ARDL Inc. applied research & development laboratory

Mr. Ron Frerker
USACE - St. Louis District
Service Base
Foot of Arsenal Street
St. Louis, MO 63118

CHEMISTRY · BIOLOGY · PHYSIOLOGY
ENGINEERING · ENVIRONMENTAL ANALYSIS

17 December 2002

Dear Ron:

As you are aware, ARDL routinely analyzes SLCOE/FUSRAP samples for one or more of the following analytes: PCB's; oil & grease; TRPH; settleable solids; chemical oxygen demand (COD); pH; metals; hardness; nitrate/nitrite-nitrogen; chloride; sulfate; total suspended solids; total dissolved solids; and alkalinity.

Reagent components included in the waste stream along with their maximum concentration are listed below. As all wastes are neutralized to a final pH between 6 and 8, it appears that the mercuric sulfate and potassium dichromate arising from the COD analyses may exceed RCRA limits.

Component	Maximum Concentration	Component	Maximum Concentration
Potassium dichromate	2 g/L	Barium	2.0 mg/L
Sulfuric acid	10%	Beryllium	0.05 mg/L
Potassium acid phthalate	170 mg/L	Cadmium	0.05 mg/L
Ferrous ammonium sulfate	10 g/L	Chromium	0.20 mg/L
Silver sulfate	3.5 g/L	Cobalt	0.50 mg/L
Mercuric sulfate	3 g/L	Copper	0.25 mg/L
Sodium fluoride	4 mg/L	Iron	1.0 mg/L
Sodium chloride	8 mg/L	Lead	0.50 mg/L
Sodium nitrite	4 mg/L	Manganese	0.50 mg/L
Potassium bromide	16 mg/L	Mercury	0.0010 mg/L
Potassium nitrate	8 mg/L	Nickel	0.50 mg/L
Potassium hydrogen phosphate	40 mg/L	Selenium	2.0 mg/L
Sodium sulfate	20 mg/L	Silver	0.050 mg/L
Phosphoric acid	2.5%	Thallium	2.0 mg/L
Sulfanilamide	1.2 g/L	Vanadium	0.50 mg/L
(1-Naphyl) ethylenediamine -dihydrochloride	0.1 g/L	Zinc	0.50 mg/L
Copper sulfate	5 mg/L	Nitric acid	6%
Sodium hydroxide	20%	Hydrochloric acid	4%
Hydrazine sulfate	150 mg/L	Stannous chloride	28 g/L
Aluminum	2 mg/L	Hydroxylamine	10 g/L
Antimony	0.5 mg/L	Potassium permanganate	10 g/L
Arsenic	2.0 mg/L	Potassium persulfate	5 g/L

If you have any questions, please contact the undersigned at (618) 244-3235.

Sincerely,

Dean

Dean S. Dickerson
Inorganic Laboratory Manager
DSD/clf

ARDL inc.
applied research & development laboratory

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MEMORANDUM

TO: Dan Gillespie, Technical Services Manager
All Analysts/Technicians in Wet Chem, Metals and Extraction Laboratories

FROM: Dean Dickerson, Inorganic Lab Manager DLD

DATE: 26 November 2002

RE: SLCOE/FUSRAP Wastes

Due to the recent inquiry from the customer, this memo is to remind all analysts that ALL FUSRAP wastes (solid waste as well as sample and aqueous extract wastes) are to be segregated for return to FUSRAP.

Of course, only waste materials originating from processing and/or analysis of FUSRAP samples are to be returned to the customer for disposal.

Also, all liquid wastes resulting from COD analyses are to be further segregated and clearly labeled as "COD WASTE".

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FUSRAP Document Management System

Year: 00 | ID: 3723

Further Info? ☐

Operating Unit: St. Louis Sites | Site: | Area: | MARKS Number: FN:1110-1-8100g

Primary Document Type: Site Management | Secondary Document Type: Sampling/Analysis Data & Plans

Subject or Title: Memorandum regarding SLCOE/FUSRAP Waste

Author/Originator: Dean Dickerson | Company: ARLD, Inc | Date: 12/17/2002

Recipient (s): Ron Frerker | Company (-ies): FUSRAP | Version: Final

Original's Location: Central Files | Document Format: paper | Confidential File? ☐

Include in which AR(s)?

- ☑ North County
- ☐ Madison
- ☐ Downtown
- ☐ Iowa

Comments:

SAIC number:

Bechtel ID:

ETL:

Filed in Volume: 101