

40101

PRC Environmental Management Inc
1099 18th Street
Suite 1960
Denver CO 80202
303-295 1101
Fax 303 295 2818



July 2 1993



000045587

Mr Gary Kleeman
U S Environmental Protection Agency Region 8
Federal Facilities Remedial Branch
999 18th Street
Denver Colorado 80202

**Subject: Review Comments on the Revised Methodology for Selecting Contaminants of Concern at Rocky Flats Plant, Operable Unit 1 (OU1)
Contract Number 68-W9-0009 Work Assignment Number C08054**

Dear Gary

Please find enclosed the review comments for the above referenced document. The comments were prepared by PRC Environmental Management Inc (PRC) and Susan Griffin Ph D U S Environmental Protection Agency (EPA)

Please feel free to call Susan at (303) 294-1062 or me at (303) 295 1101 if you have any questions or comments

Sincerely

Richard L. DeGrandchamp Ph D
Principal Toxicologist

Susan Griffin Ph D
EPA Toxicologist

RLD/alc

Enclosure

cc Martin Hestmark, EPA
Bonita Lavelle EPA
Terry Smith PRC
Theresa Lopez PRC

RE.012-C08054\ROCKYFLT\OU1 COC\7 2 93\mlkf

ADMIN RECORD

**ROCKY FLATS PLANT
GOLDEN COLORADO**

**REVIEW COMMENTS ON THE REVISED METHODOLOGY FOR
SELECTING CONTAMINANTS OF CONCERN AT ROCKY FLATS
PLANT OPERABLE UNIT 1 (OU1)**

Report Prepared for

**U S ENVIRONMENTAL PROTECTION AGENCY
Region 8 Federal Facilities Remedial Branch
Denver Colorado**

Work Assignment	C08054
EPA Region	8
Site No	OU1
Date Prepared	July 2 1993
PRC No	012-C08054
Prepared jointly by	PRC Environmental Management Inc (Richard L DeGrandchamp)
Telephone No	(303) 295 1101 and Susan Griffin U S EPA
Telephone No	(303) 294-1062
EPA Primary Contact	Gary Kleeman
Telephone No	(303) 294-1071

TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE</u>
1 0 INTRODUCTION	1
2 0 GENERAL COMMENTS	1
3 0 CONCLUSIONS AND RECOMMENDATIONS	3

1 0 INTRODUCTION

PRC Environmental Management Inc (PRC) reviewed the Revised Methodology for Selecting Contaminants of Concern at Rocky Flats Operable Unit 1 (OU1) prepared by the U S Department of Energy (DOE) Rocky Flats Plant (RFP) and submitted to the U S Environmental Protection Agency (EPA) in June 1993 At EPA request this review was conducted in collaboration with Susan Griffin Ph D EPA under Technical Enforcement Support (TES) 12 contract, work assignment number C08054

2 0 GENERAL COMMENTS

Overall the revised methodology for selecting contaminants of concern (COCs) at RFP describes a methodology that is incomplete inappropriate and does not meet either the requirements or intent of the regulations under the Comprehensive Environmental Response Compensation, and Liability Act (CERCLA) The approach is unacceptable for five reasons (1) it is inconsistent with the risk assessment guidance presented in Risk Assessment Guidance for Superfund Volume 1 Human Health Evaluation Manual Part A (RAGS EPA 1989) (2) it precludes public disclosure of site-related risks (3) it will ultimately confound risk management decisions (4) it is narrowly limited to addressing only presumed source-related risks and (5) instead of minimizing it contributes significant uncertainty to the analysis of risk

RAGS is the only EPA approved guidance for conducting a risk assessment under CERCLA It presents an overall framework and details the necessary steps to conduct a quantitative risk assessment One of the most important steps in the analysis is the initial selection of COCs RAGS explicitly describes the criteria that can be used to eliminate chemicals from consideration Chemicals should be eliminated only on the basis of these criteria not on the basis of conjecture and subjective evaluation In addition the selection should be quantitative not qualitative Furthermore the risk assessment should not be narrowly confined to an evaluation of only those contaminants for which a source can be presently ascertained

Although it is important to define the contaminant sources for determining the nature and extent of contamination the risk assessment should not be source driven The proper place for a discussion

of site related versus nonsite related sources is in a chapter devoted to an uncertainty analysis. Even in the event that a particular chemical cannot be defined as a source in OU1, the risks associated with the contaminant should still be considered site-related. The elimination of chemicals from the risk assessment prior to conducting a quantitative analysis circumvents the purpose of conducting a quantitative human health risk assessment at a CERCLA site.

With the possible exception of background related risks, all site related risks should be quantified and presented in the baseline risk assessment, regardless of whether or not a known source exists. The predominant intent and purpose of a risk assessment is to disclose to the public the potential risks that are associated with unrestricted land use. By not carrying all potential contaminants through the risk assessment process, there will be no opportunity to alert the public about possible health hazards. Moreover, there will not be an opportunity to revisit the issue if new information becomes available to invalidate the current assumptions being made with the revised COCs selection process. If, however, the risks for these assumed nonsource contaminants are quantitatively estimated, first subsequent confirmation studies could be conducted to verify the assumptions.

This new proposed methodology will likely confound risk management decisions, as well as the entire remedy selection process. By relying heavily on professional judgment, a consensus will not be easily or expeditiously reached during the feasibility study (FS). Discussions regarding the remedy selection will likely be protracted due to lack of quantitative information. For instance, the risks associated with many of the chemicals assumed to be nonsite-related are not likely to present unacceptable risks. This would allow the risk manager to eliminate them in the early stages of remedy selection and focus only on those chemicals with unacceptable risk. If high risk contaminants were also thought to be nonsite-related, they could be evaluated on a case-by-case basis. Without the necessary quantitative information, all chemicals eliminated as COCs on the basis of professional judgment would remain suspect.

One of the primary objectives of a human health risk assessment is to minimize the uncertainty surrounding the estimate of potential human health risks. By making critical decisions based solely on professional judgment, the uncertainty cannot be evaluated. This is an important component of the risk assessment since it provides the risk manager with a relative margin of error in the decision making process.

3 0 CONCLUSIONS AND RECOMMENDATIONS

PRC and EPA recommend that each containment be evaluated with the specific criteria detailed in RAGS Professional judgment and other subjective screening methods should not be employed until the uncertainty analysis which should follow and not precede the quantification of risk