

ATTACHMENT A: SUMMARY OF REQUIREMENTS**OPERATING AND REPORTING CONDITIONS****Facility Information**

Facility name: Marquis Biocarbon Project
MCI CCS 3

Facility address: 10000 Marquis Dr.
Hennepin, IL 61327

Well location: S2 T32N R2W
41.27026520°N, 89.30939322°W

Injection Well Operating Conditions, Parameters, and Limits:**Table 1:** Summary of operating parameters.

PARAMETER/CONDITION	LIMITATION	UNIT
Maximum Injection Pressure - Surface	1,555	psig
Maximum Injection Pressure - Injection Zone at the top perforation	2,206	psig
Minimum Annulus Pressure	100	psig
Minimum Annulus Pressure/Tubing Differential (directly above and across packer)	100	psig
Carbon Dioxide Purity	>99.86%	percent
Maximum Injection Rate	1,500,000	metric tons/year

During the 12-year operational period, the injection pressure will be measured at the wellhead and at the injection interval.

The maximum injection pressure of the injection zone, which serves to prevent confining-formation fracturing, was determined using a fracture gradient of 0.76 psi/ft calculated from Minifrac tests performed at the MCI MW 1 characterization well. The injection zone maximum injection pressure is calculated as 90% of the depth to the top of the injection zone multiplied by the fracture gradient. The surface maximum injection pressure is the injection zone maximum injection pressure minus the static head.

After the well is constructed, the Maximum Injection Pressure (MIP) will be recalculated, the MIP limit in the table above will be revised, using a fracture gradient measured from step rate tests that will be conducted in the injection well and the actual depth of the top of the injection zone.

Summary of Measurement, Assessment or Update, and Reporting Frequencies**Table 2: Summary of monitoring activities.**

ACTIVITY	MINIMUM RECORDING FREQUENCY	MINIMUM REPORTING FREQUENCY
CO ₂ stream characterization	Continuous	Semi-annually
Flow rate, mass, annulus pressure, annulus fluid level, and temperature	Continuous	Semi-annually
Injection Pressure at the wellhead	Continuous	Semi-annually
Injection Pressure at the Injection Zone	Continuous	Semi-annually
Injection Zone Fluid Monitoring	Annually	Annually
Corrosion monitoring	Quarterly	Semi-annually
External MIT	Annually	Annually
Fall-off Test	Every 5 years	Every 5 years
Above Confining Zone Plume Monitoring – Galesville Sandstone	Quarterly for first 2 years of operation; semi-annually thereafter	Annually
Above Confining Zone Plume Monitoring–Gunter Sandstone	Annually	Annually
Above Confining Zone Plume Monitoring- Gunter Sandstone– Pulse Neutron Logging	Annually	Annually
Area of Review/Corrective Action Plan Assessment and Financial Responsibility Update	NA	Annually

Note: All testing and monitoring frequencies and methodologies are included in Attachment C (the Testing and Monitoring Plan) of this Permit.

The report submittal schedule is (determined on a calendar basis):

- Semiannual Reports due on or before July 31st for first reporting period and January 31st for second reporting period
- Annual Reports due on or before January 31st
- 5-year reports due on or before February 15th of the end of the 5-year reporting cycle (from January 1st year 1 to December 31st year 5)