

Project Overview for Stakeholders



Alaska Risk Assessment of Oil & Gas Infrastructure



Project Background

Alaska is dependent on oil and gas production as a primary revenue source, both now and for the foreseeable future. The integrity of the Alaska oil and gas network must be maintained to protect safety of people, the environment, and to ensure uninterrupted oil and gas production and revenue. A primary goal of this project is to provide information to State agencies that is necessary for them to perform their mandated duties to oversee the steady flow of oil and gas without unplanned interruptions, while protecting the public's safety and the environment.

Parts of Alaska's complex oil and gas infrastructure have been in place since the early 1960s, and in some cases have already exceeded their original engineered lifespan. As demonstrated in 2006 when part of Alaska's North Slope oil production was inter-

rupted due to corrosion, failures in any one component of the system can directly impact the system as a whole.

Past incidents alone are not reliable predictors of future problems, and oversight of the integrity of the system requires rigorous analysis to anticipate and prevent future problems before they happen. The outcome of the risk assessment will be a "picture" of the system as it stands today, highlighting the infrastructure components with the highest relative risk of a potential significant event.

Governor Palin announced this three-year, \$5 million initiative in May 2007. In June 2008, the Alaska Department of Environmental Conservation (ADEC) contracted with an expert firm consisting of Emerald Consulting Group LLC, in partnership with ABS Consulting, to design and imp-

lement the project. This project is being managed by the ADEC Division of Spill Prevention and Response, Industry Preparedness Program. Work in 2008 will primarily consist of stakeholder consultation and development of the risk assessment method by the expert firm. Implementation of the risk assessment will continue into 2010.

The risk assessment is being overseen by the State Agency Oversight Team (SAOT) with representatives from the multiple State agencies. Federal agencies with responsibility for Alaska oil and gas infrastructure will be requested to provide direct input to the SAOT and the expert firm. Local governments, the general public, other interested stakeholders, and the companies that operate Alaska's oil and gas infrastructure will be actively consulted.

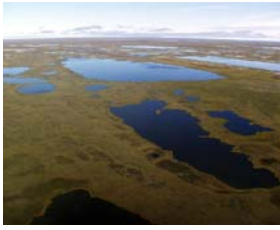
What is a "Risk Assessment?"

A risk assessment is the process of evaluating "how likely" it is that a significant event will occur, and "how damaging" the event would be to people, the environment, or production and revenue if the event were to occur. By assigning scores of "how likely" and "how damaging" to the particular event, the combination of the two scores can provide an overall

understanding of relative risk for each event.

It is important to understand that a *risk assessment* is a predictive tool that helps evaluate the relative risks of potential significant events in the future. The risk level of a potential event can be minimized by implementing changes that would reduce

"how likely" or "how damaging" the event would be. It does not identify what risks are "acceptable." The actions taken to minimize risk to an acceptable level must be defined by the State of Alaska and as part of a *risk management process* after this project is completed.



Stakeholder Input Process

The State of Alaska is soliciting input from individuals or groups with interests in existing Alaska oil and gas industry infrastructure during the initial phase of the project. We refer to these parties as “stakeholders.” Stakeholder input will be used by the State of Alaska to solidify the scope of the risk assessment and help

the expert firm design the risk assessment methodology that will be implemented in the next phase of the study.

Stakeholder input will be actively solicited by the State of Alaska through regional public meetings, key stakeholder meetings, surveys, and web site input. Public meetings will

be conducted in regional centers near oil and gas infrastructure and are scheduled in the following locations: Anchorage, Barrow, Fairbanks, Kenai, and Valdez. Please visit the project web site below for the current schedule of regional public meetings.

Stakeholder input for this phase of the project will be accepted through November 4, 2008.

Further Information

Additional information on the project, as well as a link to the on-line Stakeholder Survey Form can be found on the State of Alaska web page at:

<http://www.dec.state.ak.us/spar/ipp/ara/index.htm>

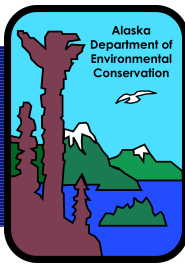
Guiding Principles

- The outcome will be meaningful.
- The risk assessment is not an investigation or enforcement action.
- The results of the risk assessment will be useful to both the state and industry.
- Stakeholder input will be actively sought and incorporated.
- The risk assessment will be conducted in cooperation with infrastructure owners.
- The risk assessment will provide a baseline for ongoing monitoring.
- The risk assessment will provide a benchmark for the DNR Petroleum Systems Integrity Office.

For additional project information, please contact:

Mr. Ira Rosen, PE
 Project Manager
 Tel: (907) 465-6219
 Email: Ira.Rosen@alaska.gov





Stakeholder Survey



Alaska Risk Assessment of Oil & Gas Infrastructure

WE NEED YOUR INPUT!

The State of Alaska is soliciting your input as a stakeholder with interests in existing Alaska oil and gas industry infrastructure. Stakeholder input will be used by the State of Alaska to clarify the scope of the risk assessment and help the expert firm design the risk assessment methodology that will be implemented in the next phase of the project.

You can submit this survey through the following means:

[Click here to submit survey online](#)

E-Mail: alaskarisk@emeraldalaska.com

Fax: 907-258-8124

Mail: Stakeholder Survey, 670 West Fireweed Lane, Suite 200, Anchorage, Alaska 99503

The project is seeking stakeholder input in the following areas:

1. We are interested in understanding more about your concerns and perspective. **What is the primary reason you are interested in the Alaska Risk Assessment of Oil & Gas Infrastructure Project?** Please check the applicable category below.

- Oil & Gas Producer
- Oil & Gas Explorer
- Trade Organization
- Federal Agency
- State Agency
- Local Government
- Non-Governmental Organization
- Native Corporation
- Tribal Organization
- Education & Research
- Military
- General Public
- Other _____
- Other _____

2. **What regional area associated with oil and gas infrastructure in Alaska do you most closely represent?** Please check the nearest location.

- Cook Inlet
- North Slope
- Interior
- Prince William Sound
- Other _____

[NEXT PAGE](#)

3. Do you wish to be informed of future project information?

Yes No

If yes, please indicate below.

| Name | Phone Number | E-mail Address |
|-------|--------------|----------------|
| _____ | _____ | _____ |

4. What should be the focus of the risk assessment?

The State of Alaska has identified the general scope of the risk assessment project to include existing oil and gas production facilities on the North Slope, in Cook Inlet, and the Trans-Alaska Pipeline System (TAPS). The current scope does not include areas of future oil & gas development.

What components of the existing oil and gas industry infrastructure warrant the most attention from the project team? Please indicate your risk ranking from 1 (highest) to 5 (lowest) in the applicable categories below.

Component **Rank (1 = Highest Risk; 5 = Lowest Risk)**

- Production Wells
- Gathering Lines (flowlines from wells upstream of processing center)
- Facility Piping
- Crude Oil Pipelines
- Gas & Water Injection Systems (including wells)
- Gas Transport Pipelines Integral to Operating Infrastructure (Cook Inlet)
- Oil & Gas Processing and Treatment
- Waste Management and Disposal (re-injection materials)
- Storage Tanks
- Terminals
- Marine Loading Facilities
- Support Systems (e.g. utility systems, electric power, fuel systems water supplies, control/communication systems)
- Other _____
- Other _____
- Other _____

NEXT PAGE

5. The risk assessment project will identify and evaluate unplanned oil and gas infrastructure events. These events include negative outcomes that we would like to avoid or mitigate in order to prevent production/revenue loss, impact to human safety, and impact to the environment. **Within the following categories, what events would you consider to be the most significant?** Please indicate your description with units (i.e., day, barrels, persons, etc.) in the spaces below.

| Category | Significant Unplanned Event Description |
|--|---|
| Production/Revenue Loss (e.g., major field or TAPS shutdown, impact to State revenue, etc.) | |
| Human Safety Event (e.g., injuries, death, etc.) | |
| Environmental Event (e.g., release of hydrocarbons impacting air, land, water, wildlife, cultural resources, etc.) | |

6. If you have any other specific concerns or priorities in the areas of production, safety, or the environment that should be considered in the risk assessment study, please indicate below:

Specific Concern:

7. Please indicate any data or technical information (e.g. previous studies) that you think should be made available to the project team:

| Information Source | Reference Location | Key Contact (email or phone) |
|--------------------|--------------------|------------------------------|
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |

NEXT PAGE

**Additional Questions for State/Federal Agencies, Municipalities, or
Alaska Oil and Gas Infrastructure Operators**

8. Does your organization have guidelines for risk management activities? If so, please check the types of guidelines:

- Policies
- In-House Standards
- Procedures
- Systems

9. Are there any standards that your organization considers best practices for risk management? If yes, please list:

Yes No

1. _____
2. _____
3. _____
4. _____
5. _____

10. Has your organization performed any risk assessments of safety, environmental, natural hazards, or business interruption events that would be available to assist the project team in its effort to review risks to the overall Alaska oil and gas infrastructure? If yes, please list:

Yes No

1. _____
2. _____
3. _____
4. _____
5. _____

11. Who is your organization's preferred contact point for this project if the project team has questions related to this risk assessment?

| Name | Phone Number | E-mail Address |
|-------|--------------|----------------|
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |

Submit survey by one of the following means:

E-Mail: alaskarisk@emeraldalaska.com
 Fax: 907-258-8124
 Mail: Stakeholders Survey, 670 West Fireweed Lane, Suite 200
 Anchorage, Alaska 99503

**Click here to submit
survey online**