ALASKA STATE LEGISLATURE
HOUSE RESOURCES STANDING COMMITTEE
March 27, 2009
1:03 p.m.

MEMBERS PRESENT

Representative Craig Johnson, Co-Chair
Representative Mark Neuman, Co-Chair
Representative Bryce Edgmon
Representative Paul Seaton
Representative Peggy Wilson
Representative David Guttenberg
Representative Chris Tuck

MEMBERS ABSENT

Representative Kurt Olson
Representative Scott Kawasaki

COMMITTEE CALENDAR

OVERVIEW(S):

PSIO Update Briefing

- HEARD

Alaska Risk Assessment Update

- HEARD

PREVIOUS COMMITTEE ACTION

No previous action to report

WITNESS REGISTER

ALLISON IVERSEN, Coordinator
Petroleum Systems Integrity Office
Division of Oil & Gas
Department of Natural Resources
Anchorage, Alaska
POSITION STATEMENT: Provided a briefing about the duties and accomplishments of the Petroleum Systems Integrity Office (PSIO).

IRA ROSEN, Project Manager
Alaska Risk Assessment Project
Industry Preparedness & Pipeline Program
Division of Spill Prevention & Response
Department of Environmental Conservation
Juneau, Alaska
POSITION STATEMENT: Provided an update and answered questions regarding Alaska's Risk Assessment Project.

LARRY DIETRICK, Director
Division of Spill Prevention & Response
Department of Natural Resources
Juneau, Alaska
POSITION STATEMENT: Provided information about Alaska's Risk Assessment Project.

ACTION NARRATIVE

1:02:53 PM

CO-CHAIR CRAIG JOHNSON called the House Resources Standing Committee meeting to order at 1:03 p.m. Representatives Johnson, Neuman, Guttenberg, Wilson, Seaton, and Edgmon were present at the call to order. Representative Tuck arrived as the meeting was in progress.

OVERVIEW(S):

PSIO Update Briefing

1:03:26 PM

CO-CHAIR JOHNSON announced that the first order of business would be a briefing on the Petroleum Systems Integrity Office (PSIO).

ALLISON IVERSEN, Coordinator, Petroleum Systems Integrity Office, Division of Oil & Gas, Department of Natural Resources, began her PowerPoint presentation with an example of why quality management is so important in oil and gas oversight. She related that construction of a Petrobras floating oil platform off the coast of Brazil was completed in May 2000 [slide 2]. Soon after, a Petrobras executive gave a speech in which he stated that the project "successfully rejected the established constricting and negative influences of prescriptive engineering, onerous quality requirements, and outdated concepts

of inspection and client control." [Less than a year later] two explosions on the platform killed 11 people [slide 3]. Inadequate safety inspections and no quality assurance were blamed for the incident, she said. In response to Co-Chair Neuman, she clarified that the Petrobras platform was off the coast of Brazil, not Alaska. In response to Co-Chair Johnson, she said the Petrobras platform was in production when the explosions occurred.

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MS. IVERSEN explained that the PSIO was established by Administrative Order in April 2007 [slide 4]. The PSIO's four primary tasks are to: coordinate activities among state, federal, and local agencies; perform incident investigations; conduct the Gap/Overlap Analysis Project; and look at quality management.

MS. IVERSEN said the PSIO has one or more designated points of contact within certain liaison agencies [slide 5]. These agencies are: Department of Environmental Conservation, Alaska Department of Fish & Game, Department of Public Safety, Department of Transportation & Public Facilities, Department of Revenue, Department of Labor & Workforce Development, Department of Law, Department of Natural Resources, Alaska Oil and Gas Conservation Commission (AOGCC), the Alaska governor's office in Washington, DC, the North Slope Borough, and federal agencies.

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MS. IVERSEN, in response to Co-Chair Neuman, said the PSIO has the most frequent contact with the Departments of Environmental Conservation, Public Safety, Revenue, Labor & Workforce Development, the Alaska Oil and Gas Conservation Commission, and the other divisions within the Department of Natural Resources. In further response, she reported that the most common incidents the PSIO is notified about are pipeline leaks that typically fall under the purview of the Department of Environmental Conservation (DEC) or the U.S. Department of Transportation. Some pipeline incidents have been fallen outside of those agencies, she added, so the PSIO stepped in on those incidents. The PSIO also receives notifications from the public and employees about employee concerns, she continued. Those are typically about worker safety so they are coordinated through the Department of Labor & Workforce Development, although they are sometimes handled by the fire marshal's office or the electrical inspector's office.

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MS. IVERSEN, in response to another question from Co-Chair Neuman, said the PSIO receives notification of all spills, most of which are small spills. Multiple fires occurred on the North Slope a few years ago, she continued, so incidents can be unpredictable. Everyone, including industry, always hopes the number of incidents will be zero. Generally, the incidents are pipeline failure, and these failures have included pipelines carrying oil, gas, sea water, produced water, and rehabilitated sewage water. In response to Co-Chair Johnson, she explained that the incident involving sewage effluent was a pipeline that carried treated water from an industry facility and it fell under the purview of the Department of Environmental Conservation. In response to Representative Seaton, she deferred to the Department of Environmental Conservation as to whether treated sewage effluent is discharged on the surface or re-injected.

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MS. IVERSEN said event notification and investigation are coordinated among the agencies [slide 6]. When a spill or other event falls under an agency's jurisdiction, the company notifies a specific agency or agencies directly, she explained. However, the PSIO receives some notifications that other agencies do not. The goal is to keep all of the agencies aware of any incidents so they can respond. Another coordinated effort is the circulation of employee and public concerns, she said. These concerns can impact multiple agencies and the goal is to limit the amount of time that each agency has to spend on a concern. Other coordinated efforts include regular liaison interaction and regular contact with local, state, and federal entities. The goal is to combat the "silo effect" and ensure that each agency is aware and working together as much as possible.

MS. IVERSEN pointed out that the PSIO steps in when another agency does not have jurisdiction [slide 7]. One such incident was the September 2008 rupture of the BP Exploration (Alaska) Inc. "Y-Pad artificial lift gas pipeline". Another such incident was the January 2009 "Pump Station 1 pigging incident".

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CO-CHAIR NEUMAN noted that Pump Station 1 almost blew up during the pigging incident, so he was therefore surprised to learn

that no regulations or statutes were violated during that incident. The legislature is concerned about such incidents and wants to be informed about them, he said.

CO-CHAIR JOHNSON added that one of the reasons the PSIO was started is because of gaps in which agency is in charge and gaps in regulations.

MS. IVERSEN stated that each of these two incidents can be tied back to quality management, along with a company having the right procedures in place and whether there is any state oversight of the procedures.

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MS. IVERSEN said the goal of the gap analysis is to provide a comprehensive and cost-effective approach to state oversight of oil and gas facilities, equipment, and infrastructure, as well as activities on state oil and natural gas units and leases [slide 8]. The PSIO is looking for gaps in infrastructure and activity inspection and oversight, as well as identifying where there are overlaps in oversight of the same piece of infrastructure or activity.

MS. IVERSEN reviewed the process for conducting the gap analysis [slide 9]. She said the PSIO first identified the statutory and regulatory authorities of the various agencies and has hired a contractor to identify how these authorities are implemented. Authorities can be broad on paper, but there can be gaps in how an authority is implemented on the ground. The contractor will verify the gaps that the PSIO has already found on paper and will also identify any overlaps. In addition, the contractor will look at the risks associated with any gaps and overlaps. She pointed out that the PSIO is working closely with the Risk Assessment Project so that efforts are not duplicated and to ensure that the PSIO is working only on the risks that fall outside the scope of the risk assessment.

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MS. IVERSEN, in response to Co-Chair Johnson, confirmed that the PSIO is looking at any gaps between the statutory and regulatory authorities. She explained that sometimes the statutory authority is really broad, yet the regulations may not be as broad as what is in the statute. In further response, she confirmed that these gaps will be included in the analysis that the legislature receives. The analysis [report] will serve as

an educational tool that identifies the gaps and overlaps. These gaps and overlaps will be verified by the other agencies before they are included in the analysis.

MS. IVERSEN, in response to an additional question from Co-Chair Johnson, allowed that the PSIO has not [coordinated with anyone in the legislature] at this point in time, but she offered to look into this. She added that the gap analysis report will go to the "resources sub-cabinet" and decisions on what to do with the identified gaps and overlaps will be made by the sub-cabinet and the legislature.

MS. IVERSEN, in response to Co-Chair Neuman, explained that the "resources sub-cabinet" is made up of the commissioners that deal with resource management. She further explained that the gap analysis report will be available to the public and the legislature, and will include the PSIO's recommendations. She agreed to notify legislators when the report becomes available.

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MS. IVERSEN directed attention to slide 10 of her presentation, noting that Arcadis is the contractor reviewing and compiling the data that the PSIO has already collected. The results of this review are expected in August 2009, she said, but the contractor is dependent on receiving responses from the agencies and this could affect the expected timing. In response to Co-Chair Neuman, she said the Arcadis contract is for $293,000 and no further costs will be incurred even if there is a delay beyond August 2009.

MS. IVERSEN, in response to Co-Chair Johnson, affirmed that the PSIO has been receiving good cooperation from all of the departments. She added that any delays have not been from lack of support, but from being overworked. The agencies also cooperated in reviewing contractor proposals and choosing the contractor, she said.

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MS. IVERSEN reviewed the inter-relation between the PSIO's Gap Analysis and the DEC Alaska Risk Assessment Project [slide 11]. She said both projects are tools for determining how best to allot the state's limited resources toward oil and gas oversight in the future. Gaps will likely need to be filled where high risks exist in areas of no oversight. Where low risks exist in

areas of duplicative oversight, the overlaps will likely be decreased by better coordination with the other agencies.

MS. IVERSEN, in response to Co-Chair Johnson, said that Black & Veach, the subcontractor for Arcadis, is not involved in the Risk Assessment Project. In further response, she stated that the main contractor for that project is Doyon Emerald and the technical support is being provided by ABS Consulting.

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MS. IVERSEN specified that PSIO's Quality Management Program is looking at the practices, policies, and procedures that are utilized by companies to meet the statutory requirements in their daily business activities [slide 12]. The program is also reviewing the state's policies and procedures for doing its job.

MS. IVERSEN said quality management can be broken down to quality assurance, quality control, and the Plan, Do, Check, Adjust Cycle [slides 13-15]. Quality assurance is the planning side of quality management, she explained. It is the process used to determine whether a project is meeting the characteristics that are being sought. It establishes the rules and methods that will be used. She pointed out that quality control is the "check element" for determining whether the desired product was received and it establishes how to measure or test the product. The Plan, Do, Check, Adjust (PDCA) Cycle begins with planning the mission, requirements, and objectives and then moves to the procedures, processes, and methods. All of these have been a key element of PSIO's investigations, she said. [Quality control] is done by conducting tests to determine that the correct procedures and processes are being used, and then adjustments are made to improve or correct the processes. The fundamentals of quality management systems are quality control, quality assurance, monitoring, inspection, and any other practices that are used to ensure the integrity and reliability of the systems [slide 16], she summarized.

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MS. IVERSEN discussed what the agencies can expect from or ask of the PSIO [slide 17]. She said the PSIO can help an agency understand the benefits of a quality management program. For example, instead of an agency asking a company whether a certain piece of infrastructure has been inspected this year, the agency could ask the company if it has a procedure in place that directs the inspection of that infrastructure annually. This

procedure would serve to capture any missed inspections, whether employees are trained properly, and how to document the inspections.

MS. IVERSEN, in response to Co-Chair Neuman, stated that it depends upon the company and the piece of infrastructure [as to whether industry had a good program in place prior to establishment of the PSIO]. Alaskan companies do utilize quality management systems, she said, and they do utilize a risk-based approach, which is appropriate. Recent events indicate that the companies did not fail to have procedures in place; they failed to have the proper procedures in place. Having a procedure for capturing missed inspections is critically important, she noted. The state can become more pro-active by looking at company procedures and understanding them better. The companies are really working on quality management and BP is implementing a world-wide quality management program. She said quality management would include establishing procedures for when something is fixed, when something is inspected, how a missed inspection is captured, how contractors are trained and what they are trained to look for, and so forth.

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MS. IVERSEN, in response to Representative Edgmon, explained that the PSIO's authority stems from the oil and gas leases, which is why the PSIO is located within the Division of Oil & Gas. Before investigating an incident, the PSIO talks to the division director Kevin Banks and the department commissioner Tom Irwin.

MS. IVERSEN, in response to Representative Tuck, said she is unaware of any other states that have a statewide agency like the PSIO, particularly an agency that looks at industry quality management. She noted that the Joint Pipeline Office, a consortium of state and federal agencies, oversees the common carrier pipelines in Alaska and the PSIO coordinates the activities upstream of the pipelines.

MS. IVERSEN, in response to Co-Chair Neuman, allowed that at this point the PSIO has been in a reactive mode [rather than a pro-active mode] in regard to the building of new pipelines. She said the PSIO would not review the design of a new pipeline because that is not part of its mandate. If it is identified that this is a gap because other agencies are not doing it, then it could be assigned to the PSIO or another agency in the future. She pointed out that the Joint Pipeline Office does do

pro-active reviews of pipelines, one example being the recent Kachemak pipeline extension.

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MS. IVERSEN, in response to Co-Chair Johnson, stated that the PSIO has very good working relationships with the companies. Although the PSIO has not worked as closely with some of the newer and smaller companies in the state, she continued, it anticipates doing so as soon as the gap analysis is complete.

MS. IVERSEN, in further response to Co-Chair Johnson, said the PSIO has not looked at the smaller companies enough [to be able to say there is a difference between the larger and smaller companies as far as the quality management procedures that are employed]. With quality management, it is not necessarily a case of one size fits all, she said. A company's procedure for monitoring what it does and ensuring that it is operating safely will vary based upon the company. However, companies will be required to utilize a risk-based approach and continuous improvement. She agreed that the best way for the state to be pro-active is to delve into all of the companies operating within Alaska regardless of their size.

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MS. IVERSEN, in response to Representative Guttenberg, explained that looking at federal statutes and regulations and how those interact with what the state is doing is part of the PSIO's gap analysis. The PSIO is working very closely with the U.S. Department of Transportation's Pipeline and Hazardous Materials Safety Administration (PHMSA), the largest federal player in regard to pipelines. The Department of Natural Resources has a Letter of Intent with PHMSA, she said, so the two agencies work together very closely. Other federal agencies, such as the U.S. Coast Guard and the Environmental Protection Agency are also being included in the Gap Analysis.

MS. IVERSEN, in further response to Representative Guttenberg, said she is unaware of any instances in which state jurisdiction ends and entities like a borough or city pick up the jurisdiction. She specified that local distribution systems, such as Fairbanks Natural Gas, LLC, are overseen by the U.S. Department of Transportation, although something having to do with fires might default to a local fire fighting entity.

CO-CHAIR JOHNSON offered his opinion that Fairbanks Natural Gas, LLC, is a common carrier and would therefore fall outside of the PSIO's responsibility.

MS. IVERSEN agreed that this is the case for distribution.

MS. IVERSEN, in response to Co-Chair Neuman, noted that bonding occurs at a number of different stages, such as bonding by the Alaska Oil and Gas Conservation Commission, Department of Environmental Conservation, and DNR's Division of Oil & Gas. In regard to the details of bonding for a spill, she deferred to Larry Dietrick of DEC.

1:42:32 PM

MS. IVERSEN commenced with her presentation, discussing PSIO's expectations of agencies, including itself [slide 18]. She said the PSIO is specifically starting with itself and the Division of Oil & Gas and is making sure that it meets the needs of its clients, which include the legislature, industry, and the public. The expectations include the documentation of PSIO's evaluations of oil and gas facilities, effectively communicating with industry, and working with the other agencies to coordinate the review of their evaluations and identifying any gaps that are discovered.

MS. IVERSEN said the PSIO expects each petroleum company to provide evidence of its quality management system [slide 19]. This includes how the company is implementing its programs, how it knows whether the programs are effective, and how those programs are evaluated by upper management and implemented all the way down through the company to its contractors.

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MS. IVERSEN, in response to Representative Edgmon, said there will be consideration of whether to establish the PSIO under statute or regulation once the gap analysis is completed and it is known what statutes and regulations would make sense for filling gaps without creating any overlaps. In response to further questions from Representative Edgmon, she stated that the PSIO has regulatory authority that stems from the leases, but no enforcement authority. Funding of the PSIO comes from the general fund rather than program funding. For any offshore oil development, she said the PSIO would play the same role it is playing now in the coordination of efforts for anything upstream of a common carrier pipeline. The Coastal Zone

Management Program is part of the PSIO's gap analysis, but it is limited to information exchange, she said. She added that the Division of Oil & Gas works closely with the Coastal Zone Management Program on permits.

CO-CHAIR JOHNSON offered his belief that the PSIO would take a more active role in the Coastal Zone Management Program when and if there is offshore development.

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MS. IVERSEN, in response to Representative Guttenberg, said she is only vaguely familiar with the Dismantling, Removal, & Restoration (DR&R) Fund. She suggested that any specific questions about the fund be directed to DNR Commissioner Tom Irwin. In further response, she said she does not know why the DR&R Fund has not been included in the gap analysis, but that she would get information back to members in this regard.

CO-CHAIR JOHNSON commented that he believes the DR&R Fund is beyond the PSIO, but he would appreciate receiving any information as well.

REPRESENTATIVE GUTTENBERG explained that the DR&R Fund is the money that the industry is supposed to be setting aside to remove all the Trans-Alaska Pipeline System's pump stations and pipe. It is supposed to be a separate fund within the books of each oil company.

CO-CHAIR JOHNSON offered his belief that it is a per barrel fund that has been accumulating since day one.

Alaska Risk Assessment Update

1:50:58 PM

CO-CHAIR JOHNSON announced that the next order of business would be an update on Alaska's Risk Assessment Project.

IRA ROSEN, Project Manager, Alaska Risk Assessment Project, Industry Preparedness & Pipeline Program, Division of Spill Prevention & Response, Department of Environmental Conservation, began his PowerPoint presentation by explaining that the Risk Assessment Project is a three-year, $5 million initiative to evaluate the operational safety of Alaska's oil and gas infrastructure [slide 2]. The study is partly the outcome of some of the spills, leaks, and corrosion that were discovered on

the North Slope several years ago, he related. When the project is completed, it will be an engineering-oriented assessment intended to identify and rank the risks, and those are based on consequences to state revenue, safety, and the environment [slide 3]. The study's intent is to answer the question: what are the risks involved in operating the system for another generation?

MR. ROSEN said the project will provide a snapshot of the physical condition of the infrastructure. "The entire system will be broken down into small pieces, each one of those pieces will be evaluated and ranked to identify the most significant risks," he stated. Results will be published in summer 2010.

MR. ROSEN, in response to Co-Chair Neuman, specified that this project is not intended to be either enforcement or a regulatory action; it is simply a reconnaissance to look at the condition of the infrastructure. However, he said that action would be taken if something outside the norm is found.

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MR. ROSEN, in response to Co-Chair Johnson, confirmed that if something wrong was found, it would not be ignored and the proper agency would be notified. He noted that due to the type of information that is being looked for, as well as the limited time and budget, the assessment will not involve much physical inspection. In further response, he said the project will review existing information, evaluate spill and corrosion reports, and look at previous risk assessments, business practices, and operating procedures. Although the project is taking place primarily in the office, he said the public participation process allows for anonymous input so anyone with information can participate, including industry employees. Action would be taken on any information that indicates something is illegal or inappropriate.

REPRESENTATIVE WILSON asked how the physical conditions are being evaluated given that no one is actually going onsite.

MR. ROSEN replied that information is coming from the industry and there is information already in existence, such as corrosion and spill reports. The format of the risk assessment itself is brainstorming by people who are familiar with these types of infrastructure. They will break the entire infrastructure into pieces, he said, and then they will brainstorm scenarios about what types of things could go wrong and what the consequences

would be if those things did go wrong. The probability of something going wrong and the consequence if that does go wrong are taken together to come up with a numerical value for the risk, he explained.

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CO-CHAIR NEUMAN pointed out that what is designed on paper does not necessarily match up with what is actually in the field.

MR. ROSEN reiterated that the intent is to take a snapshot of the conditions of the infrastructure at the time the project was started, which was last summer. Staff are looking at how this infrastructure was intended to be used and reviewing actual reports of what has happened since the infrastructure was designed and built. The report may well recommend that the findings be augmented through additional studies, he allowed, and those additional studies would likely include some site investigation. The scope of the assessment has been fit to the funding and time available for the project, he explained, and these do not allow much time for on-site investigation. In addition, it would be an overwhelming task because there are about 250 separate facilities. Other agencies conduct actual physical inspection and that is part of the information that the project is evaluating. He said he is unaware of a risk assessment of this scale being undertaken anywhere else in the world. The project will also be looking at the interfaces between one company and another to see how the systems work.

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MR. ROSEN, in response to Representative Seaton, explained that the physical condition of equipment will be evaluated at the individual facilities by looking at the records of maintenance, improvements, and changes. Many facilities will have some equipment that has been replaced since the original construction, some that is brand new, and some equipment that is near the end or past the end of its design life. Those things will be taken into consideration when evaluating the likelihood of a risk event occurring, he said. For example, a new facility less than four years old has a lower likelihood of an unplanned incident than a 30-year-old facility that has had limited maintenance.

MR. ROSEN, in further response to Representative Seaton, specified that the driving factor for undertaking the Risk Assessment Project was to look at possible disruptions to

revenue to the state, but the project was expanded to also include impacts to safety and the environment. Given the assumption that this system will continue to be operated into the future and the equipment used for thirty-plus years, he said the question is: What are the risks inherent in continuing to operate the system? For example, there have been changes to the amount and type of oil itself and the assessment will consider what the significant risks are from this.

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LARRY DIETRICK, Director, Division of Spill Prevention & Response, Department of Natural Resources, added that the Risk Assessment Project was conceived after the "GC-2 event" in 2006. He said two things happened at this event that got the state's attention: 1) it was the first shutdown of the Prudhoe Bay field, and 2) soon after the incident industry made the business decision to continue operating the field through investment in Prudhoe Bay for another 50 years. The fundamental premise of the Risk Assessment, he explained, is to provide a snapshot of the condition of the oil and gas infrastructure in Cook Inlet and the North Slope for the purpose of determining what risks are posed to the state in regard to revenue, safety, and environment if the system, which has already had a 30-year life, continues to operate for another 50 years.

REPRESENTATIVE SEATON inquired whether the assessment is looking only at the current type of oil or will it be looking at heavy oil development and the changes in infrastructure that that will require.

MR. ROSEN responded that the assessment will include looking at factors such as the changes in the physical composition of the oil itself and the related issues of operating temperatures, reduction in through-put, and whether the original pipeline sizing remains appropriate. For example, he noted, these factors can cause an increase in corrosion.

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REPRESENTATIVE WILSON commented that it seems to her that once the snapshot has been taken, more data will need to be gathered from the field.

MR. ROSEN answered that any engineering report worth its salt will include the recommendation that more study is needed. He said the project's job is to get as much information as

accurately and appropriately as possible within the time and funding constraints the project has been allotted. In further response, he said the completion date for the assessment is the summer of 2010.

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REPRESENTATIVE GUTTENBERG pointed out that the current infrastructure is pretty old by some standards. The GC-2 accident that shut down Prudhoe Bay was caused by changes in the oil composition and sediment levels, he said. These changes were being checked and corrections were being made from inside the facility, but outside the facility the sediment was building up in the pipe and making the pipe heavier. This resulted in the pipe settling, which in turn caused some of the more corrosive elements to settle out and erode the bottom of the pipe. He further pointed out that when oil is pumped from the well it is not completely uniform and will have different levels of viscosity and sediment. He asked whether industry has testing logs that indicate these changes and that could be evaluated as part of the assessment.

MR. ROSEN replied that if that type of information is available from the industry it will be incorporated into the project. The project is looking for operating procedures and business practices, he said. Changes in the physical composition of the oil stream are included in the project as these changes do have an impact, as do changes in through-put and physical temperature.

REPRESENTATIVE GUTTENBERG observed that engineers know Alaska well. As an example he cited the 60-foot-long skid plate located at Paxson where a geologic fault crosses the pipeline. The November 2, 2006, earthquake moved the pipeline right to the end of that skid plate, he said, indicating that someone knew what they were doing.

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CO-CHAIR JOHNSON asked whether the state is incurring a risk by undertaking the risk assessment and blessing the continued operation of the system.

MR. ROSEN said he thinks the answer is no. The first phase of this is risk assessment and the second step is risk management. The report will identify the most significant risks that the project is able to bring to the surface, but the project is not

claiming that those are the only risks. It is not being said that if industry addresses these risks it is off the hook from any regulation or subsequent disruption. The information is being provided as a future management tool and a business decision tool. Once the project makes its presentation, it will be up to industry to make some kind of a response, he said.

CO-CHAIR JOHNSON commented that he knows of several companies that have several floors of attorneys in Houston that are looking at all of this. Therefore, he said he wants to make sure the state is not blessing this as a parameter.

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MR. ROSEN continued his presentation, stating that the Risk Assessment Project has been assigned to the Department of Environmental Conservation for project management and contract administration [slide 4]. The overall direction for the project comes from the State Agency Oversight Team, he said. A contract was awarded to Doyon Emerald, an Anchorage-based engineering firm with expertise in Alaska's oil and gas industry, and the subcontractor is ABS Consulting, a firm known worldwide for its expertise in large infrastructure risk assessments.

MR. ROSEN said the State Agency Oversight Team is made up of all of the Alaska agencies that have either a regulatory or oversight role of the oil and gas industry [The agencies listed on slide 5 included the: Department of Environmental Conservation, Department of Labor & Workforce Development, Department of Law, State Pipeline Office and PSIO within the Department of Natural Resources, Department of Public Safety, Department of Revenue, and Alaska Oil and Gas Conservation Commission.] He noted that there is a representative from the University of Alaska in addition to the state agencies.

MR. ROSEN explained what a risk assessment is [slide 6]. First, the system under consideration is broken down into pieces of manageable size, which in this case might be an individual facility or section of pipeline. Next, the team gets together to postulate the events or scenarios that could go wrong within the areas of natural and operational hazards. Then, the team estimates how likely each of those scenarios is to occur, and if those events were to occur, what the consequences would be. He said that for Alaska's project the team is looking at the consequences in terms of disruptions to state revenue, safety, and impacts to the environment. The probability of the event occurring and the consequence if it did occur are taken together

to become a numerical value of the risk. The team will then provide a risk profile presentation in which the risks are identified in order of significance: high, moderate, and low.

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MR. ROSEN noted that the Alaska Risk Assessment Project was set up in three phases [slide 7]. Phase 1 will develop the method to be used in the assessment and includes several months of public outreach conducted throughout the state. Minutes were kept of those meetings and are available on the project's web site and the project's first report which has been published.

MR. ROSEN, in response to Representative Wilson, said most of the public input was broad rather than detailed and often involved questions about what was to be included within the scope of the project. For example, one question was whether oil tankers were included and the answer to that is no. He said the biggest areas of concern identified by the public were: releases to waterways, impacts to subsistence, and public safety issues as well as industry employee safety. The broad purpose of the public outreach was to ensure that the method employed addresses the concerns of the public, he added.

MR. ROSEN said the project's scope of work includes the North Slope/Valdez oil corridor as well as Cook Inlet [slide 8]. Specifically excluded from the scope are refineries and anything downstream of refineries, oil tankers, and acts of terrorism or deliberate sabotage. He stated that the area of risk most often identified by the public was impact to waterways [slide 9].

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MR. ROSEN reiterated that Phase 1 of the project [June 2008 - August 2009] focused on public outreach and development of the methodology design for conducting the risk assessment [slide 10]. "In particular, a lot of this involved a very clear, specific definition of what is an unacceptable consequence or what is a significant risk in each of the areas," he said. Phase 2 will consist of the major data collection [August 2009 - February 2010], such as looking at detailed information about the facilities, previous risk assessment studies, business practices, spill and corrosion reports, and operating procedures. All of that information will be applied to the methodology, or model, that is created for the areas of operational and natural hazards, he explained. The information about studies, reports, and existing conditions will be used to

refine the likelihood or probability estimates as well as the consequence factors. For example, in comparing two similar pipelines, the consequences of a spill are likely to be greater for a pipeline with no automated detection system and no inspection as compared to a pipeline instrumented with leak detection and frequent inspection. Phase 3, he continued, will be the analysis and presentation of the information in a final report [February 2010 - May 2010].

MR. ROSEN, in response to Co-Chair Johnson, noted that two reports have already been produced and the next phase is the release of a report for public comment to determine whether the methodology has addressed the public's concerns. Based on the public comment, the methodology will be finalized in June 2009 and the methodology design released in another report. The next deliverable will then be the final report.

2:27:32 PM

MR. ROSEN commenced his presentation, noting that the project is now midway through Phase 1 [slide 11] and the interim report summarizing the public participation and defining the unacceptable consequences has been released. The draft design methodology report was just released, he said, and both this report and the interim report are available on the project's web site [slide 12].

MR. ROSEN explained that the draft methodology report kicks off the second public process and public hearings will again be conducted across the state over the next few months. He said that in addition to the public process, the state has contracted with the National Academy of Science for a totally independent peer review. The academy has convened a committee of experts and will be conducting its own public process in the state. The risk assessment team will rely on the academy to confirm the technical correctness of the methodology, he related. In response to Co-Chair Johnson, he said the cost of the academy's review is about $200,000. The academy is a quasi-government association, he said, and most of the actual work is done on a volunteer basis from the committee of experts, so much of the funding is for travel and expenses related to the review.

2:31:25 PM

MR. ROSEN concluded his presentation by reiterating that the final report is due the summer of 2010 [slide 13] and that it will be a large summary of the hundreds of event scenarios

categorized in the areas of reliability, safety, and the environment. He said the highest risks will be identified for potential mitigation and the potential recommendations depend on the nature of the risk [slide 14]. If it is a physical component of the infrastructure, a potential recommendation may be replacement or repair. Potential changes to business practices or internal company policies will also be looked at. If industry does not respond in this regard, then a next step might include changes to management or changes to regulation.

CO-CHAIR JOHNSON said it is important to keep an eye on the state's resources because they are the state's livelihood.

CO-CHAIR NEUMAN added that any major disruption in Prudhoe Bay operations would be devastating to the state revenue stream because 85 percent of the state's revenue is coming from this one place.

REPRESENTATIVE GUTTENBERG observed that the state has a contractual relationship with the producers as much as each producer has with the other producers. One consideration still floating around is what the contractual obligation might be for one of the non-operating owners when one of the other owners has a negligence accident.

CO-CHAIR JOHNSON pointed out that one thing not talked about is what happens if an event is not the fault of the producers or the state, such as an act of terrorism, earthquake, or volcano. He surmised that these things may show up in the gap analysis.

2:35:10 PM

ADJOURNMENT

There being no further business before the committee, the House Resources Standing Committee meeting was adjourned at 2:35 p.m.