we apply those measurements. As we all know, just looking at your OSHA 300 numbers and at your injury/illness statistics, don’t identify the real problems, which are the systemic problems, the process safety management problems that we are all focusing on in refineries around the country. BP Texas City was a classic example. BP was focusing very much on having good injury illness numbers, focusing on slips, trips, and falls. Prior to the 2005 inspection, they had good numbers in terms of their injuries and illnesses. In fact, right before the explosion, many of the people involved and many of the fatalities had just finished a meeting touting their great safety record. Same thing on the Deepwater Horizon, there had just been a meeting, giving out awards for the great safety record there, again focusing on the slips, trips, and falls. But the message that we are trying to send out, and I certainly made very clear when I talked to the National Petroleum Refineries, is that boasting about favorable safety and health statistics, boasting about great injury and illness rates, at the same time people are dying in refineries, same time
widows are burying their husbands, children are burying their fathers, boasting about how great the safety record is for these industries, is a certain lack of seriousness among some of the industry leaders. We were very clear about that in talking to the National Petroleum Refineries. Hopefully, they are learning their lessons and every time they see some of the associations giving out safety awards based on injury and illness statistics, they will also look at their plants and find the very serious systemic problems that are still there. This just tells us that they are not getting the message and that they are not learning their lessons. I have to admit that OSHA is not innocent here. Until the BP explosion, our focus for refineries was on injury and illness statistics. Obviously that was not getting us to where we needed to be. We have learned our lesson. We are now engaged in the final stages of our national emphasis program, but we won’t be able to sustain forever the high amount of resources that are needed to do the inspections that we are doing and continue to have the same presence in refineries that we have had for the last several years. We also need to find a new way to identify refineries where there are problems. We need to stop focusing so much on lagging indicators and find some good leading indicators. I know there has been quite a bit of work done on that by people in this room, and books and reports have been written. We need to figure out how to distill the information that has been developed into a format so that OSHA is able to identify the refineries and chemical plants with problems. We need to focus on those facilities and not waste our time and employers’ time looking at facilities that don’t really have problems. That is our challenge in the near future. We are going to need your help developing our new targeting system, our new way of identifying refineries and chemical plants that really need our attention. That is pretty much what we are doing in the refinery, process safety management area.

I want to take a little time to talk about what OSHA is doing overall, on some of the other issues that affect workplaces. As I said at the beginning, we are refocusing this agency on moving forward with occupational safety and health standards and regulations, many of which have been really stuck in the pipeline for the last several years. We are trying to move forward on the globally harmonized system for chemical identification, and also some new issues, of which I notice is the subject of the keynote speech tomorrow. Combustible dust is an issue that I worked on quite a bit at the Chemical Safety Board. It is a serious problem and one new regulatory initiative that we are working on. In addition to issuing standards, we are focusing on enforcement, which we have been quite successful at with this administration. If you look at the size of our penalties, the number of egregious cases and the number of significant cases are larger enforcement cases. We are doing more enforcement not just because we are trying to collect more money and reduce the national debt, but we feel very strongly and Secretary Michaels feels, that penalties in strong enforcement can serve as a message to all of industry, and can serve as a deterrent to cutting corners on safety and health. Probably our best known penalty, our highest penalty is against BP, related to the Texas City event. The initial penalties there began at about 21 or 22 million after the initial explosion. Last year, as a result of BP’s failure to address many issues that came out of the settlement of that explosion, new citations were identified. We issued citations totaling $81 million against BP. We settled some of those earlier this year, about $51 million that dealt with the failure to abate violations that came out of that settlement from the 2005 explosion. We still have another 31 million dollars of new citations, new violations to deal with, which are part of settlement negotiations going on right now. I think the important part of the 51 million dollar penalty
was the failure to abate, where it’s not just the amount of the penalty, but everything that went along with the settlement. You may have read about some of the details, but to sum it up, we have built into that settlement an unprecedented level of oversight over how BP runs its process safety management program, runs its entire safety program at the BP refinery. We will be in very close, very constant touch with BP management in terms of doing inspections, in terms of monitoring how they are addressing the problems there, in terms of the very tight schedules they are setting, to make sure they meet those deadlines. They have hired a consultant, with our approval, that will also be monitoring BP’s compliance. Every few months, BP officials from London fly out to meet with us in Washington. We sent a very strong message to them while we were in the settlement negotiations. We told them that we were very shocked, as this country was shocked and disappointed, at the explosion in 2005, but we were more disappointed to find that four years later they had still not yet addressed many of the issues that had caused the explosion, and even more disappointed that when we went to their refinery in Toledo, Ohio several months after the explosion, we found very serious problems similar to what we found in Texas City, and we are still finding those problems in Ohio. Basically the message to them was that we need a settlement where we can be assured that we won’t get fooled again, that we are very serious and we are very skeptical at the promises that BP has made. I think some of you may have seen on the show Frontline last night, and the accompanying article in ProPublica that you can look up on the web, which goes into much of the history of BP, and how they have continually made promises over the years and have not lived up to those promises. I think BP is well known in this country for having those kinds of problems, but they aren’t the only company having those problems. Back to enforcement, we are under no illusion that the 21 million dollars or even the 81 million dollars is going to make much of a mark on BP’s bottom line, and that is the problem we have with relatively low OSHA penalties when we are dealing with large companies. Nevertheless, we do feel that these kinds of penalties send the message through industry that we are serious. In fact, many violations are willful, which is OSHA’s highest citation, and it does carry a stigma with it, which also sends a message to industry that we are serious that they pay much better attention to safety and health in the workplace. For large companies and small companies, we have a large number of programs, letting our severe violators enforcement programmers focus on recalcitrant employers that really don’t get the idea that they need to focus much more highly on safety and health in their workplaces. We have a new penalty policy. OSHA’s highest penalty for a serious violation is only seven thousand dollars, once you go through the reductions for size, good faith and history, and also, we cannot force a company to abate hazards while it’s under contest. These all induced us to settle a lot of cases for lower penalties, then we probably would otherwise like to. Our average penalty for a serious citation last year was only about a thousand dollars, which I don’t think anyone considers adequate in terms of a deterrent for any size of company. So, we have readjusted some of the administrative reductions that we make and we hope to raise that average from about a thousand to somewhere between three and four thousand, still far too low, but much better than we were doing before.

Let me go back again to standards, you know in addition to some of the standards that I mentioned before, our highest priority now is a standard that would require all employers to implement a new and effective injury and illness prevention program. Injury and illness prevention programs are really nothing new to the large companies. You talk to some of the corporate leaders in the companies that
lead the way in safety and health and you find that they already have some kind of safety and health programs, or health and safety management systems. We need to take that from the best to the rest. We want to make sure that every company, large or small, has an effective health and safety management program. There are several state plans that have health and safety management programs. We feel that if effectively implemented, these can make a fundamental change in the way companies handle their health and safety issues. We need companies to take an active approach and plan for health and safety issues, to find and fix all hazards in their workplaces, not just those hazards covered by specific OSHA standards, so we can get beyond the whole idea of catch me if you can. Requiring all companies to have health and safety management programs will level the playing field for all companies. Right now, you know the way it works, especially in the short term, if you cut corners on safety and health, save a few dollars here, save a few dollars there, that gives you an unfair competitive advantage, especially these days when the economy is not doing so well. We want to make sure that all employers are required to comply with all of the same health and safety requirements. We have conducted five stakeholder meetings around this issue, and we are moving forward into our small business regulatory enforcement fairness act review process, SBREFA process, later this year and the beginning of next year. We will have a draft standard out at the end of this year. We will move from draft standard to a proposal and then to hearings. It is our top priority; we want to move as quickly as we can. I want to very strongly invite you all to take a look and pay attention to what we are doing. We love your comments and your criticisms. We have a very open process, and OSHA standard making has been an open. This whole administration, from the White House on down, is putting a major focus on transparency, so we are doing a lot of things over the web, a lot of web related events where we can get a lot of input. Basically, we will have comment periods, we will be having hearings around the country, we will be having post-hearing comments, and we want to hear not only from the associations, and we always hear a lot from the business associations, but we want to hear from individual businesses too. This is where we get to learn what works, what doesn’t work, your experiences in the workplace. This is what we find most valuable. So, participate in our hearings, participate in the comment period. If you’re in Washington, make an appointment and come see me or come see Dr. Michaels. We would love to talk to you.

In addition to our enforcement and standards, we are also focusing in on compliance assistance programs, which we find are very important in a couple of different ways. First, we want to make sure that no company, large or small, is in a position where they say they could not comply with health and safety conditions because they didn’t have the information they needed. We want to make sure companies have the information they need and these days, that’s a lot easier. There’s an enormous amount you can find on the web, but whatever we can do to also make interpretation of our standards easier for companies, especially small companies, we will do. We also have, and each state has its own program, where we have people that actually come on and do consultations, on-site consultation program for small businesses. That is something else that we certainly want employers to take advantage of, especially small employers. We are also trying to refocus our whole compliance assistance program on workers, especially workers who are hard to reach, workers who don’t necessarily understand how to navigate OSHA, workers who don’t know what hazards they are facing, and workers that don’t necessarily know what their rights are under the law. We are particularly
focusing on Hispanic workers, hard to reach workers, immigrant workers. We’ve done quite a few events, including a major health and safety summit for Latino workers in Houston last April. We are trying to focus our training grant program more and more on community groups, more on faith based groups, on groups that really can reach these hard to reach workers better than we can as governmental officials. So where you have day labor groups, you have churches that actually have access to immigrant workers. We want to make sure that they also know what OSHA is, how OSHA works, how to contact us, how to file complaints, and that kind of thing. We are also trying to put a lot of focus on accurate record keeping. We are finding that the only way we can measure our success, is if we have accurate information not only on fatalities, which is relatively easy to collect, but also on injuries and illnesses. Right now there is very little faith in the accuracy of injuries and illnesses. We have a national emphasis program also trying to look at that problem, but we are also making sure through enforcement, that everyone knows we are very serious about accurate injury and illness numbers. In fact, we just issued a citation, 1.5 million dollars, against a relatively small company, which had deliberately been hiding injury and illnesses on its records. In kind of a corollary to that, we are also focusing on incentive programs. There are a number of incentive programs that give workers rewards or groups of workers rewards, in return for low injury and illness numbers. We found that in a lot of cases, these programs are actually discouraging workers from reporting for fear of losing benefits, for fear of their friends or coworkers coming down on them, or by losing some kind of privilege for their group. So these incentive programs are discipline programs. There was an article in the New York Times about drug testing programs, where workers are drug tested after every single incident or after every single report, and how that disincentives workers to report things, because workers are being fired for using prescription medicines, which are very often to deal with the pain that they acquired from the on the job related injury and illness. All of these kind of things collaborate together to discourage workers from reporting injuries and illnesses. We are trying to focus on dealing with all of these problems, the causes of these problems, and trying to get a better idea of what kinds of injuries and illnesses we face, not only for us, but in order for each individual workplace to identify where their problems are.

Let me just wind up here, and then I’ll take some questions. Just to remind you of where I started, one of Secretary Solis’ main visions, which she repeats over and over again, is that every worker in this country deserves a good job. For OSHA and certainly all of us in this room, it is very clear that no job can be a good job unless it is a safe job, and every worker in this country not only deserves a good job, but a safe job. To get to that point, we are focusing on enforcement, mainly as a deterrent for those who are tempting or tempted to cut corners on safety and health, particularly in these hard economic times, where workers are less inclined to complain about health and safety problems for fear of losing their jobs and not being able to find another one. These are the times, when we need to focus on making sure that all employers comply with safety and health standards, and all employers provide safe workplaces. We need to, at the same time, focus on compliance assistance, making sure that workers and employers have the information they need, the advice they need, to make sure the workplaces are safe, and we need to work on workplace culture. That is something we have a hard time dealing with, through our enforcement process, through our standards, but nevertheless it is the message that we continue to try to deliver. Dr. Michaels, Secretary Solis, and I, we do talk safety culture everywhere we go. We talk about the mindset that not only needs to accompany safety and health in the workplace,
but what the practices are, how safety and health issues are dealt with in every. The message is that safety and productivity are linked, are interdependent, and need to be managed together. We want to make sure we send the message that injuries and fatalities are preventable, it is no excuse to claim that the economy is hard and we can’t afford it, that they are too busy to bother, or that we just didn’t know about health and safety problems. Especially in these economic times, we need to continually keep in mind and send the message that no job is a good job unless it’s a safe job. Thank you very much for inviting me, and I’d be glad to take any questions.

**Question and Answer Session:**

**Question:** How far do the fatality and injury records compare with those of other countries?

**Mr. Barab:** Generally, not as well on a per capita basis, in terms of a lot of European countries. But, again, in terms of injuries and illnesses, we certainly have not much faith that our injuries and illness numbers are accurate. They’ve been coming down, both fatalities and injuries and illnesses have been coming down in this country on a continuous basis, especially in the last couple of years. We’re a little anxious though that a lot of the decrease, especially in the last couple years, has been due to the economic downturn. And the challenge before us now, is to see what we can do to make sure those numbers don’t go up, or at least don’t go up very much as the economy revs up again.

**Question:** How do you determine the fines for the citations?

**Mr. Barab:** We have very few categories of fines. We have serious penalties; the maximum is seven thousand, although it gets grated down. For a willful or a repeat citation or failure to abate, the penalty is seventy thousand dollars. We have the ability in a particularly bad case, like BP, and do an egregious citation. In other words, if you have a bunch of pressure relief valves that are having problems, our normal procedure might be to give one citation for the five pressure relief valves that are having more or less the same problem. But when we find a particularly bad case and need to send a message to that employer and to the industry, we have the option to call it an egregious penalty. In that case, we would have a separate seven thousand fines, or in the cases of the willful citation, seventy thousand dollar citation for each of those five pressure relief valves. So that’s how we, in the case of BP for example, get up into the multimillion dollar citations. For most employers, we are not going anywhere near that. I think a lot of us are concerned that there are a far too many cases where there are fatalities, perfectly preventable fatalities, and you find the citation is only about five thousand dollars. These are some of the things that we would like to change. There is legislation in Congress that would change that and would increase our penalties. For right now however, the penalties are pretty low. I think most people in industry pay a lot of attention to where our penalties are. Because we have a press release for our larger penalties, there is an impression that OSHA issues large penalties. But, as I said, the average penalty for a serious violation is only about five thousand dollars. Our average citations are usually about three citations, so the average bill that an employer might get is around three thousand dollars. Maybe that will be increased to 12 thousand dollars, but when we are talking about fatality and serious injury, especially when it is perfectly preventable, which most are, then that does not come to very much.

**Question:** What was OSHA’s role in the response to the Gulf spill?
Mr. Barab: Not the spill itself, we were very involved with making sure that workers cleaning up the spill didn’t get hurt or sick.

**Question:** One of the things you mentioned was that the refinery program, the NEP program, had a significant number of repeat violations from refinery to refinery. The NRC has a high degree for reporting on a daily basis, and also a very high transparency per nuclear reactor. While the number of chemical plants is too large, the number of refineries we have is of a similar magnitude to the number of reactors. So the question is, is there any transfer of methodology from the NRC that you are looking at to try to eliminate the number of repeat violations?

**Mr. Barab:** Well that is a good question. We are always looking at whatever lessons we can learn, especially from other industries. We have been talking about the number of issues, and we have standards that have certain requirements on companies to change those, to improve those. To update those is an enormous task which can span years, even if it’s not controversial. And if it’s controversial, it can be longer than that. We have had some recommendations also from the Chemical Safety Board, on which we will be collecting more information. We require employers, refineries for example, that are PSM standard to keep track of near misses and any kind of incidents that happen. We don’t collect that information, we look at it when we go out there, but they don’t send it in to us. So, it is not like we have a central repository of that kind of information. If we had the resources and the requirements to do that, and actually had the resources to not only collect it, but also to analyze it, that would obviously be very useful information for us. We are trying to figure out what we can do with our current resources, under our current regulatory structure. How we can start collecting more of the kind of information that is actually useful to us rather than information that is not particularly useful to us.

**Question:** The NRC isn’t that large as an organization.

**Mr. Barab:** Right, but we don’t just deal with refineries. We have seven million workplaces to deal with. If this was an agency that just dealt with refineries then that would be a different case.

**Question:** OSHA issued a news release last week on the definition of the term feasible in relation to hearing protection. Do you think that will carry over into any other areas of OSHA?

**Mr. Barab:** It already is the definition of feasible that we use. For a variety of historical reasons, we had kind of taken a step back from the area of hearing protection, so that was really the exception. All we were really doing was bringing hearing protection into regulatory standards and what OSHA interpretations are.

**Question:** Would you care to comment on the upcoming intrinsically safer technology issues?

**Mr. Barab:** Well it’s not really an issue that OSHA deals with particularly, at least directly. I have dealt with this to a certain extent on the Chemical Safety Board. It is one of those things that seem to make implicit sense in a lot of ways. I used to spend a lot of time inspecting waste water treatment plants. And I am very happy that these days, you see fewer and fewer waste water treatment plants with huge tanks of chlorine. So, to that extent, you can build in safety or totally eliminate the hazards. We all know
and if you look at the industrial hygiene hierarchy of controls, the first on top of that is to eliminate the hazard, if you are talking about just general chemical plant safety or terrorism against chemical plants or refineries. The more you can do to eliminate the hazard, in some cases with safer technologies, the better you are.

Question: I was just wondering if you could share your insights into the industry’s apparent resistance to changing their process safety management practices. Is it economic? Does management think they are making improvements, but they really don’t know how? Do you have any insights there?

Mr. Barab: In terms of what we have been finding in our inspections, I can’t sit in this room making the argument that people don’t know what’s going on or that they don’t have access to that information. You all are the leaders in this deal. I think the best knowledge in this industry comes out in things like this, it is there and available. I don’t think the problem is a lack of knowledge or information. The problem is a lack of willingness to invest. I’m sure you all can testify that the information may be there, but it is not necessarily easy to implement. Nevertheless, there are plenty of good lessons out there and plenty of things that people can learn not only what the information is, but how to apply it. If you look at BP, the Baker report, the Chemical Safety Board reports, and other reports that not only came from Texas City, but also Deepwater Horizon, if you look at the root causes, you will find there was a failure to invest in safety, a failure to put resources into safety and process safety management. Along with that, failure to learn or to take the time to invest in learning doesn’t come free. Invest in learning what your previous mistakes were, in what other industries’ mistakes were, what other companies’ mistakes were, and then invest and make sure that you are not repeating those mistakes. When we talk about change management, there is nothing you can do in a company, especially when you’re talking about investment decisions, that don’t have some implication on safety and health. These are the lessons we have been learning most starkly in the last few years, and that other companies need to learn. That is where they need to focus.

Dr. Mannan: Okay, two more questions.

Question: Can you comment on what OSHA’s position is with respect to developing safety cases for onshore facilities?

Mr. Barab: Yes, that is something we are very much looking into. We can learn these lessons on what they have done in Great Britain and in other countries. And look at better ways to manage this whole system. The way we have been doing it is not good if we are just focusing on injury and illness statistics. That does not really work. The extent we are focusing on lessons learned, near misses, on any indicators, I think that’s better. I think it is very intriguing to look into the way other countries are using safety cases, and maybe that is something we want to look at as well.

Question: Follow up on the offshore safety case, the European model; do you know why they are doing so much better?

Mr. Barab: Actually no. It is interesting, as obviously there are differences. Europe probably has more expertise on that in this crowd than I have. The one thing I do note is that they have a lot more energy
into studying root causes of the problems. Unfortunately, OSHA’s job is more of finding violations of the standards even if they are bad standards or not totally effective standards or old standards. Our job is to find violations of our standards. Our job is not really to look at and address the root causes. That is what the Chemical Safety Board does, and they do a great job of it. But again, since the Chemical Safety Board is not an enforcement agency, there is disconnect there as well. Another thing they have in Europe that we do not have, is much more worker involvement, much more union involvement in the economic life, and especially in safety and health in Europe, and that may contribute also to having a slightly better way of dealing with some of these issues.