Message

**From**: Cirian, Mike [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=98D0FD2CBB3F4F25B819C6929E18D08D-CIRIAN, MIKE]
**Sent**: 10/26/2017 2:18:04 PM
**To**: Emilsson, Gunnar [EmilssonGR@cdmsmith.com]
**Subject**: RE: Additional Data Collection Sampling and Analysis Plan for the CFAC South Percolation Ponds Risk Assessment

Thanks Gunnar,

Will share the comments. In regards to concurrence, it is only so they can proceed. There is a caveat at the end of the letter that states they are doing this at their own risks of not being complete.

Mike

Mike Cirian, PE
Libby On-site Project Manager
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(406) 293-6194 Office

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**From:** Emilsson, Gunnar [mailto:EmilssonGR@cdmsmith.com]
**Sent:** Wednesday, October 25, 2017 3:52 PM
**To:** Cirian, Mike <Cirian.Mike@epa.gov>
**Subject:** FW: Additional Data Collection Sampling and Analysis Plan for the CFAC South Percolation Ponds Risk Assessment

Mike:

I had Erin review the South Percolation Ponds SAP for the risk assessment. Below are her comments. Given that you have concurred with the approach (which I also concur with, knowing that the field season could end any day with the advent of winter), I suggest that these comments be provided to CFAC but letting them know that while they do not need to revise and re-submit the sampling and analysis plan, the concerns of EPA's risk assessment oversight should be addressed in the subsequent data summary report submittal, and if CFAC believes any of the comments warrants a change in sampling procedures, then a modification of the SAP should be submitted to EPA.

Let me know if you have any questions.

**Gunnar Emilsson, P.G., P.E., BCEE**
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**From:** Formanek, Erin
**Sent:** Wednesday, October 25, 2017 2:05 PM
**To:** Emilsson, Gunnar <EmilssonGR@cdmsmith.com>
**Cc:** Coan, Sean <CoanSM@cdmsmith.com>

**Subject:** RE: Additional Data Collection Sampling and Analysis Plan for the CFAC South Percolation Ponds Risk Assessment

Gunnar,

I have reviewed the correspondence written by Roux Associates, Inc. (Roux) addressed to Mike Cirian (USEPA). While Roux has noted that "it is understood and accepted by CFAC that USEPA/DEQ may have additional questions/comments or requirements that may need to be addressed following completion of the expedited risk assessment process", there are numerous deficiencies (some of which are concerning) resulting in the comments/questions noted below:

1. The document appears to be written as an informal SAP/QAPP, however, it is greatly lacking in detail. This is not a formal SAP/QAPP, therefore the data that are collected may not have a high level of credibility. The DQOs were not developed in accordance with USEPA guidance. The requisite information that is to be presented for each step is lacking, particularly for DQO Step 5, which is to present the decision rules, and DQO Step 6, which is to present the decision hypotheses and tolerable limits for decision errors. It is recommended that future data collection efforts use SAP/QAPPs (not notification letters).

2. There is very little detail describing the soil sampling. Will samples be grab or composite? Will incremental sampling methodology be performed? Will samples be sieved? What is the rationale for the sampling design? How was the number of samples determined? Will this number of samples be adequate for site characterization and subsequent risk analysis? How has information regarding site concentration variability been considered when selecting sample count and location?

3. Are samples that are being collected for this effort anticipated to be representative of high-end or low-end concentrations when considering seasonal variation of concentrations in site media? What potential bias should be considered when the risk evaluation is performed based on this consideration?

4. The RI/FS Work Plan is cited as a document that describes the risk assessment process that will be followed. This is incorrect. The forthcoming Risk Assessment Work Plan should contain the details for how the risk assessment will be conducted. It is critical to have consensus on the risk assessment approach prior to the risk assessment being completed. Of upmost importance is consensus on human health receptors, exposure pathways, and exposure parameters. For ecological risk, surrogate receptors and their exposure parameters should also be agreed upon. At a minimum an updated conceptual site model and summary of exposure parameters should be included. If not, it could appear that risk evaluations were performed in such a manner as to have a desired outcome.

5. Should porewater samples be collected? If an objective of this correspondence is to determine nature and extent of contamination, presumably to determine how contaminants are moving throughout the environment, this seems like a critical media type to have data for. This is something that continues to be discussed for the site, but is continually put off to potential later sampling. Isn't now the time to discuss the need or lack thereof if true?

6. The correspondence states that groundwater is a media of interest for characterization of site conditions and risk. Yet, no groundwater samples are slated to be collected? Why is this?

It is my recommendation that EPA not "approve" the letter. It isn't obvious that they are even seeking EPA approval. It appears they are going to collect these data regardless of what EPA says. By "approving" the letter, it would bless the format of the deliverable, the study design, and the stated risk assessment evaluation methods. Can Mike indicate in his response that the letter is lacking and doesn't comply with EPA's SAP/QAPP requirements. However, if they wish to conduct this assessment, it is at their own risk and the data adequacy/quality/utility of any results collected as part of this (unapproved) effort will be determined when the "real" risk assessment is done?

Please let me know if you would like to discuss this. I am available until 4pm today.

Thank you,

Erin

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**From:** Emilsson, Gunnar
**Sent:** Monday, October 23, 2017 9:25 AM
**To:** Coan, Sean <CoanSM@cdmsmith.com>; Formanek, Erin <formanekek@cdmsmith.com>
**Subject:** FW: Additional Data Collection Sampling and Analysis Plan for the CFAC South Percolation Ponds Risk Assessment

Sean and Erin:

Please review the attached SAP for the South Percolation Ponds Risk Assessment. As you see, Roux intends to begin field work next Monday, so I would like to have any comments you might have to this by COB Wednesday. A quick read through indicates to me that this is pretty comprehensive, given the COPC levels already reported in Phase I, so I would expect we would recommend to Mike to "Approve" or "Approve with Comment."

Let me know if you have any questions. Sorry for the short turn around, but we knew this was coming, and the field season here is drawing to a close.

Thanks,
Gunnar

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**From:** Michael Ritorto [mailto:mritorto@rouxinc.com]
**Sent:** Monday, October 23, 2017 7:53 AM
**To:** Cirian.Mike@epa.gov
**Cc:** Andrew Baris <abaris@rouxinc.com>; Laura Jensen <ljensen@rouxinc.com>; John.Stroiazzo@glencore-ca.com; Steve Wright - CFAC <swright@cfaluminum.com>; Dick Sloan (rsloan@mt.gov) <rsloan@mt.gov>; Emilsson, Gunnar <EmilssonGR@cdmsmith.com>; lidewitt@mt.gov; Stoops, Thomas <TStoops@mt.gov>; Hoogerheide, Roger <Hoogerheide.Roger@epa.gov>
**Subject:** Additional Data Collection Sampling and Analysis Plan for the CFAC South Percolation Ponds Risk Assessment

Mr. Cirian,

Please see the attached Sampling and Analysis Plan that will be utilized for the upcoming data collection activities at the CFAC Site related to the South Percolation Ponds Risk Assessment.

The field work is scheduled to begin on October 30, 2017.

Please contact me if you have any questions or would like to further discuss this submittal.

**Michael Ritorto | Principal Hydrogeologist/Office Manager | Roux Associates, Inc.**
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