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USDOE/RFO
C/O Ms. Beth Brainard
Public Relations Officer
903 Pad Comments
P.O. Box 928
Golden, CO 80402-0928

Dear Ms. Brainard:

Environmental Information Network (EIN), Inc., would like to submit comments regarding the Final Proposed Subsurface Interim Measures/Interim Remedial Action Plan Environmental Assessment and Decision Document.

Comments have been submitted previously by Paula Elofson-Gardine for the Rocky Flats Cleanup Commission in recent years regarding Treatability Studies for the 903 seepage problems and 903 Preliminary IM/IRA. The concerns expressed in those communiques remain regarding lack of interception and remediative effort toward mitigating the surface water seeps and migrating americium spike located downgradient to the east from the 903 Pad. The concentrations indicated in the aerial gamma survey are underscored by the in situ readings from the mobile high-purity germanium detector which supplemented this study. It is imperative that subterranean 3-dimensional isotope specific plumage footprint be generated to characterize the extent of contamination and migration in the environment by the different isotopes in the area. A similar analysis should be conducted regarding chemical contaminants.

Numerous discussions were held with Dr. Ed Martell, radiobiophysicist at National Center for Atmospheric Research (NCAR) who was one of the original independent scientists that surveyed plutonium and americium contamination in the area. Dr. Martell expressed concern regarding cesium hot spots in the area in addition to the increasing ingrowth of americium flowing from the 903 Pad. He theorized that some areas of plutonium contamination may have been subject to "micro-fissioning" in the environment due to exposure to moisture and the weathering process. Without a complete characterization of potential problems such as this, how can DOE or EG&G undertake mitigating or remediative efforts?

Considering the above, the concern regarding the Steam Stripping approach being utilized in areas under the Pad that has significant deposits of plutonium present. Has there been evaluation of the synergistic effect of all contaminants (Pu, Am, Cs, U, etc) with respect to any disruptive remediative action, specifically with respect to the use of steam stripping?

EIN is concerned about hazards of vaporized or volatilized contaminants including radionuclides for workers involved with this project. Will these individuals have

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appropriate respiratory protection and bioassay? The Directors of EIN have expressed many times in recent years concern regarding containment buildings being utilized at each clean up site as remediative effort progresses to mitigate releases to the environment. Temporary containment buildings such as this are described in industry journals such as HAZMAT magazine and are not prohibitively expensive. Please specify what protective measures are to be used. Please specify what type of off-gas monitoring will be occurring to monitor volatilized VOC's and radionuclides.

Please specify the expected phase changes, temperature ranges with respect to the in situ vacuum enhanced vapor extraction process. Have all volatile, semi-volatile, and non-volatile organic's been characterized to indicate phase change characteristics, boiling point and volatilization parameters for successful steam application? What efficiency ratings are projected for removal of contaminants? It would be useful to provide a side-by-side comparative table with the above information.

Regarding application of Applicable or Relevant and Appropriate Requirements (ARAR) without considering the synergistic effect of all contaminants and radionuclides, EIN requests that this issue be addressed.

If this is initiating a pilot program or test program for assessing applicability of LLNL's methodologies in situ clean up, EIN would like a copy of initial results from study of site specific applicability and efficiency. Experimental technologies that are planned for application at the RFP should be thoroughly discussed within the scientific and public communities. Background materials and results from other site specific studies planned for application at the RFP should be provided for interested party review. EIN would like copies of these materials.

The ability to apply the above technology to the broad area comprising the 5 sites: 903 Drum Storage Site, 903 Lip Site, Trench T-2 Site, Reactive Metal Destruction Site, Gas Detoxification Site is questionable. Soil removed from the 903 Lip Area was packaged and shipped to INEL. This soil should be analyzed for radionuclide and chemical contaminants so that this data base can be utilized in assessing similar materials and/or by-products that may be present in the areas of remediation.

Has there been consideration given to the possibility of caustic or acidic by-products and reactions connected with the reactive metal destruction site with respect to steam stripping? If so, are there trapping parameters planned with sufficient ongoing sampling and monitoring in place? EIN suggests that the steam stripping technology may be useful only in confined areas, not for use in broad, unconfined areas. Where does the 25,000 kilograms of uranium in Trench T-1 fit in to this process? It is EIN's opinion that these areas should be subject to "hog and haul" removal of contaminants, not steam stripping.

A transmigration study was done by Los Alamos approximately 2 years ago that indicated plutonium contamination to migrate from 20 feet up to 2 miles from point of origin with respect to ground water contamination. Have other source points in the 900 Compound such as Building 998 been evaluated as contributing sources toward this remediative process?

The concentrations cited in section 2.3 2 2 regarding inorganic contamination is not consistent with those readings seen in other reports or revealed in discussions with Dr Ed Martell among others.

Will there be independent oversight and split sampling with the CDH and/or EPA for quality assurance? There have been numerous public comment testimonies submitted by various organizations focused on the RFP issue. These testimonies such as that for the 881 Hillside IM/IRA, Plan for Prevention of Contaminant Dispersal (Dust control problems), 903 Treatability Studies/903 Seepage Problems, PEIS, among others should be utilized to identify relevant comments and suggestions as the 881 Hillside and 903 connected remediation areas encroach upon each other.

EIN wishes to convey our thanks to the DOE area office for extending the public comment period to accept EIN's comments.

Respectfully Submitted,



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