

MAR 22 2011

STATE PIPELINE
COORDINATORS

March 21, 2011

Mike Thompson
State Pipeline Coordinator
Joint Pipeline Office
Department of Natural Resources
411 West 4th Avenue, Suite 2C
Anchorage, AK 99501-2343

Re: Alaska Stand Alone Gas Pipeline/**ASAP**
State of Alaska Application for Pipeline Right-of-Way Lease

Dear Mr. Thompson:

The Alaska Gasline Development Corporation, a subsidiary corporation of Alaska Housing Finance Corporation, hereby submits the State of Alaska Application for Pipeline Right-of-Way Lease for the Alaska Stand Alone Gas Pipeline/**ASAP**. The State of Alaska originally filed this application with the State Pipeline Coordinator's Office in November 2009 as the Parks Highway Stand Alone Gas Pipeline. The project has since been renamed as the Alaska Stand Alone Gas Pipeline/**ASAP**.

Please call me at 907-277-4452 if you have any questions.

Sincerely,



Dave Norton, P.E.
Engineering Manager

cc: Serena Sweet, U.S. Army Corps of Engineers – w/o attachment
Ron Dunton, Bureau of Land Management – w/o attachment

Attachment: State of Alaska Application for Pipeline Right-of-Way Lease



ALASKA STAND ALONE GAS PIPELINE /*ASAP*

**Application for Pipeline
Right-of-Way Lease
State of Alaska**

March 2011

Alaska Gasline Development Corporation
P.O. Box 101020
Anchorage, AK 99510

**Right-of-Way Leasing Act
Alaska Statute 38.35.050
Application for Pipeline Right-of-Way Lease**

PART I. NAME AND ADDRESS OF APPLICANT

1. Date of Application:

September 2, 2010; revised March 21, 2011

2. Name and Address of Applicant(s)

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President

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Authorized Agent:

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PART II. PROPOSED ROUTE

3. Point of Origin:

The Alaska Stand Alone Gas Pipeline/**ASAP** (ASAP) originates at the Gas Conditioning Facility (GCF) located on the North Slope. The proposed location for the GCF is on a 70-acre pad immediately south of the existing Central Gas Facility in the Umiat Meridian, Township 11 N; Range 14 East; Sections 11 and 14 (U011N014E11 and U011N014E11. Please refer to the Plan of Development, Revision 1 published in March 2011 (POD, Rev. 1), Section 7.3.1 for additional information regarding the project point of origin.

4. Point of Termination:

A Natural Gas Liquids (NGL) Extraction Facility will be located at the south terminus of the pipeline (ASAP milepost [MP] 737) near Cook Inlet. This is near MP 39 of the existing ENSTAR Beluga Pipeline. The Cook Inlet NGL Extraction Facility will be located in the Seward Meridian, S016N005W36. The centerpoint of the gravel pad will be located at 61.427777 latitude, -150.083571 longitude in the WGS84 coordinate system. The Cook Inlet NGL Extraction Facility will separate NGLs from the gas stream and inject utility-grade natural gas into the existing ENSTAR pipeline for distribution. A gas metering station will be located at this site. Please refer to the POD, Rev 1, Section 7.3.5 for additional information regarding the project points of termination.

The Fairbanks Lateral will terminate at MP 35 of the Fairbanks Lateral, near Fairbanks. The terminus will be located in the Fairbanks Meridian, F001S002W01, 64.859694 latitude, -147.871472 longitude in the WGS84 coordinate system. At this time, specific valve, venting, and blinding systems (as well as required equipment) have not been determined.

5. Total proposed length: 737 miles (mainline) and 35 miles (Fairbanks Lateral).

Refer to the POD, Rev. 1 Section 2.0 for additional information.

6. Total length proposed to cross state lands: 407 miles (mainline) and 20 miles (Fairbanks Lateral).

Refer to the POD, Rev 1, Section 3.1 and POD, Rev 1, Attachment 2 for additional information.

7. Attach a map or plat showing the proposed alignment of the centerline of the pipeline right-of-way, and indicate the areas of state upland ownership throughout the length of the proposed right-of-way.

A web-based mapper has been submitted to the State of Alaska, State Pipeline Coordinator's Office (SPCO) to provide detailed maps including the centerline. Hard copies or shapefiles can be provided to support the right-of-way (ROW) application upon request.

8. Proposed crossings of streams and other bodies of water. (For each crossing indicate the width and depth of the stream or water body.)

Refer to the web-based mapper submitted to the State of Alaska, SPCO for detailed maps of proposed stream crossings. The POD, Rev. 1, Attachment 4 identifies stream crossings by crossing number and includes the width of each stream to be crossed. Depth information has not

been collected for all streams at this time. Depth information will be obtained during engineering field studies and used to evaluate the appropriate stream crossing technique.

9. Attach a map or plat showing the proposed alignment of the centerline of the pipeline right-of way where it crosses the beds of streams or other bodies of water.

Refer to the web-based mapper submitted to the State of Alaska, SPCO for detailed maps of proposed stream crossings. The POD, Rev. 1, Attachment 4 identifies stream crossings by crossing number.

10. Width of the proposed temporary right-of-way required for construction for each segment of the pipeline route on state lands.

The construction ROW for the pipeline and facilities is 100 feet wide. However, lands in addition to the construction 100-foot ROW may be required temporarily for a number of construction-related activities. The activities requiring additional temporary use of lands outside the 100-foot ROW are addressed in the POD, Rev. 1, Section 7.4.5.

11. Size and location of any sites, in addition to the proposed pipeline right-of-way, requested on a temporary basis during construction.

A number of support sites in addition to the proposed ROW will be required to successfully construct ASAP given its expansive geographic limits, remoteness, and the challenging terrain over which it will be constructed.

Preliminary construction and logistics planning activities resulted in a conceptual layout of support facilities required to construct the pipeline. These support facilities include:

- Project offices and logistic support sites
- Transportation facilities and hubs, such as port facilities, rail facilities, and airports and airstrips
- Temporary land use areas such as camp locations, pipe laydown yards and storage facilities, remote airports and airstrips, and fuel storage sites

Construction support facilities and temporary land use areas are discussed in the POD, Rev. 1, Section 7.2 and specific information is provided in Figure 7.2-1 and Table 7.2-1.

12. Width of the proposed right-of-way required for operating the completed pipeline for each segment of the pipeline route on state lands.

The permanent width or size of the main pipeline ROW and Fairbanks Lateral will be 30 feet through state lands. At certain crossings or other sensitive locations the permanent ROW width may be greater.

13. Size and location of any sites, in addition to the proposed pipeline right-of-way, requested for the operation of the completed pipeline.

Sites needed for operation of the completed pipeline include the GCF, compressor stations, the Straddle and Off-Take Facility, and the NGL Extraction Facility. The general locations and proposed size of these facilities are provided in the POD, Rev. 1, Section 7.3.

14. Legal description of state lands within the proposed pipeline right-of-way that are reserved or committed to any purpose. (For each tract of such state lands, state the purpose to which it is reserved or committed.)

The legal description of state lands within the proposed pipeline ROW is provided in Attachment A of this application.

PART III. PROJECT DESCRIPTION

15. Substance(s) to be transported:

The proposed pipeline will deliver natural gas, along with NGLs. The proposed pipeline project includes facilities to condition, compress, and cool the gas to meet pipeline specifications prior to delivery to the pipeline inlet. The pipeline will be designed to transport natural gas with compositions ranging from hydrocarbon lean utility-grade gas to natural gas enriched with non-methane hydrocarbons. A minimum pipeline operating pressure will have to be maintained when transporting an enriched natural gas to prevent condensation of liquid hydrocarbons and generation of slug flow. The minimum operating pressure necessary to prevent drop out of liquids condensate varies with gas composition.

Additional information is included in the POD, Rev. 1, Section 2.0.

16. Size, engineering and design characteristics and amount of each type of pipe to be used:

The ASAP requires the use of 737 miles of pipe for the mainline and 35 miles of pipe for the Fairbanks Lateral. Per U.S. Department of Transportation (USDOT), Pipeline and Hazardous Materials Safety Administration (PHMSA) requirements, pipe of the appropriate thickness will be used, based upon location class as identified in the Pipeline Pressure Standards table below.

PIPELINE PRESSURE STANDARDS

Location	Wall Thickness (inches)	Pipe Diameter (inches)	Maximum Allowable Operating Pressure (psi)	Amount of Pipe (miles)
Mainline	0.595	24	2,500	680
	0.714	24	2,500	50
	0.857	24	2,500	6
Fairbanks Lateral	0.250	12	1,400	34

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17. Size, number and location of pumping, compressing, heating or refrigeration stations:

The GCF will condition, compress and cool the gas prior to injection in the ASAP. The GCF will be located on the North Slope at Prudhoe Bay, south of the existing Central Gas Facility (POD, Rev. 1, Figure 7.3-1) and at MP 0 of ASAP. The GCF will be located in the Umiat Meridian, Township 11 N; Range 14 East; Sections 11 and 14 (U011N014E11 and U011N014E11). The centerpoint of the gravel pad will be located at 70.31293 latitude, -148.514503 longitude in the WGS84 coordinate system.

Additional compression and cooling will be performed as necessary along the pipeline. Compressor station needs are currently being evaluated as the pipeline design is optimized. Based upon current design, a maximum of two compressor stations will be required. It is possible that a single compressor station will provide sufficient compressive ability for the gas throughput.

A total of 11 compressor station locations were identified early in the design process. Locations CS-4 and CS-8 are under evaluation for the two-compressor design option and location CS-5 is under evaluation for the one-compressor design option. Compressor station components will be

modularized to minimize on-site construction and commissioning work in remote locations. Compressor stations are listed in Table 5.2-1 of the POD, Rev. 1. Compressor station locations may change slightly if necessary during design optimization. Compressor stations are discussed in more detail in Section 7.3.2 of the POD, Rev. 1.

18. Transportation capacity of the proposed pipeline:

The quantity of natural gas that can be transported through the proposed 24-inch-diameter mainline is 500 million standard cubic feet per day (MMscfd) with a maximum allowable operating pressure (MAOP) of 2,500 pounds per square inch (psi). The quantity of natural gas that can be transported through the proposed 12-inch-diameter Fairbanks Lateral is 60 MMscfd with an MAOP of 1,400 psi.

19. Estimated life of the pipeline:

The ASAP is expected to be in operation for the productive life of the natural gas field(s) that supply it. The estimated useful life of the pipeline is the economic life (which is the controlling factor) and is estimated to extend past the maximum duration of the Lease, which is 30 years. With appropriate maintenance, repair, and refurbishment, the physical life of ASAP is indefinite. The design life is a technique used to rationalize cost/benefit of the initial construction cost against future maintenance cost. The project pipeline useful life is a combination of function of economic life, physical life, and design life.

As the applicant, AGDC requests the maximum term available because a modern pipeline is expected to be operational as long as gas is available from the source and that period could exceed 50 years.

20. Planned temperature at which each substance will be transported and whether it will be heated or refrigerated to maintain that temperature.

The goal is that the proposed pipeline and lateral pipeline will employ an “ambient pipeline” over all proposed operating modes. An ambient pipeline refers to a pipeline with operating temperatures closely approaching seasonal temperatures of the surrounding ground. Mitigation measures will include maintaining, to the maximum extent practicable, an existing temperature regime along the corridor. Figure 4.3-1 and Section 4.3 of the POD, Rev. 1 provide additional information.

21. The pipeline will be (check as appropriate):

Supported over the surface along its entire length

On the surface along its entire length

Partially buried along its entire length

Completely buried along its entire length

None of the above (If this is checked, attach a map showing which portions of the pipeline are planned to be over the surface, on the surface, partially buried and wholly buried.)

The proposed pipeline will be buried except from MP 0 to 6, and at elevated bridge stream crossings, compressor stations, possible fault crossings, pigging facilities, and off-take valve locations. Additional information is provided in Section 2.5 of the POD, Rev. 1.

22. Describe the methods to be employed for partially or completely burying any portion.

A complete description of the methods for ditch excavation is provided in the POD, Rev. 1, Sections 7.5 and 7.6. Typical drawings are provided in Attachment 1 of the POD, sheets DB-MODE-01 through -06, DB-ROW-01 through -08, DB-XING-01 through -12, and DB-ESC-01 through -02.

23. Describe any bridges, trestles, other structures or berms for the support of the proposed pipeline.

The current construction plan assumes the pipeline is attached to the following existing highway bridges:

- Chulitna River Bridge
- Coal Creek Bridge
- Hurricane River Bridge

The crossing of the Yukon River will be accomplished with the construction of a new pipeline bridge.

The current construction plan assumes the first six miles (MP 0 to MP 6) of the pipeline will be constructed aboveground on steel vertical support members (VSMs) spaced at approximately 20-foot increments and at least seven feet high. Once the necessary ROW preparations have been made, VSM locations will be surveyed, marked, and foundations drilled. Installation of VSMs will include standing and bracing the member, then backfilling around the VSM column with concrete slurry. Once VSMs have been installed, welded sections of pipe will be lifted and placed using sidebooms. Tie-ins will be accomplished in a manner similar to the remainder of the pipeline. A typical drawing of a VSM is provided in the POD, Rev. 1, Attachment 1, DB-MODE-07.

24. Describe the proposed method for all stream crossings and crossings of other bodies of water.

The placement of the buried pipeline across specific fish-bearing streams is likely to have the greatest potential effect to the fishery resources of the project area. Proposed stream crossing methods have been determined based upon the presence of fish resources and engineering needs and are provided in Attachment 4. Each belowground stream crossing will be conducted in a manner and during a time period that avoids or minimizes potential fishery effects. Stream crossings will be accomplished using one of four crossing modes: open-cut, open-cut isolation, Horizontal Directional Drilling (HDD) or other trenchless technology, or bridge crossing.

Open-Cut Method

Open-cut is the most common crossing method used and is accomplished by excavating a trench across a stream or river bed and pulling or carrying the pipe into position. Trench excavation is accomplished using conventional excavation equipment, such as mechanical ditchers, draglines, dredgers, clams, or backhoes operating within the stream bed or from a floating barge. Some river and stream beds may require drilling and blasting that would be controlled and monitored.

Open-Cut Isolation Method

An isolated crossing technique will be used at locations where an open-cut is prevented by overwintering and spawning fish, or where stream flow conditions make open-cut impractical.

This method is similar to an open-cut, but involves damming the watercourse to permit excavation while maintaining stream flow using pumps or dams and flumes. This method is limited to locations where stream flows do not exceed the capacity of the dam, flume, or pump equipment.

When a crossing is completed, the watercourse bed will be stabilized and the downstream dam will be removed first, followed by the upstream dam. Flume equipment will be shut down, restoring the stream to natural flow conditions.

Horizontal Directional Drilling

An HDD or other trenchless technology may be used where disruption to the banks or bed of the stream is not permitted. With this method, a drilling rig on an inclined plane is set up on one bank and a pilot hole is drilled under the riverbed and to the surface on the other bank. The pipe is then pulled back as the pilot hole is enlarged by reaming.

Equipment typically found on an HDD site includes:

- Rig unit; power unit and generators
- Drill pipe rack and drill pipe
- Water pump
- Drill mud supply, drill mud mixing tank, drill mud pump, and mud handling and cleaning system
- Cuttings settlement tanks and pits
- Rollers and pipeline handling equipment
- Sidebooms and other heavy equipment
- Pipeline, welding, coating, and testing equipment

The availability of a dependable supply of water to the HDD drilling site is required for the following:

- Initial drilling fluid make-up
- Additional drilling fluid as the drill progresses
- Replacement fluid for drilling fluid escaping into the formation due to seepage or hydraulic fracture
- Pre-testing, where warranted, of the pipe string

Water could potentially be pumped from a water body to the drill site or hauled to storage tanks onsite. This information is provided in Section 7.7.5 of the POD, Rev 1, Section 7.7.5.

25. Describe the proposed methods for grades, cuts or fills.

Various methods will be used to address grades, cuts, or fills, depending upon site characteristics. This information is provided in the POD, Rev.1, Sections 7.4 and 7.6. Typical drawings are included in POD, Rev. 1, Attachment 1, DB-ROW-04, -04A, and -04B.

26. Discuss planned facilities for spill or leak prevention and containment.

The ASAP will be designed, constructed, operated, and maintained in accordance the requirements of the PHMSA within the USDOT.

A Spill Prevention and Control Plan (SPCP) is required where hazardous materials are stored or used, including pesticides, paints, solvents, petroleum products, or fertilizers. The SPCP will identify potential spill or source areas such as loading, unloading, storage, and processing areas, and areas designated for waste storage and disposal. The SPCP will identify material handling procedures and storage requirements and outline the actions to reduce spill potential. The SPCP is a companion document to the Comprehensive Waste Management Plan. The SPCP will be developed in accordance with all pertinent regulations and will follow Best Management Practices (BMPs).

A Spill Prevention and Control and Countermeasure Plan (SPCC) must be developed for each storage facility (e.g., tank) with a capacity to store in excess of 1,320 gallons of fuel. SPCCs are preventative measures to assure that a spill is contained and countermeasures are established to prevent petroleum spills from reaching navigable waters. The SPCC must be maintained on site.

A Supervisory Control and Data Acquisition (SCADA) system will be implemented to collect measurements and data along the pipeline, including flow rate through the pipeline, operational status, pressure, and temperature readings. This information may all be used to assess the status of the pipeline. The SCADA system will provide pipeline personnel with real-time information about equipment malfunctions, leaks, or any other unusual activity along the pipeline.

The pipeline operator will develop and implement an Emergency Response Plan in accordance with 49 Code of Federal Regulations (CFR) 192.615 to minimize the hazards resulting from a pipeline emergency, including a leak.

Refer to the POD, Rev. 1, Sections 7.11.2, 10.2, and 10.5 for additional information.

27. Proposed access roads, airstrips, heliports, float plane facilities, communication facilities, storage sites for equipment and materials, material sites, and material disposal sites, whether planned for construction, operation or maintenance support:

Significant support activities will be required to successfully construct ASAP given its expansive geographic limits, remoteness, and the challenging terrain over which it will be constructed.

Preliminary construction and logistics planning activities resulted in a conceptual layout of support facilities required to construct the pipeline. These support facilities include:

- Project offices and logistic support sites
- Transportation facilities and hubs, such as port facilities, rail facilities, and airports and airstrips
- Temporary land use areas such as camp locations, pipe laydown yards and storage facilities, remote airports and airstrips, and fuel storage sites

Construction support facilities and temporary land use areas are discussed in the POD, Rev. 1 Section 7.2. Specific information is shown in Figure 7.2-1 and Table 7.2-1.

28. Size, number, approximate location and planned duration of field camps:

Personnel housing and support services will be provided by mobile construction camps, stationary construction camps, and existing commercially available lodging. Fifteen construction camps are planned for the project. All the temporary construction camps planned for this project will be located on previously disturbed sites, most of which were developed during the Trans Alaska Pipeline construction. The two proposed camps that will not be located on previously developed campsites are Chulitna Butte and Sunshine. However, both of these camps are planned for development on previously disturbed sites. Chulitna Butte is located on the existing ARRC Hurricane rail siding and the Sunshine is located at the site of the Talkeetna Bluegrass festival.

Additional information is provided in the POD, Rev. 1, Section 7.2.3, including Table 7.2-1.

29. Size, number and approximate location of housing for personnel operating or maintaining the pipeline:

Preliminary calculations for operations and management (O&M) estimate that 10 workers will be required in Prudhoe Bay to run and manage the GCF and the Prudhoe Bay O&M Facility; 10 workers in Fairbanks for the Fairbanks O&M Facility; and 30 workers in Wasilla for the Cook Inlet NGL Extraction Facility and the Wasilla O&M Facility. Off-site housing will be provided for GCF workers, likely at a commercial camp located within Deadhorse. Personnel located in Fairbanks and Wasilla will be responsible for providing their own housing within local communities.

Compressor stations will not be manned. Approximately eight people will staff the Straddle and Off-Take Facility. Housing for personnel will be provided at the Straddle and Off-Take Facility.

30. Size, number and approximate location of health care facilities:

Each camp will have a medical technician on-staff. Camp facilities will include a private examination room and a reception and service area. Equipment will include refrigeration facilities for storage of perishable medicines, sterilization equipment, and storage for medical supplies.

All sleeping quarters will contain fire alarms connected to a central alarm panel in the security offices. Mechanical rooms, kitchens, and furnaces will have automatic fire extinguishing systems. Fire protection stations will be located in central areas of each dormitory and contain both water hose racks and dry powder fire extinguishers. All-purpose, dry powder, and chemical extinguishers will be located in central locations throughout the camp.

Camps will be fenced with wire mesh and steel pole fences for security and animal control. Security guard houses will be located at each camp's major entrance. Site Security Plans will be developed, as required, to address the safety of personnel and security of equipment and materials.

If an emergency develops requiring response greater than that available at the camp, locally available emergency response will be used until regional emergency responders are on site. Table 7.2-2 of the POD, Rev. 1 provides the health, safety, and emergency response facilities located in communities near the project corridor.

31. Approximate number of persons to be employed during construction: 5,400 at peak.

Project construction labor may peak at 5,400 workers. An estimate of the labor necessary to construct gas facilities related to the project has not been conducted. Estimates of pipeline labor requirements are preliminary in nature and are expected to change as engineering and planning efforts progress.

32. Approximate number of persons to be employed to operate and maintain the pipeline: 58.

Information about O&M personnel requirements and work schedules are based upon early planning stage man-load estimates. Additional information regarding the number of personnel to be employed for O&M will be developed as the project progresses.

Preliminary calculations for O&M estimate that 10 workers will be required in Prudhoe Bay to run and manage the GCF and the Prudhoe Bay O&M Facility; 10 workers in Fairbanks for the Fairbanks O&M Facility; and 30 workers in Wasilla for the Cook Inlet NGL Extraction Facility and the Wasilla O&M Facility. Off-site housing will be provided for GCF workers, likely at a commercial camp located within Deadhorse. Personnel located in Fairbanks and Wasilla will be responsible for providing their own housing within local communities.

Compressor stations will not be manned. Approximately eight people will staff the Straddle and Off-Take Facility. Housing for personnel will be provided at the Straddle and Off-Take Facility.

33. Planned commencement date for construction:

Pipeline construction is planned to begin in late 2014 and be completed in late September 2016. Pre-construction activities such as ROW development and construction of access roads, laydown yards, and camps will begin in the summer prior to the first season of pipeline construction

34. Estimated construction time:

Construction is planned for a two-and-a-half year period. Construction will be completed in separate sections, referred to as spreads. The pipeline is divided into five spreads, with each spread further divided into sections to accommodate varying terrain or seasonal challenges to support an orderly construction sequence. Construction spread by season and location is listed in the POD, Rev. 1, Table 2.2-1.

35. Planned commencement date for operations:

Startup will occur upon completion of construction activities in late September 2016.

36. Estimated cost of materials: \$ 2,161,000,000.

The estimated cost of materials necessary for the ASAP are provided in the table below. This table only addresses equipment, material, and facilities costs, and is not a construction cost estimate.

ESTIMATED COST OF MATERIALS, EQUIPMENT, AND FACILITIES

Cost Item	Cost
Bulk Materials	
Line Pipe	\$ 821,000,000
Valves, Fittings, & Other Materials	\$ 25,300,000
Bulk Materials Total	\$ 846,000,000
Equipment	
Meters/Provers	\$ 456,000
Trap/Launchers/SCADA/Electrical Controls	\$ 199,000,000
Equipment Total	\$ 200,000,000
Major Facilities	
Gas Conditioning Facility	\$ 177,000,000
Compressor Station #1	\$ 40,200,000
Compressor Station #2	\$ 25,200,000
NGL Extraction Facility	\$ 60,400,000
Other Facilities	\$ 610,000,000
Facilities Total	\$ 913,000,000
Total Materials	\$ 1,960,000,000

Michael Baker Jr., Inc. March 2011

37. Estimated cost of engineering, permitting, materials, and construction and installation: \$ 8.4 billion .

Additional information is included in the POD, Rev.1, Table 2.3-1.

38. Estimated annual cost for operations and maintenance: \$ 70 million per year.

Additional information is included in the POD, Rev.1, Table 2.3-1.

PART IV. AVAILABILITY OF INTERCONNECTIONS, TERMINAL FACILITIES AND STORAGE FACILITIES

39. Describe how the proposed pipeline will connect with planned field gathering systems, if any.

The GCF will receive gas from the Central Gas Facility, which receives gas from the Prudhoe Bay fields through gathering lines. Upon receipt of gas, the GCF will remove carbon dioxide (CO₂), hydrogen sulfide (H₂S), and other impurities. NGLs (propane, butane, and pentanes) will be injected to enrich the gas, then compressed and cooled to maintain the existing thermal regime in permafrost soils, and injected into the proposed ASAP. Additional information is provided in Section 7.3.1 of the POD, Rev. 1.

40. Discuss the technical and economic feasibility of providing connections with other field gathering systems at intermediate points along the proposed pipeline.

At this time, the ASAP proposes to use natural gas within the general Prudhoe Bay area, which will be transmitted through the existing Central Gas Facility to the pipeline intake.

Natural gas from sources other than the currently proposed source must be of similar makeup as that currently proposed to be carried (i.e., CO₂, H₂S, and other impurities removed prior to injection).

Natural gas producers, other than the proposed source, have not provided any viable scenarios for incorporation of their production into the ASAP. Other than the natural gas quality constraints listed above, and capacity and pressure limitations of the pipeline, there is no known reason why gas from new developments could not be tied in to the proposed pipeline.

41. Discuss the technical and economic feasibility of providing connections or interchanges with other pipelines at intermediate points along the proposed pipeline.

There are no connections or interchanges with other pipelines planned for this project at this point. While it is technically feasible to provide off-take points to provide natural gas and/or NGLs at intermediate locations along the ASAP, at this time it is not considered financially feasible. Intermediate off-takes are not being evaluated as part of the ASAP.

42. Describe the location, area and capacity of proposed tank farms or other storage facilities.

There are no proposed tank farms or other storage facilities planned for this project.

43. Provide locations of and describe any terminal delivery facility of the proposed pipeline.

The Natural Gas Liquids (NGLs) will be extracted from the gas stream and gas will be metered prior to injection into the existing ENSTAR distribution system at MP 39 of the ENSTAR Beluga line. The facility will be located in the Seward Meridian, S016N005W36. The center point of the gravel pad will be located at 61.427777 latitude, -150.083571 longitude (WGS84 coordinate system).

The Fairbanks Lateral will terminate at MP 35 of the Fairbanks Lateral, near Fairbanks. The terminus will be located in the Fairbanks Meridian, F001S002W01, 64.859694 latitude, -147.871472 longitude in the WGS84 coordinate system. At this time, specific valve, venting, and blinding systems as well (as required equipment) have not been determined.

44. Discuss the technical and economic feasibility of providing delivery facilities at intermediate points along the proposed pipeline.

The ASAP, as currently proposed, provides natural gas off-takes at Fairbanks and MP 39 of the ENSTAR Beluga line for distribution to end users. To provide consumer-grade natural gas, the off-take facility would require a straddle plant or NGL extraction plant to remove NGLs for reinjection into the main pipeline or for separate distribution. Costs are under development for the construction of off-take facilities. Neither AGDC, nor the builder, owner, operator that constructs and operates the pipeline will be able to meet regulatory requirements to sell natural gas to end users as a utility. Local need and financial feasibility of natural gas off-take facilities would be evaluated by the developer of the off-take facility and purchaser.

PART V. SAFEGUARDS FOR PERSONS, PROPERTY, THE PUBLIC, AND THE ENVIRONMENT

45. Describe your plans to detect and abate any condition possibly arising from the construction, operation, maintenance or termination of all or any part of the proposed pipeline that may cause or threaten to cause a hazard to the safety of workers on the pipeline project.

A Safety Plan will be developed to identify what procedures will be put into place to make sure all operations are performed in a safe manner and that all applicable health and safety laws and regulations are followed. The Safety Plan will address construction, pipeline startup, and operation and maintenance.

46. Describe your plans to detect and abate any condition possibly arising from the construction, operation, maintenance or termination of all or any part of the proposed pipeline that may cause or threaten to cause a hazard to the public health and safety.

The ASAP will be designed, constructed, operated, and maintained in accordance the requirements of the PHMSA within the USDOT. These requirements are included in 49 CFR Subtitle B and are intended to ensure adequate protection for the public from natural gas pipeline failures. The ASAP will meet or exceed these requirements. These requirements address:

- Pipeline safety programs and rulemaking procedures (49 CFR Part 190)
- Annual reports, incident reports, and safety-related condition reports for natural gas pipelines (49 CFR Part 191)
- Minimum federal safety standards for transportation of natural gas by pipeline (49 CFR Part 192)

An O&M Plan will be developed as discussed in Section 10.1 and a Safety Plan will be developed as discussed in Section 7.10. O&M will be performed in a manner that is protective of personal health, safety, and is protective of the environment.

The operator of ASAP will develop a public education program that follows the American Petroleum Institute's (API) Recommended Practice 1162. The education program will include provisions on the one-call notification system (utility locate), hazards associated with an unintended release and indications that a release has occurred, and reporting procedures and steps to be taken if a release occurs.

In addition a Quality Control Plan will be developed to identify any potential issues and verify that all work is performed in a manner to maintain the quality of the pipeline and related facilities, and to make sure all work is performed in accordance with relevant permit stipulations.

47. Describe your plans to detect and abate any condition possibly arising from the construction, operation, maintenance or termination of all or any part of the proposed pipeline that may cause or threaten to cause serious and irreparable harm or damages to public or private property.

A Damage Prevention Program as identified in 49 CFR 192.614 will be implemented to prevent damage from excavation activities, including excavation, blasting, boring, tunneling, backfilling,

the removal of aboveground structures by either explosive or mechanical means, and other earthmoving operations. As part of the Damage Prevention Program, the pipeline operator would participate in the state one-call system for excavators to call for excavation activities (utility locates) as required by 49 CFR 192.614. Participation in the one-call system may not be necessary if access to the pipeline is physically controlled by the operator.

In addition, a Quality Control Plan will be developed to identify any potential issues and verify that all work is performed in a manner to maintain the quality of the pipeline and related facilities, and to make sure all work is performed in accordance with relevant permit stipulations.

Applicant Proposed Mitigation Measures are included as Attachment B of this application. A more complete discussion of resources and mitigation measures are included in the POD, Rev. 1, Section 8.0.

48. Describe your plans to detect and abate any condition possibly arising from the construction, operation, maintenance or termination of all or any part of the proposed pipeline that may cause or threaten to cause serious and irreparable harm or damages to vegetation or timber.

Applicant proposed mitigation measures for impacts to wetlands and vegetation are provided in Attachment B of this application, Sections 9.0 and 18.0. A more complete discussion of associated resources and mitigation measures are included in the POD, Rev. 1, Sections 8.2.8, 8.2.17, and 11.4.

In addition, a Quality Control Plan will be developed to identify any potential issues and verify that all work is performed in a manner to maintain the quality of the pipeline and related facilities, and to make sure all work is performed in accordance with relevant permit stipulations.

49. Describe your plans to detect and abate any condition possibly arising from the construction, operation, maintenance or termination of all or any part of the proposed pipeline that may cause or threaten to cause serious and irreparable harm or damages to fish or other wildlife or to their habitats.

Applicant proposed mitigation measures for impacts to fish and wildlife are provided in Attachment B of this application, Sections 8.0, 10.0, 11.0, and 12.0. A more complete discussion of associated resources and mitigation measures are included in the POD, Rev. 1, Sections 8.2.7, 8.2.9, 8.2.10, and 8.2.11.

50. Describe your plans for restoring areas of vegetation or timber damaged or harmed directly or indirectly by the construction, operation, maintenance or termination of all or any part of the proposed pipeline.

A Stabilization, Rehabilitation, and Restoration Plan will be developed to address rehabilitation and restoration of all ground-disturbed areas associated with the pipeline construction, including the construction ROW, material sites, camp sites, temporary access roads, ice roads and pads and temporary use areas.

The Stabilization, Rehabilitation, and Restoration Plan will include specific requirements for restoration activities for each section of the pipeline prior to construction, including site preparation, monitoring, and performance standards. The Stabilization, Rehabilitation, and Restoration Plan will address the following topics:

- Soil replacement and stabilization
- Seeding
- Fertilizing
- Control of non-native invasive plants (NIPs)
- Limiting access to the ROW
- Reclaiming constructed roads

The Stabilization, Rehabilitation, and Restoration Plan identifies sensitive areas along the ROW or in temporary use areas that may require special attention such as erosion-prone areas. A range of engineering controls or maintenance measures will be identified to address the potential problem.

AGDC will work with landowners to remediate forested land upon completion of construction activities.

51. Describe your plans for abating erosion and restoring areas eroded as a direct or indirect result of the construction, operation, maintenance or termination of all or any part of the proposed pipeline.

An Erosion Control Plan will be developed before the start of construction and will specifically define erosion control procedures for each area along the ROW. Also, a Storm Water Pollution Prevention Plan (SWPPP) will be developed as required by the National Pollutant Discharge Elimination System (NPDES) permit. The SWPPP will address erosion control measures, BMPs, and mitigation measures to control erosion and storm water runoff. Continued ground surveillance and corrective erosion control and vegetation maintenance will be employed throughout the construction phase of the project. Normal drainage patterns will be maintained where practical.

The Stabilization, Rehabilitation, and Restoration Plan, the Erosion Control Plan, and final design plans will include BMPs and storm drainage design to control surface flow along the crowned ditch and the project.

Additional information is included in the POD, Rev.1, Sections 7.4.3 and 9.0.

52. Describe your plans for quality control and your procedures for inspection and testing the pipeline, both during and after construction.

The ASAP will be designed, constructed, operated, and maintained in accordance the requirements of the PHMSA within the USDOT. These requirements are included in 49 CFR Subtitle B and are intended to ensure adequate protection for the public from natural gas pipeline failures. The ASAP will meet or exceed these requirements.

In addition a Quality Control Plan will be developed to identify any potential issues and verify that all work is performed in a manner to maintain the quality of the pipeline and related facilities, and to make sure all work is performed in accordance with relevant permit stipulations.

53. Describe your plans to ensure compliance by your contractors and subcontractors with the safeguards and stipulations of the right-of-way lease, if issued.

In order to ensure compliance with the standards, all contractors will be pre-qualified to verify that they have an Operations Integrity Management System (or equivalent) in place. In addition a Quality Control Plan will be developed to identify any potential issues and verify that all work is performed in a manner to maintain the quality of the pipeline and related facilities, and to make sure all work is performed in accordance with relevant permit and lease stipulations.

PART VI. SPECIAL SAFEGUARDS FOR NATIVES AND OTHERS SUBSISTING ON THE BIOTIC RESOURCES OF THE GENERAL AREA OF THE PROPOSED RIGHT-OF-WAY

54. Describe your plans and procedures to protect the interests of individuals living in the general area of the proposed right-of-way who rely on the fish, wildlife and biotic resources of the area for subsistence purposes.

Applicant proposed mitigation measures for impacts to subsistence activities are provided in Attachment B of this application and include:

- Identify locations and times when subsistence activities occur, and minimize work during these times and in these areas to the maximum extent practicable
- Schedule work (e.g., blasting) to avoid conflict with subsistence activities when possible.
- Notify workers that subsistence activities are ongoing in the area and direct them to avoid actions that may affect the activities (e.g., not removing trap line markers)
- Develop and implement a Wildlife Avoidance and Human Encounter/Interaction Plan for the construction and operation of ASAP to avoid impacts to subsistence species.
- Develop a Subsistence Plan of Cooperation to mitigate potential conflicts between ASAP activities and subsistence activities.

Additional information is included in the POD, Rev.1, Sections 8.2.14 and 8.2.15.

The ASAP will be designed, constructed, operated, and maintained in accordance the requirements of the PHMSA within the USDOT. These requirements are intended to ensure adequate protection for the public from natural gas pipeline failures. The ASAP will meet or exceed these requirements. A number of plans and procedures will be developed to protect the environment, including fish, wildlife, and biotic resources that are used for subsistence and subsistence activities. The following are some of the plans and procedures that will be developed and implemented.

- Operations Integrity Management System
- Quality Control Plan
- Site Security Plans
- Spill Prevention Control and Countermeasure Plans
- Spill Prevention and Control Plan
- Erosion Control Plan
- Storm Water Pollution Prevention Plan
- Material Site Mining Plans and Rehabilitation Plans
- Blasting Control Plan
- Wildlife Interaction and Habitat Protection Plan
- Bear Avoidance and Human Encounter/Interaction Plan
- Comprehensive Waste Management Plan

- Hazardous Materials Emergency Contingency Plan
- Stabilization, Rehabilitation, and Restoration Plan
- Operations and Maintenance Plan
- Emergency Response Plan
- Operator Qualification Plan
- Public Awareness Plan
- Integrity Management Plan
- Continuing Pipeline Surveillance Plan
- Damage Prevention Program
- Safety Plan
- Non-Native Invasive Plant Prevention Plan
- Subsistence Plan of Cooperation
- Supervisory Control and Data Acquisition system will be implemented to collect measurements and data along the pipeline, including flow rate through the pipeline, operational status, pressure, and temperature readings.

These plans and procedures are discussed in more detail in the POD, Rev. 1.

PART VII. FINANCIAL INFORMATION

55. Describe the probable financing requirements for the proposed pipeline.

Is it expected that a buyer/owner/operator will purchase the ASAP project. The financial term will depend on the pipeline contractor who purchases the project and a payback period, which usually ranges between 15 and 25 years depending on financial agreements. This timing must take into account debt-to-equity ratio, debt outstanding, approved equity or earnings allowed, inflation factors, and additional factors. The operational term is the life of the project.

56. Attach an annual financial statement and balance sheet for each applicant, prepared in accordance with generally accepted accounting principles for each of the applicant's three fiscal years immediately preceding the date of this application. The financial statement must be certified by a firm of reputable and independent Certified Public Accountants.

The Alaska Gasline Development Corporation is a subsidiary of a public corporation and government instrumentality of the State of Alaska. As such, in the event of a failure by a contractor to complete the project, all of the resources of the State are, subject to appropriation, available to complete the Project. Those resources include not only vast financial resources but technical expertise through the State's many departments.

PART VIII. OTHER INFORMATION

57. Name and address of the proposed general contractor(s) for constructing the pipeline

At this time, the name and address of the proposed general contractor(s) is not known. This information will be provided by the construction contractor and operator of the pipeline.

58. Name and address of the proposed operator of the pipeline:

At this time, the name and address of the proposed operator is not known. This information will be provided by the construction contractor and operator of the pipeline.

59. Other information you believe may aid in the consideration of this application.

The following documents are pertinent to past and pending authorizations involving land uses and rights-of-way between the North Slope and the Cook Inlet area or have information relevant to the scheduling, construction, and operation of the ASAP. For convenience, these are divided into three groups: (1) North Slope to Livengood; (2) Livengood to the existing Beluga pipeline (MP-39 facility) near Wasilla; and (3) Cook Inlet energy supply/demand.

1. North Slope to Livengood

- Alaska Arctic Gas Pipeline Company FEIS [Bureau of Land Management 1988]
- Alaska North Slope Natural Gas to Warm Fairbanks [Fairbanks Natural Gas press release 2008]
- Alaskan Northwest Natural Gas Transportation Company FEIS [Docket No. CP80-435 1983]
- Dalton Highway Master Plan [Alaska Department of Natural Resources Division of Mining, Land & Water 1988]
- Denali, the Alaska Gas Pipeline LLC SF 299 (Federal Right-of-Way) [Bureau of Land Management BLM_Sections 299 permit FINAL.pdf and BLM-NonConfidential-V5.pdf and 1_SF 299 DENALI Prelim_10-17-2008.pdf 2008]
- Fairbanks Natural Gas, LLC plans North Slope facility as Cook Inlet supplies dwindle.... [Alaska Business Monthly Dec 2006]
- Fairbanks North Star Borough Regional Comprehensive Plan (Ord. 2005-56)
- FEIS Trans Alaska Gas System (TAGS) [BLM/AK/PT-88003/1792-910 1988]
- Final Environmental Impact Statement Renewal of the Federal Grant for the Trans-Alaska Pipeline System Right-of-Way [AK-990-03-5101-ER-L016]; [BLM/AK/PT-03/005+2880+990 2002]
- Environmental Atlas of the Trans Alaska Pipeline System [Alyeska Pipeline Service Company, 1993]
- North Slope Borough ACMP – Final Draft Plan [North Slope Borough 2007]
- Resource Transportation Analysis Phase II – Dalton Highway to Nuiqsut and NPR-A Access [Alaska Department of Transportation and Public Facilities 2003]
- Transport of North Slope Natural Gas to Tidewater [Michael Baker Jr. Inc for Alaska Natural Gas Development Authority 2005]

- Updated Application for State Right-of-Way Lease Natural Gas Pipeline [TransCanada ADNR No. ADL 403427 2004]
 - Utility Corridor Proposed Resource Management Plan and Final Environmental Impact Statement [Bureau of Land Management 1988]
- 2. Livengood to the existing Beluga pipeline (MP-39 facility) near Wasilla**
- Coal Gasification [Fairbanks Economic Development Corporation 2008]
 - Conceptual Engineering/Socioeconomic Impact Study – Alaska Spur Pipeline [Department of Energy-National Energy Technology Contract DE-AM26-05NT42653 2007]
 - Construction of a New Multi Purpose Trail (and Install a Fiber Optics Line) in the Entrance of Denali National Park and Preserve – Finding of No Significant Impacts [National Park Service 2004]
 - The Denali Pipeline Project, Environmental Assessment – Refined Petroleum Products Pipeline [Associated Pipe Line Constructors, Inc 1993]
 - Denali State Park Management Plan [Alaska Department of Natural Resources Division of Parks and Outdoor Recreation 2006]
 - Dunbar-Minto-Tolovana Trail-Qualified as RS 2477 Right-of-Way [Alaska Department of Natural Resources RST 1595 Casefile Summary N.D.]
 - FEIS Trans Alaska Gas System (TAGS – Cook Inlet Alternative) [BLM/AK/PT-88003/1792-910 1988]
 - First Annual Centennial Strategy for Denali National Park and Preserve [National Park Service 2007]
 - Letter to Regulatory Commission of Alaska re Regulation of Fairbanks Natural Gas, LLC [Alaska Legislature House of Representatives 2008]
 - Matanuska-Susitna ACMP [Matanuska-Susitna Borough 2007]
 - Minto Flats State Game Refuge-establishment [Alaska Statutes AS 16.20.037 1988]
 - Minto Flats State Game Refuge Management Plan [Alaska Department of Fish and Game 1992]
 - Permitting Comparison of Parks Highway and Glenn Highway Natural Gas Pipeline Rights-of-Way [Bristol Environmental Services for Alaska Natural Gas Development Authority 2005]
 - Proposed Work in Wetlands – ENG Form 4345 (Denali Petroleum Products Pipeline) [Associated Pipe Line Contractors, Inc. 1993]
 - Railbelt Intertie Reconnaissance Study: Estimates Costs and Environmental Impacts of a Natural Gas Pipeline System Linking Fairbanks with the Cook Inlet Area (Vol 10) [Alaska Power Authority 1989]
 - Scenic Resources Along the Parks Highway – Inventory and Management Recommendations [Alaska Department of Natural Resources 1981]
 - Southeast Susitna Area Plan – Public Review Draft [Alaska Department of Natural Resources 2008]
 - Susitna Area Plan [Alaska Department of Natural Resources, Alaska Department of Fish and Game, Matanuska-Susitna Borough 1985]

- Susitna Basin Recreation Rivers Management Plan [Alaska Department of Natural Resources 1991]
- Tanana Basin Area Plan [Department of Natural Resources 1991]
- Tanana Valley State Forest Plan [Department of Natural Resources 2001]
- Transport of North Slope Natural Gas to Tidewater [Michael Baker Jr. Inc for Alaska Natural Gas a Forestry Guidelines [Alaska Department of Natural Resources Division of Mining Land and Development Authority 2005]
- Wasilla to Fairbanks Fiber Optic Cable (GCI) [Installation of a Fiber Optic Cable to Begin in the Parks Highway Right-of-Way through Denali National Park National Park Service 2008]

3. Cook Inlet Energy Supply/Demand

- Alaska Natural Gas Needs and Market Assessment [SAIC for Department of Energy-National Energy Technology 2006]
- Beluga Coal Gasification Feasibility Study, Phase I Final Report [Department of Energy-National Energy Technology Laboratory DOE/NETL Contract-2006/1248 2006]
- Chakachamna Project (Docket P-12660) [Federal Energy Regulatory Commission Order Issuing Preliminary Permit 2006]
- Cook Inlet Energy Supply Alternative Study – Final Report ANGDA Contract 06-0402 [Dunmire Consulting Group for Alaska Natural Gas Development Authority 2006]
- Cook Inlet Exploration Milestones [Alaska Department of Natural Resources Division of Oil and Gas 2006]
- Cook Inlet Natural Gas Reservoir & Storage [SAIC for Alaska Department of Revenue and Alaska Natural Gas Development Authority RFP No. 2008-0400-7351 2007]
- Cook Inlet Natural Gas Reservoir & Storage Natural Gas Storage in Alaska [Alaska Division of Oil and Gas at South Central Alaska Energy Forum 2006]
- Economic Analysis of Kenai LNG Export [Resource Decisions for ConocoPhillips Natural Gas Corporation & Marathon Oil Company 2007]
- Estimated costs and Environmental Impacts of Coal-Fired Power Plants in the Alaska Railbelt Region (Vol 9) [Alaska Power Authority 1988]
- Fire Island Wind Farm [Bills Promote fire Island Wind Farm in Wind Watch: Industrial Wind Energy News 2007]
- Fourth of July Creek Hydroelectric Project [Federal Regulatory Commission Docket No. D108-15-000 in Federal Register Vol. 73, No. 191, p. 57091 October 1, 2008]
- Order Extending Authorization to Export Liquefied Natural Gas from Alaska [Department of Energy-Office of Fossil Energy FE Docket No. 96-99-LNG [Phillips Natural Gas Corporation and Marathon Oil Company DOE/FE Opinion and Order No. 1473 1999]
- Order Granting Blanket Authorization to Export Natural Gas from Alaska [Department of Energy-Office of Fossil Energy FE Docket No. 99-110-LNG ConocoPhillips Company DOE/FE Opinion and Order No. 1580 2000]
- Order Granting Blanket Authorization to Import and Export Natural Gas from and to Canada and Mexico [Department of Energy-Office of Fossil Energy ConocoPhillips Company FE Order No. 2122 2005]

- Order Granting Blanket Authorization to Import and Export Natural Gas from and to Canada and Mexico [Department of Energy-Office of Fossil Energy FE Docket No. 07-03-NG ConocoPhillips Company DOE/FE Order No. 2393 2007]
- Order Granting Export of Liquefied Natural Gas [Phillips Petroleum Company/Marathon Oil Company Docket No CI67-1226 and CI67-227 Federal Energy Regulatory Commission 37 F.P.C. 77;LEXIS 226 1967]
- Mount Spurr Geothermal Lease Sale No. 3 Final Finding of the Director [Alaska Department of Natural Resources Division of Oil and Gas 2008]
- Oil and Gas Activities [Alaska Department of Natural Resources Division of Oil and Gas 2008];
- South Central Alaska – Gas Supply – 2008 & Beyond [Marathon Oil Company at Alaska Railbelt electrical Grid Authority Technical Conference, Anchorage 2007]
- Susitna Hydroelectric Project (2 dam concept [Alaska Shakes the Dust of Discarded Susitna Project in ENG.com 2008]

