



"The mission of the Council is to represent the citizens of Cook Inlet in promoting environmentally safe marine transportation and oil facility operations in Cook Inlet."

Members

August 21, 2015

Alaska State Chamber of Commerce

Alaska Native Groups

Mr. Mike Evans
Division of Spill Prevention and Response Prevention, Preparedness and Response Program
Alaska Department of Environmental Conservation
555 Cordova Street
Anchorage, AK 99501

Environmental Groups

SUBJECT: Comments on Response to Requests for Additional Information on Aurora Gas, LLC, Oil Discharge Prevention and Contingency Plan (ODPCP or C-plan), ADEC Plan # 044-CP-5111

Recreational Groups

Dear Mr. Evans:

Aquaculture Associations

The mission of the Cook Inlet Regional Citizens Advisory Council (CIRCAC) is to represent the citizens of Cook Inlet in promoting environmentally safe marine transportation and oil facility operations in Cook Inlet. The Protocol Committee has reviewed, on behalf of our member entities, the Aurora Gas, LLC submittal in response to the requests for additional information (RFAI) on its Oil Discharge Prevention and Contingency Plan (C-plan).

Fishing Organizations

CIRCAC recognizes the efforts of Aurora Gas, LLC, to meet and comply with oil spill prevention and response regulations for their holdings in the Cook Inlet region. Aurora Gas's responses to past RFAIs have addressed many issues of concern to CIRCAC. However, there are still several outstanding issues that need to be resolved in order to ensure that the C-plan can function as a complete, stand-alone planning document to achieve the most environmentally safe exploration and production operations possible for Cook Inlet.

City of Kodiak

City of Kenai

In our 2010 RFAI, CIRCAC requested that the plan holder describe where Witt-O'Brien's response personnel are located and what their projected deployment time would be to relieve Aurora Gas ICS members. The corresponding edit stating that "much less time" would be required lacks specificity. We suggest that the plan holder provide a specific time window during which a specified number of Witt-O'Brien's personnel will arrive, so that ADEC may verify their availability during future drills and exercises. We strongly encourage ADEC to exercise Aurora Gas's ability to mobilize their IMT.

City of Seldovia

City of Homer

Additionally, the plan still describes the Unified Command as an option rather than as a requirement under state and federal law. This error was not corrected in the revised plan. We encourage ADEC to test the plan holder's ability to conform to the Unified Plan and Sub-Area Plan by working within the Unified Command structure.

Kodiak Island Borough

Kenai Peninsula Borough

Of particular note is the overall lack of attention to detail. In addition to numerous typographic and syntax errors, this plan also includes a number of places where language is clearly taken from an old document, information within the plan is inconsistent and therefore unclear, and references to other documents are out of date or incorrect.

Municipality of Anchorage

"The mission of the Council is to represent the citizens of Cook Inlet in promoting environmentally safe marine transportation and oil facility operations in Cook Inlet."

The plan also contains conflicting and unclear language regarding the potential for open water impacts resulting from an oil spill or blowout at Aurora's Nikolai Footwall #1 Prospect, located immediately adjacent to Cook Inlet. Of all the Aurora Gas prospects, this one in particular may pose a substantial threat to marine waters in the event of an oil spill or blowout; more information is required to understand Aurora's response strategy and how they intend to comply with 18 AAC 75.425 (e)(1)(F).

CIRCAC recommends thoroughly testing the procedures outlined in this plan and cross-referencing them with established references and regulations to ensure accuracy and consistency. Additionally, we request a findings document to be supplied at the end of this plan review.

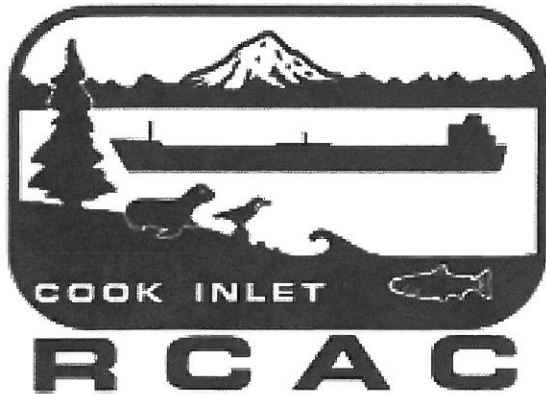
As always, if you have any questions or wish to discuss this further, I can be reached at (907) 283-7222 or via email at munger@circac.org.

Sincerely,



Michael Munger
Executive Director

Cc: Young Ha
John Kotula
Graham Wood



Comments and Requests for Additional Information

Regarding

Aurora Gas, LLC

Cook Inlet Area Production Operations

Oil Discharge Prevention and Contingency Plan

(044-CP-5111)

Submitted

By

COOK INLET REGIONAL CITIZENS ADVISORY COUNCIL

AUGUST 21, 2015

General Comments

Aurora Gas, LLC (Aurora) is an owner and operator of onshore gas production facilities on the west side of Cook Inlet. These operations currently include natural gas production from several gas reservoirs in the area. Aurora is proposing to conduct additional drilling operations to potentially develop both oil and/or natural gas prospects in the general area. While the Aurora Gas C-plan is extremely comprehensive, there are still several areas where additional information is required to meet the letter and intent of 18 ACC 75. This contingency plan review was performed for a plan renewal; therefore, all sections of the plan were reviewed.

While we understand that plans often contain typographic or syntax errors, we find that this plan includes a number of places where language is clearly taken from an old document, information within the plan is inconsistent and therefore unclear, or references to other documents are out of date or incorrect. We do not attempt to provide all of these updates for the plan holder, but provide some examples here to illustrate our concern with the overall quality of the plan update:

- The Unified Plan is no longer organized in volumes.
- Plan still includes the term Material Safety Data Sheets along with acronym MSDS. Additionally, all MSDS' included in the appendix are generic, old, and difficult to read. We recommend all references in the plan to Material Safety Data Sheet(s) and/or MSDS should be updated to Safety Data Sheet(s) and/or SDS in accordance with Hazard Communication Standard (HCS) 2012.
- Section 1.4.3 references CISPRI's inventory of over 100 handheld VHF radios; current inventory is approximately 60 handheld VHF radios.
- The opening paragraph in Section 1.6 indicates the Response Planning Standard (RPS) for Aurora's Cook Inlet Operations can be found in the front of Part 1 when it is actually located in Part 5 of the plan.
- Standardize use of terminology (i.e. tactics vs techniques).
- Table 1.6-28 and Section 3.10.5.5 refer to Buccaneer Energy (i.e., "*A Unified Command is established by Buccaneer.*" and "*...Buccaneer will coordinate...*").
- Section 1.6.11 references "Wildlife Coordinators"; wildlife coordinators are not listed on previous organization charts.
- When referencing tactics in CISPRI Technical Manual, clarify which tactic will be employed (i.e. Table 1.6-11 references the CISPRI Tactic CI-IL-1 Berms, Dikes and Dams; however, the CISPRI Technical Manual shows the tactic broken into two parts-A & B).
- Unified Command is established twice in the same scenario (at Hr 4.5 and Hr 8 in the Winter Well Blowout Response, Table 1.6-11).

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- One summer scenario references actions immediately following breakup.
 - Tables 1.6-27 and 1.6-35 reference Section 1.6.B as the place to find response techniques but 1.6.B does not exist. Response Techniques are covered in Section 1.6.A.2.
 - Section 1.9 references Appendix 1.6.B which does not exist within the plan (Appendix 1.6.B is also referenced in Section 1.6).
 - Facility descriptions for each site (6 sites; appendix 1.8.A-F) do not indicate location of on-site response equipment within this section though the plan does include a list of on-site spill response equipment in Table 3.6-1 (but does not reference it here). Each appendix also indicates under sub-section 1.8.[A-F].5 that additional CISPRI response equipment will be mobilized to each site. Recommend referencing Table 3.6-1 in each appendix.

CIRCAC also recommends that the plan holder consider streamlining the plan by removing some of the reprinted materials that may be referenced to other published or online sources. Examples of this include the Safety Data Sheets (SDS) and the spill response tactics that both duplicate and conflict with the CISPRI Technical Manual contents. We have expanded on these recommendations in our section-specific comments.

Introduction

This section states that "*Wells are located on both sides of Cook Inlet and may be drilled any time of the year, but it is expected that only one well will be drilled at any one time.*" This statement doesn't rule out multiple concurrent drilling operations. The plan does not include response contingencies if multiple drilling operations are undertaken at different locations.

RFAI: Please clarify if Aurora intends to limit drilling operations to one prospect/location at a time.

1.0 Response Action Plan

1.1 Emergency Action Checklist

This organization chart lists Ed Jones, who is both President and Operations Manager of Aurora Gas, as both the Incident Commander (IC) and Operations Section Chief for a spill response. If Ed Jones is the Operations Manager *and* the Incident Commander, it is not clear in Section 1.5.2.1 General Strategy, who will be designated as the Incident Commander or requested as an IC if he is already acting in that capacity. For the purposes of conducting response operations under ICS, the IC should not also fill the role of the Operations Section Chief for a large spill. There may be confusion between Ed Jones' role as Aurora's Operations Manager and the intended role of the Operations Section Chief under ICS.

RFAI: Please clarify the role of Aurora's Operations Manager to indicate the position he will fill within ICS (Incident Commander or Operations Section Chief) and update Section 1.1 accordingly to ensure that all ICS positions are filled with the appropriately qualified individual.

1.2 Reporting and Notification

Overall this section is satisfactory. Table 1.2-1 indicates a heavy reliance on the Witt-O'Brien's Group for spill management personnel. However, the plan does not list the number and qualifications of personnel the Witt-O'Brien's Group can typically provide to support Aurora Gas, nor does it specify where these personnel are located. CIRCAC recommends that the C-plan specify the number of Witt-O'Brien's personnel that are available within Alaska versus those who are traveling from out of state. It is not clear whether the personnel available and qualified to respond to a spill at Aurora Gas is sufficient, since two of the four functions listed as command staff are filled by Witt-O'Brien's personnel. (This concern was raised during a previous plan review and has not been resolved.)

RFAI: CIRCAC requests that the plan holder list the number of qualified spill management personnel that Witt-O'Brien's Group can provide from within Alaska, and how long it will take for them to arrive. Additionally, it is not clear how Aurora Gas personnel will manage a spill response without the positions identified as being filled by Witt-O'Brien's Group, until those personnel arrive at the command post.

Table 1.2-2 Agency Notification Chart

The following corrections/edits should be made to this table:

- Gary Foley is no longer the SOSOC
- USCG no longer has a Kenai Office and the phone number is incorrect
- CIRCAC POC is Vinnie Catalano, Director of Operations- SteveCatalano@circac.org

1.3 Safety

This section does not contain specific instructions for on-site personnel to create an incident-specific Site Safety Plan (SSP) in accordance with 18 AAC 75.425 (e)(1)(C). Information on pg 1.3-1 indicates that "General health and safety procedures for operational activities at spill sites are covered in the CISPRI Technical Manual." "Aurora's Safety Officer, as assisted by the Field Spill Technician, is responsible for implementing these plans." It also includes a note stating that, "site-specific site safety forms are found in the CISPRI Technical Manual."

RFAI: Please include information in Section 1.3.1 indicating that Aurora's Safety Officer, as assisted by the Field Spill Technician, will complete the Initial Site Safety Plan (ICS 201-5) and/or the condensed Site Safety Plan in Tactic CI-S-2 or the SSP included in Appendix C of the CISPRI TM.

1.3.2 General Safety Precautions during Spill Response

Recommend updating this section to reflect the CISPRI Safety criteria for site Characterization. The proper range is 19.5 -22%; 25% is an O2 rich environment that could indicate the presence of an oxidizer, which constitutes a hazardous environment, e.g. akin to an elevated explosive limit. Additionally, this section should list LEL, CO and VOC/THC as items to be tested and monitored.

1.5 Deployment Strategies

1.5.3 Utilization of Spill Contractor

1.5.3.1 General Strategy

This Section references CISPRI's Immediate Response Teams (IRT) to assess a situation. IRT's are responders provided by other CISPRI members that train regularly with CISPRI in order to be able to act in the capacity Aurora suggests. It is unclear if Aurora provides personnel to participate in CISPRI's IRT program. If they do not, it is recommended that Aurora provide personnel to participate in the IRT program. Unless CISPRI members (i.e. Aurora) provide personnel to participate in the program, this valuable resource will no longer be available to the Operations Section Chief.

RFAI: Clarify whether Aurora personnel participate in CISPRI's IRT program, and, if not, what expectation for guaranteed IRT support Aurora has going forward.

1.5.3.2 On-Land Spill Response

This section makes the assumption that one or two large landing craft and one barge could be obtained within the first 24 hours. Unless Aurora has these assets on charter for response, this is only an assumption and cannot be listed as an asset that can be depended on in the event of a spill response.

RFAI: Please clarify the availability of landing craft and barges, and whether these assets are on charter.

1.5.3.3 Offshore Spill Response

This section indicates that, "All locations proposed by Aurora are in areas in which spills can be contained prior to flowing to Cook Inlet. As such offshore spill response is not anticipated." Yet Section 3.2 - Receiving Environment, indicates, "One site (in Nicolai Footwalls Prospect) is located immediately adjacent to Cook Inlet and a blowout from this site could also impact marine waters. Based on the predicted oil disposition chart in Figure 1.6-2, as adjusted for Nicolai Footwall #1, an estimated 20% of the response planning standard would be deposited directly in Cook Inlet or the adjoining mud flats." The Plan is contradictory in terms of the likelihood of on-water oil spill impacts in Cook Inlet (specifically from Nicolai Footwall #1) and does not include contingencies for open water spill impacts, a likely consequence of a blowout or even a tank rupture (if primary and secondary containment fail) at this location. The plan should be updated to eliminate conflicting information regarding the potential impacts to Cook Inlet from a spill or blowout occurring at Nicolai Footwall #1 and provide a description of

proposed initial response actions and strategies in accordance with 18 AAC 75.425 (e)(1)(E) and 18 AAC 75.445(c).

RFAI: Please include Aurora's nearshore/offshore response procedures that would be used for oil spills and/or blowouts occurring at Nicolai Footwall #1.

1.6.1 Procedures to Stop the Discharge

This section indicates that when the Drilling Supervisor is informed of a spill situation he carries out a series of steps.

RFAI: Recommend including reference to Section 1.1.1 thru 1.1.5. Please clarify the steps to be taken by the Drilling Supervisor in the event of a spill.

Additionally, this section states that dispersants or in situ burning are not envisioned for onshore response efforts. However, in situ burning may be a viable onshore response method during winter months.

RFAI: Recommend considering this response option in the discussion of non-mechanical response options.

This section also includes, "Plugging the leak with wood wedges or rags; cables/turnbuckles and rubber sealing materials (used for tanks); and sealing putty," as a technique to stop the source, yet these items are not included in Table 3.6-1 - On-site Spill Response Equipment. Only tank car seals are listed.

RFAI: Please include these items in Table 3.6-1. Aurora should also ensure that these items are actually available at each drilling site prior to commencement of drilling operations.

1.6.2 Fire Prevention and Control

This section indicates, "Section 3.6 provides information on the locations of fire extinguishers." Section 3.6 does not indicate that fire extinguishers are in inventory nor does it indicate where they are (or would be) located.

RFAI: Please update Section 3.6 to include additional information on fire extinguishers and indicate where fire extinguishers will be located at each drilling site.

1.6.3 Blowout Control

This section indicates that, "In a blowout response situation, Aurora would use the services of well control specialists available within Wild Well Control." There is no indication where Wild Well Control personnel will come from, if they are under contract, or what their response time is. Is this referring to Wild Well Control/Superior Energy Services personnel out of Anchorage?

RFAI: Please update Section 1.6.3 to include additional information regarding location of Wild Well Control specialists (Wild Well Control/Superior Energy Services personnel out of Anchorage?), whether they are under contract, what their response time is, and verification that this information will be contained within Aurora's Blowout Contingency Plan as indicated in this section.

1.6.5 Protection of Sensitive Areas

This section references tactics contained in Appendix 1.6.A. While the tactics in Appendix 1.6.A could be used, they do not resemble the tactics contained in the CISPRI Technical Manual.

RFAI: Recommend referencing CISPRI tactics to ensure that facility personnel and CISPRI personnel are using the same tactics as trained by CISPRI. If Aurora is intent on including tactics within the body of the plan, we recommend using the spill tactics as depicted in the CISPRI Technical Manual to avoid any confusion.

Additionally, this section discusses areas at or near historical and archaeological sites and states that Aurora will make efforts to notify and consult with the Department of Natural Resources.

RFAI: Consider rewording this paragraph to clarify State Historic Preservation Office notification and action when sensitive archaeological sites are involved.

This section discusses oil spill recovery points established on streams flowing from a plume impact area as discussed in Appendix 1.8.F. Appendix 1.8.F shows four collection points outside of the plume deposition area.

RFAI: Please clarify the rationale for allowing oil to spread outside of the plume area to be collected.

1.6.6 Containment Strategies

This section discusses possible containment and control strategies and goes on to reference response techniques found in Appendix 1.6.A.

RFAI: Recommend using CISPRI tactics.

1.6.9 Recovered Oil Transfer and Storage

This section states that contaminated snow and ice would be hauled by dump truck or in open top tanks on rig trucks to the Tyonek Contractors yard or Nikiski for melting and oil recovery; but does not indicate how it will be melted until the use of snowmelters is mentioned in Table 1.6.12 and the use of Snow Dragon(s) is mentioned in Scenario number 5 (in Temporary Storage and Ultimate Disposal).

RFAI: Recommend including in this section a description of the method to be used and the equipment to carry out this task.

While Section 1.6 estimates the amount of oil released based on coverage area, it does not adequately describe the method that will be used to estimate the amount of recovered oil as required by regulation.

RFAI: Please include all information required by 18 AAC 75.425(e)(1)(F).

1.6.10 Temporary Storage and Ultimate Storage

This section asserts that, “temporary storage is not envisioned to be required for any of the response actions associated with spills from the Aurora operations.” Temporary Storage would be a necessity on a large spill response on the west side of Cook Inlet, especially during

winter months. Additionally, this section lists three response techniques contained in Appendix 1.6.A. The last two examples would each need temporary storage in order to accumulate a meaningful amount for mass balance accounting and to justify transportation for final disposal.

1.6.13 Response Scenarios

The response scenarios do not adequately describe how the recovered oil amount is determined as required by regulation.

Table 1.6-3. Summary of Tactics and Equipment for the Minor Fuel Transfer Spill

Three drums are identified as necessary equipment, but there is no indication in Table 3.6.1 (On-Site Spill Response Equipment) that empty drums are available as part of on-site spill response equipment. Only 2 overpack drums are in inventory.

RFAI: Recommend adding dedicated oil recovery drums to Table 1.6-3, as well as Table 3.6-1. While there are likely to be numerous drums located at a drilling location, if empty drums are needed specifically for containment of spilled product and/or for contaminated solids, these drums should be specifically identified and held in reserve with other available spill response equipment.

1.6.13.2 Scenario 2 – Major Test Tank Rupture

Temporary Storage and Ultimate Disposal: This section states that, “Recovered fluids are placed in 500 bbl reserve tank on site for later transfer to a processing facility or an approved disposal well.”

RFAI: Recommend clarifying the availability of reserve tank storage in this section and elsewhere in the plan where the need for reserve tank storage is indicated.

Table 1.6-4 Summary of Tactics and Equipment for the Onshore Tank Spill Response

This table references vacuum trucks/supersuckers, but does not specify where the vacuum trucks or supersuckers will come from. Section 3.6-1 does indicate that, “Aurora will have one or more vacuum trucks and supersuckers onsite supporting the drilling operation at each location which will be available for spill response; actual numbers onsite will be dependent on site logistics requirements.” The need for vacuum trucks/super suckers is called out in numerous locations throughout the Plan.

RFAI: Please clarify from where the vacuum trucks/super suckers will be obtained.

1.6.13.5 Scenario 5

Table 1.6-27 contains mixed tactics.

RFAI: Recommend use of Primary Action Contractor (PRAC) tactics to ensure consistency.

Appendix 1.6.A Spill Response Techniques

This section does not resemble CISPRI tactics. Tactics should be recognizable and be the same tactics that responders have been trained to use.

1.7 Non-mechanical Response Information

1.7.1 General

This section states that it is highly unlikely in situ burning and dispersants would be used. In situ burning could be a viable winter response option. Additionally, it can prove to be a valuable response alternative in a summer response; contaminated overburden can be burned in place to reduce the disturbance of soils and root systems while eliminating oiled vegetation.

Part one did not include a discussion of what response actions will take place during periods of adverse weather.

2.0 Prevention Plan

2.1 Prevention Programs

2.1.3 and 2.1.4: The plan does not list positions, type of drug testing by position, number of tests/employees/year, or frequency of testing. If onsite personnel are primarily associated with the drilling contractor, does the drilling contractor maintain this documentation? Does Aurora have access to it? It should be included in the Plan. Section 2.1.4 indicates that field personnel and drilling contractors must meet certain tolerance, vision, hearing, communication, physical, and mental criteria, but does not indicate what methods are used to test personnel against this criteria.

RFAI: Please include all information required by 18 AAC 75.425 (e)(2)(A)(ii).

Section: 2.5 Discharge Detection

This Section does not appear to contain any information (in this section or in referenced sections 2.1 and 3.1) specific to sensitivities and limitations of equipment as outlined in 18 AAC 75.425(e)(2)(E).

3.0 Supplemental Information

We suggest that the Cook Inlet Response Tool should be included in the C-plan as a valuable reference for any spills occurring on, or near, Cook Inlet. The tool can be found at: <http://portal.aaos.org/cirt.php>.

RFAI: Please add a reference to the Cook Inlet Response Tool in Section 3.10 Protection of Environmentally Sensitive Areas.

Section: 3.3 Command System

Section 3.3.3 indicates that, "Unified Command is an option Aurora may consider." Unified Command is required to comply with the Unified Plan and State Master Plan, and should not be considered as an option. We encourage ADEC to test the plan holder's ability to

conform to the Unified Plan and State Master Plan by working within the Unified Command structure.

RFAI: Please clarify Aurora's current position in terms of familiarity with ICS and provide a stronger statement indicating a commitment to operating under a Unified Command structure in the event of an oil spill resulting from Aurora drilling operations.

Section: 3.4 RMROL

Table 3.4.1 indicates the number of days or percentage of time when certain weather conditions might be present within the Cook Inlet area of operations, but does not describe the percentage of time that a response would be ineffective due to these conditions.

RFAI: Please provide more information on the percentage of time that a response would be ineffective due to listed weather conditions in accordance with 18 AAC 75.425(e)(3)(D).

Section: 3.7 Non-mechanical Response Information

Appendix 3.7.A indicates that it contains an ISB Application and Checklist, but the appendix (at least this PDF version) only shows the first page of the Application and Burn Plan. If the original Plan does not include both the application (4 pages) and FOOSC/SOSC Review Checklist/In Situ Burning Guidelines for Alaska (5 pages), Aurora should ensure that these complete documents are included in the Plan.

RFAI: Please include the complete In-Situ Burning Application and Checklist in Appendix 3.7.A.

Section: 3.10 Environmentally-Sensitive Areas

Beyond an indication that “spills...could impact small lakes and streams and wetlands,” Section 3.10 does not contain any mapped predictions of discharge movement and potential points of contact with areas of public concern, nor does it contain (or reference) a discussion of toxicity effects and persistence of discharge based on product. Section 1.6 contains predicted deposition of oil based on each scenario and discussions of ESA protection, but the specific figures and discussions from Section 1.6 are not referenced in this section.

RFAI: Please include all information required by 18 AAC 75.425(e)(3)(J).