

This is a  
**CONTROLLED DOCUMENT**

**ROCKY FLATS PLANT  
WORKPLAN FOR THE CONTROL  
OF RADIONUCLIDE LEVELS IN  
WATER DISCHARGES FROM THE  
ROCKY FLATS PLANT**

EG&G -- ROCKY FLATS PLANT  
Manual No.: 21000-WP-12501.1  
ENVIRONMENTAL MANAGEMENT DEPARTMENT  
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**Water Discharges from the Rocky Flats Plant**

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**CONTROLLED DOCUMENT**

EG&G --- ROCKY FLATS PLANT 21000-WP-12501.1  
Workplan for the Control of Radionuclide Levels in Water Discharges from the Rocky Flats Plant  
ENVIRONMENTAL MANAGEMENT DEPARTMENT Section PAE, Revision 2  
i of x

**ENVIRONMENTAL MANAGEMENT WORKPLAN**

NOT RELATED TO  
PLANT SAFETY

Approved By:

Category 1  
Effective Date: \_\_\_\_\_

*J. G. Baker* 10/19/92  
Director, Remediation Programs (Date)

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## List of Acronyms and Abbreviations

The following acronyms and abbreviations are used in the Workplan:

AIP	Agreement in Principle
$\alpha$ -spec	Alpha Spectrometry
Am	Americium
AMDA	Acceptable Minimum Detectable Activity
BAT	Best Available Technology
BDD	Broomfield Diversion Ditch
CDH	Colorado Department of Health
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CF	Coagulation/Filtration
CFR	Code of Federal Regulations
cfs	cubic feet per second
Ci/g	Curies per gram
cm/s	centimeter per second
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CHS	Colorado Health Standards
COE	U.S. Corps of Engineers
CRS	Colorado Revised Statutes
CUHP	Colorado Urban Hydrograph Procedure
CWA	Clean Water Act
CWQCC	Colorado Water Quality Control Commission
DAF	Dissolved Air Flotation
DCG	Derived Concentration Guide
d/m	Disintegrations per minute
DOE	U.S. Department of Energy
EPA	U.S. Environmental Protection Agency
ER	Environmental Restoration
ETEP	Emerging Technologies Evaluation Program
FERC	Federal Energy Regulatory Commission
FFCA	Federal Facilities Compliance Agreement
fCi/L	tempto curies per liter
GAC	granular activated carbon

GC	gas chromatography
GOCO	Government-owned and contractor-operated facility
g/cm <sup>3</sup>	grams per cubic centimeter
gpm	gallons per minute
GRRASP	General Radiochemistry and Routine Analytical Services Protocol
HM	Heavy Metals
H/S	Health and Safety
IAEA	International Atomic Energy Agency
IAG	Interagency Agreement
ID/MS	Isotope Dilution/Mass Spectrometry
IMECS	Interactive Measurement Evaluation and Control System
IM/IRA	Interim Measures/Interim Remedial Actions
IRAP	Interim Remedial Action Plan
IX	Ion Exchange
LANL	Los Alamos National Laboratory
LS	Lime Softening
m	Minute
MDA	Minimum Detectable Activity
MREM/YR	millirem Per Year
mph	miles per hour
Mgal	Million Gallons
nCi/g	Nanocuries per gram (10 <sup>-9</sup> )
NEPA	National Environmental Policy Act
NIST	National Institute of Standards and Technology
NBL	New Brunswick Laboratory
NPDES	National Pollutant Discharge Elimination System
NPDWR	National Primary Drinking Water Regulations
O & M	Operating and Maintenance
OU	Operable Unit
pCi	Picocurie (10 <sup>-12</sup> )
pCi/L	Picocurie per Liter (10 <sup>-12</sup> )
ppm	parts per million
Pu	Plutonium
QA/QC	Quality Analysis/Quality Control
RCRA	Resource Conservation and Recovery Act

RFP	Rocky Flats Plant
RO	Reverse Osmosis
SARA	Superfund Amendments and Reauthorization Act
SDWA	Safe Drinking Water Act
SEO	State Engineers Office
SID	South Interceptor Ditch
SITE	Superfund Innovative Technology Evaluation
SOP	Standard Operating Procedure
SOW	Scope of Work
STP	Sewage Treatment Plant
SWD	Surface Water Division
SWTSP	Sitewide Treatability Study Plan
SWMP	Surface Water Management Plan
SWMU	Solid Waste Management Unit
TDS	Total Dissolved Solids
TH	Total Hardness
U	Uranium
UF	ultrafiltration
UF/MF	Ultrafiltration/Microfiltration
mm	Micrometer (10 <sup>-6</sup> )
WET	Whole Effluent Toxicity
WQCD	Water Quality Control Division

Document Reviewed: Final Workplan for Control of Radionuclide Levels in Water Discharges from the Rocky Flats Plant, September 1991

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City of Broomfield  
 December 12, 1991 ltr  
 Item (2) pg. 1, P3

General comments: The Workplan is generally very good and well organized. However, there is one recurring problem throughout the document. In several places an overland transfer of Pond C-2 water to Pond B-5 is stated as a current practice. This is not the case and will not be the case until after Great Western Reservoir is abandoned as a drinking water supply (When Option B is fully implemented, which may not be until 1995-96). This has been discussed at Water Group meetings with DOE/EG&G, and Broomfield commented on this transfer on the SWMP. It is Broomfield's understanding that the pipeline is in place but not connected to the ponds on either end. The actual current practice is to discharge Pond C-2 water, with treatment if it doesn't meet Colorado CWQCC standards for Walnut Creek, to Broomfield's diversion ditch. This is the only arrangement that Broomfield has agreed to until such time that Great Western Reservoir is abandoned as a drinking water supply. There are specific references to this particular pond to pond transfer on page 3-21, last paragraph; page 3-24, last paragraph; and page 4-4, first paragraph. These and all other references to the Pond C-2 to B-5 transfer should be corrected to indicate that it is proposed to be implemented after Option B is in place, not current practice (or fourth quarter 1991 as indicated on page 4-4).

The transfer of water from Pond C-2 to Pond B-5 or A-4 is intended as an emergency option, not a standard practice. It is preferable for overall public health protection to transfer the water from Pond C-2 to Pond B-5 or A-4, where it is split-sampled, analyzed, and approved by CDH before discharge, rather than have it overtop the Pond C-2 dam or spillway, or be released to the Broomfield Diversion Ditch directly. All water transferred from Pond C-2 to Pond B-5 or A-4 will be sampled during transfer to the Minimum Detectable Activity (MDA) achieved for normal routine pond discharges for the radionuclides as specified in the CWQCC stream standards.