

Topic:	Fairbanks Public Meeting	University of Alaska Fairbanks, Alaska
Date:	May 13, 2009	
Time:	4:00 PM – 7:30 PM	
Purpose:	The intent of this meeting was to solicit feedback on the Proposed Risk Assessment Methodology from public stakeholders who have interests in the existing Alaska oil and gas industry infrastructure, within the Fairbanks area.	
Attendees:	<u>Public Attendees:</u> Ed Morgan Richard Fineberg Pamela Miller Garland Krabbenhoft David Guttenberg Chris Birdsall Meredith Cameron <u>National Academy of Sciences Attendees:</u> Shirish Patil <u>State Agency Project Team Attendees:</u> Ira Rosen, ADEC Allison Iverson Tim Robertson <u>Project Technical Team Attendees:</u> Bettina Chastain Gretchen Grekowicz	

FAIRBANKS PUBLIC MEETING SUMMARY
1. Introductions
<p>A total of 13 individuals were in attendance including members of the project team, members of the State Agency Oversight Team (SAOT), representatives from the state legislature, and the public. The meeting began with an introduction by Ira Rosen, ADEC Project Manager, on the project background and status. Tim Robertson of Nuka Research communicated the objectives and ground rules for the meeting, and began introductions of those in attendance. The purpose of the meeting was to obtain input from the public on the Proposed Risk Assessment Methodology released in March 2009. The report describes the methodology inputs, infrastructure scope, technical methodology and a description of how the risk assessment results will be analyzed and compiled into a risk profile.</p> <p>Opportunity was given to meeting participants to provide oral comments during the meeting or written comments via email, fax, and mail. It was conveyed that all comments are due no later than June 2, 2009.</p>
2. Proposed Risk Assessment Methodology Presentation
<p>Meeting attendees indicated a preference to use the allotted meeting time in its entirety to ask questions and provide comments on the validity of the project, its scope, the Proposed Methodology, and to voice other concerns. Consequently, although a presentation was prepared, it</p>

FAIRBANKS PUBLIC MEETING SUMMARY

was not given in its entirety to the audience. A copy of the presentation that was planned to be given can be found at:

http://www.dec.state.ak.us/spar/ipp/ara/documents/0905GeneralPublicOverview_ProposedRiskAssessmentMethodology_v002_3.pdf

3. Questions, Answers, and Comments

This section includes questions and answers relating to the Proposed Methodology. Questions asked and comments from public attendees are denoted by a "Q" or a "C" in the following discussion, while "A" represents the State or Project Team's effort to address the question or comment.

Q: You said in the stakeholder handouts that a risk assessment looks at how likely and how damaging an event could be. You are cutting off the how damaging part. This will give the state a very narrow view and list of risks while ignoring the rest. What if you have a stretch of pipe where there is no one to be killed, but it is over the Kuparuk River?

A: Screening out of an event in one category does not necessarily mean it will be screened out of the other categories. In the example you just gave, the event would be screened out for safety analysis, but would receive detailed analysis for environmental risks.

C: Then your write-up is faulty.

A: The screening is part of the methodology because this project has limited time and money. It will not be possible to look individually at each piece of equipment that makes up the system. The team needed to put limits around it so the assessment is doable. The screening helps by focusing the detailed analysis on significant consequences.

Q: Would the bullet hole spill or the 2006 leaks fall on this reliability scale?

A: No.

Q: Then why are we even here?

A: The environmental scale is completely separate from reliability.

Q: What kind of industry data is actually proprietary?

A: Detailed engineering drawings are considered proprietary. There is a need for these types of engineering drawings to understand the infrastructure processes. For example, it will be important for the project team to understand flow through the system and alternate operating modes.

Q: Will the information also be broken down by operator since they are major stakeholders?

A: Yes, the team has been working with these operators.

Q: Don't the operators already do PHA's looking at these types of issues?

A: Yes, but the state agencies cannot share the confidential information they have unless industry gives a waiver.

Q: The only way to really implement this risk assessment is to execute it like a typical PHA in conjunction with the operators. They already have this information.

A: Yes, this is true, but this project is evaluating the system as a whole and the global impacts; not the detailed level at which individual PHAs are conducted. It benefits industry to provide this type of information to the team because the results will show how the different facilities interact with each other. This has not been done before and will be new information for both the state and industry.

FAIRBANKS PUBLIC MEETING SUMMARY

Q: The operators have already done all this work including in the field. The team needs to work with them. What incentive do the operators have to participate?

A: In our data requests to industry, we asked for previous risk studies.

A: The results of this study will be a risk profile that shows the significant risks from the State's perspective.

Q: Again, what incentive do operators have to provide data?

A: Providing information could reduce the rankings of some risks if the information describes mitigation measures that would reduce consequence or likelihood.

Q: Could you go over the environmental thresholds and what data will be needed as inputs to the model?

A: The EMERALD Project Manager indicated that this was described in the presentation slides and proceeded to begin describing the preliminary screening process.

Q: I did not find a citation for the safety numbers. Is there any validity to these numbers?

A: Thresholds for industry workers are typically set higher than that of the public. The project team took a look at fatalities on the North Slope and there have not been any related to operations. All of the fatalities that have occurred are related to construction activities, falls, and other such events.

C: The Texas City fatalities were operations-related.

A: That is correct, and the project team used this as a data point. That event would have fallen as a category 3 on this scale.

Q: Where would the recent TAPS gas leak at PS1 have fallen on this scale?

A: Probably as a 4.

C: I have a problem with this slide (referring to slide 48 of the presentation. The state is saying it is okay for someone to die.

A: The state is not saying it is acceptable for someone to die. This is a project-specific scale that focuses on larger scale risks. Single fatalities that result from slips, trips, and falls are already heavily regulated by OSHA.

C: Nuiqsut is in the vicinity of facilities. Hunters might be close to facilities.

A: The community of Nuiqsut and other communities like it will be considered in terms of safety consequences if they are in close proximity to infrastructure, but the team will not look at individual fatalities because someone is in the wrong place at the wrong time.

C: The people of Nuiqsut were there before industry was there.

A: We will be looking at average occupation numbers for workers and will consider communities such as Nuiqsut through use of census data.

The EMERALD Project Manager provided a description of the environmental scale and index at this point in the meeting.

Q: What are the inputs to the environmental model?

FAIRBANKS PUBLIC MEETING SUMMARY

A: The index is made up of multiple factors including composition (crude oil, produced water and seawater, NGLs), environmental sensitivity (moving water, sensitive land and below ground, other than sensitive land), remediation and recovery (frozen ground, broken ice conditions, other), and volume.

Q: Where are you getting the data to make judgment calls like where fish are located?

A: The team will not be making judgment calls. The determination will be made based on the definitions provided in the methodology document.

C: I would like further information on the index. It needs to be based on scientific information.

A: I would encourage you to review the methodology report. If you still have questions you can call me and we can discuss them.

Q: Wouldn't you look at worst case weather scenario?

A: The team will actually create dual scenarios: one which will consider summertime weather conditions and one which addresses wintertime conditions, since the environmental impacts will be different depending on the seasons.

The EMERALD Project Manager reviewed the reliability scale and screening method at this point in the meeting.

Q: Does it matter what the cause of the event is, i.e., operator error versus equipment failure, if the result is the same?

A: It does matter, because the likelihood of a piece of equipment failing versus operator error is different, and therefore this would affect an overall risk ranking since risk is comprised of both consequence and likelihood factors.

Q: An accident is not usually caused by a single trigger. It is usually a string of events. An infinite number of combinations of events could happen. Through the methodology I could not see how you will look at combinations of events.

A: We will only look at single credible worst case failures for this assessment. Looking at every possible combination of multiple events that could occur which would result in a failure would create an infinite amount of failure possibilities and the assessment could not be achieved within the project resource limitations. However, we will also be looking at common cause failures for natural hazards, (e.g. earthquakes).

Q: Many accidents are caused by bad management of change. If you do not have access to those documents how will you evaluate the potential impact of change?

C: If you are able to evaluate who has PHA procedures, management of changes processes, and other such documents it will impact your risk rankings.

Q: How much is this project costing the State?

A: This is a \$5 million capital project approved by the legislature.

Q: Does that amount include the cost of state personnel?

A: It includes ADEC staff, but not members of the SAOT.

Q: Will there be recommendations as part of the final report or just analysis?

A: There will be recommendations, but they will most likely come from the state. Early in the

FAIRBANKS PUBLIC MEETING SUMMARY

project, there were discussions on who would provide recommendations: the contractor, the SAOT, or PSIO. The decision was to have the contractor produce a risk profile, which the state will use to make recommendations and take action in light of the results.

Q: Will a layperson be able to see recommendations as part of the report?

A: No, not specific recommendations.

Q: With the BP spills, information was not being transmitted effectively from the operators to the management and this was a gap. Will these types of recommendations be made? Is industry working with the project team and providing the project with data?

A: The state believes that it will be pertinent to give the infrastructure owners/operators the opportunity to fix issues such as this if they come to light, but if the state feels that industry's response is not adequate, they may decide to take additional oversight action.

Q: I am disturbed. I do not understand what the outcome of the ARA Project will be. What will the final report show?

A: Let's go back to the genesis of the ARA Project. The project was initiated in response to the 2006 BP spills. The state did not know that those spills would happen. The purpose of this project is to proactively find out what other events like that one might be out there and have the potential to surprise the state. The first step in this is to assess. The next step is to conduct risk management and mitigation.

Q: So, at the end of the day, you will have analysis and recommendations. Once there is feedback, the governor will have to decide what action to take. I am worried that the state will get to the end of this road and no action will have been taken.

A: The risk assessment evaluates from a factual standpoint. This project is focused on looking at the most significant risks. For example, this might be the top 100 risks in each of the consequence categories. The ARA Project Team will focus on identifying and ranking these risks. The next step will be for the PSIO to work with industry. It is during this timeframe that action will be taken. The state sees a strong role for industry to take part in identifying solutions. This is not intended to be a report that sits on the shelf.

Q: I was expecting to see a gap analysis that reviewed state agency jurisdiction as part of this project since part of the issue was that the state was not aware of what regulatory gaps exist.

A: What you are describing has been split into two separately managed and funded, but linked projects. PSIO has already evaluated the gaps and overlaps in agency jurisdiction over the infrastructure. The results for the ARA Project will be inputs into the PSIO gap analysis to help the state determine where resources should be focused.

Q: But will the gap analysis be part of the ARA Project?

A: No, the ARA Project will evaluate what can go wrong, how likely events are to occur, and what the consequence will be if they do occur. This is engineering oriented work. The regulations can be viewed as mitigations to the risks because they can influence the severity of a consequence or the likelihood of an event happening.

A: The goal of the ARA Project is to identify risks. The PSIO, in turn, is looking at how to deal with the risks that are identified. This could come in the form of modified regulations, increased inspection, or changes in jurisdiction. The next phase (following the project), will be to determine how to close the gaps and mitigate the risks by working through the legislature. This needs to involve the outcomes of both the ARA Project and the PSIO Gap Analysis. The two projects are sharing information.

FAIRBANKS PUBLIC MEETING SUMMARY

Q: I heard two different definitions of “gap”. The first was a question about gaps in terms of the knowledge between operators and managers about what is happening in the field. The second was a comment from PSIO about regulatory oversight gaps. These are very different ways of splitting up an oilfield. It is self evident that the enemy of an oil field is corrosion. Will anything come of this if the project team does not have field access for inspections? The team will never be able to address concerns such as communication between operators and managers. I do not see an answer.

A: It would be easier if the state had a regulatory tool to force industry to provide the project with data, but the state has to work within the constraints that it has. The state tried to pass legislation to accomplish this, but it did not make it through. Sharing information is a challenge on this project. The state has been working with industry to find a way to share information. The state would like information on business practices, previous risk assessments, and other pertinent operator documents. The state has looked at the language in the ADEC regulations to see what kind of authority might exist to force industry to give the project data, but no useful language was found.

A: I am not sure you could do a study that physically looks at every single component. Some of it is underground, etc. The state welcomes comments and data that the public might have. Nuka Research has put together a survey that is not out yet, but will be. When the state receives anonymous input, it is obligated to validate the truth of the information.

C: Last time we talked about the full blown audit for TAPS that was done in the late 1980's.

C: That was called a vertical slice. While the people were in the facilities asking for data, the Alyeska personnel were in the other room making up data to give them.

C: Alyeska has already analyzed the impacts of production interruptions.

C: The project team will not be able to come up with solutions for minimizing down time. Only industry can do that.

A: That is correct, but the results of this assessment will outline for the state the risks to production or operations and contributing factors so they can make decisions and work with industry to implement changes.

Q: If seven out of the top ten risks are from single operators how will that operator be impacted? The value of that operator's asset will go down if that occurs.

C: It seems that if the operators are all doing the same types of operations they will all have fairly high risks.

C: Unless a company operates one of the critical nodes (i.e. single point of failure).

A: The results probably will not end up like that. All the central processing facilities will have similar scenarios applied to them.

A: The project team's job is to bring those risks to light.

C: As an operator, I would be reluctant to take action if it did not have an economic benefit.

C: The State of Alaska is the largest investor in Prudhoe Bay. If this was another country, BP would be kicked out because they are not looking out for the state's interests. It is the state's oil and gas. What I am looking for is what needs to be done to protect that.

C: The state's response to Fineberg's letter (submitted in November 2008) was very telling. It was honest, but disturbing because all his comments were considered outside the scope of project or

FAIRBANKS PUBLIC MEETING SUMMARY

are being addressed by other projects. I would be willing to bet that what Palin thinks is coming out of this project will not match what actually results from it.

C: I appreciate the effort that has been made to come here. I can see that you considered the input that I gave last fall and included it in the methodology. It is unfortunate that you will not get data from industry so you will not really be able to do anything with this, but I do appreciate you listening to us.

C: The project team needs to look at how the system interacts as a whole. Separating the factors will not give you the answer. I thought the reason Palin initiated this was to look at the system as a whole. What I see happening is that the three consequence categories are separate. I do not think that even one death is acceptable for the safety consequence scale. You are not considering how long a spill may occur, if it will get to water, etc. I think the safety criteria and the environmental scale are fatally flawed. We are undercutting our own state law because we are not looking at every regulated spill. Any spill to water should be considered. With the way this is written, we are missing those spills.

C: It is not possible to complete an accurate risk assessment without data from the industry operators.

A: Of course having data from industry will help the project. You will see how the method will work through the presentation the team has prepared and then you can see what you think. In the absence of good condition information the project team will have to make worst case assumptions. The more detailed information the team has the better the results will be.

C: The operators have already done all this work including in the field. The team needs to work with them.

C: The description of the infrastructure understates the pipeline complexity. All pipelines should be considered.

A: The pipelines listed in the methodology are the major pipelines. The team is still collecting information on the details of the infrastructure such as facility piping, but all production related pipelines will be considered.

C: I am concerned about the consequence thresholds. What has not been answered by the methodology is the question, without being there, how can you know what is being done in the field and the difference between what is on paper and real life?

C: If the operator's PSM program is good, the team should be able to rely on the risk rankings that are included in their PHAs. I am surprised that industry is not even providing you with this information. If you are not looking at the quality of the PSM Program, there is no point to this project.

C: You need industry cooperation; so you can look at layer of protection.

C: Where it says "no public impact" on level one of the scale; does that mean 0 fatalities? On the worker safety scale, 5 fatalities is definitely unacceptable.

A: The goal of preliminary screening is to narrow the scope. If we adjust these thresholds we will let more through the gate, which will reduce the level of detailed analysis that can be conducted.

C: There is no legitimate citation in the methodology to back up the safety numbers.

FAIRBANKS PUBLIC MEETING SUMMARY

C: They are trying to differentiate between process safety risk and the one-off slips, trips and falls. This safety scale makes sense in that context.

C: I would recommend that you remove the public safety impact scale completely because it will not be meaningful.

C: The 10 barrel screening volume seems to create an impossible task. Because of the high volume running through the infrastructure, you will pretty much be looking at everything.

A: The technical team needed to provide justification for the scale so we analyzed the top 10 spills on the North Slope, which started at about a 25 barrel volume, so we lowered the scale slightly below that level.

C: You should have worked backwards and looked at the cost consequences of spills and use that information to create the scale.

C: I would recommend changing the safety scale to zero fatalities for both the public and workers and instead raise the environmental threshold.

C: The approach is fundamentally flawed. The state's goal is to prevent spills. In this study, how will you look at problems on stretches of pipeline where spills could occur, there is no leak detection, and the spill would go to water? This project could undermine the state's spill prevention goals. There is a portion of the modeling analysis that I do not understand.

C: You could designate those portions of pipeline that cross rivers as higher risk.

C: You should be able to include lower level risks in your final product such as facilities that currently do not meet the safety threshold. The occupational safety thresholds are too blunt a tool.

C: I would suggest the scale be altered to capture injuries and 0 fatalities.

A: Keep in mind that if the scale is altered in that way, nothing at all will be screened out. The objective of the screening tool is to hone in on higher risk facilities.

C: Your scale should be on lost time incidences. If you are saying there have been no historical events of such fatalities on record, no facilities will make it through screening.

A: The project is looking at potential events not actual historical events.

C: My understanding was that there would be a physical inspection component to this project; work that would occur in the field. The project team needs to have seen the infrastructure in person to understand it. I think without field inspections, it is better to cancel the project and spend the money on regulating instead. I would recommend that we don't move forward with Phase 2 of the project.

C: In terms of safe operations you should consider the price of oil. What the reliability factor has introduced is that as the price of oil goes down, you are considering spills less risky.

C: Chronic concerns are not being included in the methodology.

A: How would you suggest we alter this methodology to address chronic concerns?

C: Sociologically I would handle this very differently. The project team needs to go to the North Slope and talk with those people whose land is impacted. I would like to go back to the topic of no

FAIRBANKS PUBLIC MEETING SUMMARY

North Slope deaths resulting from equipment failure. What about the individual who was in the well house that blew up? When the price of oil is lower and production is decreased, the companies cut their budgets and do not operate as safely.

C: How will the team possibly go to and evaluate each piece of equipment that is at risk? There are too many pieces of equipment in the scope to do that. It cannot possibly be done within the current budget and schedule. It seems that the way this project is set up will not work. This project should be looking at process safety management, management systems, etc. If the team does not look at these things, the state will not get anything out of the project.

C: I spent most of my life working construction on the North Slope. I learned that it is important to look at it from a practical perspective. All the facilities are accessible. Having hands on perspective gives you the practical experience so it does not all become theoretical.

A: Our consultants have been to all of these facilities and we are relying on them. The state is also limited by the constraints of the project. This is a very unique project because typically risk assessments are commissioned by the owner/operator of the property so it is straightforward to obtain information in support of the assessment. People who thought this project would involve a detailed condition assessment will be disappointed. It will look at how all the different facilities work together.

C: I do not feel that our concerns were considered in the state's response to our November 4th letter. I feel that we were almost completely ignored. You are not going to get the true risks without boots on the ground. We keep getting off track and avoiding the real problems. There is very little public participation, but almost all of the public input is negative. I am not sure if this is being taped, but just because I am participating in this process does not mean I am acquiescing. Just because we fall off the wagon sometimes, does not mean that our concerns are not valid. It is not simply altering thresholds that will make the public happy.

C: Setting thresholds for unacceptable consequences is setting policy. The state is saying that the risks have to be of a certain magnitude before they are considered significant. The companies have been running the facilities into the ground just waiting for something to go wrong. This just gives them more excuses to keep doing this while actually lowering the standards. The state is saying it is okay. I think this whole project is risky from the state's perspective.

C: The state is not unbiased in this. The state is worried about economics because they get so much money from production.

A: The discussion around the opinion that the state is saying it is acceptable to have spills of certain size is a side conversation. All we are trying to do with this project is to create a relative ranking system.

C: I do not believe the state has the information to judge what the size of a spill might be. You were tasked with doing a condition assessment.

A: To be clear, the ADEC was tasked with doing a risk assessment not a condition assessment. They are not the same thing.

C: But ADEC asked for this project.

A: The project was initiated by the Governor's Office, but ADEC was given the funding to execute it.

C: So because the scope is so big you are doing a watered down version instead of honing in on known chronic problems like corrosion.

FAIRBANKS PUBLIC MEETING SUMMARY

A: I understand the approach you are describing, but it is not the approach of this project.

C: The state is approaching this in the same way a business would, but the state is not a business. It is a government. Businesses look at risk from an economic perspective.

A: This project cannot be everything to everyone. I know people are frustrated, but we have to work within the limitations we have. The state's goal is to do the best job with the time and resources we have. Your comments are valid, but are out of our control.

C: If you do not have the ability to do what the Baker Report did, the project will not result in a valuable product.

C: This project can learn lessons from the nuclear industry. For each and every problem that exists on the North Slope, someone knows about it and has probably reported it to their supervisor. The state needs to talk to employees, but not through the survey mentioned. AOGCC has regulatory authority to inspect. To do a risk assessment, you need to do an in-the-field inspection. Things can look good on paper. This is not worth doing if the team will not be in the field.

C: My fundamental problem with this project is that the State is focusing this as an economic perspective when the state's job is to protect the public.

A: The state is not saying those events that are screened out are "acceptable". This project's focus is to create a relative scale so the state can evaluate the biggest risks.

Attachments:

[Proposed Risk Assessment Methodology Overview Presentation](#)