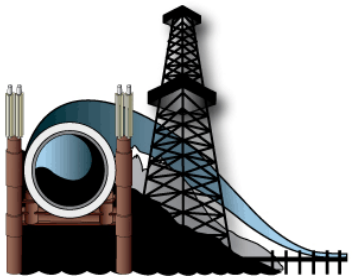
Meeting Minutes
State of Alaska Oil & Gas Infrastructure Risk Assessment



This document is intended to be a summary of the meeting discussion for use by the project team in developing the risk assessment methodology and is not intended to be an official transcript.

Topic:	**Anchorage Public Stakeholder Consultation Meeting**
Date:	**October 15, 2008**
Time:	**6:30 PM – 8:30 PM**
Purpose:	The intent of this meeting was to solicit Anchorage area public input as a stakeholder with interests in existing Alaska oil and gas industry infrastructure. Input provided at this meeting will help the expert firm design the risk assessment methodology.
Attendees:	Mike Thompson, Department of Natural Resources (DNR) Mike Lasher, EMERALD John Hilgendorf, Alyeska Pipeline Service Company (APSC) Tiffany Stebbins, Marathon Oil James Zwiefel, Not Provided Paul Kendall, Citizen Craig Wilson, MWH Marilyn Crockett, Alaska Oil & Gas Association (AOGA) Sami Glascott, AOGA Frank Toth, Alaska Department of Environmental Conservation (ADEC) Tom Lakosh, Citizen Bill Odom, Citizen Jon Goltz, ConocoPhillips Lois Epstein, Alaska Transportation Priorities Project Erin Renfro, NANA/Colt Engineering Kaitlyn Bullock, Not Provided Bill Bullock, BP Exploration Alaska (BPXA) Justin Massey, Trustees for Alaska Lindsey Vorachek, NANA/Colt Engineering Michelle Egan, APSC Michael Ruiz, Padre Associates Boyd George, BPXA Nicole Allison, URS Alaska Bob Carson, APSC JR Wilcox, Pacific Energy Resources John Braden, ConocoPhillips Jennifer Blake, Not Provided Brett Bermanda, Not Provided Gabe Scott, Cascadia Wildlands Project

	Marcia Davis, Department of Revenue (DOR) Bruce Greer, RuralCAP Nikos Pastos, Alaska's 'Big Village' Network Carl Wassilie, Alaska's 'Big Village' Network John Aho, Alaska Seismic Hazards Safety Commission Myron Casada, ABS Consulting Steve Harris, ABS Consulting Ira Rosen, ADEC Bettina Chastain, EMERALD Gretchen Grekowicz, EMERALD

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1. Introductions A total of 39 individuals were in attendance including the project team, members of the State Agency Oversight Team (SAOT), industry representatives, local businesses, NGOs, and the public at large. The meeting began with an introduction by Ira Rosen, ADEC Project Manager, and introductions of those in attendance. The meeting was facilitated by Bettina Chastain, EMERALD Project Manager, and scribed by Gretchen Grekowicz.	
2. Project Objectives, Background, and Scope The ADEC Project Manager provided a brief introduction of the project, which was followed by a detailed overview by the EMERALD Project Manager outlining project team organization, objectives, scope, and timeline.	
2.1 Project Team- The project team is comprised of the ADEC, lead agency for the project; the State Agency Oversight Team (SAOT) which encompasses representatives from multiple State agencies and provides oversight and guidance for the project; EMERALD, the lead contractor for the State; and ABS Consulting, EMERALD's subcontractor. EMERALD, an independently run subsidiary of Doyon Limited, Inc. is a professional services consulting firm with a core focus on process safety and risk management. EMERALD will provide local Alaska infrastructure expertise and will manage the project. ABS Consulting, will supplement the technical effort and contribute large-scale technical risk assessment experience and an international perspective.	• None
2.2 Project Goal- The goal of the project is to conduct a system-wide risk assessment of oil and gas infrastructure in Alaska. This will involve taking a system of systems approach and evaluating the interrelations among components of the infrastructure. Although many risk assessments of individual infrastructure components have been executed in the past, this type of system-wide assessment has never been conducted in Alaska.	• None
2.3 Stakeholder Consultation Objectives- The objectives and structure of the stakeholder consultation process were explained by the EMERALD Project Manager. Six regional meeting areas along the infrastructure corridor are planned including Fairbanks, Kenai, Anchorage, Valdez, Barrow, and possibly Juneau. Individual meetings with key stakeholders, as well as public meetings, will be held in each location. The goal of the meetings is to solicit stakeholder input on	• None

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significant concerns relating to existing oil and gas infrastructure in Alaska.	
2.4 Project Background- A background of the project was provided. Alaska's infrastructure is aging and many of its components have exceeded their original design life. In 2006, North Slope oil production was halted by failure of one component of the system (pipeline corrosion leak). The governor announced this risk assessment project in May 2007 in response to that incident.	• None
2.5 Expected Outcome- The outcome of the project will be a "snapshot" of the current state of the infrastructure and will highlight components with the highest relative risk. Results of the Risk Assessment will be summarized in the form of a risk profile. The SAOT will use this risk profile to develop appropriate mitigation measures. This project has been integrally linked with the Petroleum Systems Integrity Office (PSIO) since its inception. The mission of PSIO is to evaluate gaps and overlaps in regulatory oversight of the oil and gas infrastructure. PSIO will use results of the risk assessment to prioritize gaps and make recommendations to the State with regard to regulatory oversight decisions.	• None
2.6 Risk Assessment Standards- A brief explanation of standard risk assessment methodology was provided. The risk assessment process is an organized and systematic effort to identify and analyze hazardous scenarios. Risk assessment asks three questions: 1) what can go wrong? 2) how likely is it? and 3) how damaging would the event be if it were to occur? Rankings are assigned for both probability and consequence and are combined to form an overall risk ranking for each potential event.	• None
2.7 Project Scope- The scope of the project was described in terms of geography, infrastructure components, and other factors and considerations. The project includes the North Slope, Trans-Alaska Pipeline System (TAPS), and Cook Inlet infrastructure. Future developments such as exploration are excluded from the scope of the project. All "inside the fence" components of the infrastructure are included in the scope. Excluded components are transportation (including marine), reservoir maintenance and impacts to the reservoir, and refineries and distribution facilities not integral to operating the infrastructure. The team will consider design/operating life, the natural aging process, operating procedures and standards, maintenance and management, regulatory oversight, changes in oil composition, and natural hazards when conducting the study. Market conditions, such as commodity pricing which would make operations non-economical, and man-made hazards such as sabotage will not be considered in the study.	• None
2.8 Project Timeline- The project is broken into three phases. Phase 1 started in July 2008 and will run approximately thirteen months. The first task of Phase 1, development of the Project Plan, was completed and approved by the SAOT. The next step, Stakeholder Consultation, is currently underway. The team will use input from this consultation as well as best practices to develop a draft risk assessment methodology, which will be complete in February 2009. At that time the project team will come back out to the regions to solicit stakeholder input on the methodology. The methodology will also be reviewed by an independent peer review entity. Phase 2 will take about 6-months and will begin in August 2009. Phase 2 involves implementation of the methodology by working with industry to	• None

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visit facilities and collect infrastructure information and data. Phase 3 is the last phase of the project and will be complete by the end of May 2010. It involves analyzing the data collected during implementation and developing a risk profile which will be summarized in the final report that will be presented to the State.	
3. Questions and Comments from Attendees on the Project Overview Questions and comments were taken both throughout the presentation and following the presentation. This section includes questions, answers, and general comments and suggestions relating to the scope, timeline, and management of the project.	
Q: Where is the scope boundary on the east side of CI? **A:** The Tesoro refinery. The scope ends at distributions points. All refineries and the LNG Plant are out of scope.	• None
Q: Is loss of revenue the only reliability concern being considered? **A:** Yes, loss of revenue to the State is currently in the scope. **Q:** You stated that the scope of the project is set and that it only relates to State revenue, but safety and environment were also mentioned. Is revenue a higher priority? Safety and environment seem to be secondary priorities. **A:** The team will evaluate and rank incidents in all three of these categories (safety, environment, and reliability).	• None
Q: When the team assesses impacts, will it evaluate regulatory oversight and effectiveness of that oversight? **A:** This project is linked with the charter of the PSIO, which is to evaluate regulatory oversight of the infrastructure by conducting an analysis identifying gaps and overlaps in oversight. The PSIO will use the results of this risk assessment project to identify combined areas of high risk and gaps in regulatory oversight, and to recommend a path forward in terms of State regulations. **Q:** Will the PSIO gap analysis be made public? **A:** Yes, it will be made public.	• None
C: It appears that tribal governments are not being consulted as part of this project. These issues go far beyond impacts to the State. The team should consult tribal governments.	• None
C: Industry does not understand its own problems. The project team will not have the data needed to make an accurate assessment of the infrastructure. The Prince William Sound Risk Assessment and the new study to assess shipping risks in the Aleutian Islands were referenced. **A:** The team is hoping to work cooperatively with industry so the project can incorporate data that already exists on the infrastructure.	• None

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C: The executives from industry that are profiting from the pipeline should be questioned under sworn testimony. Owner/operator companies manage huge amounts of resources and should have to be held accountable.	• None
C: The work that this project is undertaking should have been done by industry a long time ago. It was not done and the result was the 2006 spills on the North Slope. Now the State is being forced to step in and do the work that should have already been done. It is frustrating that industry is not willing to provide their risk management practices as an input for the methodology development. The State may not have the legal authority to compel industry to provide these types of documents. Industry should not be in a position to argue over providing this information. In order to have effective oversight of the oil and gas industry the State must have adequate legal authority, independence, and funding. This project has the authority and funding, but does not appear to be independent because the State is really evaluating the effectiveness of its own oversight. As a result, the results of the assessment may not be trusted by the public. The solution to this problem is funded citizen oversight of the project and involving citizens with the time and expertise to dedicate to the project. It is important to have a seat for citizens at the table in an organized way, not just through the public meeting process. This project should be seen as positive for everyone involved because it will allow industry to operate well into the future and will also help to protect those who rely on the environment for their livelihood and subsistence; those that stand to lose everything in the event of a spill.	• None
C: The team should provide additional avenues for stakeholder input such as a video cam allowing people to give their input. Stakeholders should not be required to write down their comments if they are not comfortable expressing their views in a public setting.	• None
C: When the results of the risk assessment are presented to the public, will the document include the back-up information used to rank risks? It is important that the methodology outline how risks will be ranked so the results have credibility with the public.	• None
C: The name of the project is misleading because the focus is really on "production infrastructure" not all infrastructure. It is disappointing that the project does not include downstream pipelines.	• None
C: The team should consult with union officials to gather concerns of industry workers that may be afraid to speak out in public.	• None
Q: Will deferral in revenue resulting from a shut-down in production be handled the same as a loss of oil that cannot be recovered such as a spill or fire? **A:** The project team will have to evaluate how to handle deferral. All interruptions in production are not equal. The definition being used for this project is "unplanned interruptions".	• None

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C: Even unplanned events have the potential to cause a shut-in. Owner/operators should not be penalized for shutting in wells for safety reasons. The market also plays into the equation because if oil is deferred and the price goes up, the State could actually realize increased revenue as a result of the shut-in. **A:** The team is working with Department of Revenue (DOR) to find a metric that best captures impacts to the State revenue stream. It needs to be somewhat simple to be effective because it needs to apply to the system as a whole.	
Q: Does the team have a good rapport with the oil companies? **A:** The team has been working with industry cooperatively since the start of the project. The State has been keeping industry informed and is working to continue fostering that relationship. **C:** This is not the kind of relationship I had in mind. The number one priority of the project team should be to only meet with industry under sworn testimony on camera so that the team is not tempted to be corrupted. I would expect the team to state that it has testimony scheduled on particular dates. This testimony should be captured live on video for citizens to view. **A:** The State has hired experts to conduct this risk assessment. It is the State's job to oversee the project. The State would like to work cooperatively with industry in support of the project objectives. Industry has shareholders that hold them accountable. Industry also suffers if the infrastructure is not run effectively. Individual companies within industry do not necessarily share information with each other so it is not accurate to view industry as one big happy group. The job of the State and the project team is to ask industry for its existing information and studies so the project budget is used efficiently. The challenge of this effort is that statutory language does not exist allowing the State to adequately protect industry's information. Industry is not sandbagging the project team. They want to work with the team, but have a right to protect their trade secrets. The State is trying to work through this issue. The project team does not have statutory authority to hold hearings. **C:** This is the attitude that concerns me. To expect that just because industry has shareholders, they are held accountable is not correct. If industry cannot handle talking frankly with the public, they should not operate in Alaska. If the team does not have the legal authority to compel industry to speak, it should obtain this authority immediately. The process should be public. Energy is unlike anything else because it is a fundamental necessity that is owned by the public. The State is cutting industry slack, which is a mistake. To portray the individual industry companies as competitive and not willing to collaborate with each other is false because they work together on many large projects and could not possibly do this without having a good understanding of each others' business. **C:** The tribes also have proprietary issues, but the reason they provide information that has been developed over thousands of years is because they are good citizens. Industry should be willing to do the same thing. It is a matter of	• None

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citizenship without exercising every right to confidentiality you can. How high can the risk really be to sit in a locked room with the State's contractors and provide information?	
4. Stakeholder Input on Focus of the Risk Assessment The EMERALD Project Manager outlined specific input to be solicited from stakeholders including portions of the infrastructure the public feels warrants project team attention. Components of the infrastructure in the scope of the project include production wells, gathering lines, facility piping, crude oil pipelines, gas and water injection systems, gas transport pipelines integral to the operating infrastructure, oil and gas processing and treatment, waste management and disposal (re-injection), storage tanks, terminals, marine loading facilities, and support systems.	
4.1 Valdez Marine Terminal- Multiple vulnerability issues were raised regarding the VMT. One commenter noted that the potential for loss to the marine environment is significant at VMT, particularly at the berths during loading/offloading. A loss of this type could have consequences similar to the Exxon Valdez spill. Another commenter noted that the fire systems at VMT are old and that snow is not removed from the storage tank secondary containment to maintain 110% capacity in case of a release.	• None
4.2 Drift River Terminal- The vulnerability of the Drift River Terminal due to volcanic activity was raised as a concern, especially regarding the potential for lahars to breach secondary containment barriers. The commenter noted that there are millions of barrels of oil in the path of a potential volcanic eruption.	• None
4.3 Cook Inlet Infrastructure- Concern was expressed that there is no visual oversight of the Cook Inlet infrastructure. The commenter noted that new laser scanning technology is not being studied for potential use in this area and there is no ability to pig smaller lines relating to this infrastructure	• None
4.4 Multiphase Pipelines- Concern over the difficulty in implementing adequate leak detection on multiphase pipelines was raised.	• None
4.5 Shut-off Valves- One commenter noted that shut-off valve replacement programs are not specific in federal regulations and are non-existent at the State level.	• None
5. Stakeholder Input on Initiating Events Input was solicited on initiating events that have the potential to cause catastrophes relating to the infrastructure.	
5.1 Natural Hazards- Volcanoes/lahars and earthquakes were pointed out as potential natural hazard events that should be considered.	• None
5.2 Change in Composition- The increasing thickness of crude oil as a contributing factor to degradation of pipelines was discussed.	• None
6. Stakeholder Input on Priorities for Preventing Unplanned Events Related to Oil & Gas Infrastructure	

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in Terms of Reliability, Safety, & Environment The three consequence categories that will be used to evaluate risks for the project were described. Safety refers to both public safety and safety of industry workers. Environment refers to any consequences to the natural resources of the State including waterways, wildlife, and other resources. Reliability refers to events that disrupt the flow of oil and subsequently have the potential to impact State revenue. The public was asked for their concerns of significance within the scope of the project.	
6.1 River Crossings- Concerns relating to spills at river crossings were raised. One commenter stated that spill prevention at river crossings should be the number one priority. The commenter indicated that there is lack of video oversight of river crossings or shallow water ice. He expressed concern over the fact that oil flowing under the ice during winter may not be recognized for an extended period of time and the response time in this situation is not fast enough to prevent significant issues.	• None
6.2 Subsistence- Multiple commenters raised the issue of subsistence. One attendee pointed out that the Yukon River is an extremely important source of food for Alaskans. The Yukon River supports salmon, birds, and other wildlife. He also expressed concern that industry focus only on the bottom line while local communities must live with results such as impacts to subsistence.	• None
7. Stakeholder Input on Other Specific Concerns or Priorities Stakeholders were asked to identify other concerns and priorities to the project team for consideration.	
7.1 ADEC Approval of Industry Documents- One commenter expressed concern that ADEC rubber-stamps approval for industry documents such as Contingency Plans.	• None
7.2 Lack of Effective Response in Moving Water- The issue of ineffective response of oil from the river systems was raised as a concern.	• None
7.3 Alternative Energy- Multiple commenters stated that they would like to encourage use of alternative energy. One commenter recommended powering the pump stations along TAPS using hydroelectric power derived from rivers under the ice flows at river crossings along TAPS. This attendee recommended incorporating ideas for alternative power generation such as wave energy into the final report as a way of outlining how industry should operate into the future. The commenter pointed out that oil prices can change rapidly, which makes it important for Alaska to have a good understanding of its relationship with industry and for the State to have alternative sources of revenue. Another commenter stated that instead of using diesel fueled generators on the North Slope, alternative power sources could be used to reduce emissions. Another attendee pointed out that only response equipment is run by diesel fueled generators. The Emerald Project Manager pointed out that the scope of this project is existing infrastructure operations.	• None
7.4 Video Monitoring Programs- One commenter recommended use of video-cam monitoring programs as an alternative form of identifying at-risk portions	• None

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of the pipeline.	
7.5 Regulatory Oversight- A recommendation was made to consider particular regulatory programs and their effectiveness. The commenter noted that infrastructure regulated under the federal Integrity Management regulation receives a higher level of scrutiny than other components of the infrastructure. Additionally, the State does not have strict regulatory requirements for corrosion protection. The team should consider the fact that having regulations on its own is not enough. Enforcement of regulations must also be effective. The team should evaluate enforcement issues as well.	• None
7.6 Independent Investigation of Incidents- One commenter noted that the State has no independent third party analysis when incidents occur and stated that having the State or industry examine accidents is not entirely effective because it is a conflict of interest for these groups to review their own problems. Independent investigative groups such as the National Transportation Safety Board exist at the federal level, but do not regularly conduct investigations in Alaska.	• None
8. Best Risk Management Practices, Guidelines, and Standards; existing Risk Assessments, Studies, Reports, or Other Data/Information Relevant to Alaska Oil & Gas Infrastructure No suggestions for best risk management practices or data sources were suggested by the public.	

Attachments:	Presentation Stakeholder Information Packet

NOTE:
Submit comments and corrections to Gretchen Grekowicz at ggrekowicz@emeraldalaska.com