

ORDER# 4700.1
RF 03907

EG&G ROCKY FLATS

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EWART, D.L.		
GER, S.G.	X	
BIN, P.M.		
ORHEIS, G.M.		
SON, J.M.		
yc kw	X	
don kc	X	
ken JB	X	
ck D	X	
cc, J	X	
	X	
RES. CONTROL	X	X
ON RECORD/080	X	
EPIC		
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EG&G ROCKY FLATS, INC.
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May 3, 1995

95-RF-03907

B. C. Wu
Manager Operable Unit 4
Environmental Restoration Division
DOE/RFFO

SAMPLING POLYETHYLENE TANKS FOR SPECIFIC GRAVITY - SRK-060-95

Action: None

This letter answers your verbal request of last week. Obtaining additional specific gravity measurements on the C Pond sludge that is stored in polyethylene tanks is unwarranted and difficult to accomplish in a meaningful way.

Additional sampling is unwarranted because each vacuum truck load and metal container load in the polyethylene tanks was sampled for specific gravity prior to transfer into the polyethylene tanks. The vacuum truck loads were sampled at the pond prior to vacuuming and the metal containers were sampled in the tents prior to transfer to the tanks. The specific gravity of the contents of each tank can then be accurately calculated and compared to the tank limit of 1.9 (maximum) with complete confidence. Many times the volume of hot water required to empty the vacuum truck was greater than the volume required to meet the specific gravity limit. This sampling data was used to ensure operation within the specific gravity limits for the tanks. The sampling was performed in accordance with our State-approved Waste Analysis Plan.

Additional sampling is difficult to accomplish in a meaningful way because of the nature of the material and the physical constraints of operation within the tents on the 750 pad. The C Pond material is a mixture of various salts and water. The amount of undissolved salt varies with the ambient temperature. This variation causes the mixture of material in the polyethylene tanks to be non-homogeneous and variable over time. Therefore, to obtain a representative analysis, samples would have to be obtained from many different locations at different depths in the tanks at different times. Because of the limited headroom in the tents (the tanks are 12' high and the tent roof varies from 12 to 16' high) there is insufficient room to lower a rigid sampling apparatus down into the tank. This is, basically, a five dimension problem: The basic three physical measurements of height, width, and length, temperature, and time. As stated above, we feel conservative approaches were used in controlling specific gravity and a sampling would be imprecise and potentially lead to inappropriate conclusions.

EG&G considers the issue of specific gravity closed and out of scope for any future expenditure of resources without consideration of a baseline change proposal.

S.R. Keith

S. R. Keith
Program Manager
Solar Pond Projects

CLASSIFICATION:

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SECRET	

UNCLASSIFIED CLASSIFIER
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PLY TO RFP CC NO:

JBM:jlb

Orig. and 1 cc - B. C. Wu

3 TYPYST INITIALS
Jlb

CC:
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S. Surovchak - DOE/PMD