

4D117

CORRES. CONTROL  
OUTGOING LTR. NO.

DOE ORDER # 4700.1  
95RF02478

# EG&G ROCKY FLATS



000052473

DISTRIBUTION	LTR	ENC
AMARAL, M.E.		
BURLINGAME, A.H.		
BRANCH, D.B.		
CARNIVAL, G.J.		
DAVIS, J.G.		
FERERRA, D.W.		
FRAY, R.E.		
GEIS, J.A.		
GLOVER, W.S.		
GOLAN, P.M.		
HANNI, B.J.		
HARMAN, L.K.		
HEALY, T.J.		
HEDAHL, T.		
HILBIG, J.G.		
HUTCHINS, N.M.		
JACKSON, D.T.		
KELL, R.E.		
KUESTER, A.W.		
MARX, G.E.		
MCDONALD, M.M.		
MCKENNA, F.G.		
MONTROSE, J.K.		
MORGAN, R.V.		
POTTER, G.L.		
PIZZUTO, V.M.		
RISING, T.L.		
SANDLING, N.B.		
SCHWARTZ, J.K.		
SETLOCK, G.H.		
STEWART, D.L.		
STIGER, S.G.	X	
TOBIN, P.M.		
VOORHEIS, G.M.		
WILSON, J.M.		
BRAY	X	X
BROUSSARD	X	X
BURMEISTER	X	X
GREGORY-FROST	X	X
GUNN, G.	X	X
LAURIN	X	X
PRIMROSE	X	X
VESS	X	X

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

March 13, 1995



95-RF-02478

Scott R. Grace  
Environmental Restoration Division  
DOE/RFFO

## SITEWIDE TREATMENT FACILITY SW-59 SEEP - ALP-018-95

Action: None required

As requested, EG&G Rocky Flats, Inc. is submitting the following information on the Sitewide Treatment Facility along with a recommendation for management of the SW-59 seep.

### Sitewide Treatment Facility

The consolidation of the Operable Unit (OU) 1 Field Treatment Unit and OU 2 Field Treatment Units into one Sitewide Treatment Facility is scheduled to begin approximately on May 1, 1995. Attached are schematic drawings of the proposed layout and a process flow diagram for the Sitewide Treatment Facility (Attachment 1). In conjunction with the development of the Sitewide Treatment Facility, EG&G will be installing a 10,000 gallon surge tank adjacent to SW-59 for collection of water generated at the seep. Also included within Attachment 1 are drawings presenting the design and installation plans for this tank. Attachment 2 lists the water sources that are anticipated to be treated at the Sitewide Treatment Facility. These waters will constitute the baseline for acceptance criteria for the Sitewide Treatment Facility. The more stringent of the two Applicable or Relevant and Appropriate Requirements mandated either in the Final South Walnut Creek Surface Water Interim Measure/Interim Remedial Action Plan Decision Document or the 881 Hillside Interim Measure/Interim Remedial Action Plan Decision Document will be applied until sitewide Applicable or Relevant and Appropriate Requirements are established and implemented.

### Options for SW-59 Seep Water Management

EG&G considered three treatment alternatives for the SW-59 water:

- Treatment at the Sitewide Treatment Facility;
- Treatment at the Sewage Treatment Plant; and
- Discharge of SW-59 waters into South Walnut Creek.

Attachment 3 describes how the treatment options for SW-59 water at the Sitewide Treatment Facility and Sewage Treatment Plant were evaluated. In addition, a screening-level risk assessment which included SW-59 water was completed in June, 1993 using water ingestion as the primary exposure pathway. The risk assessment indicates that consumption of water from Pond B-5 with the introduction of untreated South Walnut Creek influent does not exceed Environmental Protection Agency criteria for both carcinogens and non-carcinogens. This risk assessment was developed to support the successful discontinuation of SW-61 and SW-132 collection and treatment.

CORRES. CONTROL	X
ADMIN RECORD	X
PROJECT FILE	X
PATS	

CLASSIFICATION	
UCNI	
UNCLASSIFIED	X
CONFIDENTIAL	
SECRET	

AUTHORIZED CLASSIFIER  
SIGNATURE

DOCUMENT CLASSIFICATION  
REVIEW WAIVER PER  
CLASSIFICATION OFFICE

IN REPLY TO RFP CC NO:

ACTION ITEM STATUS:  
PARTIAL/OPEN   
CLOSED

LETTER APPROVALS:

ORIGINATOR & TYPIST INITIALS  
ALP:jlm

DOCUMENT CLASSIFICATION  
REVIEW WAIVER PER  
CLASSIFICATION OFFICE

Scott R. Grace  
March 13, 1995  
95-RF-02478  
Page 2

### **Recommendation for SW-59 Water**

The preferred and most cost effective option is letting water from the SW-59 seep flow into Walnut Creek untreated. EG&G is pursuing this option using Comprehensive Environmental Response, Compensation and Liability Act guidance and the recent removal of the residential scenario from the Buffer Zone OUs' consideration. In the meantime and until this option receives approval, EG&G is recommending and actively implementing treatment of SW-59 waters at the soon to be constructed Sitewide Treatment Facility. This option is cost effective and reduces the amount of liability. EG&G will continue to pursue obtaining the Headworks exemption and utilizing the Sewage Treatment Plant as a backup option.

Regardless of which methodology is selected, the Interim Measure/Interim Remedial Action should be closed. The actions in the Interim Measure/Interim Remedial Action were interim actions, EG&G is now recommending that a final action be chosen and complete the Interim Measure/Interim Remedial Action. Any of the three methods identified above are valid and compliant methodologies. The evaluation of the other parameters such as time, money, waste generation, regulatory interpretation, and other concerns is at the heart of this decision. If you require additional information or have any questions, please call Jeff Bray at extension 8533 or Pete Laurin at extension 8702.



Annette L. Primrose, Manager  
Group 1 Closures  
Environmental Restoration Program Division  
EG&G Rocky Flats, Inc.

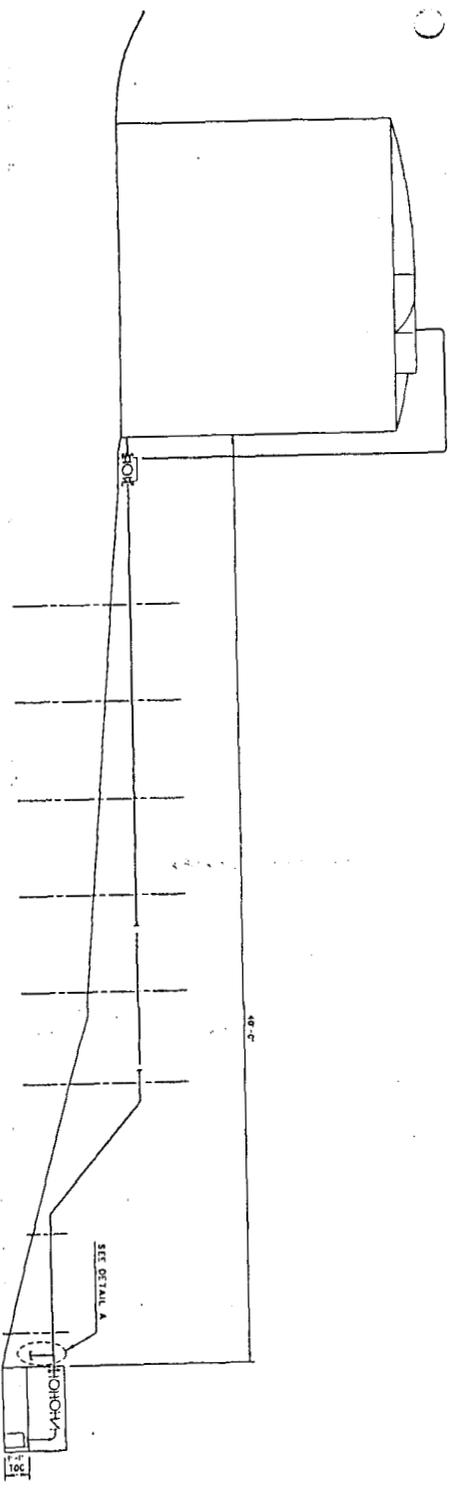
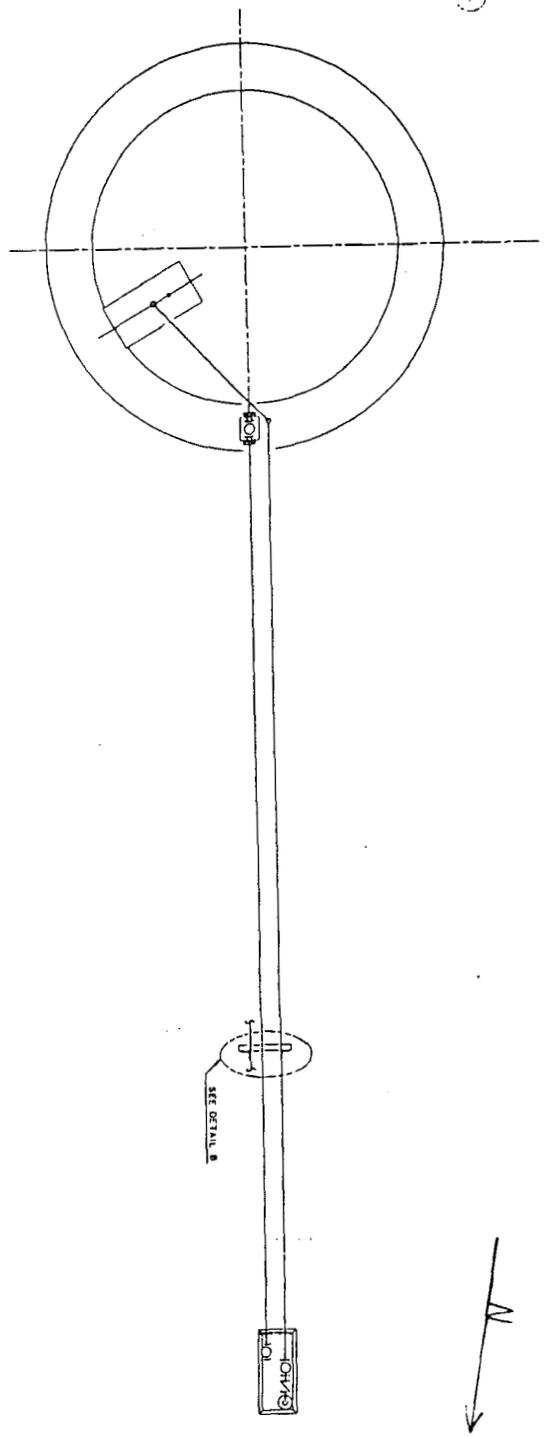
jm

Orig. and 1 cc – S. R. Grace

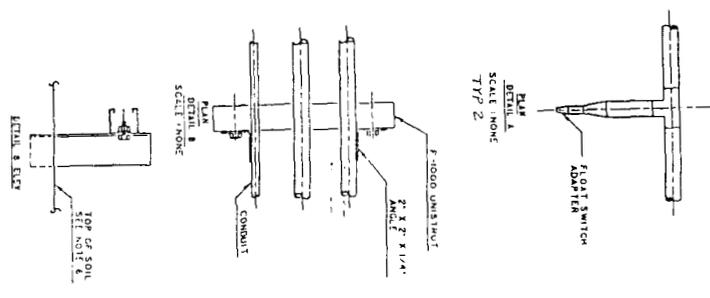
Attachments:  
As Stated (3)







- NOTES
1. PIPE MUST BE SUPPORTED EVERY 20' MIN.
  2. SUPPORT PIPE AS SHOWN IN DETAIL B ON FIELD FABRICATE.
  3. WOODEN SUPPORT UNDER PIPE IS CLASS B ON FIELD FABRICATE.
  4. ONE SUPPORT PRIMARY CONTAINMENT PIPING TO 20 PSIG PER SP-200 CLASS B. PNEUMATIC TEST SECONDARY CONTAINMENT PIPING TO 3 PSIG PER SP-200 CLASS J.
  5. FIELD TO VERIFY ALL DIMENSIONS.
  6. ANGLE SHALL BE MINIMUM 45° INTO SOIL. PAINT 2" X 2" X 1/4" ANGLE AND UNISTRUT TO PREVENT CORROSION.



KEYWORDS	ORIGINAL ISSUE	DATE	BY	REVISION
1. SW-59	INSTALLATION AT SW-59	8-2-94	U.S. ORIGINATOR	1
2. SW-59	INSTALLATION AT SW-59	8-2-94	U.S. ORIGINATOR	2
3. SW-59	INSTALLATION AT SW-59	8-2-94	U.S. ORIGINATOR	3
4. SW-59	INSTALLATION AT SW-59	8-2-94	U.S. ORIGINATOR	4
5. SW-59	INSTALLATION AT SW-59	8-2-94	U.S. ORIGINATOR	5
6. SW-59	INSTALLATION AT SW-59	8-2-94	U.S. ORIGINATOR	6
7. SW-59	INSTALLATION AT SW-59	8-2-94	U.S. ORIGINATOR	7
8. SW-59	INSTALLATION AT SW-59	8-2-94	U.S. ORIGINATOR	8
9. SW-59	INSTALLATION AT SW-59	8-2-94	U.S. ORIGINATOR	9
10. SW-59	INSTALLATION AT SW-59	8-2-94	U.S. ORIGINATOR	10

INSTALLATION AT SW-59

DU-2 SURVEIL TANK

INSTALLATION AT SW-59

COMPUTER GENERATED R-XXXXX-001

NO. 123456789

CALCULATION NO:

REV.: 0

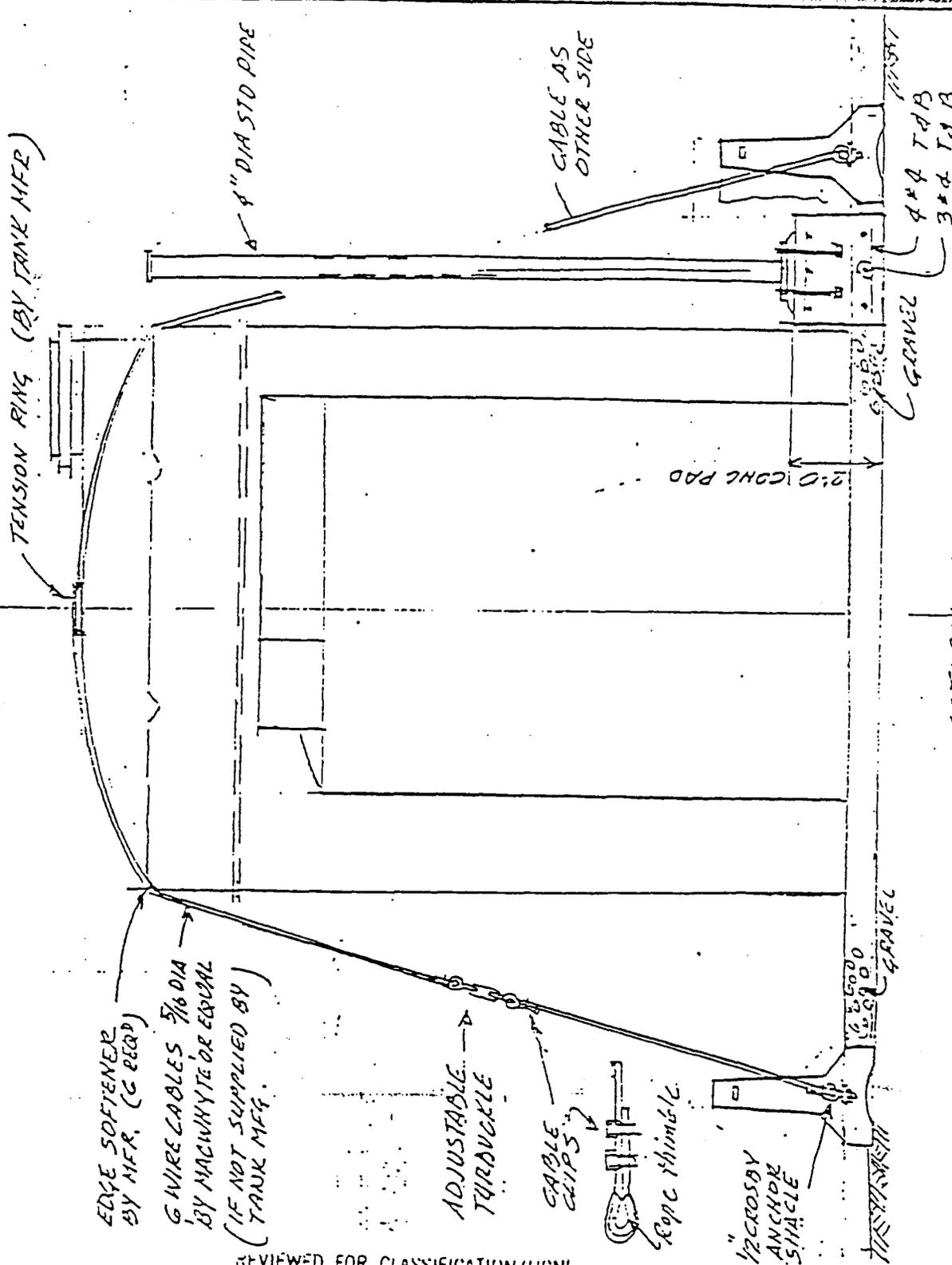
JOB #: TR 077589

PREPARED BY: E. KRZYWYK.

CHECKED BY: JKL S/USK

SUBJECT: INSTALL TANK & PIPING AT OU-2

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SECTION A-A

NOTE. REF. TO TANK DETAILS ON MANUFACTURER DRAWING "ADLY CAL PLASTICS".  
FOR PARTS SUPPLIED BY MFR..

REVIEWED FOR CLASSIFICATION/UMN  
By Frank Ch. L. (J/NO)  
Date 8/1/10U

SK-984001-05  
TR077589

## **SITEWIDE TREATMENT FACILITY WATER TRANSPORTATION**

Below is a summary of the anticipated sources of water that will require treatment at the Sitewide Treatment Facility (STF), and the method of transportation that will be used to transfer the water from the source to the STF.

### **OU-1 French Drain**

Groundwater collected in the French Drain will continue to be pumped to Building 891 via the existing influent collection system.

### **OU-1 Collection Well**

Groundwater collected for treatment from the Collection Well (CW001) will be transferred to the 891 storage tanks via the tank mounted trailer that is presently transporting the water.

### **OU-2 Seep SW-59**

Water from seep SW-59 will be collected in a double walled storage tank located adjacent to the seep (to be installed prior to startup of the STF). When the storage tank approaches capacity (approximately 10,000 gallons) the water will be pumped into a tanker and transported to the Building 891 truck dock for transfer into storage tanks.

### **OU-7 Seep Water**

Collected seep water will be transferred from a collection sump into one of two 10,000 gallon double walled storage tanks. When the storage tanks approach capacity, the water will be pumped into a tanker and transported to the Building 891 truck dock for transfer into storage tanks.

### **Decon Pads**

Decon water that requires treatment at the STF will continue to be delivered via tankers.

### **Other Sources**

The method of transportation of waters to the STF is dependent upon the volume of the source. Small quantities will be delivered in drums, portable tanks, or other containers. Larger volumes will be delivered in tankers, or piping (if required).

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## Treatment Options for SW-59 Seep Water

### Current SW-59 Treatment

The SW-59 water is currently being treated at the OU 2 treatment facility. Low flow volumes and low levels of contamination have made the OU 2 Field Treatability Unit a non-cost effective treatment option. The seepage is currently collected in a concrete sump and pumped to the OU 2 treatment facility. After treatment, the water is discharged to South Walnut Creek. A regulatory evaluation of other methodologies identified for the treatment of SW-59 water provides the following discussion and required actions:

### Sanitary Treatment Plant

The Sanitary Treatment Plant is regulated under section 402 of the Clean Water Act and generally cannot accept hazardous waste. The Resource Conservation and Recovery Act has provided an exemption to allow treatment of waste streams that contain certain hazardous constituents in the "Headworks" exemption under the Clean Water Act. To utilize this exemption, in addition to the documentation requirements necessary for the Sitewide Treatment Facility, OU 2 will have to document compliance with this exemption, in addition to, the same requirements as the Sitewide Treatment Facility. This can potentially result in more liability as proof of meeting the Headworks exemption will always be the Rocky Flats Environmental Technology Site's responsibility. Failure to prove that this exemption was met may result in personal and site liability.

The Sanitary Treatment Plant has fixed operating costs, and an increase in water volume will not increase costs. However, the SW-59 water is devoid of nutrients. As the Sanitary Treatment Plant already requires the addition of nutrients at certain times in order to sustain operations, additional nutrient free water will also require addition of more organic material and reduce the operating efficiency of the Sanitary Treatment Plant. Sampling costs for the Sitewide Treatment Facility and Sanitary Treatment Plant are expected to be similar.

### Sitewide Treatment Facility

The Sitewide Treatment Facility will provide treatment for SW-59 seep water and numerous other streams located at Rocky Flats. This stream will be joined with other streams for cost effective water treatment and higher operating efficiencies. This facility will have fixed operating costs and more water will result in a lower cost per gallon treatment costs. There are no additional requirements other than currently being followed. A portion of the current OU 2 equipment will be incorporated into this facility. In addition, this is an approved water treatment for this source and will incur no additional liability such as proving that the Headworks exemption is met.

### No Further Action

This option requires State and Environmental Protection Agency approval. With the new guidance concerning removal of the residential scenario from Rocky Flats buffer zone risk assessments, the risk to human health and the environment associated with the seep may be within acceptable ranges. EG&G is currently doing this reevaluation. If the risk level is acceptable, EG&G will recommend ending actions on this stream. This will require the removal of the sump to allow the stream to flow to the pond.

Regardless of which methodology is selected, the Interim Measure/Interim Remedial Action should be closed. The actions in the Interim Measure/Interim Remedial Action were interim actions, EG&G is now recommending that a final action be chosen and complete the Interim Measure/Interim Remedial Action. Any of the three methods identified above are valid and compliant methodologies. The evaluation of the other parameters such as time, money, waste generation, regulatory interpretation, and other concerns is at the heart of this decision.