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February 22nd, 2012

Mr. Douglas Chapin
NEPA Document Manager
U.S. DOE/Richland Operations Office
Box 550, MSIN A5-11
Richland, WA 99352

Sent via email to: naturalgaseis@rl.gov

Via Email and U.S. Mail

RE: Public Comments on the Environmental Impact Statement for the Acquisition of a Natural Gas Pipeline and Natural Gas Utility Service at the Hanford Site

Dear Mr. Douglas Chapin,

Columbia Riverkeeper is a 501(c)(3) nonprofit organization with thousands of members in Washington and Oregon. Our mission is to protect and restore the Columbia River, from its headwaters to the Pacific Ocean. Since 1989, Columbia Riverkeeper has played an active role in monitoring and improving cleanup activities at the Hanford Nuclear Reservation (Hanford).

With regard to the proposed natural gas pipeline to Hanford's 200 Area, Columbia Riverkeeper submitted oral comments at the Pasco scoping hearing on February 9th, 2012. Please accept the following additional comments on the proposal to bring natural gas service to Hanford via a new natural gas pipeline.

I. U.S. DEPARTMENT OF ENERGY SHOULD NOTIFY ALL POTENTIALLY IMPACTED LANDOWNERS AND EXTEND SCOPING

Columbia Riverkeeper objects to the manner in which U.S. Department of Energy (USDOE) has conducted its scoping process for the natural gas pipeline proposal to deliver gas to Hanford's 200 Area. Most glaringly, USDOE failed to provide written notice of the current scoping period and the February 9th hearing to landowners within the study area of the proposed natural gas pipeline. Although USDOE placed a public notice in the *Tri-City Herald*, this does not satisfy USDOE's responsibility to directly notify farmers, ranchers, and other private landowners about the potential use of their lands for a pipeline. The current scoping period is inadequate without the direct input of those who

could be directly impacted by the proposed pipeline, and USDOE's failure to notify these people will likely lead to a flawed public process.

To remedy this problem, USDOE should immediately provide via mail its Federal Register notice to all potentially impacted landowners and notify them that their property could be used for the proposed pipeline. Following this notification, USDOE should extend its public scoping period for an additional 45 days. Private landowners have a unique perspective - and often site-specific information - that is important for shaping the development of a thorough environmental impact statement (EIS).

Columbia Riverkeeper has a long history of working with private landowners in the path of proposed natural gas pipelines, primarily in the context of liquefied natural gas (LNG) import/export proposals. Pipeline proposals, potential construction, and the presence of a natural gas pipeline can be highly disruptive to private landowners' customary use of their lands. In our experience, USDOE's lack of notification to the actual property owners who could be impacted by the project - a uniquely important group - will generate mistrust regarding the agency's intentions with the project. This dynamic will hamper the pipeline proposal unless USDOE takes appropriate corrective actions and engages directly with landowners to find the best possible route.

II. USDOE MUST DESCRIBE THE PURPOSE OF AND NEED FOR THE PROPOSED PIPELINE

During the February 9th hearing, USDOE received comments from the Washington Department of Ecology about potential incongruities between the proposed use of natural gas at the Waste Treatment Plant (WTP) and the current design of the WTP. As noted by Ecology, WTP boilers have already been designed and are not currently suited for using natural gas. Additionally, emergency generation should not rely on a natural gas pipeline in the event of an earthquake, which is a primary rationale for using diesel in back-up generators.

USDOE should identify the precise purpose of natural gas use on the Hanford site and clearly describe how much gas would be needed to serve the stated purpose. The actual need for gas to power Hanford cleanup activities should inform the diameter of natural gas pipeline that would be necessary for the site. By providing a realistic appraisal of how the gas will be used – and if it is needed at all – USDOE will be able to provide a reasonable range of alternatives.

For example, if Hanford cleanup operations only require a limited amount of natural gas, a smaller pipeline than the potential 12-20 inch diameter range should be considered. Riverkeeper urges USDOE to expand its reasonable range alternatives to include much smaller pipelines, such as a 6-inch line. Until USDOE demonstrates that a very large pipeline (20 inches) is necessary, USDOE should not exclude the possibility of using a smaller line.

Question 1: How much natural gas does USDOE expect to use at Hanford?

Question 2: What pipeline diameter is necessary to provide this volume?

Question 3: Will natural gas be used for non-cleanup related activities (i.e. power generation or industrial development?)

Until USDOE answers these basic questions, the public will be unable to provide meaningful comment about the alternatives offered in USDOE's analysis. Furthermore, if USDOE plans to allow natural gas to be used on the Hanford site for non-cleanup activities, USDOE must evaluate how these reasonably foreseeable developments will impact the environment. Additionally, if there are no reasonably foreseeable non-cleanup uses of natural gas at the Hanford site, then the pipeline should be sized as small as possible to limit its impact on the environment, particularly the Columbia River.

III. GAS PIPELINE CONSTRUCTION AND OPERATION WILL NEGATIVELY IMPACT THE ENVIRONMENT

In evaluating the natural gas pipeline proposal, USDOE must take a hard look at all of the environmental impacts on the Columbia River and all of the lands in the pipeline's construction and operation rights-of-way. According to information provided by USDOE and Cascade Natural Gas at the public scoping hearing on February 9th, the pipeline would range from 12-20 inches in size, operate at roughly 600 pounds per square inch, establish a 75-foot construction right-of-way, and involve a 7000-foot horizontal directional drill (HDD) under the Columbia River. Riverkeeper looks forward to receiving more detailed project information, and we encourage USDOE to provide basic project information prior to the issuance of a Draft EIS. As proposed, the pipeline project would have significant impacts on the environment.

The proposed crossing of the Columbia River will potentially have dramatic impacts on fish, wildlife, and water quality. At the February 9th hearing, a Cascade Natural Gas representative stated that the company conducts HDD crossings "all the time" without problems. Indeed, the presenters at the hearing gave the impression that a HDD crossing of the Columbia would have "no impact" on the river.

Unfortunately, HDD crossings occasionally fail. HDD crossings are more difficult for larger diameter pipelines, and the failure rate increases as the diameter of the pipeline increases. Additionally, HDD crossings can fail in multiple ways, all of which are made more likely be increasing the diameter of the pipeline to be installed. Although HDD is a preferred method for crossing waterbodies, it is not a "zero impact" proposal. USDOE should consider the following when analyzing the impacts of the HDD under the Columbia River:

- HDD "frac-outs" occur when drilling fluids are released into a waterbody after the drilling process disrupts the bed of a stream or river. Cascade Natural Gas has indicated that it intends to remain 50 feet below the bed of the Columbia River, reducing the chance of a frac-out. However, if the

drilling fails, the EIS should thoroughly evaluate the impacts of a frac-out, including a large release of bentonite clay (used in HDD drills) into the Columbia River. Because bentonite clay is very fine-grained, it can damage fish and fish habitat.

- As HDDs increase in length and depth, the risk of the drill failing or the pipeline getting stuck also increases. Hence, Cascade Natural Gas' proposal to go 50 feet below the bed of the Columbia River with a 7000-foot drill comes with the tradeoff of the HDD crossing being more technically challenging.
- In the case of an HDD failure, USDOE must clearly identify alternate locations and methods of building the pipeline across the Columbia River. The impacts of these alternatives must be thoroughly evaluated in the EIS. HDDs can fail when the drilling hole collapses, the pipe or tools get stuck in the process of pulling the pipe through the drillhole, the drill releases large amounts of drilling fluids, or the pipe itself becomes damaged in the process.
- USDOE must clearly identify drilling locations, staging areas for the pipe string, and pullback areas. On both sides of the river, these areas will see some of the most acute impacts from the proposed pipeline.

In short, because a smaller pipe is easier to install via HDD, USDOE should opt to install the smallest pipeline possible (if any pipeline is needed, at all, for the operation of Hanford cleanup). By using a small-diameter pipeline, USDOE reduces the chance of the environmental impacts attendant with HDD failures.

Question 4: What is the location of the HDD crossing for the Columbia River?

Question 5: What are the alternate locations and crossing methods for installing a pipeline across the Columbia River?

Question 6: How will other stream crossings be conducted?

Soils and groundwater in the vicinity of the pipeline are contaminated with a variety of chemicals and radioactive pollutants. Hanford's 300 area is known to have uranium, tritium, and other contaminants. Installation of a large pipeline could exacerbate this problem. Regardless of the precise location and method for crossing the Columbia River, chemical and radioactive contamination could find a preferential flow path into groundwater and the Columbia River because of the installation and operation of a pipeline at Hanford. USDOE must fully assess the potential for contamination to be delivered more quickly into groundwater and the Columbia River because of construction and operation of the pipeline.

Both on the Hanford site and on adjacent public and private lands, USDOE must take a hard look at the safety measures in place for the operation of the pipeline. Cascade Natural Gas indicated at the February 9th hearing that the pipeline will be odorized, which is an important safety feature. Beyond odorizing the pipeline, the USDOE should

provide a detailed emergency response and safety plan in its EIS. Key safety infrastructure, such as mainline block valves, should be identified on maps and spaced appropriately to ensure that the pipeline can be effectively shut down in the case of a leak or fire.

Question 7: How many mainline block valves will be used on the 30-mile pipeline, and where will they be located?

Additionally, the depth of the pipeline through agricultural lands is important for maintaining the integrity of the pipeline and safe farming operations. The 3-foot minimum depth for the pipeline is not adequate for areas where farms and orchards often install drainage and irrigation infrastructure. Indeed, the pipeline may have to be buried much more deeply in order to minimize the ongoing hazard of a high-pressure natural gas line in these areas. The pipeline should be routed as much as possible along existing rights-of-way to minimize disruptions on private landowners and their agricultural operations.

Construction and operation of the pipeline could disrupt sensitive habitat for fish and wildlife, including federally protected birds and salmon. USDOE must clearly describe how its construction schedule for the pipeline will maximally avoid impacts to sensitive habitat for salmon and wildlife. In particular, potential impacts from a failed HDD crossing could negatively impact spawning salmon in the Columbia. The Columbia River at Hanford is unusual because salmon actually spawn in the mainstem of the River, and the Hanford Reach has been identified as protected habitat for fall-run Chinook and steelhead. Moreover, the permanent maintenance of the right-of-way for the pipeline will alter habitat for resident and migratory birds, as well as other wildlife. USDOE must describe how the right-of-way will be established, restored, and maintained if the pipeline is constructed.

USDOE must evaluate how the pipeline could disrupt recreational use of the Hanford Reach. For example, one possible HDD location is close to the power lines near the White Bluffs boat launch, an area that is customarily used by tribal and non-tribal fishers. Additionally, each summer Columbia Riverkeeper leads kayak trips down the Hanford Reach, often seeing spawning salmon in the mainstem of the Columbia. USDOE must evaluate how the timing and nature of its proposed construction will impact recreational users of the River and the Hanford area, including fishers, bird-watchers, and boaters.

IV. USDOE MUST FORMALLY CONSULT WITH USFWS AND NMFS

As Columbia Riverkeeper has noted in many previous comments, DOE is required to consult with the federal expert agencies when a federal action at Hanford may affect federally-listed endangered or threatened species. Pursuant to Section 7 of the Endangered Species Act (ESA), DOE must consult with the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (USFWS) to determine how the

proposed pipeline may affect any threatened or endangered species in the Hanford Reach of the Columbia River.

i. Endangered and Threatened Salmon and Steelhead in the Hanford Reach.

Among the forty-three species of fish present in the Hanford Reach are several endangered species, including the Upper Columbia River spring-run Chinook salmon and steelhead ESUs. For thousands of years, the Columbia River supported the most abundant salmon runs on Earth.[i] Beginning in the late 1990s, the National Marine Fisheries Services listed thirteen stocks of migratory salmonids as threatened or endangered under the Endangered Species Act. These fish spend part of their life-cycle in the Columbia River and its tributaries and part of their life in the Pacific Ocean, eventually returning to the Columbia to reproduce and die.

The Hanford Reach is well documented as the only remaining significant spawning ground for the fall run Chinook salmon on the mainstem of the Columbia River.[ii] According to the U.S. Fish and Wildlife Service, "[t]he [Hanford] Reach contains islands, riffles, gravel bars, oxbow ponds, and backwater sloughs that support some of the most productive spawning areas in the Northwest, including the largest remaining stock of wild fall Chinook salmon in the Columbia River."[iii] The fall Chinook salmon that spawn and rear throughout the Hanford Reach support in-river commercial and tribal fisheries, commercial fisheries in the North Pacific Ocean, and sport fisheries.[iv]

In addition to fall run Chinook salmon, the Hanford Reach also supports over forty other species of fish, including sturgeon, steelhead, and bull trout. The prevalence of endangered and threatened fish in the Hanford Reach raises serious questions about the current and future impacts of Hanford's pollution legacy and USDOE's decisions that impact how much pollution will enter the Columbia for generations. Importantly, strontium-90, uranium, chromium and other contaminants are documented entering salmon spawning grounds along the Hanford Reach.[v] By constructing and operating a pipeline at Hanford, USDOE may exacerbate the existing contamination problem by promoting the migration of contaminants into soils, groundwater, and ultimately into the Columbia River, itself.

ii. USDOE Must Consult Under ESA § 7.

Section 7 of the Endangered Species Act (ESA), the heart of the ESA's requirements for federal actions, imposes strict substantive and procedural duties on federal agencies to ensure that their activities do not cause jeopardy to listed species or adverse modification to their critical habitat. 16 U.S.C. § 1536(a)(2). Not satisfied that federal agencies possessed the requisite expertise, Congress added a strict procedural requirement: that the determination of whether any federal action would be likely to result in jeopardy or adverse modification would be made "in consultation with and with the assistance of [the Services]." *Id*. This mandatory consultation is the key to section 7; in fact, Congress titled Section 7, "Interagency Cooperation."

Section 7 embodies another safeguard to protect against substantive jeopardy. Section 7 requires federal agencies—action and expert agencies alike—to use the best available scientific information in meeting their section 7 obligations. The agencies are generally the repositories of the best scientific evidence given their role in listing threatened and endangered species, in conducting section 7 consultations, in issuing incidental take permits and statements, and in developing recovery plans.

The ESA mandates consultations to ensure that an agency action "is not likely to jeopardize the continued existence of any" listed species or adversely modify critical habitat. 16 U.S.C. § 1536(a)(2). Regulations require such consultations whenever an action "may affect" a listed species. *See* 50 C.F.R. § 402.14. Where an action is "likely to adversely effect" a listed species, the agency must conduct formal consultation with the National Marine Fisheries Service (NMFS) and/or the U.S. Fish and Wildlife Service (USFWS) (collectively "the Services"). The end product of formal consultation is a biological opinion in which the Services determine whether the action will cause jeopardy to the species or adversely modify designated critical habitat. 16 U.S.C. § 1536(b).

In their joint consultation regulations, NMFS and the FWS established a preliminary review that can be used to sidestep formal consultation in limited situations. For all actions that "may affect" a listed species, the action agency must determine whether the action is "likely to adversely affect" or "not likely to adversely affect" the listed species. 50 C.F.R. § 402.14(a)–(b). An action that is "likely to adversely affect" a listed species or its critical habitat must undergo formal consultation that culminates with the services' issuance of a biological opinion that complies with the ESA and regulatory requirements. *Id*. §§ 402.02, 402.14(a).

Under the joint regulations, a "not likely to adversely affect" determination can lead instead to an informal consultation, which consists of all discussions and communications between the agencies and ends with the Services' written concurrence in that determination. *Id*. § 402.13. If the expert agency does not concur, the action is deemed "likely to adversely affect" and the agencies must conduct a formal consultation. *Id*. §§ 402.02, 402.14(a). Use of informal consultation is optional in those instances where it is available.

An agency may avoid "consultation only when it has determined the proposed action is unlikely to adversely affect the protected species or habitat and the [expert agency] concurs with that determination." *Tinoqui-Chalola Council of Kitanemuk v. U.S. Dept. of Energy*, 232 F.3d 1300, 1306 (9th Cir. 2000) (citing 50 C.F.R. § 402.14(b)). In this case, because of the highly sensitive fish habitat involved, the potential for pipeline installation to harm water quality in the Columbia River, and the highly contaminated soils and groundwater in Hanford's 300 Area, USDOE should consult with the USFWS and NMFS about the potential impacts of the proposed pipeline on federally protected species.

> ***Question 8:*** Has USDOE initiated Section 7 consultation with NMFS and/or the USFWS regarding the proposed action?

Question 9: If USDOE has not initiated Section 7 consultation, does USDOE intend to initiate Section 7 consultation? Please explain.

Question 10: If USDOE has not and does not intend to initiate Section 7 consultation, please explain the agency's rationale for not consulting with the Services under the ESA.

V. CONCLUSION

Thank you in advance for considering Columbia Riverkeeper's comments regarding the proposed plan for the construction and operation of a natural gas pipeline to Hanford's 200 area. We strongly urge USDOE to extend the scoping period for 45 days after directly notifying via mail all landowners in the study area for the potential pipeline route. We also urge USDOE to consider a broader range of alternatives for the proposed pipeline diameter (such as 6 inches), and to identify the specific need for natural gas on the site. If, as some members of the public suggested, the pipeline is to be used for non-cleanup development, such as power generation or industrial development, USDOE should disclose the impacts of these potential future developments of the site. Please add Columbia Riverkeeper to your list to receive information about the pipeline proposal as it develops.

Sincerely,

/s/ Dan Serres

Dan Serres
Conservation Director

Columbia Riverkeeper
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[i] National Resource Council, *Managing the Columbia River: Instream Flows, Water Withdrawals, and Salmon Survival* (2004).

[ii] "The Hanford Reach of the Columbia River provides the only major spawning habitat for the upriver bright race of fall Chinook salmon in the mainstem Columbia River." USDOE-PNNL, PNL-7289; USDOE OSTI ID: 7051730. "Today, however, the 51-mile Hanford Reach is the only significant spawning habitat that remains for the upriver bright race of fall Chinook salmon in the main stem Columbia River." USDOE-PNNL at: http://science-ed.pnl.gov/pals/resource/cards/Chinooksalmon.stm (2009).

[ii] U.S. Fish and Wildlife Service Website, http://www.fws.gov/hanfordreach/salmon.html.

[iii] *Id.*

[iv] *Id.*

[v] *See e.g. Groundwater Contaminants at Hanford*, Washington Dept. of Ecology http://www.ecy.wa.gov/programs/nwp/gwhanfordcont.htm; *Hanford Site Groundwater Monitoring for Fiscal Year 2008*, Department of Energy, DOE/RL-2008-66; *Hanford Integrated Groundwater and Vadose Zone Management Plan*, Department of Energy, DOE/RL-2007-20, Pg. 3.