

FILE

IDAHO DEPARTMENT OF ENVIRONMENTAL QUALITY

REUSE PERMIT

I-210-02

(previous permit LA-000210-01)

Raft River Energy I LLC (hereafter "permittee") is hereby authorized to construct, install, and operate a reuse facility in accordance with (1) this permit; (2) IDAPA 58.01.17 "Recycled Water Rules"; (3) an approved plan of operation; and (4) all other applicable federal, state, and local laws, statutes, and rules. This permit is effective from the date of signature and expires on June 13, 2018.


Signature

6-13-13
Date

Bill Allred

Regional Administrator
Twin Falls Regional Office
Idaho Department of Environmental Quality

2013AGH959

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1. Commonly Used Acronyms and Abbreviations

BMP	best management practice
CA	compliance activity
COD	chemical oxygen demand
DEQ	Idaho Department of Environmental Quality
DEQ Guidance	DEQ Guidance for Reclamation and Reuse of Municipal and Industrial Wastewater, latest revision
Director	Director of the Idaho Department of Environmental Quality or the Director's designee unless otherwise specified
Ei	irrigation efficiency
ft	foot
gpd	gallons per day
gpm	gallons per minute
GS	growing season
GW	ground water
GWQR	Ground Water Quality Rule
HMU	hydraulic management unit
IDAPA	Idaho Administrative Procedures Act
IDWR	Idaho Department of Water Resources
IW	irrigation water
IWR	irrigation water requirement
lb	pound
LG	lagoon
mg/L	milligram per liter
MG	million gallons
MU	management unit
MW	monitoring well
NGS	non-growing season
NVDS	non-volatile (fixed) dissolved solids
PO	plan of operation
ppm	parts per million
QAPP	quality assurance project plan
RO	reverse osmosis
SU	soil monitoring unit
TDIS	total dissolve inorganic solids
TDS	total dissolved solids
µmhos/cm	micromhos per centimeter
VDS	volatile dissolved solids
WLAA	well location acceptability analysis
WW	wastewater

2. Facility Information

Information Type	Information Specific to This Permit
Type(s) of recycled water	Industrial Wastewater, a mix of spent cooling water, RO concentrate, and untreated ground water.
Method of treatment	Slow rate irrigation and rapid infiltration
Facility location address	Township 15 South, Range 26 East, Section 26 NW quarter
Facility mailing address and phone and fax	2960 S 2100E Malta, ID 83342
Facility contact information	Mr. Scott Nichols Manager, Permitting and Lands 1505 Tyrell Lane Boise, ID 83706 Phone: (208) 424-1027 Fax: (208) 424-1030
Site Elevation	4,870 to 4,900 feet; Nearest weather station: Malta AgriMet (at 4,410 feet).
Ground Water	Unconfined shallow aquifer varying from 20 to 90 feet below the ground surface through to an aquitard 600 feet below the ground surface, flowing from southwest to northeast. Beneficial uses: domestic, industrial, livestock watering, and agricultural irrigation. Nearest public water supply wells located in Malta, 15 miles downgradient of the facility. A regional aquifer at 1,500 feet below ground surface is also present at the site, below which is a geothermal aquifer.
Surface Water	The Raft River, which splits the infiltration area and South Pivot from the North Pivot. Beneficial uses: livestock watering and agricultural irrigation.

3. Compliance Schedule for Required Activities

Compliance Activity (CA) Number and Completion Due Date	Compliance Activity Description
<p>CA-210-01 Six (6) months after permit issuance</p>	<p>Quality Assurance Project Plan: Quality Assurance Project Plan (QAPP): The permittee shall prepare and implement a Quality Assurance Project Plan (QAPP) that incorporates all monitoring and reporting required by this permit. A copy of the QAPP along with written notice that the permittee has implemented the QAPP shall be provided to DEQ.</p> <p>The QAPP shall be designed to assist in planning for the collection, analysis, and reporting of all monitoring in support of this permit and in explaining data anomalies when they occur. At a minimum, the QAPP must include the following:</p> <ol style="list-style-type: none"> 1. Details on the number of measurements, number of samples, type of sample containers, preservation of samples, holding times, analytical methods, analytical detection and quantitation limits for each target compound, type and number of quality assurance field samples, precision and accuracy requirements, sample preparation requirements, sample shipping methods, and laboratory data delivery requirements. 2. Maps indicating the location of each monitoring, and sampling point. 3. Qualification and training of personnel. 4. Names, addresses and telephone numbers of the laboratories used by or proposed to be used by the permittee. 5. Example formats and tables that will be used by the permittee to summarize and present all data in the Annual Report. <p>The format and the content of the QAPP should adhere to the recommendations and references in the Quality Assurance and Data Processing sections of the DEQ Guidance.</p> <p>The permittee shall amend the QAPP whenever there is a modification in sample collection, sample analysis, or other procedure addressed by the QAPP. The permittee shall notify DEQ of QAPP amendments and the content of the amendments within 30 days of the change(s).</p>

Compliance Activity (CA) Number and Completion Due Date	Compliance Activity Description
CA-210-02 Six (6) months after permit issuance	<p>Plan of Operation: The permittee shall submit for review and approval a Plan of Operation (PO) that reflects current operations and incorporates the requirements of this permit. The PO shall comply with the applicable requirements stated in IDAPA 58.01.17.300.05 and shall address applicable items in the Plan of Operation Checklist in the DEQ Guidance.</p> <p>The PO shall include the following site management plans or the permittee may submit the site management plans individually:</p> <ol style="list-style-type: none"> 1. Buffer zone plan 2. Cropping plan 3. Grazing Plan 4. Runoff control plan <p>The PO shall be updated as needed to reflect current operations.</p>
CA-210-03 One (1) year prior to permit expiration date	<p>Permit Renewal Application: The permittee shall submit a complete permit renewal application 180 days prior to the expiration date of this permit.</p> <p>DEQ recommends a pre-application conference one year prior to the expiration date of this permit to discuss current procedures and application requirements.</p>

4. Permit Limits and Conditions

4.1 Hydraulic Management Unit Descriptions

Serial Number	Description or Common Name	Type of Recycled Water Allowed	Irrigation System Type	Acres
MU-210-01	North Pivot	Blowdown Water ^a	Pivot: (Ei = 0.85)	48
MU-210-02	South Pivot	Blowdown Water ^a	Pivot: (Ei = 0.85)	65
MU-210-03	Infiltration Area	Blowdown Water ^a	Infiltration/Flood Irrigation	2
			Total Acreage	115

a. Blowdown water is a mix of spent cooling water, RO concentrate, and untreated ground water

4.2 Hydraulic Loading Limits, Vegetation, and Grazing

Serial Number	Growing Season Hydraulic Loading	Nongrowing Season Maximum Hydraulic Loading	Grazing ^a and Waiting Period Between Recycled Water Application and Grazing (when applicable)
MU-210-01	Not to exceed the irrigation water requirement (IWR) ^b	Not allowed	Allowed
MU-210-02	Not to exceed the irrigation water requirement (IWR)	Not Allowed	Allowed
MU-210-03	None ^c	Allowed ^c	Not Allowed

a. Grazing is allowed contingent upon DEQ approval of the required Grazing Management Plan included in the Plan of Operation (PO).

b. Irrigation Water Requirement - Any combination of wastewater and supplemental irrigation water applied at rates commensurate to the moisture requirements of the crop, and calculated monthly during the growing season (GS). The equation used to calculate the IWR is:

$$IWR = P_{def} / E_i \text{ where}$$

P_{def} is the precipitation deficit and is synonymous with the net irrigation water requirement of the crop. The P_{def} can be found at the following website: <http://data.kimberly.uidaho.edu/ETIdaho/>, using the Malta Agrimet station.

c. Hydraulic loading to the Infiltration Area must be limited to prevent overflowing the basin banks.

4.3 Constituent Loading Limits

Serial Number	Constituent Loading (from all sources)			
	Nitrogen (lb/acre)	Phosphorus (lb/acre)	Salt (TDS) (tons/year)	COD growing season/nongrowing season (lb/acre-day)
MU-210-01	—	—	—	—
MU-210-02	—	—	—	—
MU-210-03	—	—	—	—

4.4 Hydraulic Management Unit Buffer Zones, Fencing, and Posting (in feet)

Serial Number	Inhabited Dwellings	Areas Accessible to the Public	Surface Water	Irrigation Canals	Private Water Supply Wells	Public Water Supply Wells	Fencing/ Posting
MU-210-01	—	—	100	—	500	1,000	N/R
MU-210-02	—	—	100	—	500	1,000	N/R
MU-210-03	—	—	100	—	500	1,000	N/R

4.5 Other Permit Limits and Conditions

Category	Permit Limits and Conditions
Growing Season	April 1 through October 31 (214 days)
Nongrowing Season	November 1 through March 31 (151 days)
Reporting Year for Annual Loading Rates	November 1 through October 31
Ground Water Quality	Activities conducted by permittee shall not cause a violation of Ground Water Quality Rule IDAPA 58.01.11.
Supplemental Irrigation Water Protection	For systems with wastewater and fresh irrigation water interconnections, DEQ-approved backflow prevention devices are required. Refer to section 9.1.1 of this permit.
Plans and Specifications	The construction, alteration or expansion of any wastewater treatment, disposal, or reuse facility shall not begin before plans and specifications for the proposed facility have been submitted to and approved by DEQ. The permittee shall comply with the plan and specification, and construction inspection requirements specified in the Wastewater Rules, IDAPA 58.01.16.401 and the Recycled Water Rules, IDAPA 58.01.17.606.
Runoff	Furrow and sprinkler irrigation: Operate and maintain structures and BMPs for supplemental irrigation water sediment control in accordance with DEQ approved Runoff Management Plan.
Ponding Restriction	With the exception of the infiltration area, the permittee shall, to the maximum extent reasonably possible, operate the land application facilities to prevent ponding. This includes, but is not limited to, the obligation to install, operate, and maintain equipment, structures, and other BMPs to prevent and correct ponding. At all times, the permittee shall prevent blowdown water from ponding in the fields to the point where the ponded water putrefies or supports vectors or insects.
Reporting of Process Chemicals	Include a description in each annual report of chemical strength and structure or composition of the chemicals used in the cooling water treatment process.

5. Monitoring Requirements

5.1 Recycled Water and Irrigation Water Monitoring, Sampling, and Analyses

5.1.1 Constituent Monitoring

Monitoring Point Serial Number and Location	Sample Description	Sample Type and Frequency	Constituents (Units in mg/L Unless Otherwise Specified)
WW-210-01 Sample tap on spent cooling water line (to be sampled before the spent cooling water mixes with the remainder of the blowdown water)	Spent cooling water to all hydraulic management units.	Grab/quarterly: January, April, July, and October (during periods of use)	– Total Dissolved Solids (TDS) – Chloride – Specific Conductivity – pH – Arsenic – Lead
		Grab/twice annually: April and October (during periods of use)	–TKN –Nitrite+Nitrate-N –Total Phosphorus –Fluoride
WW-210-02 Sample tap on RO concentrate line (to be sampled before the concentrate mixes with the remainder of the blowdown water)	RO concentrate to all hydraulic management units.	Grab/quarterly: January, April, July, and October (during periods of use)	– Total Dissolved Solids (TDS) – Chloride – Specific Conductivity – pH – Arsenic – Lead
		Grab/twice annually: April and October (during periods of use)	–TKN –Nitrite+Nitrate-N –Total Phosphorus –Fluoride
IW-210-03 Surface water used for irrigation	Surface water to all hydraulic management units.	Grab/annually (during periods of use)	– Total Dissolved Solids (TDS) – Specific Conductivity –TKN –Nitrite+Nitrate-N
IW-210-04 Ground water	Ground water to MU- 210-01, MU-210-02, and MU-210-03.	Grab/annually ^a (during periods of use)	– Total Dissolved Solids (TDS) – Specific Conductivity –TKN –Nitrite+Nitrate-N

- a. Samples will not be necessary if the well that supplemental irrigation water is drawn from has been sampled within a half year of its use as a source of supplemental irrigation water.

5.1.2 Flow Monitoring

Monitoring Point Serial Number and Location	Description	Sample Type/Frequency	Measured and/or Reporting Requirements
FM-210-01 Flow meter at North Pivot	Flow to MU-210-01	Daily meter reading(s) as required to calculate volume to each MU	Flow volume (MG/month and inches per acre/month)
FM-210-02 Flow meter at South Pivot	Flow to MU-210-02	Daily meter reading(s) as required to calculate volume to each MU	Flow volume (MG/month and inches per acre/month)
FM-210-03 Flow meter on piping to Infiltration Basins	Flow to MU-210-03	Daily meter reading(s) as required to calculate volume to each MU	Flow volume (MG/month and inches per acre/month)
FM-210-04 Flow meter on spent cooling water line	Flow from cooling tower to all hydraulic management units	Daily meter reading(s) as required to calculate volume to each MU	Flow volume (MG/month and inches per acre/month)
FM-210-05 Flow meter on RO concentrate line	Flow from RO building to all hydraulic management units	Daily meter reading(s) as required to calculate volume to each MU	Flow volume (MG/month and inches per acre/month)
FM-210-06 Supplemental irrigation water pumps (ground water and/or surface water)	Flow from each supplemental irrigation water source to MU-210-01, MU- 210-02, and MU-210- 03	Daily pump run times as required to calculate volume to each MU	Flow volume (MG/month and inches per acre/month)

5.2 Ground Water Monitoring

5.2.1 Ground Water Monitoring Point Descriptions

Monitoring Point Serial Number	Common Designation	Well Type	Location
GW-210-01	27ACB1-RMW	Monitoring well	Upgradient of MU-210-01
GW-210-02	23CCD1-MW	Monitoring well	Downgradient of MU-210-01
GW-210-03	23CAD1-D	Domestic well	Downgradient of MU-210-01
GW-210-04	27DDC1-RMW	Monitoring well	Upgradient of MU-210-02
GW-210-05	26DBB1-RMW	Monitoring well	Downgradient of MU-210-02
GW-210-06	25BDC1-MW	Monitoring well	Downgradient MU-210-02

5.2.2 Ground Water Monitoring, Sampling, and Analyses

Monitoring Point Serial Number	Sampling Point Description	Sample Type and Frequency	Constituents (Units in mg/L Unless Otherwise Specified)
GW-210-01 GW-210-02 GW-210-03 GW-210-04 GW-210-05 GW-210-06	Monitoring wells	Grab sample/twice annually: April and October	-Water table depth (feet) -Water table elevation (feet) -Nitrate-nitrogen -pH (Standard Units) -TDS -Arsenic -Lead -Chloride -Fluoride
		Grab sample/April and October of first permitting year	-Bromide

5.3 Soil Monitoring

5.3.1 Soil Monitoring Unit Descriptions

Monitoring Point Serial Number	Common Name or Description	Associated Management Unit
SU-210-01	North Pivot	MU-210-01
SU-210-02	South Pivot	MU-210-02

5.3.2 Soil Monitoring, Sampling, and Analyses

Monitoring Point Serial Number	Sample Type	Sample Frequency	Constituents (Units in mg/kg Soil Unless Otherwise Specified)
SU-210-01 SU-210-02	Composite samples	Annually/April	-Electrical conductivity ($\mu\text{mhos/cm}$ in saturated paste extract) -Plant available phosphorus ^a -Nitrate ^a -Ammonia ^a -Sodium adsorption ratio -Chloride -Sodium -pH
Ten (10) locations in each SU shall be sampled. At each location, samples shall be obtained from three depths: 0–12 inches; 12–24 inches; and 24–36 inches or refusal. The ten (10) subsamples obtained from each depth shall be composited by depth to yield three composite samples for each soil monitoring unit; one composite sample for each depth.			

a. Soil nutrient concentration measurements will only be necessary if fertilizer is applied to a hydraulic management unit.

5.4 Plant Tissue Monitoring

Associated Hydraulic Management Units	Sample Type	Sample Frequency	Reporting Parameters ^a
MU-210-01 MU-210-02	Harvested Portion	Each Harvest	Yield in customary harvested units (ton/acre; bushels/acre)
MU-210-03	Not Required	Not Applicable	Not Applicable

- a. For each harvest, report the following in association with the plant tissue monitoring point serial number: (1) associated management unit, (2) sample collection date, (3) crop type, (4) harvested portion, and (5) reporting parameters in the table above.

6. Reporting Requirements

6.1 Annual Report Requirements

The permittee shall submit to DEQ an Annual Report prepared by a competent environmental professional covering the previous reporting year. The report shall be in the format as prescribed by DEQ.

6.1.1 Due Date

The Annual Report is due no later than January 31st of each year, which shall cover the previous reporting year.

6.1.2 Required Contents

The Annual Report shall include the following:

- 6.1.2.1. An interpretive discussion of all required monitoring data. The report shall address data quality objectives and facility environmental impacts. The reporting year for this permit is specified in section 4.5.
- 6.1.2.2. The results of the required monitoring as described in section 5 of this permit. If the permittee monitors any parameter more frequently than required by this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the annual report.
- 6.1.2.3. Written status of all work described in section 3, Compliance Schedule for Required Activities.
- 6.1.2.4. Written summary of all noncompliance events that occurred during the reporting year.
- 6.1.2.5. Submittal of the calculations and observations for management units specified in the table below.

Monitoring Point Serial Number	Parameter (Calculate for each MU)	Units
MU-210-01 MU-210-02 MU-210-03	Recycled water loading rate	- MG/month - Inches/month
	Irrigation water loading rate	- MG/month - Inches/month
	Recycled water loading rates for chloride and fluoride	- Pounds/acre-year
	Recycled water nitrogen, phosphorus, and TDS loading rates	- Pounds/acre-year
	Supplemental irrigation water TDS loading rates	- Pounds/acre-year
	Fertilizer nitrogen and phosphorus application rates	- Pounds/acre-year
	Calculate water table elevations(s), based on water table depth measurements	- Feet
	Chemicals used in cooling water treatment process	- Include description of chemical strength and structure or composition
	Crop type	- Name(s)
	Crop yield (each harvest, if harvested)	- Total pounds - Pounds/acre
Crop constituent removal: N, P, and salt uptake (calculations can be based on published reference values).	- Total pounds - Pounds/acre	

Other Reporting Requirements:

1. Annually document the flow measurement calibration of all flow meters and pumps used to directly or indirectly measure blowdown water and/or supplemental irrigation water flows applied to each HMU.
2. Document testing of any backflow prevention devices. Report the testing dates and the results of the test (pass or fail). If any test failed report the date of repair or replacement of backflow prevention device, and if the repaired/replaced device is operating correctly.
3. Visual observation of field conditions: areas of ponding, ice, and unusual conditions.
4. Record daily as necessary when land applying.
5. Keep records at the facility and have records available for DEQ inspection.

6.1.3 Submittal

The annual report shall include the following certification statement and be signed, dated and certified by the permittee's Responsible Official:

“I certify under penalty of law that this report and all attachments were prepared under my direction or supervision and the data and information presented in this report was collected, evaluated and prepared in conformance with the Quality Assurance Project Plan required by the permit. I also certify that the information provided in this submission is, to the best of my knowledge, true, accurate and complete and I acknowledge that knowing submission of false or incomplete information may result in permit revocation as provided for in IDAPA 58.01.17.920.01 or other enforcement action as provided for under Idaho law.”

The Annual Report shall be submitted to the following DEQ regional office at this address:

Engineering Manager
Idaho Department of Environmental Quality
Twin Falls Regional Office
1363 Fillmore Street
Twin Falls, ID 83301
(208) 769-1422/(208) 769-1404

6.2 Emergency and Noncompliance Reporting

Report noncompliance incidents to DEQ’s regional office in accordance with Section 7, “Standard Permit Conditions” and IDAPA 58.01.17.500.06.c&d. See section 5.1.3 for the regional office phone number.

In case of emergencies, call the emergency 24-hour number at 1-800-632-8000 and DEQ’s regional office.

See Section 7, “Standard Permit Conditions,” and IDAPA 58.01.17.500.06 for reporting requirements for facilities.

All instances of unpermitted discharges of wastewater to Surface Waters of the United States shall also be reported to the Environmental Protection Agency by telephone within 24 hours from the time the permittee becomes aware of the discharge and in writing within five days at this address:

NPDES/Stormwater Coordinator, USEPA Idaho Operations Office
950 W. Bannock, Suite 900
Boise, ID 83702
208-378-5746 / 208-378-5744; and EPA Hot Line: (206) 553-1846

7. Permit for Use of Industrial Wastewater

The following are permit requirements for industrial recycled water and are included as terms of this permit as required by the “Recycled Water Rules,” (IDAPA 58.01.17.616).

616. PERMIT FOR USE OF INDUSTRIAL RECYCLED WATER.

Industrial recycled water shall only be used in accordance with a permit issued pursuant to these rules. Permit conditions and limitations shall be developed by the Department on a case-by-case basis taking into account the specific characteristics of the wastewater to be recycled, the treatment necessary to ensure the use of such recycled water is in compliance with IDAPA 58.01.11, “Ground Water Quality Rule” and IDAPA 58.01.02, “Water Quality

Standards.” Unless otherwise indicated in this section, the permit application, processing and issuance procedures provided in this rule shall apply to industrial reuse permits. (4-7-11)

8. Standard Permit Conditions

The following standard permit conditions are included as terms of this permit as required by the “Recycled Water Rules” (IDAPA 58.01.17.500).

500. STANDARD PERMIT CONDITIONS.

The following conditions shall apply to and be included in all permits. (4-1-88)

- 01. Compliance Required.** *The permittee shall comply with all conditions of the permit. (4-1-88)*
- 02. Renewal Responsibilities.** *If the permittee intends to continue operation of the permitted facility after the expiration of an existing permit, the permittee shall apply for a new permit in accordance with these rules. (4-1-88)*
- 03. Operation of Facilities.** *The permittee shall at all times properly maintain and operate all structures, systems, and equipment for treatment, control and monitoring, which are installed or used by the permittee to achieve compliance with the permit or these rules. (4-1-88)*
- 04. Provide Information.** *The permittee shall furnish to the Director within a reasonable time, any information including copies of records, which may be requested by the Director to determine whether cause exists for modifying, revoking, re-issuing, or terminating the permit, or to determine compliance with the permit or these rules. (4-1-88)*
- 05. Entry and Access.** *The permittee shall allow the Director, consistent with Title 39, Chapter 1, Idaho Code, to:*
 - a.** *Enter the permitted facility. (4-1-88)*
 - b.** *Inspect any records that must be kept under the conditions of the permit. (4-1-88)*
 - c.** *Inspect any facility, equipment, practice, or operation permitted or required by the permit. (4-1-88)*
 - d.** *Sample or monitor for the purpose of assuring permit compliance, any substance or any parameter at the facility. (4-1-88)*
- 06. Reporting.** *The permittee shall report to the Director under the circumstances and in the manner specified in this section: (4-1-88)*
 - a.** *In writing at least thirty (30) days before any planned physical alteration or addition to the permitted facility or activity if that alteration or addition would result in any significant change in information that was submitted during the permit application process. When the alteration or addition results in a need for a major modification, such alteration or addition shall not be made prior to Department approval issued in accordance with these rules. (4-7-11)*
 - b.** *In writing thirty (30) days before any anticipated change which would result in noncompliance with any permit condition or these rules. (4-1-88)*
 - c.** *Orally within twenty-four (24) hours from the time the permittee became aware of any noncompliance which may endanger the public health or the environment at telephone numbers provided in the permit by the Director. (4-1-88)*

d. In writing as soon as possible but within five (5) days of the date the permittee knows or should know of any noncompliance unless extended by the Department. This report shall contain: (4-1-88)

i. A description of the noncompliance and its cause; (4-1-88)

ii. The period of noncompliance including to the extent possible, times and dates and, if the noncompliance has not been corrected, the anticipated length of time it is expected to continue; and (4-7-11)

iii. Steps taken or planned, including timelines, to reduce or eliminate the continuance or reoccurrence of the noncompliance. (4-7-11)

e. In writing as soon as possible after the permittee becomes aware of relevant facts not submitted or incorrect information submitted, in a permit application or any report to the Director. Those facts or the correct information shall be included as a part of this report. (4-1-88)

07. Minimize Impacts. *The permittee shall take all necessary actions to eliminate and correct any adverse impact on the public health or the environment resulting from permit noncompliance. (4-1-88)*

08. Compliance with "Ground Water Quality Rule." *Permits issued pursuant to these rules shall require compliance with IDAPA 58.01.11, "Ground Water Quality Rule." (4-7-11)*

9. General Permit Conditions

The following general permit conditions are identical to the cited rules at the time of issuance and are enforceable as part of this permit. Note that the rules cited in this section, and elsewhere in this permit, are supplemented by the rules themselves. Rules applicable to your facility are enforceable whether or not they appear in this permit.

9.1 Operations

9.1.1 Backflow Prevention

Reuse facilities with existing or planned cross-connections or interconnections between the recycled water system and any water supply (potable or nonpotable), shall have backflow prevention assemblies, devices, or methods as required by applicable rule or as specified in this permit and approved by DEQ.

For potable water systems, assemblies shall be adequately maintained, and shall be tested annually by a certified backflow assembly tester, and repaired or replaced as necessary to maintain operational status as specified in IDAPA 58.01.08.543 and 552. Records of backflow assembly test results, repairs, and replacements shall be kept at the reuse facility along with other operational records, and shall be discussed in the Annual Report and made available for inspection by DEQ.

Other approved means of backflow prevention, such as siphons and air-gap structures that cannot be tested, shall be maintained in operable order.

9.1.2 Restricted to Premises

Wastewater(s) or recharge waters applied to the land surface must be restricted to the premises of the application site. Wastewater discharges to surface water that require a permit under the Clean Water Act must be authorized by the United States Environmental Protection Agency (IDAPA 58.01.16.600.02).

9.1.3 Health Hazards, Nuisances, and Odors Prohibited

Health hazards, nuisances, and odors are prohibited as follows:

- Wastewater must not create a public health hazard or nuisance condition. (IDAPA 58.01.16.600.03)
- No person shall allow, suffer, cause or permit the emission of odorous gases, liquids or solids into the atmosphere in such quantities as to cause air pollution, (IDAPA 58.01.01.776.01)
- Air Pollution. The presence in the outdoor atmosphere of any air pollutant or combination thereof in such quantity of such nature and duration and under such conditions as would be injurious to human health or welfare, to animal or plant life, or to property, or to interfere unreasonably with the enjoyment of life or property. (IDAPA 58.01.01.006.06)

9.1.4 Solids Management

Solids must be managed as follows:

- Solid waste regulated under “Solid Waste Management Rules and Standards” (IDAPA 58.01.06) shall be managed to comply with such rules and, where applicable, this permit.
- Sludge usage regulated under “Wastewater Rules” (IDAPA 58.01.16.650) shall be managed to comply with such rules and, where applicable, this permit.

Note that biosolids use is regulated by federal law, and may be regulated by local ordinances.

9.1.5 Temporary Cessation of Operations and Closure (IDAPA 58.01.17.801)

Temporary cessation of operations and closure must be addressed as follows:

01. Temporary Cessation. *A permittee shall implement any applicable conditions specified in the permit for temporary cessation of operations. When the permit does not specify applicable temporary cessation conditions, the permittee shall notify the Director prior to a temporary cessation of operations at the facility greater than sixty (60) days in duration and any cessation not for regular maintenance or repair. Cessation of operations necessary for regular maintenance or repair of a duration of sixty (60) days or less are not required to notify the Department under this section. All notifications required under this section shall include a proposed temporary cessation plan that will ensure the cessation of operations will not pose a threat to human health or the environment.* (4-7-11)

02. Closure. *A closure plan shall be required when a facility is closed voluntarily and when a permit is revoked or expires. A permittee shall implement any applicable conditions specified in the permit for closure of the facility. Unless otherwise directed by the terms of the permit or by the Director, the permittee shall submit a closure plan to the Director for approval at least ninety (90) days prior to ceasing operations. The closure plan shall ensure that the closed facility will not pose a threat to human health and the environment. Closure plan*

approval may be conditioned upon a permittee's agreement to complete such site investigations, monitoring, and any necessary remediation activities that may be required. (4-7-11)

9.1.6 Plan of Operation (IDAPA 58.01.17.300.05)

The Plan of Operation must comply with the following:

05. Reuse Facility Operation and Maintenance Manual or Plan of Operations. *A facility's operation and maintenance manual must contain all system components relating to the reuse facility in order to comply with IDAPA 58.01.16 "Wastewater Rules," Section 425. Manuals and manual amendments are subject to the review and approval provision therein. In addition to the content required by IDAPA 58.01.16.425, manuals for reuse facilities shall include, if applicable: operation and management responsibility, permits and standards, general plant description, operation and control of unit operations, land application site maps, wastewater characterization, cropping plan, hydraulic loading rate, constituent loading rates, compliance activities, seepage rate testing, site management plans, monitoring, site operations and maintenance, solids handling and processing, laboratory testing, general maintenance, records and reports, store room and inventory, personnel, an emergency operating plan, and any other information required by the Department.* (4-7-11)

9.1.7 Ground Water Quality (IDAPA 58.01.11)

The permittee shall comply with the requirements of IDAPA 58.01.11 – Ground Water Quality Rule.

9.2 Administrative

Requirements for administration of the permit are defined as follows.

9.2.1 Permit Modification (IDAPA 58.01.17.700)

01. Modification of Permits. *A permit modification may be initiated by the receipt of a request for modification from the permittee, or may be initiated by the Department if one (1) of more of the following causes for modification exist:* (4-7-11)

a. Alterations. *There are material and substantial alterations or additions to the permitted facility or activity which occurred after permit issuance which justify the application of permit conditions that are different or absent in the existing permit.* (4-7-11)

b. New standards or regulations. *The standards or regulations on which the permit was based have been changed by promulgation of amended standards or regulations or by judicial decision after the permit was issued.* (4-7-11)

c. Compliance schedules. *The Department determines good cause exists for modification of a compliance schedule or terms and conditions of a permit.* (4-7-11)

d. Non-limited pollutants. *When the level of discharge of any pollutant which is not limited in the permit exceeds the level which may cause an adverse impact to surface or ground waters.* (4-7-11)

e. To correct technical mistakes, such as errors in calculation, or mistaken interpretations of law made in determining permit conditions. (4-7-11)

f. When a treatment technology proposed, installed, and properly operated and maintained by the permittee fails to achieve the requirements of the permit. (4-7-11)

02. Minor Modifications. *Minor modifications are those which if granted would not result in any increased hazard to the environment or to the public health. If a permit modification satisfies the criteria for "minor*

modifications," the permit may be modified without issuance of a draft permit or public review. Minor modifications are normally limited to: (4-7-11)

- a. The correction of typographical errors or formatting changes; (4-7-11)
- b. Transfer of ownership or operational control, or responsible official; (4-7-11)
- c. A change in monitoring or reporting frequency requirements, or revision of a laboratory method; (4-7-11)
- d. Change compliance due date in a schedule of compliance, provided the new date does not exceed six (6) months; (4-7-11)
- e. Change or add a sampling location; (4-7-11)
- f. Change to a higher level of treatment without a change in end uses; (4-7-11)
- g. Change in terminology; (4-7-11)
- h. Removal of an allowed use; (4-7-11)
- i. Correct minor technical errors, such as citations of law, and citations of construction specifications; (4-7-11)
- j. Change in a contingency plan resulting in equal or more efficient responsiveness; or (4-7-11)
- k. Removal of acreage from irrigation without an increase in loadings. (4-7-11)

03. Major Modifications. All modifications not considered minor shall be considered major modifications. The procedure for making major modifications shall be the same as that used for a new permit under these rules. Some examples of the major modifications are: (4-7-11)

- a. Changes in the treatment system; (4-7-11)
- b. Adding an allowed use; (4-7-11)
- c. Changes to a lower (less treated) class of water; (4-7-11)
- d. Addition of acreage used for irrigation; or (4-7-11)
- e. Changes to less stringent discharge limitations. (4-7-11)

9.2.2 Permit Transfer (IDAPA 58.01.17.800)

01. General. A permit may be transferred only upon approval of the Department. No transfer is required for a corporate name change as long as the secretary of state can verify that a change in name alone has occurred. An attempted transfer is not effective for any purpose until approved in writing by the Department. (4-7-11)

02. Request for Transfer. Either the permit holder (permittee) or the person to whom the permit is proposed to be transfer (transferee) shall submit to the department a request for transfer at least thirty (30) days before the proposed transfer date. The request for transfer shall include: (4-7-11)

- a. Legal name and address of the permittee; (4-7-11)
- b. Legal name and address of the transferee; (4-7-11)

- c. *Location and the common name of the facility;* (4-7-11)
- d. *Date of proposed transfer;* (4-7-11)
- f. *A signed declaration by the transferee that the transferee has reviewed the permit and understands the terms of the permit;* (4-7-11)
- g. *A sworn statement that the request is made with the full knowledge and consent of the permittee if the transferee is submitting the request;* (4-7-11)
- h. *Identification of any judicial decree, compliance agreement, enforcement order, or other outstanding obligating instrument, the terms of which have not been met, along with legal instruments sufficient to address liabilities under such decree, agreement, order, or other obligating instrument; and* (4-7-11)
- i. *Any other information the director may reasonably require.* (4-7-11)

03. *Effective Date of Transfer.* Responsibility for compliance with the terms and conditions of the permit and liability for any violation associated therewith is assumed by the transferee, effective on the date indicated in the approved transfer. (4-7-11)

04. *Compliance with Permit Conditions Pending Transfer Approval.* Prior to a transfer approval, the permittee shall continue to be responsible for compliance with the terms and conditions of the permit and be liable for any violation associated therewith, regardless of whether ownership or operational control of the permitted facility has been transferred. (4-7-11)

05. *Transferee Liability Prior to Transfer Approval.* If a proposed transferee causes or allows operation of the facility under his ownership or control before approval of the permit transfer, such transferee shall be considered to be operating without a permit or authorization required by these rules and may be cited for additional violations as applicable. (4-7-11)

06. *Compliance Record of Transferee.* The director may consider the prior compliance record of the transferee, if any, in the decision to approve or disapprove a transfer. (4-7-11)

9.2.3 Permit Revocation (IDAPA 58.01.17.920)

01. *Conditions for Revocation.* The Director may revoke a permit if the permittee violates any permit condition or these rules, or the Director becomes aware of any omission or misrepresentation of condition or information relied upon when issuing the permit. (4-7-11)

02. *Notice of Revocation.* Except in cases of emergency, the Director shall issue a written notice of intent to revoke to the permittee prior to final revocation. Revocation shall become final within thirty-five (35) days of receipt of the notice by the permittee, unless within that time the permittee requests an administrative hearing in writing. The hearing shall be conducted in accordance with IDAPA 58.01.23, Rules of Administrative Procedure Before the Board of Environmental Quality." (5-3-03)

03. *Emergency Action.* If the Director finds the public health, safety or welfare requires emergency action, the Director shall incorporate findings in support of such action in a written notice of emergency revocation issued to the permittee. Emergency revocation shall be effective upon receipt by the permittee. Thereafter, if requested by the permittee in writing, the Director shall provide the permittee a revocation hearing and prior notice thereof. Such hearings shall be conducted in accordance with IDAPA 58.01.23, Rules of Administrative Procedure Before the Board of Environmental Quality." (3-15-02)

04. *Revocation and Closure.* A permittee shall perform the closure requirements in a permit, the closure requirements of these rules, and complete all closure plan activities notwithstanding the revocation of the permit. (4-7-11)

9.2.4 Violations (IDAPA 58.01.17.930)

Any person violating any provision of these rules or any permit or order issued thereunder shall be liable for a civil penalty not to exceed ten thousand dollars (\$10,000) or one thousand dollars (\$1,000) for each day of a continuing violation, whichever is greater. In addition, pursuant to Title 39, Chapter 1, Idaho Code, any willful or negligent violation may constitute a misdemeanor. (4-1-88)

9.2.5 Severability

The provisions of this permit are severable, and if a provision or its application is declared invalid or unenforceable for any reason, that declaration will not affect the validity or enforceability of the remaining provisions.

10. Other Applicable Laws

DEQ may refer enforcement of the following provisions to the state agency authorized to enforce that rule. The permittee shall comply with all applicable provisions identified in this section, as well as all other applicable federal, state, and local laws, statutes, and rules.

10.1 Owner Responsibilities for Well Use and Maintenance

10.1.1 Well Use

The well owner must not operate any well in a manner that causes waste or contamination of the ground water resource. Failure to operate, maintain, knowingly allow the construction of any well in a manner that violates these rules, or failure to repair or properly decommission (abandon) any well as herein required will subject the well owner to civil penalties as provided by statute. See IDAPA 37.03.09.036.01 and consult the Idaho Department of Water Resources (IDWR) for more information.

10.1.2 Well Maintenance

The well owner must maintain the well to prevent waste or contamination of ground waters through leaky casings, pipes, fittings, valves, pumps, seals, or through leakage around the outside of the casings, whether the leakage is above or below the land surface. Any person owning or controlling a noncompliant well must have the well repaired by a licensed well driller under a permit issued by the IDWR director in accordance with the applicable rules. See IDAPA 37.03.09.036.02 and consult IDWR for more information.

10.1.3 Wells Posing a Threat to Human Health and Safety or Causing Contamination of the Ground Water Resource

The well owner must have any well shown to pose a threat to human health and safety or cause contamination of the ground water resource immediately repaired or decommissioned (abandoned) by a licensed well driller under a permit issued by the IDWR director in accordance with the applicable rules. See IDAPA 37.03.09.036.06 and consult the IDWR for more information.

11. Site Maps

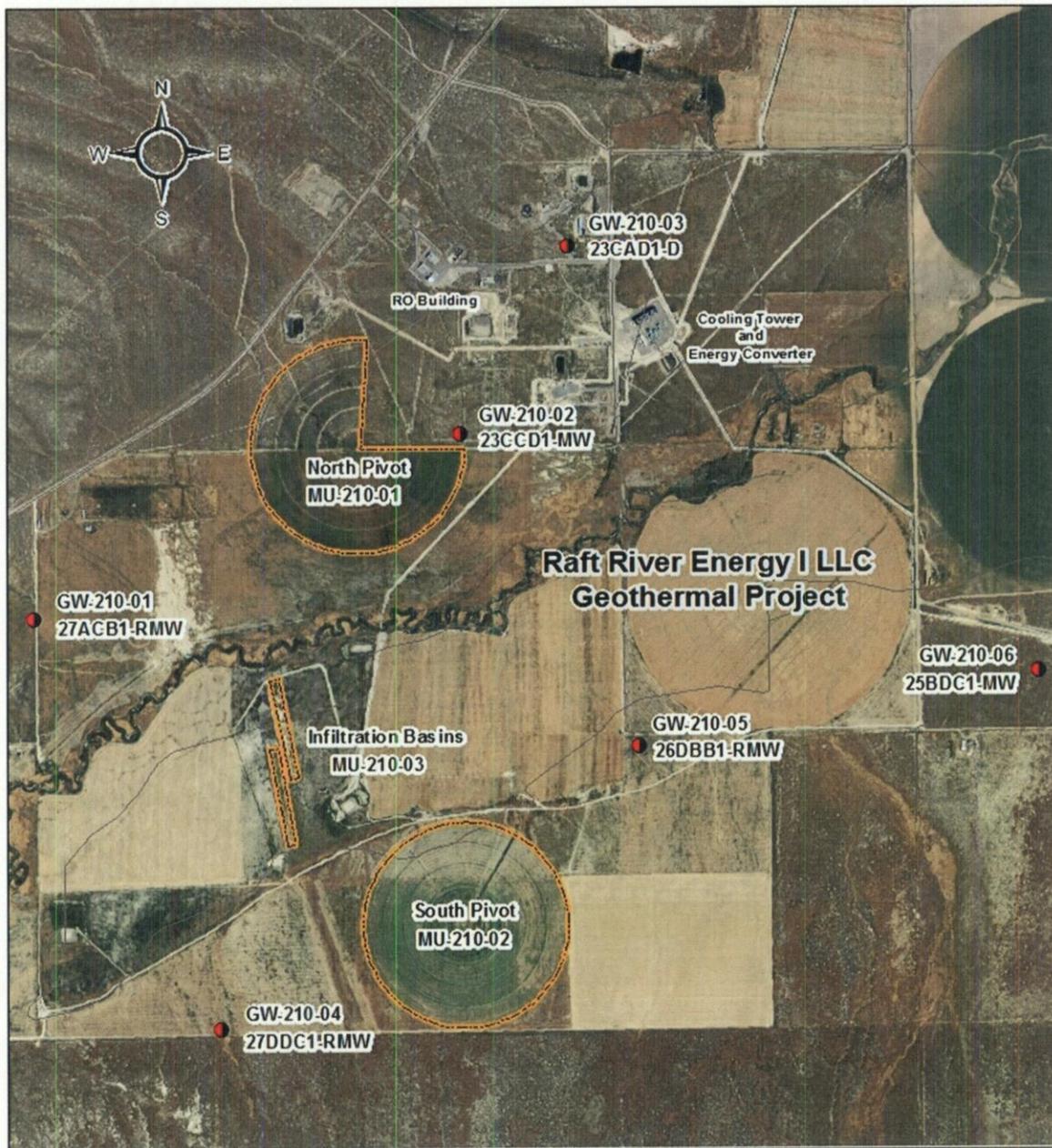
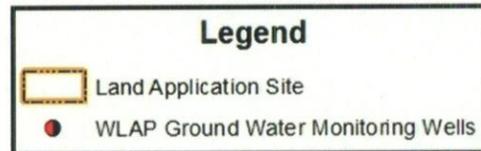
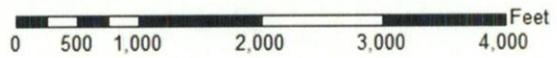


Figure 1. Site View





Raft River Energy I LLC
Geothermal Project

Malta



Legend

-  Land Application Site
-  WLAP Ground Water Monitoring Wells

Figure 2. Regional View