

STATE OF COLORADO

COLORADO DEPARTMENT OF HEALTH
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Mr Richard Schassburger
Acting Director
Environmental Restoration Division
Department of Energy
Rocky Flats Office
P O Box 928
Golden Colorado 80402-0928

Dear Mr Schassburger

The following documents have been reviewed to assess the baseline environmental/ecological conditions and the related exposure conditions for an environmental evaluation site-wide and the 881 Hillside area

Draft Final Phase III RFI/RI Rocky flats Plant 881 Hillside Area (Operable Unit 1) Volume XIII Appendix E Environmental Evaluation USDOE October 1992 and

Baseline Biological Characterization of the Terrestrial and Aquatic Habitats at Rocky Flats Plant Final Report September 1992

Our review has focused principally on the aquatic portions and documentation of the exposure conditions presented for the abiotic media. Additional comments particularly on the characterization of the terrestrial habitats should be solicited from David Weber at the Division of Wildlife Colorado Department of Natural Resources and John Wegrzyn at the USF&WS

The available information provided in both documents was used to attempt to quantify the ecological system exposure factors and habitat responsible for the ecology in the Rocky Flats environs and the 881 Hillside area. Additional analysis of data in the Woman Creek drainage and the 881 hillside has been used to confirm

the dearth of relevant data for exposure assessment in the Woman Creek drainage for toxicity flow water column chemistry soil and sediment at the time the reports were prepared

the failure in the 881 Hillside area to adequately quantify the rudimentary hydrogeology and relevant boundary conditions for the identified alluvial pathways/channels

Consequently

the potential relevant range of frequency and duration of exposure under the hydrologic conditions encountered primarily precipitation events cannot be determined

quantification of loading rates to document exposure from the nature and extent of chemical transport in the waters is not possible Neither tracking of loading factors nor correlations among the various media through multiple pathways can be tracked from the observed data presented

Both documents lack the necessary Exposure Assessment to document the frequency and duration of exposure of abiotic media to the aquatic communities Neither the site-wide characterization or the smaller scale operable unit area employed relevant exposure assessment methods The methodology and process described in the Phase III OU1 report for the ecological assessment is described generically but it was not used The determination of the nature and extent of contamination and exposure is dependant on quantifying the flow and loadings (transport) for the various pathways identified in the ecological system No such data or analysis is presented in either report

When data derived

from the OU#5 revised workplan for the Woman creek drainage

from the OU#6 revised workplan for the Walnut creek drainage

from the OU#2 Phase II surficial soil studies

from the work in OU#3

from the August 1991 revised site-wide surface water monitoring plan

and proposed revisions to the site-side groundwater monitoring plan

are completed exposure conditions can be properly evaluated and quantification of the rates of movement through the pathways can be attempted Confirmation of the basis for effects on the appropriate ecological receptors can be initiated at that time Then an extrapolation of exposure possibilities with management alternatives to the wide-range of identified activities at the plant limited start-up transition decontamination and decommissioning environmental restoration and clean-up and local impacts initiatives can be prescribed

Additional comments are attached relative to each report evaluated

Sincerely,



Jonathan Love

Sr Professional Engineer

cc Richard Flory EG&G
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David Weber DOW
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