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April 10, 1996

Columbia River Comprehensive Impact Assessment Team
c/o United States Department of Energy
P.O. Box 550
Richland, WA 99352

Dear CRCIA Team Members:

I am writing in response to the initial draft phases *Human Scenarios for the Screening Assessment* (DOE/RL-96-16-a Rev. 0) and *Species for the Screening Assessment* (DOE/RL-96-16-b Rev. 0), with comments for the next phase document, *Columbia River Comprehensive Impact Assessment: Screening Assessment and Requirements for a Comprehensive Assessment* (DOE/RL-96-16 Rev. 0). 43221 43304

In the *Species for Screening Assessment* I note the exclusion of Rainbow trout and Mule deer from the final 43 Tier II receptor species study group. In the identification of the final 43, I realize you have chosen smaller species of the same foraging guild with approximately the same grand average exposure score for evaluation because of the general positive correlation between exposure and body weight. My concern is that two species with a direct ingestion effect on humans and the accuracy and completeness of the exposure factors for the Wildlife Refuge/Wild and Scenic River Scenarios (Hunter/Fisher), and Native American Scenarios (Subsistence Resident, Hunter Gatherer, Columbia River Island User) are mistakenly being left out. Humans consume these game species more than muskrats, beavers, coyotes, raccoons, weasels or mice. Why use a substitute? There should be no intangibles where Human life is concerned.

My second area of concern is the focus being on *current* impacts and conditions alone. The potential for future problems from hazardous waste contamination of groundwater and its eventual migration into the Columbia River is real. Already environmental studies conducted at the Hanford site have concluded that discharges of groundwater to the Columbia River at the 100-N area contribute a significant portion of the total waterborne offsite radiation exposure due to Hanford operations(DOE-RL 1990a). There are 108 sources of potential or known contamination in the 100-N Area, with the major contributors to the contamination being the 1301-N Crib and Trench and the 1325-N Crib and Trench(DOE-RL 1990a). In the Hanford 200 Area 67 tanks are

known or assumed to be leaking. During the 1970's, as much as 1 million gallons of water was sprayed into single shell tank 105-C in order to facilitate cooling. It is likely that 800,000 gallons of this contaminated cooling water has escaped into the surrounding soil and groundwater (WHC-EP-0182-34). Eventually there will be an existing problem in this region if containment action is not taken soon.

I would like to draw your attention to a recent report prepared by the National Research Council regarding containment-in-place technologies as a feasible interim solution to hazardous substance migration at Hanford and other Department of Energy sites. I have enclosed a copy for you and hope you can lend your attention briefly to its reason.

The Triparty Agreement calls for total waste removal from Hanford's single and double shell tanks for processing and storage off-site, unless technically infeasible. The council's report acknowledges subsurface barriers as an imperative use during remediation efforts, so why not use this technology *now* to contain sensitive problem areas within Hanford? This report gives worth to a review of the tank management strategy by recognizing containment technologies as capable tank waste isolators, including contaminated soils below the tanks.

As an environmental technology developer I assure you this concept *is* completely feasible, and should be given careful consideration. Time is not on our side at Hanford. Demonstrated and tested, cost-efficient technology (taxpayer savings of millions if not billions of dollars) providing the highest containment performance standards is available for immediate implementation. CRYOCELL® is a containment system which provides real-time monitorable, earthquake-resistant, brownout-proof, diffusion-free full containment and isolation that is removable and repairable *in situ*, with designs incorporating ISO 14,000 standards. This technology is unique because the application uses subsurface frozen barriers to contain radioactive and hazardous wastes in a safe and environmentally benign manner.

My company, RKK, Ltd., has formed a joint venture company called Water Protection International with the Water Development Corporation in order to provide turnkey containment service. RKK, Ltd. provides the containment and remediation technologies, including technical and managerial expertise. The Water Development Corporation, a full-service drilling company, provides the necessary drilling technologies with extensive environmental drilling experience including work at the Hanford Reservation and other radioactive sites. Together, along with the University of Washington which provides us with scientific support, we are working with other affected parties and are ready to aid in the interim solution. By acting now, waste

migration can be effectively halted allowing more time for development of technical and political solutions to remediate the serious environmental concerns at Hanford while also providing a starting point for the return to lands usable by all peoples.

As a concerned citizen I urge you to support *in-situ* containment. It is a reality that can immediately halt the migration of contaminants from the Hanford area. Please give CRYOCELL your support, and include containment as a viable resource to bring to the attention of the proper individuals. This is a state and national problem bordering on a world problem should high levels of contamination reach the Columbia River, which directly effects the Pacific Ocean and the Pacific Rim regions.

Thank you,

RKK, LTD.

Ronald K. Krieg

Ronald K. Krieg
Chairman of the Board