ENERGY FUELS RESOURCES CORPORATION

October 18, 2010

Mr. Steve Tarlton, Program Manager
Radiation Control Program
Hazardous Materials & Waste Management Division
Colorado Department of Public Health and Environment
4300 Cherry Creek Drive South HMWMD-B2
Denver, CO 80246-1530

Re: Response to Request for Additional Information No. 3 (RFI #3) Attachment 1
Piñon Ridge Mill License Application, Montrose County, Colorado

Dear Steve:

This letter and attached exhibits (4 copies each) address issues and concerns raised by the Radiation Control Program (RCP) in Attachment 1 to Request for Information (RFI) #3 dated August 19, 2010. Energy Fuels Resources Corporation (Energy Fuels) is issuing individual drawings, calculations, and replacement pages at this time, but will resubmit revised license exhibits in their entirety, where appropriate, after the Request for Information (RFI) process is complete and the RCP determines that our responses are adequate.

In the Piñon Ridge Mill License Application, Energy Fuels has provided RCP with basic engineering and design information for the mill facilities, along with supporting drawings, specifications, and reports that we believe are appropriate for permitting purposes. However, many of the RCP's Attachment 1 comments are very detail oriented and can only be addressed in general terms at this time. More detailed answers will not be available until the final design (a.k.a., detail engineering) is completed. Energy Fuels does not anticipate starting the detail engineering for the Piñon Ridge Mill until after the mill license is approved. However, we have no objection to providing specified detailed design information to the RCP during the final design process should that be made a condition of our license approval.

The RCP's comments are indented and listed in italics below. Energy Fuels' responses are provided at full page width in regular font.

Attachment 1 - General Comments

1. *Please identify with chemical characteristics, amounts generated, points of generation, points of accumulation of all hazardous and non-hazardous solid*

waste streams predicted to be produced from any aspect of operation of the facility. Usually, this is covered under a Pollution Prevention Plan.

Solid byproduct streams at the plant will include:

a. tailings deposited in the tailings cells;
b. raffinate salts precipitated within the evaporation ponds; and
c. sediment cleaned out of ponds, ditches, and sediment traps.

Solid waste streams at the plant will include:

d. worn equipment, parts, and scrap metal;
e. lunch room wastes, cardboard, paper, packing materials, empty cans, etc.,
f. special wastes such as batteries, tires, etc. that will be recycled, and
g. sewage waste within the septic tanks.

The Material Containment Plan (Exhibit J7, Volume 12 of the license application) provides information on the tailings and raffinate byproduct streams. Exhibit 1 of this response provides additional information (i.e., radioactivity, major ions) on the raffinate solution and precipitated salts that will be incorporated into the Material Containment Plan. An estimated 200,000 tons of tailings and 2,000 tons of precipitated raffinate salts, on a dry basis, will be generated and disposed of on site in one year at full production. The raffinate salts will ultimately be incorporated into a tailings cell during decommissioning of evaporation ponds.

Sediment removed during routine cleanout operations is anticipated to have similar chemical characteristics to the ore (see Material Containment Plan) within the restricted area and similar chemical characteristics to native soils [see Geologic Report and Phase 2 Geotechnical Field and Laboratory Test Program (Exhibits E1 and E2, Vol. 4) and Baseline Radiological Investigation Report (Exhibit I1, Vol. 9)] outside of the restricted area. Approximately 1,000 yards of sediment will be excavated in a typical year. Contaminated sediment will be run through the mill or placed directly in a tailings cell. Uncontaminated sediment will be used for construction or stockpiled for future reclamation use.

Section 10.2.2 of the Facility Operating Plan addresses the four solid waste streams identified above in general terms. Energy Fuels believes that a detailed characterization of these common waste streams is unnecessary given the standard methods in which they are handled and their low potential to impact public health and the environment. Common waste materials removed from the restricted area will be handled in accordance with Radiological Health and Safety Procedure RH-070, Release of Equipment to Unrestricted Areas.

2. *Please provide a plan drawing of all process and other piping conveying all process fluids, fuels, chemicals, and wastes including lines to pond system outside of secondary containment or buildings. Include any recycle and/or return lines. Please prepare a table of this piping including chemical characteristics of materials conveyed, material of construction, inside diameters, method of joining,*

wall thickness, length outside building/secondary containments, support info or burial depth, line flow capacity and anticipated average/max flows. If corrosion due to composition is possible provide information on corrosion protection (cathodic or otherwise) to be provided. For buried piping, are these soils prone to causing corrosion? Following review of this information, the Division may require some form of double containment for some lines or if the license applicant has alternative suggestions, the Division will review those if provided.

All process lines, fuel lines, chemical lines, and process waste lines will be placed within secondary containment (i.e., within buildings, containment piping, or lined areas). Chemical information for reagents, fuels, process solutions, and byproduct materials is provided in the Material Containment Plan. Additional information regarding secondary containment may be found in Section 0.5.2 of the Facility Operating Plan.

The only pipe lines that will not have secondary containment are the fresh water, potable water, fire water, septic system, steam, vacuum, condensate and compressed air lines. As discussed in the technical review meeting of September 9, 2010, a plan drawing is not required for these less critical utility lines.

Buried lines will be equipped with appropriate corrosion protection for soil conditions, pipe material, and climate. This may include cathodic protection, liquid coatings, tapes, and shrink sleeves. The pipe internal diameters, material of construction, wall thickness, pressures, routing, fluid velocities and corrosion allowance will be engineered and designed during detail engineering.

3. *Re comment 2 of this section, the Division is very concerned about possible spills and releases to the soil inside of process buildings/secondary containment areas but also exterior to those areas due to leaks and pipeline failures of wastes, and process fluids, and fuels/chemicals. A separate QA/QC plan for each category of all concrete foundations and slabs per process building, all secondary containments including epoxy surface coatings, exterior to buildings field-erected storage tanks, piping outside of secondary containments and process buildings, 1 acre and 5 acre ore pads, ore dumping platform, stormwater conveyance pipeline and East/West Stormwater ponds including inlets and outlets, tailings cells, and evaporation ponds.*

As discussed in our response to Comment 2, all pipes containing process solutions, chemical reagents, fuels, and process wastewaters will have secondary containment and leak detection systems. The Building Foundation Selection and Settlement Analyses provided in our May 25, 2010 Response No. 2 to Request for Additional Information No. 1 provides specifications for the concrete mill foundations in Section 4.0 of that report and the associated report drawings. Energy Fuels does not propose to use epoxy coatings, but rather use acid-resistant concrete. Golder Associates, Inc. (Golder) is currently revising the QA/QC procedures in the Technical Specifications for constructing the ore pads, ore dumping platform, stormwater ponds, tailings cells and evaporation ponds. The revised specifications will be submitted to CDPHE on or about November 3, 2010. More

detailed QA/QC plans for mill facility construction will be developed in conjunction with final mill design.

4. *Please provide a HAZOP analysis of all pipelines, valves, controls, etc of equipment that could potentially cause a release outside of a secondary containment area or process building or into an exterior secondary containment area including but not limited to pumps, controls, valves, etc and to lines to/from tailings cells and evaporation ponds, and exterior located storage tanks.*

Development of a HAZOP analysis is premature for the Piñon Ridge Mill at this stage of the project. Energy Fuels contracted engineering firms to provided basic engineering and design information, along with supporting drawings, specifications, and reports in order to support the Piñon Ridge Mill License Application. Preliminary Process Flowsheets, General Arrangements, Equipment List and Design Criteria formed part of the supporting documents submitted to CDPHE relating specifically to the mill. The engineering firm selected to perform detail engineering for the Piñon Ridge Mill after mill license approval will finalize the Process Flowsheets and General Arrangements along with developing the Process and Instrumentation Drawings. The Process and Instrumentation Drawings will form the basis for the HAZOP analysis. At a minimum, the Process and Instrumentation Drawings, will indicate pump, valve and instrumentation interlocks, pipe line sizes and material of construction, sloping pipe lines, double contained pipe lines, heat traced pipe lines, and insulation and cladding of pipe lines and tanks for energy conservation and personnel protection.

5. *All exterior storage tanks need to have high-high tank level sensors and alarms to control.*

Energy Fuels will standardize instrumentation throughout the Piñon Ridge Mill in order to maximize operator efficiencies and minimize spare-part inventories. Exterior storage tanks, interior storage tanks, and exterior and interior process tanks will utilize ultrasonic level indicators with transmitters to interlock devices and alarms, or equal, suitable for the conditions of service.

1 acre Ore Pad Design (includes drawing and specs)

1. *license applicant has demonstrated adequate support for localized maximal loads for the steel-reinforced concrete 1 acre ore pad. Additional distributed loads due to ore piles should not be a concern. The nature of concrete is to crack over time. Joints allow for constructability and give some places for cracks to align to. Ore runoff can exit the concrete pad through developed cracks to underlying soils for infiltration prevention purposes. EF mentions a crack inspection, repair, and maintenance as a routine practice in numerous locations in the application. This should be formalized into a Division-approved pan. An alternative approach to this plan which provides an additional level of groundwater protection/soils contamination prevention is to design a HDPE (High Density Polyethylene) liner w/collection system under the concrete such that even if the concrete cracks*

(which it eventually will), the infiltrated water and any particulates will be isolated and collected at sumps for recycle to process. Standard HDPE welding techniques and QA/QC apply. Note, that for the crack inspection, repair, and maintenance plan to be a viable replacement for the HDPE liner, the plan must be significantly robust. Please provide the plan or the HDPE liner design.

A Concrete Inspection and Maintenance Procedure is included as Exhibit 2. This maintenance procedure will apply to all concrete structures within the process circuits and will be added to our Facility Operating Plan upon CDPHE concurrence. Energy Fuels believes that a HDPE liner under the ore pad is unnecessary given the low potential for environmental contamination at the ore pad (i.e., no hydraulic head and neutral to slightly basic pH levels of the ore). Also please reference Golder Associates Inc.'s Responses to Specific Comments Included as Part of Attachment 1 to CDPHE RFI #3 (Golder's Responses to Specific Comments) attached as Exhibit 3.

2. *Construction and other crack control joints will be fitted with cast-in-place continuous waterstop. Please add this to all applicable drawings as depictions and notes for the 1 ac ore pad. Note, that this requirement could be alleviated through the use of the HDPE liner as mentioned above.*

Please reference Golder's Responses to Specific Comments attached as Exhibit 3.

5 ac Ore Stockpile Pad Design (includes drawings, specs, and Attachments A – D)

1. *Re Cushion Material Thickness Summary Sheet – The assumed 8 psi maximal stress was probably derived from the GCL vendor's information or from an additional GCL design reference. Please provide the information source to include in Attachment A as supporting documentation to the assumptions used in the calculations. Cushion pad composition of upper roadbase and lower on-site derived compacted fill is acceptable.*

Please reference Golder's Responses to Specific Comments attached as Exhibit 3.

2. *Comment 2 – Re Cushion Material Thickness Summary Sheet – the use of the specified articulated Cat 988H Wheel Loader, due to derived loading calculations for the cushion material thickness, will be stipulated in the license. The license applicant will be allowed to use alternative make/model same-type (articulated wheel loader) loading/moving equipment provided license applicant provides an acceptable demonstration that the loading is equivalent to or less than the Cat 988H.*

The ore dumping platform, 1 and 5 acre ore pads and coarse ore feed hopper are all sized and designed to meet the specific Piñon Ridge production rates on an hourly, daily and yearly basis. The 988H loader fulfills this requirement and does not exceed the loading

capacities for the geososynthetic clay liner beneath the 5 acre ore pad cushion layer. Please reference Golder's Responses to Specific Comments attached as Exhibit 3.

Energy Fuels will provide the CDPHE with equipment-specific calculated wheel loadings on the geosynthetic liner for any future mobile equipment replacement or upgrading. We would prefer to have this as a condition of our license rather than a condition that references a specific make, model or weight limitation.

3. *Comment 3 – Re Cushion Material Thickness Summary Sheet – It is assumed that the Cat 988H provides the greatest loading to pad. If side dump units are allowed onto the pad due to southeast access ramp to pad and language in text that says side dump equipment could be used also, is the 988H still the limiting factor for design purposes? Please demonstrate this by providing information on heaped side loading units to be used, specifically maximal wheel load pressure for comparison along with the calculation.*

Please reference Golder's Responses to Specific Comments attached as Exhibit 3.

4. *Re GCL placement – will they be butted end-to-end and edge-to-edge or will they be overlapped? A description of the installation procedure is needed. What is the on-site QA/QC plan for acceptance and installation of the GCL mats?*

Please reference Golder's Responses to Specific Comments attached as Exhibit 3.

5. *Comment 5 – Re Cushion Material Thickness Attachment B Calculation Spreadsheets – The chosen 3.5 foot cushion thickness with a computed vertical stress of 7.7 psi generates a very tight design 7.7/8.0 = 96.3% of maximal allowed vertical stress or 3.7% remaining of the maximal allowed 8.0 psi as a FOS. If as is shown in the adjacent column of the spreadsheet, 4 foot thickness is chosen, a 5.9 psi vertical loading is computed with a resulting FOS of 5.9/8.0 = 73.8% 100 – 73.8 = 26.2%, which is significantly greater than 3.7%. The condition of the underlying GCL mats is highly important for infiltration prevention purposes especially in the long term. It is the Division's opinion, that a four foot cushion thickness should be used and the applicable portions of the application need to be revised. With an intended design life of 40 years, it would appear that GCL longevity is an important factor.*

Please reference Golder's Responses to Specific Comments attached as Exhibit 3.

6. *Comment 6 – Technical Specifications, Section 02200.0 Earthworks, C. Cushion Material, p.9 - 10 of 13 Spec 1 at 15 inches/lift conflicts with spec 4 at 12 inch max lift. Please amend spec.*

Please reference Golder's Responses to Specific Comments attached as Exhibit 3.

7. *Comment 7 - Technical Specifications, Section 02200.0 Earthworks, C. Cushion Material, p.9 - 10 of 13 Spec 3 spreading of cover lift is to be by "…equipment that minimizes stress on the GC". Please specify what this equipment will be e.g low ground pressure dozer, etc.*

Please reference Golder's Responses to Specific Comments attached as Exhibit 3.

8. *Comment 8 - Technical Specifications, Section 02200.0 Earthworks, C. Cushion Material, p.9 - 10 of 13 Spec 5 "Cover materials with high concentrations of calcium (e.g., limestone, dolomite) are not acceptable." Please define specifically cutoff concentration or refine this definition further. This requirement is to delay the substitution of calcium ions for sodium in the bentonite GCLs. Under the proposed use scenario, what is the projected life of the GCLs? Please provide discussion and reference information/data.*

Please reference Golder's Responses to Specific Comments attached as Exhibit 3.

9. *Comment 9 - From the Division's perspective, it would appear that a composite (HDPE) liner would have a significantly longer lifespan which would be a better match for these mills that have long lifespans including extended periods of inactivity owing to market conditions. Please demonstrate that the lifespan of the GCL liner is equivalent to a HDPE liner as well as being as protective. The Division is concerned with the GCLs surviving for long periods under intense contact loads from vehicles that will cause the GCLs when they become wet to deform and squirm away from the tires (rutting) and over time not perform the liner function as well as fail to provide load support.*

Please reference Golder's Responses to Specific Comments attached as Exhibit 3.

10. *Comment 10 - Technical Specifications, Section 02200.0 Earthworks, C. Cushion Material, p.9 - 10 of 13 Spec 6 Please add a sentence to this spec that stipulates cushion material will be placed in a straight line (e.g. no turns) manner to prevent transmittal of shear forces to underlying GCL mats.*

Please reference Golder's Responses to Specific Comments attached as Exhibit 3.

Ore Dumping Platform

1. *Please provide the Hilfiker retaining wall design calculations.*

Please reference Golder's Responses to Specific Comments attached as Exhibit 3.

2. *Comment 2 – What is the projected lifespan of the shotcrete facing? Please provide a maintenance and inspection plan for this facing including replacement/maintenance criteria.*

The projected lifespan of the shotcrete facing is three to five years based on normal operating conditions. The inspection and maintenance plan for the shotcrete facing is include in the Concrete Inspection and Maintenance Procedure in Exhibit 2.

3. *From the Division's review of the ore dumping platform, it would appear that the intent is to have end dumps utilize the platform exclusively over side dump units? Please confirm.*

The ore dumping platform is designed for highway end dumps. Side dump units will be required to dump run-of-mine ore directly on the 1 or 5 acre ore pads.

4. *From the design, haul vehicles (side dumps) entering the 5 acre ore pad exit through a truck decon station before leaving the site. With the ore dumping platform design, the haul vehicles can exit the site without being decontaminated. Will the haul truck loads be struck or heaped? Dust from the dumping operation and any spillage over time will result in the ore dumping platform being gradually contaminated. Consequently, the ore dumping platform should be lined and surface drainage collected.*

The United States Department of Transportation (USDOT) is the primary regulatory authority for uranium ore haulage. The Utah Department of Transportation (UDOT) and Colorado Department of Transportation (CDOT) have adopted the USDOT regulations in their entirety. In accordance with these regulations, the highway ore haulage trucks will be covered (i.e., tarped) and scanned before being released from the loading site (i.e., mine site). Because of the tarp, the loads will be struck rather than heaped. Additional haulage requirements are outlined in the Mine Operations Plan, Appendix B- Ore Transportation Plan in Volume 3 of the Mill License Application.

At the mill, the tarps will be removed just prior to dumping of the ore onto the Five Acre Ore Pad. After dumping the truck drivers will be required to inspect and clean any residual ore on the truck and trailer (e.g., spillage on the bumper). The trucks will then be scanned in accordance with the provisions of Appendix C, Transport Vehicle Radiation Screening and Decontamination Plan, to the Facility Operating Plan.

Energy Fuels agrees that dust and spillage could accumulate on the ore dumping platform unless procedures are implemented to maintain the platform in a clean condition. To that end, the platform design has been further refined to include cleanout slots in the retaining wall bumper. These slots will allow for mill personnel to push spillage from the platform onto the ore pad using a small skid steer or shovels and brooms, as appropriate. High pressure water sprays will be used to periodically wash the platform with the wash water also being directed onto the ore pad. A General Housekeeping Maintenance Procedure, which is attached as Exhibit 4, includes cleaning procedures for the dumping platform.

This maintenance procedure will be added to our Facility Operating Plan upon CDPHE's concurrence.

Please reference Golder's Responses to Specific Comments attached as Exhibit 3 for detailed design information on the ore dumping platform's cleanout slots.

5. *Please provide design drawings for the dust suppression system.*

Please reference Golder's Responses to Specific Comments attached as Exhibit 3 for design information on the dust suppression system.

Sediment Trap

1. *Need design drawings including details with cross sections and supporting calculations and assumptions for sediment trap (include cleanout criteria, e.g. when, disposal/recycle, etc) adjacent to East Stormwater Pond. Please provide discussion as to function in relation to ore pad run-off and truck decon station.*

The primary function of the sediment trap is to collect settled solids and store liquid for washing off highway ore trucks exiting the ore pad and passing through the truck wash system. The sediment trap allows for settling of washed solids and recycling of the clarified water through the truck wash system. A second function of the sediment trap is to intercept surface runoff from the ore pad before it enters the East Stormwater Pond thus allowing entrained solids to settle in the sediment trap rather than in the stormwater pond. The sediment trap will be cleaned when the trap looses its effectiveness in preventing solids carry over into the East Stormwater Pond or into the recycle truck wash system. The Sedimentation Trap, Storm Water and Evaporation Pond Cleanout Procedure (see Exhibit 5) provides procedures for cleaning out the sedimentation trap and will be added to our Facility Operating Plan upon CDPHE's concurrence.

Golder's Responses to Specific Comments, attached as Exhibit 3, provides the requested design drawings for the sediment trap.

2. *Need truck decon station(s) design (inlets and outlets also), anticipated volumes of water/flow to sediment trap and hence to East Stormwater Pond and cleanout criteria.*

The truck wash system requires approximately 600 gallons per minute of wash water for approximately 1 to 3 minutes depending on the length of the tractor and truck, if a pup is attached, undercarriage design, number of axles, number of wheels and solids build up on the tractor and truck frame and tires. Under normal operating conditions, less than one truck per hour will be washed. Should the ore dumping platform be closed, all the ore trucks would need to enter onto the ore pad and then be washed before leaving the restricted area. Under this maximum use scenario, an average of about three trucks would be washed per hour.

Please reference Golder's Responses to Specific Comments attached as Exhibit 3 for additional details.

3. *Re Liner Details Sheet 2 of 2 Drawing 7, details (options) 1A and 1B, transition to concrete sediment trap. These alternative designs are for HDPE liner to concrete attachment. HDPE has a significant coefficient of expansion. How will this be allowed for in regards to these options to prevent tear-out when cold and excessive loose folds when temperatures are warm?*

Please reference Golder's Responses to Specific Comments attached as Exhibit 3.

East and West Stormwater Ponds

1. *Re Drawing No.5 East Stormwater Pond Layout, Sections, and Details, C5 Weir Box Section C to C'– Provide attachment tie-in detail for 30 inch HDPE outlet pipe to concrete weir box.*

Please reference Golder's Responses to Specific Comments attached as Exhibit 3 for the attachment tie-in detail.

2. *With 3:1 sloped sides, it should be stipulated in the license that the two long sides should each have a minimum of one roughened panel to aid egress in the event of accidental personnel immersion. Repeat the requirement for West Stormwater Pond.*

Please reference Golder's Responses to Specific Comments attached as Exhibit 3 for this revision to the plans.

3. *Please provide inspection, repair, and maintenance plan for all HDPE channel and pond liners.*

A HDPE Inspection and Maintenance Procedure is included as Exhibit 6. This maintenance procedure will apply to all HDPE lined facilities and will be added to our Facility Operating Plan upon CDPHE's concurrence.

4. *While these stormwater ponds (east and west) do collect stormwater, they also reflect contact with ores and ore-derived dust as well as occasional vehicular fluid spills due to leaks of diesel fuels, lubricants, and radiator, transmission, and hydraulic fluids. As such, they may contain heavy metals, PAHs (poly aromatic hydrocarbons), and semi-volatile organics besides uranium ore derivatives. The ponds are designed with a 60 mil HDPE primary liner with an underlying GCL secondary liner in direct contact. While the double liner provides some assurance of leak protection, it does not afford a way of ascertaining when a leak has occurred in the primary liner. A leak detection system in between the layers will provide a way of monitoring for leaks of the primary liner. Please provide a*

revised design with appropriate drawings that reflect the addition of a leak detection system.

Please reference Golder's Responses to Specific Comments attached as Exhibit 3 for revised designs that incorporate a leak collection and recovery system.

5. *Provision for removing and disposition of collected solids in the stormwater ponds needs to be addressed.*

A Sedimentation Trap, Stormwater and Evaporation Ponds Cleanout Procedure is included as Exhibit 5. This maintenance procedure will apply to the sedimentation trap, stormwater ponds, evaporation ponds, and any other lined ponds that may be constructed on site. The procedure will be added to our Facility Operating Plan upon CDPHE's concurrence.

6. *Comment 6 – Re Volume 1, Surface Drainage Section, Site Drainage Analysis and Design Report, Appendix C East Stormwater Pond, sheet 28 of 43, Detail B,*

Bubble Note states "this was eliminated based on final site grading". The channel entrance is depicted on the same sheet as Detail A. How is the water routed into the pond given the channel from the sediment trap if the entrance is eliminated? Also, see sediment trap request for design information above.

Please reference Golder's Responses to Specific Comments attached as Exhibit 3 for revised designs that incorporate East Stormwater Pond drawing revisions.

Stormwater Ponds Overflow System Pipeline – Technical Specifications, Spec 6.04.03 Polyethylene Pipe and Fittings, p.8 of 11 and Drawings C2, C10, and C11

1. *For the 30 inch HDPE line from east and west stormwater ponds directing water to evaporation ponds, there is no mention of QA/QC for butt welding the sections of pipe together*.

Please reference Golder's Responses to Specific Comments attached as Exhibit 3 for the design engineer's response.

2. *Please verify there are no perforations specified in this piping (30 inch stormwater line)?*

Please reference Golder's Responses to Specific Comments attached as Exhibit 3 for clarification of the pipe specifications.

3. *Re Drawing C16, Impact Basin Detail/Section L, the impact basin is to be constructed of concrete, please provide a steel reinforcement schedule with placement.*

Please reference Golder's Responses to Specific Comments attached as Exhibit 3 for the for the concrete impact basin design.

4. *Re Drawing C16, Impact Basin Detail/Section L, how will the 36 inch HDPE be tied into the concrete?*

Please reference Golder's Responses to Specific Comments attached as Exhibit 3 for designs showing details of the 36 inch pipe line attachment to the concrete basin.

5. *Please provide a typical manhole cross section detail that shows construction and HDPE pipe tie in on entrance and exit.*

Please reference Golder's Responses to Specific Comments attached as Exhibit 3 for designs providing details of the HDPE pipe to manhole tie in.

6. *Please provide a cross section parallel to the pipe at the point where the stomwater pipe passes under the tailings pipe exiting the thickeners to the tailings ponds. Show ground surface and relative elevations of pipe.*

Please reference Golder's Responses to Specific Comments attached as Exhibit 3 for designs profiling the storm water pipe passing beneath the tailings pipe line.

7. *Please provide plan and cross section construction details (include angle information) on the HDPE pipe junction from each of the ponds. How will this pipe be joined e.g. welded or other?*

Please reference Golder's Responses to Specific Comments attached as Exhibit 3 for designs of the HDPE pipe junction from each of the ponds.

Water Quality Swale

1. *The Division concurs with the license applicant that the inclusion of a water quality swale at the surface water diversion ditch exit prior to entering drainage at Highway 90 reflects good practice in arresting sediment from overland flow and the ditch as well as retarding flow into the Highway drainage. However, as noted on page 8 and depicted on Drawings C7 and C8 of the Site Drainage Analysis and Design Report (Vol1), "Standard design practice and standard details were used to size the swale (flat gradient and side slopes, maximize length) within the topographic constraints available as opposed to a detailed engineering or water quality analysis. As such, no detailed calculations were completed." The Division would like to see a better match of the swale length and other characteristics to the ditch sediment and water carrying capacity. Currently, there is no way to ascertain if the swale will accomplish what it is supposed to do. Please provide an appropriate engineering analysis including the stilling basin design. In addition, please provide a maintenance plan that will address sediment*

removal. Table of plant species, density and placements will also be part of this submittal. Discuss how the plants will be established with watering schedule over <u>two</u> growing seasons rather than one.

Please reference Golder's Responses to Specific Comments attached as Exhibit 3 for revised designs to the swale and stilling basin.

A Revegetation and Weed Control Procedure is included as Exhibit 7 and will be added to the Facility Operating Plan upon CDPHE's concurrence. This maintenance procedure includes a detailed plan in Appendix A that addresses sediment removal from the water quality swale and provides seed mixes for the site. Although irrigation of seeded areas is common in wetter climates, our vegetation specialists have indicated that the seed mixes for the mill site are composed of native species adapted to the area's soils and arid climate and do not require irrigation for germination and establishment of vegetation. In fact, supplemental irrigation has typically proven to be detrimental to revegetation of semi-arid areas and is no longer recommended by the various state mine land reclamation programs in the southwest portion of the country.

<u>Stormwater Diversion Berms</u>

1. *Re Drawing C16 Typical Cross Sections, Sections A – E, how will the unarmored portions of the berms be protected from erosion? Maintenance plan discussion needs to be provided.*

Most of the stormwater diversion berms are armored. Those berms that are unarmored will be seeded as specified in the Revegetation and Weed Control Procedure (see Exhibit 7).

<u>Topsoil Storage Pile</u>

1. *EF states the topsoil stockpile will rely on vegetation to avoid erosion during the operational phase of the facility. The Division believes that more active management will be required until the vegetation is established and the stockpile needs to be part of routine inspection and maintenance.*

The subsoil and topsoil stockpiles will be seeded, mulched, and bermed as specified in the Revegetation and Weed Control Procedure (Exhibit 7). These stockpiles will also be routinely inspected by the Radiation Security Technicians in their implementation of the Stormwater Management Plan (SWMP) that is included as Exhibit L4, Volume 13 of the license application.

<u>Area 100 Drawings:</u> *100-GA-001 Ore Handling & Grinding – Ore Reclaim and Convey*
Plan 100-GA-002 Ore Handling & Grinding – O R & C Section A-A

100-GA-003 Ore Handling & Grinding – Pulp Storage & Pre-Leach Plan
100-GA-004 Ore Handling & Grinding – P S & P – Sections A-A, B-B, C-C
100-PFD-001 Area 100 Process Flow Diagram

1. *Standby Generator w/Day Tank – Is day tank the equivalent of fuel tank? What is fuel type? Does tank have secondary containment? Is containment volume ≥ 110% of day tank? Continuous waterstop present for all joints in secondary containment? Calculation sheet for secondary containment needed. Include dimensions of day tank and volume.*

The standby generator is a factory assembled and tested skid mounted unit complete with diesel engine, magnetic generator, control panel and sub-base tank. The custom sub-base 3,600 gallon diesel tank is double wall UL142 approved and constructed in accordance to NFPA 30. The double wall tank construction provides the secondary containment for this unit.

2. *Diesel Storage - Calculation sheet needed for secondary containment volume for each separate tank or largest tank in a group of tanks. Calculations including dimensions, reference to particular drawing(s) used to derive information, volumes of tank bases, equipment piers etc that reduce available volume and formulas used. Include sump and trench volumes. Compare to tank volume to show 110% of largest tank for interior tanks e.g. under cover or 110% plus 5 yr 24 hr storm volume for exterior located tanks. Calculation sheet should be stamped by Colorado Licensed Professional Engineer.*

Please reference Exhibit 8, Secondary Containment Calculation Sheets and Drawings, which was prepared by Bruce Norquist, P.E.

3. *Tank Data & Secondary Containment Volume Summary Table needed. Headings should be: Tank Number& Title (one of # if same size group), Plan and Side Elevation Reference Drawing Titles, Interior or Exterior Located, Tank Construction (ex field-erected welded carbon steel), Wall Thickness (range top to bottom in feet if variable), Bottom Thickness (feet), Dimensions (feet), Presence of High-High Alarms and set level (feet) if present, Tank Volume (cubic feet), Secondary Containment Volume (cubic feet), Associated Calculation Sheet Number. Please include curb heights and elevations.*

A summary of tank data and secondary containment volumes is provided in Exhibit 8. Tank wall thickness, tank bottom thickness, nozzle orientations, nozzle heights, and high and low level alarm settings will be determined during detail engineering. The tank manufacturer will engineer and design the tank details, including all ring and bottom plate thicknesses based on the tank data sheets provided by the design engineer for the specific conditions of service.

4. *Need to provide concrete foundation and slab designs and detail drawings depicting rebar plan (locations and sizes), construction, expansion, and slab-to-wall and slab-to-curb joints, sumps, trenches and concrete slab slopes. Also provide cross sections through each slab and detail sections through sumps. Include all waterstop details (continuous, flexible dumbbell type is strongly suggested).*

Energy Fuels submitted Response No. 2 to request for Additional Information No. 1 (RFI #1) on May 25, 2010. This package, prepared by SM&RC Engineers Inc., addresses concerns and questions raised by the RCP regarding mill foundation design. EFR understands that the above question was submitted prior to RCP's review of EFR's May 25, 2010 response and that this response adequately addresses the majority of RCP's foundation concerns.

5. *Concrete Secondary Containment: Construction joint, expansion joint, wall/curb joint locations on diagrams and detail scaled and dimensioned cross section of each joint type showing fixed and sliding rebar and size, base, concrete, waterstop dimension and type, surface coating compatible w/chemicals in that area. Detail scaled and dimensioned cross section through each sump is required unless each will have same construction in which case a typical may be used.*

EFR understands that the above question was submitted prior to RCP's review of EFR's May 25, 2010 response (Response No. 2 to RFI #1) and that this response adequately addresses the majority of RCP's foundation concerns.

6. *Epoxy coat inside of secondary containment surfaces, provide drain grooves from under tanks on concrete tank pads.*

The inside surfaces of the primary floor sumps will be coated with sealers suitable for the conditions of service. Energy Fuels does not recommend drain grooves under tanks on concrete pads because moisture will wick into the grooves and corrode the steel tank bottoms from the outside in. Energy Fuels proposes to place the steel tanks on the concrete tank pad and epoxy seal the joint between the bottom tank ring and concrete tank pad, thus reducing the likelihood of moisture from entering the void space between the tank bottom and concrete surface and attacking the tank bottom.

7. *Please provide concrete slab construction for coarse ore feed hopper and SAG mill including rebar design, joint placement, continuous waterstop locations etc for floor and floor to curb joints, and sump construction.*

EFR understands that the above question was submitted prior to RCP's review of EFR's May 25, 2010 response (Response No. 2 to RFI #1) and that this response adequately addresses the majority of RCP's foundation concerns. Detailed design of the SAG mill pedestal, trunnion, pinion, and motor foundations will be completed once certified vendor drawings are received during final engineering.

8. *Also, please provide capacity of sump pump and verify that it is alarmed for non-function to control. Provide where in the process the sump pumps discharge or recycle.*

The sump will contain instrumentation providing a high/low level instrument and transmitter with alarm capabilities, interlocked with the sump pump motor. The sump pump motor controller will indicate "run/off function" on the Plant Control System in the Mill Control Room.

Please reference Exhibit 9 for sump capacities, sump pump flow rates and discharge points.

9. *Pulp Storage and Pre-Leach area, please provide info in comments 2 – 7 above for this area.*

A summary of tank data and secondary containment volumes is provided in Exhibit 8. Tank wall thickness, tank bottom thickness, nozzle orientations, nozzle heights, and high and low level alarm settings will be determined during detail engineering. The tank manufacturer will engineer and design the tank details, including all ring and bottom plate thicknesses based on the tank data sheets provided by the design engineer for the specific conditions of service.

Foundation design for this area is addressed in EFR's May 25, 2010 response (Response No. 2 to RFI #1). Exhibit 9 summarizes sump capacities, sump pump flow rates and discharge points.

10. *Re Coarse Ore Feed Dust Collection Baghouse – Please provide details such as manufacturer, type, flow capacity, number of bags, pulsed or shaken, breakthrough detection, efficiency, minimum size particulate collected, etc. Vendor info is acceptable.*

Exhibit 10, Coarse Ore Feed Dust Collector Baghouse Information, provides vendor information for the baghouse. Energy Fuels' Air Pollution Emission Notice for Permit to Construct dated July 21, 2009 may also be consulted for additional information on the mill's air emission controls.

11. *How will trommel discharge hopper solids (oversize) be transported to tailings cell(s)?*

The trommel discharge hopper solids will be transported by skid steer, forklift or front end loader to a second tailings box located immediately downstream from the primary tailings box. The solids will be dumped in the box where they will be mixed with raffinate prior to discharge to the tailings line. This second tailings box will be added during final design.

Area 200 Drawings *200-GA-001 Grinding and Leach Building Plan*
200-GA-002 Grinding and Leach Building Section A-A
900-GA-001 Grinding and Leach Building Plan
200-PF-001 Area 200 Pre-Leach Process Flow Diagram
200-PF-002 Area 200 Leach Train Process Flow Diagram

1. *Repeat comments 3 - 6 for area 100 for this area.*

A summary of tank data and secondary containment volumes is provided in Exhibit 8. Tank wall thickness, tank bottom thickness, nozzle orientations, nozzle heights, and high and low level alarm settings will be determined during detail engineering. The tank manufacturer will engineer and design the tank details, including all ring and bottom plate thicknesses based on the tank data sheets provided by the design engineer for the specific conditions of service.

Foundation design for this area is addressed in EFR's May 25, 2010 response (Response No. 2 to RFI #1). Exhibit 9 summarizes sump capacities, sump pump flow rates and discharge points.

2. *Please provide concrete slab construction grinding and leach building including rebar design, joint placement, continuous waterstop locations etc for floor and floor to curb joints, and sump construction.*

Foundation design for the grinding and leach building is addressed in EFR's May 25, 2010 response (Response No. 2 to RFI #1).

3. *Please provide capacity of sump pump(s) and verify that they are alarmed for non-function to control. Provide where in the process the sump pumps discharge or recycle.*

The sump will contain instrumentation providing a high/low level instrument and transmitter with alarm capabilities, interlocked with the sump pump motor. The sump pump motor controller will indicate "run/off function" on the Plant Control System in the Mill Control Room.

Please reference Exhibit 9 for sump capacities, sump pump flow rates and discharge points.

4. *What are the emissions coming off the leach tanks that report to this scrubber? The unit should be on secondary containment and could be part of the leach tanks' secondary containment. A maintenance, inspection, and monitoring plan will need to be developed.*

The leach tank scrubber system is located in the north east corner of the leach area, between column lines 30, 31 and BD, BC on drawing 200-GA-001 Rev. D. The

maintenance, inspection and monitoring plan will be developed after the specific scrubbers are purchased during detail engineering.

Please reference Exhibit 11, Air Emission Control Data, for the leach system sulfuric acid emission calculations excerpted from the Air Pollution Emission Notice for Permit to Construct that was submitted to the Colorado Department of Public Health and Environment- Air Pollution Control Division on July 27, 2009.

Area 300 Drawings *300-GA-001 CCD and Tailings Disposal CCD Thickeners Area*
300-GA-002 CCD and Tailings Disposal CCD Thickeners Area Sect A-A B-B
000-GA-002 General Plant Area - Process Plant Area – Key Plan
300-PF-001 Area 300 CCD Thickeners Process Flow Diagram
300-PF-002 Area 300 Tailings Area Process Flow Diagram

1. *Repeat comments 3 -6 of area 100 for this area.*

A summary of tank data and secondary containment volumes is provided in Exhibit 8. Tank wall thickness, tank bottom thickness, nozzle orientations, nozzle heights, and high and low level alarm settings will be determined during detail engineering. The tank manufacturer will engineer and design the tank details, including all ring and bottom plate thicknesses based on the tank data sheets provided by the design engineer for the specific conditions of service.

Foundation design for this area is addressed in EFR's May 25, 2010 response (Response No. 2 to RFI #1). Exhibit 9 summarizes sump capacities, sump pump flow rates and discharge points.

2. *Please provide concrete slab construction for the CCD and tailings disposal building including rebar design, joint placement, continuous waterstop locations etc for floor and floor to curb joints, and sump construction. Also, please provide capacity of sump pump(s) and whether they are alarmed for non-function to control.*

Foundation design for this area is addressed in EFR's May 25, 2010 response (Response No. 2 to RFI #1).

The sump will contain instrumentation providing a high/low level instrument and transmitter with alarm capabilities, interlocked with the sump pump motor. The sump pump motor controller will indicate "run/off function" on the Plant Control System in the Mill Control Room. Please reference Exhibit 9 for sump capacities, sump pump flow rates and discharge points.

3. *Please provide the capacity of tailings pumps and verify that they are alarmed for non-function to control. Provide where in the process the sump pumps discharge or recycle.*

The tailing pumps are designed for pumping 251.3 gallons per minute (GPM) to Tailings Cell A1 or Tailings Cell A2.

The tailings sump will contain instrumentation providing a high/low level instrument and transmitter with alarm capabilities, interlocked with the sump pump motor. The sump pump motor controller will indicate "run/off function" on the Plant Control System in the Mill Control Room. Please reference Exhibit 9 for sump capacities, sump pump flow rates and discharge points.

4. *Please provide details including a scaled cross section on the two tailings pipes and trench. Provide details on dimensions, materials of construction, how attached, supports, etc. What measures have been taken to prevent leaks and pipe failures at joints?*

These drawing details will be included in Energy Fuels' response to RFI #4.

Area 400 and 600 Drawings *400-GA-001 Uranium Solvent Extraction Building – West U SX Plan*
400-GA-002 Uranium Solvent Extraction Building – West U SX Sc A-A B-B
600-GA-001 Vanadium Oxidation and Solvent Extraction Building – East
600-GA-002 Vanadium Oxidation and SX Bldg – East Sect A-A & B-B
600-GA-002 Vanadium Oxidation and SX Bldg – East Sect C-C & D-D
400-PF-001 Uranium SX – Feed System and Extraction Train A PFD
400-PF-002 Uranium SX Extraction Train B Scrub and Strip PFD
600-PF-001 Vanadium Oxidation and SX Extraction Train A PFD
600-PF-002 Vanadium Oxidation and SX Extraction Train B PFD
000-GA-004 Uranium and Vanadium SX Building Plan

1. *Repeat comments 3 -6 for area 100 for this area.*

A summary of tank data and secondary containment volumes is provided in Exhibit 8. Tank wall thickness, tank bottom thickness, nozzle orientations, nozzle heights, and high and low level alarm settings will be determined during detail engineering. The tank manufacturer will engineer and design the tank details, including all ring and bottom

plate thicknesses based on the tank data sheets provided by the design engineer for the specific conditions of service.

Foundation design for this area is addressed in EFR's May 25, 2010 response (Response No. 2 to RFI #1). Exhibit 9 summarizes sump capacities, sump pump flow rates and discharge points.

2. *Please provide concrete slab construction for the uranium and vanadium solvent extraction building including rebar design, joint placement, continuous waterstop locations etc for floor and floor to curb joints, and sump construction.*

Foundation design for SX building is addressed in EFR's May 25, 2010 response (Response No. 2 to RFI #1).

3. *This portion of the building serves to hold two different process areas: Area 420/430 Uranium Extraction Train A and B respectively along with Uranium SX Raffinate Tank, Uranium SX loaded Organic Tank, Uranium SX Barren Organic Tank, Crud Centrifuge w/ assoc Crud Solids Disposal Hopper and Crud Aqueous and Crud Organic Tanks; Uranium SX Feed Tank (appears to have own secondary containment outside building); Area 640 Vanadium Scrub, Strip & Regen; Area 620/630 Vanadium Extraction Train A and B respectively w/ additional Vanadium Oxidation Circuit tanks; and Vanadium SX Feed Tank (also appears to have own secondary containment outside building. The building does not have a containment system. This is a requirement. An approach for this building would be to divide the Uranium Process area from the Vanadium Process area with curbs to prevent mixing in the event of process leaks, spills, or tank failures. This would also facilitate separate sumps in these two areas for collection and recycle of the fluids. As an alternative, the two process fluids can be collected together, the building then being treated as a single containment. The Uranium SX and Vanadium SX Feed Tanks already appear to have secondary containment as noted previously. The required containment volume for outside storage is 110% of the largest tank plus the volume of the area 5 year 24 hour precipitation event.*

Secondary containment and sumps in the SX building are shown on Drawings 400-S-001 and 002 in Response No. 2 to RFI #1. A summary of secondary containment volumes is provided in Exhibit 8.

4. *Please provide sump pump capacities and whether they are alarmed for non-function to control. Provide where in the process the sump pumps discharge or recycle.*

The SX building sump will contain instrumentation providing a high/low level instrument and transmitter with alarm capabilities, interlocked with the sump pump motor. The sump pump motor controller will indicate "run/off function" on the Plant Control System in the Mill Control Room.

Exhibit 9 summarizes sump capacities, sump pump flow rates and discharge points.

5. *Please provide a detail on the raffinate entry pipe(s), discharge manhole and buried pipe sleeve giving but not limited to materials of construction, dimensions, attachments, etc.*

The dashed pipeline on CH2M Hill drawings 000-GA-002 and 000-GA-003 will be revised during detail engineering and supported in an above-ground pipe rack from the Uranium and Vanadium Solvent Extraction Building to the Tailing Pump Area.

6. *Please provide a detail and cross section of the pipe and trailing trench where it enters the trench.*

The dashed pipeline on CH2M Hill drawings 000-GA-002 and 000-GA-003 will be revised during detail engineering and supported in an above-ground pipe rack from the Uranium and Vanadium Solvent Extraction Building to the Tailing Pump Area.

7. *While recognizing that this facility is not a RCRA regulated facility, we are still concerned about the chemical composition and concentrations (vanadium, metals, and organics) of the vanadium SX raffinate to be sent to tailings cells and evaporation ponds. EF has provided an estimate of the raffinate from the uranium circuit, but not the vanadium circuit. Could the vanadium raffinate be recycled into process and if not, why? Ideally, the waste discharged to the tails should be as environmentally innocuous as possible.*

Please reference Exhibit 1 for raffinate characterization information. Approximately 2/3rds of the raffinate is recycled vis-à-vis the tailings disposal systems water return line to the plant. The remaining 1/3rd of the raffinate cannot be easily treated for other uses in the mill and is disposed of in the evaporation ponds. Energy Fuels will evaluate the potential for recycling more of the raffinate during final design.

8. *What is the disposition of the liquids in the crud aqueous and crud organic tank? Recycle?*

The liquids in the crud aqueous and crud organic tanks are recycled back into their respective process streams.

9. *How are crud centrifuge solids transported to tailings cell(s)?*

The crud centrifuge solids will be transported by skid steer, forklift or front end loader to a second tailings box located immediately downstream from the primary tailings box. The solids will be dumped in the box where they will be mixed with raffinate prior to discharge to a tailings cell or, in some cases, the evaporation ponds. This second tailings box will be added during final design.

Area 500 Drawings *500-GA-001 Precipitation and Packaging Building Area Plan*
500-GA-002 Precipitation and Packaging Bldg Drying & Packaging Plans
500-GA-003 Precipitation and Packaging Bldg Drying & Packaging Plans 500-GA-004 Precipitation and Packaging Bldg Drying & Packaging Sc A-A
500-GA-005 Precipitation and Packaging Bldg Drying & Packaging Sc B-B
500-GA-003 Precipitation and Packaging Bldg Precip & Thickening Sc A-A
500-PF-001 Uranium Precipitation, Drying and Packaging PFD
500-PF-001A Uranium Filtering and Drying PFD
700-PF-001 Vanadium Precipitation PFD
700-PF-002 Vanadium Drying and Packaging PFD
000-GA-005 Area 700 Precipitation and Packaging Building Plan

1. *Repeat comments 3 - 6 for area 100 for this area.*

A summary of tank data and secondary containment volumes is provided in Exhibit 8. Tank wall thickness, tank bottom thickness, nozzle orientations, nozzle heights, and high and low level alarm settings will be determined during detail engineering. The tank manufacturer will engineer and design the tank details, including all ring and bottom plate thicknesses based on the tank data sheets provided by the design engineer for the specific conditions of service.

Foundation design for this area is addressed in EFR's May 25, 2010 response (Response No. 2 to RFI #1). Exhibit 9 summarizes sump capacities, sump pump flow rates and discharge points.

2. *Please provide concrete slab construction for the precipitation and packaging building including rebar design, joint placement, continuous waterstop locations etc for floor and floor to curb joints, and sump construction. There are several secondary containment areas indicated on the drawings.*

Foundation design for the precipitation and packaging building is addressed in EFR's May 25, 2010 response (Response No. 2 to RFI #1).

3. *Please provide capacity of sump pump(s) and verify that they are alarmed for non-function to control. Provide where in the process the sump pumps discharge or recycle.*

The sumps will contain instrumentation providing a high/low level instrument and transmitter with alarm capabilities, interlocked with the sump pump motor. The sump pump motor controllers will indicate “run/off function” on the Plant Control System in the Mill Control Room.

Exhibit 9 summarizes sump capacities, sump pump flow rates and discharge points.

4. *Secondary containment is required in the uranium belt filter and associated equipment as well as the wet scrubber. See comment #2 in this section.*

A summary of secondary containment heights and volumes is provided in Exhibit 8. It should be noted that a plate and frame pressure filter, decant tank and vacuum filter will replace the uranium belt filter and associated equipment. This change was made in Drawing 500-PF-001A (i.e., process flow diagram) but will not be made in the general arrangement drawings until final design.

5. *Secondary containment is required in the vanadium steam dryer and belt filter area and under vanadium precipitation tanks 2 - 4 as well as the wet scrubbers. See comment #2 in this section.*

A summary of secondary containment heights and volumes is provided in Exhibit 8.

6. *How will dust generation be controlled at the uranium feed hopper and downstream of the vanadium fusion furnace through the vanadium product feed hopper?*

The uranium steam dryer and feed hopper have been replaced with a vacuum dryer system as shown in Drawing 500-PF-001A. This revised system is expected to significantly reduce dust emissions. The vacuum dryer product discharges through a rotary valve, ducting and an adjustable, gasketed, sealable hood into the storage drum. A detailed description of this system is provided in Section 5.3 of the Facility Operating Plan. The general arrangement drawings will be revised accordingly during final design.

Off gasses from the vanadium fusion furnace through the vanadium product feed hopper are collected through nozzles and hoods connected to ductwork that reports to the No. 2 Vanadium Vent Gas Scrubber. Additional system details are provided in Section 7.2 of the Facility Operating Plan.

7. *Stacks for the uranium and vanadium vent gas scrubber stacks will be monitored for emissions. What are the emissions (uranium and vanadium and any accessory) and their expected maximum concentrations at these points?*

Please reference Exhibit 11, Air Emission Control Data, for the scrubber emission calculations excerpted from the Air Pollution Emission Notice for Permit to Construct that was submitted to the Colorado Department of Public Health and Environment- Air Pollution Control Division on July 27, 2009.

8. *Re 500-PF-001A, where does exhaust gas from uranium pump after condenser report to in the yellow cake room (Area 400?)?*

The exhaust gas discharges into the yellow cake packaging area. The exact entry point into the yellow cake packaging area will be determined during detail engineering.

Area 800 Drawings *800-GA-001 Reagents Unloading - Unloading Building Plan*
800-GA-002 Reagents U & Storage - Outside Bulk Storage Tanks
800-PF-001 Sulfuric Acid, Ammonia, and Ammonium Sulfate PFD
800-PF-002 Sodium Hydroxide and Sodium Carbonate PFD
800-PF-003 Flocculant and Organics PFD
800-PF-004 Sodium Chlorate and Hydrogen Peroxide PFD

1. *This comment was provided earlier but is repeated here from completeness review. In the reagents unloading area there are two oxidizers (hydrogen peroxide and sodium chlorate) located where a spill or release could cause them to come into contact with diesel fuel oil or kerosene potentially causing fire and/or explosion. The fuels should be on a separate pad away from the oxidizers.*

The reagents unloading area will be revised during detail engineering to separate the hydrogen peroxide and sodium chlorate unloading equipment from the other reagent unloading equipment by designing a divider wall, similar to the end walls, and installing another floor sump.

2. *Where does the sulfuric acid sump pump send flow to? This sump should be coated with an acid resistant coating.*

The appropriate concrete coating for the interior of the sulfuric acid sump to meet the conditions of service will be selected during detailed engineering. As mentioned previously, the concrete will be acid resistant.

Exhibit 9 summarizes sump capacities, sump pump flow rates and discharge points.

3. *Sulfuric Acid Storage Area should have an acid resistant coating on the inside of the concrete secondary containment.*

The appropriate concrete coating for the secondary containment walls to meet the conditions of service will be selected during detail engineering.

4. *Is there provision to prevent backing of transport tankers from colliding with valve assemblies and is there feedback from the intended storage tank to the operator that the fill point has been reached?*

The reagents unloading area will be designed to prevent reagent delivery trucks from backing up, colliding with and damaging the permanently installed reagent unloading equipment by including wheel stops, bollards, or similar obstructions during detailed engineering and design.

The reagent storage tanks will be instrumented with level indicating instruments warning the unloading operator that the storage tank is filling to its maximum capacity. The level indicator will be adjusted during commissioning and fine tuned during operations allowing for the complete discharge of the inlet piping materials before automatically closing the fill valve and overflowing the storage tank.

5. *Repeat comments 3 - 6 for area 100 for the kerosene and sulfuric acid storage areas.*

A summary of tank data and secondary containment volumes is provided in Exhibit 8. Tank wall thickness, tank bottom thickness, nozzle orientations, nozzle heights, and high and low level alarm settings will be determined during detail engineering. The tank manufacturer will engineer and design the tank details, including all ring and bottom plate thicknesses based on the tank data sheets provided by the design engineer for the specific conditions of service.

Foundation design for this area is addressed in EFR's May 25, 2010 response (Response No. 2 to RFI #1). Exhibit 9 summarizes sump capacities, sump pump flow rates and discharge points.

6. *Re 800-PF-003 what specifically are the alcohol, amine, and organic chemicals?*

The organic reagents used in the uranium and vanadium SX circuits include kerosene ("$C_{14}H_{30}$"), amine ["Alamine 336 (R_3N)"] and isodecanol ["Exxal 13($C_{10}H_{22}O$)"]. The organic mixture is nominally 96% kerosene, 3% isodecanol, and 1% Alamine. Material Information Sheets and Material Safety Data Sheets for these chemicals are provided in the Material Containment Plan.

Area 900 *900-GA-002 Steam Boiler Building Plan*
900-PF-001 Water Storage PFD
900-PF-002 Boilers and Compressors PFD
900-PF-003 Fuel Storage PFD

1. *There is a deaerator unit for the boiler feed water. Are any other chemicals to be used in the boilers such as anti-scaling agents, anti-corrosives, or any other treatment chemicals?*

Yes, other chemicals will likely be added to the boiler feed water. The boiler manufacturer will recommend the anti-scaling, anti-corrosive and any other chemicals required for efficient running of the boilers. The specific chemical compounds and

quantities will be determined during final design. These chemicals will be added to the Material Containment Plan.

2. *Will there be any vanadium in the water derived from the casting water wheel that will be used as fire water supply?*

There will be relatively little vanadium in this water as it is used only to cool the solid vanadium flake product. To avoid any possibility of contaminating the fresh water circuit, Energy Fuels will reroute the return line from the casting wheel to the process water tank during final design.

Please contact me if you have any questions or need additional information.

Sincerely,

Frank Filas, P.E.
Environmental Manager

Attachments

Cc: K. Morrison (Golder)
D. Blanchette (SM&RC)
B. Monok, B. Norquist, Z. Rogers, S. Antony (Energy Fuels)