

Idaho Department of Environmental Quality

Reuse Permit

I-050-03: Modification 1

Permittee Name: The Amalgamated Sugar Company LLC (TASCO), Mini-Cassia Facility

Effective Date of Modification: June 17, 2015

Complete Description of Modification:

1. Section 4.1 of the reuse permit lists the management units permitted for recycled water application. The East PCC storage area, MU-05012, has been added as a permitted management unit and is approved for recycled water application.

4.1 Hydraulic Management Unit Descriptions

| Serial Number | Description | Type of Recycled Water Allowed | Irrigation System Type | Maximum Acres Allowed |
|-----------------------|-----------------------|--------------------------------------|------------------------|-----------------------|
| MU-05012 ^p | East PCC Storage Area | Process and/or condensate wastewater | Hand Lines | 14.7 |

- b. Prior to any recycled water application to MU-05012, a minimum depth of three (3) feet of precipitated calcium carbonate (PCC) material shall be deposited and compacted over the entire permitted acreage.

2. Section 4.2 of the reuse permit has been updated to include the hydraulic loading limits for MU-05012.

4.2 Hydraulic Loading Limits, Vegetation, and Grazing

| Serial Number | Growing Season Hydraulic Loading | Nongrowing Season Maximum Hydraulic Loading, inches |
|-----------------------|---|---|
| MU-05012 ^d | Process and/or condensate wastewater at three times the bare soil irrigation rate for the period of application using an irrigation efficiency of 75%. ^c | Not Allowed |

- c. Bare soil irrigation rate is equal to the bare soil evaporation rate divided by an irrigation efficiency of 75%. Use bare soil evaporation data from ET Idaho <http://data.kimberly.uidaho.edu/ETIdaho/> using Rupert weather station data.
 - d. Maximize process wastewater to the PCC storage area to reduce NVDS loading rates on the agricultural management units.

3. Section 4.3 of the reuse permit has been updated to include the constituent loading limits for MU-05012.

4.3 Constituent Loading Limits

| Serial Number | Constituent Loading (from all sources) | | | |
|---------------|--|----------------------------|----------------------------------|--------------------------------------|
| | Nitrogen (lb/acre) | Salt (NVDS) (lb/acre-year) | COD growing season (lb/acre-day) | COD non-growing season (lb/acre-day) |
| MU-05012 | No Limit | No Limit | No Limit | No Limit |

4. Section 4.5 of the reuse permit specifies conditions for the application of recycled water to the PCC storage area. The conditions listed reference specific sections of the April 27, 2011 Management Plan for Process Water Evaporation, Dry Lime Storage Area. Specifying the date and sections of the management plan does not allow the permittee to change or update the management plan; therefore, the date and sections of the approved management plan are no longer specified. Proposed changes to the referenced management plan shall be submitted to DEQ for review and approval prior to implementation.

4.5 Other Permit Limits and Conditions

| Category | Permit Limits and Conditions |
|---|---|
| PCC Storage Areas, MU-05011 MU-05012 | Process wastewater application on the PCC Storage Areas (MU-05011, MU-05012) shall be applied in accordance with the DEQ approved Management Plan for Process Water Evaporation, Dry Lime Storage Area. The requirements specified in sections 4 and 5 of this permit shall supersede if different from the requirements contained in the management plan. ^a |

- a. Proposed changes to the DEQ approved Management Plan for Process Water Evaporation, Dry Lime Storage Area shall be submitted to DEQ for review and approval prior to implementation.

5. Section 5.1 of the reuse permit has been updated to include the constituent and flow monitoring requirements for the recycled water applied to MU-05012.

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-05003 Process and/or condensate wastewater | Wastewater to PCC storage areas: MU-05011, MU-05012 | Monthly grab sample during application | <ul style="list-style-type: none"> - Total Kjeldahl nitrogen, as N - Nitrite + nitrate-nitrogen, as N - Chemical oxygen demand - Total dissolved solids - Volatile dissolved solids - Non-volatile dissolved solids (calculated) |

5.1.2 Flow Monitoring

| Monitoring Point Serial Number and Location | Sample Description | Sample Type/ Frequency | Measured and/or Reporting Requirements |
|---|--|--|---|
| MU-05012 | Process and/or condensate wastewater volume to the East PCC storage area, MU-05012 | Daily meter readings as needed to calculate the volume in MG and inches for each zone used during each application event for each type of wastewater | <ul style="list-style-type: none"> - Area of each irrigation zone in acres - Flow volume in inches and MG for each zone used during each application event - Flow volume in inches and MG for entire growing season - Date application started and ended - Bare soil evaporation rate for the actual application period - Daily observation log and management report during application season |

6. Section 5.3 of the reuse permit has been updated to include the soil monitoring unit description and the required moisture monitoring for MU-05012.

5.3 Soil Monitoring

5.3.1 Soil Monitoring Unit Descriptions

| Monitoring Point Serial Number | Description | Acres ^a | Associated Hydraulic Management Unit | Notes |
|--------------------------------|-----------------------|---|--------------------------------------|--|
| SU-05014 | East PCC Storage Area | Report acres used as specified in section 6 | MU-05012 | The East PCC Storage Area shall have a maximum area of 14.7 acres available for the application of recycled water. |

- a. Total acres available for cropping. If less than the maximum acres are used for wastewater application, the loading rates shall be based on the actual acres used. SU-05012, SU-05013, and SU-05014 are not used for agricultural production.

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-05014 | Composite samples ^b | Prior to starting application, after the first application, after every fourth subsequent application | Moisture content, % |

- b. A minimum of three locations for each zone used for application. At each location, samples shall be obtained from three depths: 0-6 inches, 6-12 inches, and 12-18 inches. The three 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.

7. Section 6.1.2, item 9 of the reuse permit has been updated to include the reporting requirements for MU-05012 that must be submitted with the annual report.

6.1.2 Required Contents

The Annual Report shall include the following:

9. The parameters in the following table:

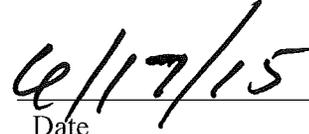
| Monitoring Point Serial Number | Parameter (Calculate for each MU) | Units |
|---|---------------------------------------|--|
| MU-05012 (Process wastewater to East PCC Storage Area) | Process wastewater water loading rate | - Date(s) of each application - Gallons/application for each irrigation zone - Inches/application for each zone - Annual gallons and inches for each application zone |
| | Application period | Start and end date of application |
| | Application area | Irrigation zone and acres |
| | Annual Application | - Million gallons - Inches |
| MU-05012 (Condensate wastewater to East PCC Storage Area) | Condensate wastewater loading rate | - Date(s) of each application - Gallons/application for each irrigation zone - Inches/application for each zone - Annual gallons and inches for each application zone |
| | Application period | Start and end date of application |
| | Application area | Irrigation zone and acres |
| | Annual Application | - Million gallons - Inches |
| Other Reporting Requirements: | | |
| 2. MU-05012: Daily observation and management report during application season. | | |

8. The facility map located in Section 11.1 of the reuse permit has been updated to include the East PCC Storage Area, MU-05012. The updated facility map is attached to this modification.

The modifications described above in this Modification 1 are hereby approved. This modification to the permit is incorporated into and constitutes as part of Reuse Permit I-050-03. The modified permit is incomplete and unlawful under IDAPA 58.01.17 Recycled Water Rules without this modification attached.



Signature



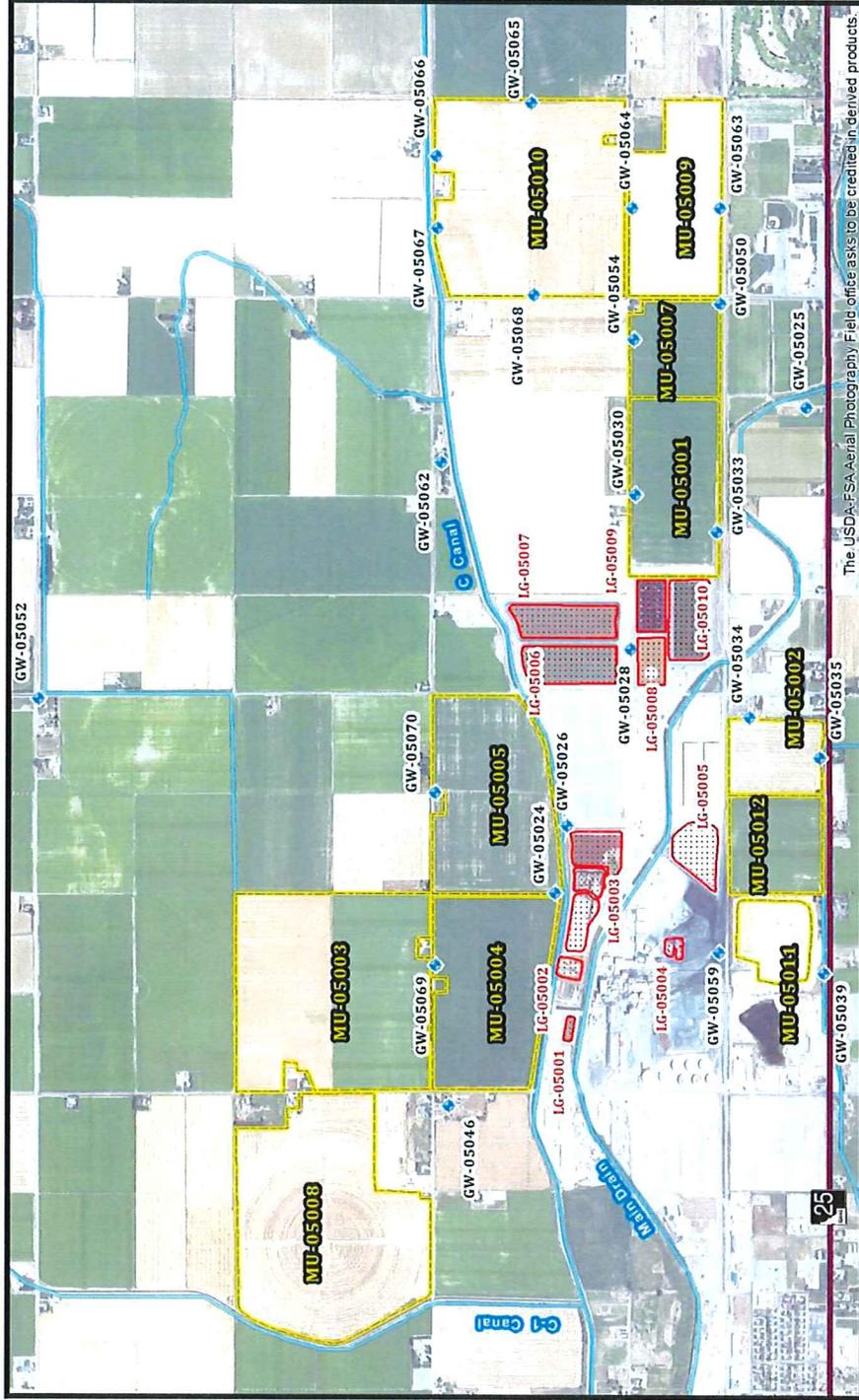
Date

David Anderson

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11.1 Facility Map



Legend

- Monitoring Well
- Highway
- Major Roads
- Streams/Canals
- Lagoon
- Reuse Irrigation

North Arrow

Scale: 0, 400, 800 Meters / 0, 1,500, 3,000 Feet

Amalgamated Sugar Company LLC
Mini-Cassia Facility, Paul
I-050-03

BIGGS-11-2015