

3 RF 1393

EG&G ROCKY FLATS

EG&G ROCKY FLATS, INC.
ROCKY FLATS PLANT, P.O. BOX 464, GOLDEN, COLORADO 80402-0464 • (303) 966-7000

February 4, 1993

93-RF-1393

James K. Hartman
Assistant Manager for Environmental Management
DOE, RFO



000030286

Attn: T. Lukow

RESPONSE TO REQUEST FOR INFORMATION ON COMPLIANCE WITH RADIONUCLIDE
NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS - TGH-104-93

REF: J. K. Hartman ltr (00449) to T. G. Hedahl, Compliance with National Emission Standards for
Hazardous Air Pollutants, January 22, 1993

Below and attached are the responses to your January 22, 1993, information request letter. The request letter was received by my office on January 26, 1993. As such, it was not possible to respond to your request by the January 27, 1993, deadline. A deadline extension to February 5, 1993, was granted verbally by S. A. Duletsky of your staff on January 26, 1992.

Task 1

EG&G Rocky Flats, Inc., submitted their response regarding point source emissions to the Environmental Protection Agency (EPA) on January 18, 1993. The letter documents resolution and closure of the issue with EPA. You were copied on the letter; however, an additional copy has been attached (Attachment 1) for your reference.

Task 2

As explained to the EPA and DOE, RFO, substantial or complete diffuse source term data is not currently available (and will not be available for some time) for Individual Hazardous Substance Sites (IHSS) or Operable Units (OUs). Therefore, it is not possible to model the dose to the public from individual IHSSs or OUs. However, it is possible to roughly estimate the dose to the public using reasonable worst case diffuse source terms for each of the OUs. The highest historical diffuse source term concentration near or in each OU will be used to calculate the total source term for each OU. The surface areas and resulting total source term will be input into AIRDOS-PC to determine the resulting dose to the public. Resuspension calculations developed for the 903 Pad will be used as requested in EPA's October 15, 1992, letter. This methodology will provide a preliminary and conservative dose estimate and will be clearly caveated as such to avoid any potential confusion or conflicts with evolving environmental restoration studies. The effective dose equivalent to the public from diffuse sources will be revised annually as additional diffuse source term data is developed through site investigations and soil sampling. The diffuse source dose estimate will be reported in Section IV Supplemental Information of the 1992 Annual Air Emission Report with calculations contained in following appendices.

With regards to the balance of the 1992 Annual Air Emission Report, the 1991 Annual Air Emission Report along with supplemental DOE headquarters guidance will be used to generate the 1992 report. Point source and meteorological data are currently being gathered for the 1992 report. A draft report is expected to be ready for RFO review by March 17, 1993. The final report is due to the EPA by June 30, 1993.

Task 3

Building 123 Analytical Laboratory resumed sample analyses operations in October 1992. All air effluent sample analyses required to complete the Isokinetic Sampling Study and Air Effluent Particle

NAME	UN	UNC
NEDETTI, R.L.	X	X
NJAMIN, A.		
ARMAN, H.S.		
RANCH, D.B.		
ARNIVAL, G.J.		
AVIS, J.G.		
ARRERA, D.W.		
ANNI, B.J.		
ARMAN, L.K.		
EALY, T.J.		
EDAHL, T.	X	
LBIG, J.G.		
KEFER, F.H.		
BBY, W.A.		
UESTER, A.W.		
EE, E.M.		
ANN, H.P.	X	
ARX, G.E.		
CDONALD, M.M.		
CKENNA, E.G.	X	
ONTROSE, J.K.		
ORGAN, R.V.		
OTTER, G.L.	X	
IZZUTO, V.M.		
ILEY, J.H.		
ANDLIN, N.B.		
HEPLER, R.I.		
STEWART, D.L.		
SULLIVAN, M.T.		
SWANSON, F.B.		
WILKINSON, R.B.		
WILLIAMS, S. (ORC)		
WILSON, J.M.		
WANE, J.O.		
ard	X	X
Osborne	X	X
Soflock	X	
Thurwell	X	
R. Roberts	X	
P. Best	X	
J. Powers	X	
M. Andt	X	X
SOARES CONTROL	X	X
TRAFFIC		

CLASSIFICATION:

UCNI	X	X
UNCLASSIFIED	X	X
CONFIDENTIAL		
SECRET		

AUTHORIZED CLASSIFIER
SIGNATURE

Korseth
JUNU

DATE 2/2/93

IN REPLY TO RFP CC NO:
0379 RF93

ON ITEM STATUS

OPEN CLOSED

PARTIAL

LTR APPROVALS:

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James K. Hartman
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Page 2

Size Study were completed in November 1992, thereby fulfilling the requirements of the Administrative Compliance Order. This was reported to the EPA in the December 7, 1992, Quarterly Status Report, which you were provided copies. An additional copy is attached (Attachment 2) for your reference.

Task 4

As you are aware, the application for construction and operation of the Supercompactor has been submitted to the EPA for their review and recent approval. Further investigations and clarifications from EPA have indicated that applications are required for the following projects that were initiated since February 5, 1985, and are not yet complete or in operation. Also listed are the dates for which applications will be formally submitted to RFO for review and transmittal to the EPA.

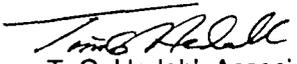
<u>Project</u>	<u>Expected Submittal Date to RFO</u>
Duct Remediation in Building 707	February 19, 1993
Pondcrete Processing	February 26, 1993
Pondcrete Reprocessing	February 26, 1993
B1 Dam Rehabilitation*	March 19, 1993
FCAP Electrical Upgrades*	March 19, 1993
CDH Air Sampling Platforms*	March 19, 1993

* Projects identified may have radionuclide air emissions. Further investigations are required to determined if applications are necessary.

Task 5 and 6

Environmental Protection Management (EPM) has been working with Facility Project Management (FPM) to determine a list of construction activities or modifications subject to 40 CFR 61.07 and 61.96 that have been completed between February 5, 1985, and December 17, 1992. FPM has provided us with a listing of more than 1,400 projects completed since 1985. From review of the listing, most of the projects are not suspected to have had radionuclide air emissions. Due to the lack of project descriptions and recent retirement of some project managers, it will be difficult to determine which projects did have radionuclide air emissions and when the projects were completed (per EPA's request). Considering the extent of the listing and the hours required to investigate the projects, EG&G does not expect to provide RFO a listing before March 5, 1993. Currently, efforts to complete this work appear to be adequately funded in FY93 Work Package 61116. We will notify your staff immediately if the work scope exceeds budgeted FY93 funding in this area.

If you have any questions concerning the information supplied, please contact W. E. Osborne at X8609, Digital Page 1856 or G. H. Setlock at X8632, Digital Page 5380.


T. G. Hedahl, Associate General Manager
Environmental & Waste Management
EG&G Rocky Flats, Inc.

WEO:nfp

Orig and 1 cc - J. K. Hartman

Attachments:
As Stated

cc:
T. N. Lukas - EPA Region VIII

R. Rutherford, (8ART-AP)

EG&G ROCKY FLATS, INC.
ROCKY FLATS PLANT, P.O. BOX 464, GOLDEN, COLORADO 80402-0464 • (303) 966-7000

January 18, 1993

93-RF-0606

DIST.	
ENEDETTI, R.L.	
ENI, AMIN, A.	
ER, J.H.S.	
ERANICH, D.B.	
ARNIVAL, G.J.	
VIS, J.G.	
AREFA, D.W.	
ANNI, B.J.	
ARMAN, L.K.	
EALY, T.J.	
EDAHL, T.	✓
ELBIG, J.G.	
DEKER, F.H.	
IRBY, W.A.	
UESTER, A.W.	
EE, E.M.	
IANN, H.P.	
IARX, G.E.	
CDONALD, M.M.	
CKENNA, F.G.	✓
ONTROSE, J.K.	
ORGAN, R.V.	
OTTER, G.L.	
IZZUTO, V.M.	
ILEY, J.H.	
ANDLIN, N.B.	
HEPNER, R.I.	
TEWART, D.L.	
ULLIVAN, M.T.	
WANSON, F.B.	
WILKINSON, R.B.	
WILLIAMS, S. (ORC)	
WILSON, J.M.	
ANE, J.O.	✓
... J.	✓
... R.V.	✓
Schubert, A.B.	✓
... T.L.	✓
... R.G.H.	✓
... W.E.	✓
... M.	✓
OPRES CONTROL	x x
RAFFIC	
... T.R.K.	✓

Patricia D. Hull, Director
Air, Radiation and Toxics Division (8ART)
Environmental Protection Agency
999 18th Street - Suite 500
Denver, CO 80202-2405

Attn: Milt Lammering

ENVIRONMENTAL PROTECTION AGENCY (EPA) REQUEST FOR ADDITIONAL INFORMATION FOR THE 1991 RADIONUCLIDE ANNUAL AIR EMISSION REPORT - TGH-0032-93

Ref: P. D. Hull letter (8ART-AP) to J. O. Zane, October 15, 1992

The information provided below is to complete the response to the Point Source Emissions section of your letter dated October 15, 1992, to James Zane, Manager, EG&G Rocky Flats, Inc. and as a followup to a meeting held December 7, 1992, among Monica Morales, Scott Whitmore and Milt Lammering, EPA; Samuel Duletsky, DOE, RFO; and George Setlock, William Osborne, and Nancy Daugherty, EG&G. The meeting was held to clarify a request for information contained in the October 15th letter. The clarification specifically involved the request for estimated emissions from point sources for which air effluent monitoring is not performed and which are not included in the quantitative dose calculation of the 1991 Air Emissions Report required under 40 CFR 61, Subpart H.

As mentioned in the 1991 Air Emissions Report and discussed December 7th, Rocky Flats Plant (RFP) has some types of radioactive materials for which air effluent sampling currently is not performed. Appendix A of the 1991 Air Emissions Report lists radionuclides which might be associated with RFP and includes these types, although at any one time not all of these radionuclides are necessarily present or in use at RFP.

Radionuclides for which emissions monitoring may not be performed include materials in non-dispersable form or extremely low activities for which RFP's best estimate of emissions is essentially zero activity. These materials include, for example, sealed, plated and deposited radiation sources that are used for nondestructive radiography testing, instrument calibration, or check sources. The radioactive materials are either sealed or non-volatile, and indeed could not otherwise serve effectively in their intended uses. Some low activity liquids are used in the preparation and use of radionuclide standards for determining chemical recovery or detector efficiency for laboratory analysis. Again, with the exception of tritium which is discussed below, the radioactive material is not volatile at or near the temperatures used in the standards preparation or sample analysis.

CLASSIFICATION:

UCNI	✓	✓
UNCLASSIFIED	✓	
CONFIDENTIAL		
SECRET		

AUTHORIZED CLASSIFIER

SIGNATURE
[Signature]
DATE 1/15/93

IN REPLY TO RFP CC NO:
5418 RF 92

ACTION ITEM STATUS
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Most standards preparation for non-monitored radionuclides occurs in the Chemical Standards Laboratory of Building 881; some standards preparation and most sample analyses for these nuclides occur in our Analytical Laboratories for bioassay and environmental samples in Buildings 123 and 881. Air emissions of the radioactive materials involved would be evidenced by laboratory contamination that would preclude our ability to perform the low-activity analyses that are required. As indicated by environmental monitoring data presented at monthly public information exchange meetings, such contamination is not occurring.

Liquid tritium standards used for determining radiation counting efficiency are prepared or used in the Chemical Standards and Analytical Laboratories in Buildings 123 and 881. These standards are typically contained in water or an organic solvent matrix and have some volatility at room temperature. Containers in which these standards are stored or used are opened for only very short periods of time. The lack of laboratory contamination indicates that no measurable air emissions are occurring from their use. However, because of their potential volatility, we have estimated maximum air emissions for them for 1991 using the EPA release fraction for liquids given in Appendix D of 40 CFR Part 61, "Methods for Estimating Radionuclide Emissions." The results of this estimate follow:

<u>Location</u>	<u>Estimated Emissions</u>
Chemical Standards Lab., Bldg 881:	1.81 E-07 Ci
Analytical Laboratory, Bldg 881:	7.77 E-09 Ci
Analytical Laboratory, Bldg 123:	<u>4.55 E-11 Ci</u>
Total:	1.89 E-07 Ci

The total for all three of these potential sources is far below the total measured tritium air emissions for RFP (4.76 E-03 Ci) as reported in the 1991 Air Emissions Report and within the uncertainty for those measurements. Including this total in the AIRDOS-PC model for dose calculation would have no discernible difference in the calculated dose to the public. The estimated increase in effective dose equivalent from this tritium is 1.63 E-11 mrem, compared with a total from all measured point sources of 4.38 E-05 mrem reported in the 1991 Air Emissions Report. There is no statistically significant difference in either air emissions or resulting dose from these estimated tritium emissions, and we believe these emissions very conservatively overestimate actual emissions. Therefore, we will not be submitting a revised 1991 Air Emissions Report to include them.

The December 7th discussion with EPA staff indicated their concurrence with RFP's assessment that the most reasonable estimate of air emissions for the non-dispersable or low activity, non-volatile radionuclides under discussion is zero. Tritium was not discussed at that meeting, but RFP believes that the above approach to tritium emissions is consistent with the conclusions reached December 7th. EPA staff requested that RFP document the

Patricia D. Hull
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discussion through this letter; EPA then would document their concurrence in response. RFP also will add clarifying information similar to that in this letter to future annual Air Emissions Reports regarding radioactive sources for which monitoring is not performed.

If you have any further questions concerning this issue, please contact N. M. Daugherty or G. H. Setlock, Environmental Protection Management, EG&G Rocky Flats, Inc., Building 080, telephone 966-8533 and 966-8632, respectively.



T. G. Hedahl, Associate General Manager
Environmental & Waste Management
EG&G Rocky Flats, Inc.

NMD:mln

cc:

S. A. Duletsky - DOE, RFO
J. M. Hartman - DOE, RFO
E. A. Howard - DOE, RFO
K. D. Izell - DOE, RFO
R. M. Nelson, Jr. - DOE, RFO

EPA Administrative Compliance Order
Quarterly Status Report
(September 1, 1992 - November 30, 1992)

The following is the completion status of individual projects through November 30, 1992.

I. ACO Deliverables (Referenced to ACO)

As-Built Duct Drawing Project (page 6, paragraph 10)

EG&G has completed the as-built duct drawing project. Quality assurance checks and revision of the as-built duct drawings have been completed. Sample probes have been surveyed for length and diameter. This information is currently being used to draft the Duct Assessment Reports (DARs).

Port Installation and Velocity Profiling Project (page 6, paragraph 11)

Completed as reported in September 1992 quarterly status report. This information will be included in the DARs for EPA review.

Effluent Particle Size and Composition Study (page 6, paragraph 12)

The effluent Particle Size and Composition Study in Building 559/561 has been completed. All testing and laboratory sample analyses have been completed. EG&G Rocky Flats, Inc., has studied the test results and is currently drafting the report for EPA review. The report is expected to be submitted to EPA Region VIII by the January 9, 1993, deadline.

Isokinetic Sampling Study (page 7, paragraph 13)

The isokinetic sampling study is complete. All testing and laboratory sample analyses have been completed. EG&G Rocky Flats, Inc., is currently studying the test results and drafting the report for EPA review. The report is expected to be submitted to EPA Region VIII by the January 9, 1993, deadline.

Duct Assessment Packages (page 9, paragraph 4)

Duct Assessment Reports are currently being drafted for EPA review. All reports are expected to be submitted to EPA Region VIII by the January 9, 1993, deadline.