

**SUMMARY OF REQUIREMENTS
CLASS VI OPERATING AND REPORTING CONDITIONS**

CTV V

1.0 Document Version History

Version	Revision Date	File Name	Description of Change
1	5/31/2023	Apdx 11.4 Inj Well Reqs KI-I-S1_v1	Original Submission

2.0 Facility Information

Facility name: CTV V

Facility contact: William Chessum / Technical Director
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Location: CTV V, San Joaquin County, CA
38.08 / -121.42

3.0 Operating Conditions

The maximum injection pressure, which serves to prevent confining-formation fracturing, was determined using a conservative 0.76 pounds per square inch/foot (psi/ft) fracture pressure gradient multiplied by 0.9, per 40 CFR 146.88(a). Carbon TerraVault Holdings, LLC (CTV) will conduct a step-rate test in the injection zone as a part of pre-operational testing to determine the fracture gradient and will update the maximum injection pressure, if necessary. **Table 1** presents a summary of well operating conditions for Injector KI-I-S1.

Table 1: KI-I-S1 Injection Well Operating Conditions

Parameter/Condition	Limitation or Permitted Value
Maximum Injection Pressure – Surface	1,924 psi,
Maximum Injection Pressure – Bottom-hole	4,311 psi
Annulus Pressure	2,913 psi
Annulus Pressure/Tubing Differential	108 psi
Maximum CO ₂ Injection Rate	15.76 mmscfd

4.0 Routine Shutdown Procedure

For injection shutdowns occurring under routine conditions (e.g., for well workovers), the permittee will reduce CO₂ injection at a rate of 1.64 million standard cubic feet per day (mmscfd) over a six-day period to ensure protection of health, safety, and the environment. (Procedures that

address immediately shutting-in the well are in the Emergency and Remedial Response Plan of this permit.)

Table 2: Class VI Injection Well Reporting Requirements

Activity	Reporting Requirements
CO ₂ stream characterization	Semiannually
Injection pressure, injection rate, injection volume, pressure on the annulus, and annulus fluid level	Semiannually
Corrosion monitoring	Semiannually
External MITs	Within 30 days of completion of test
Pressure fall-off testing	In the next semiannual report

Note: All testing and monitoring frequencies and methodologies are included in the Testing and Monitoring Plan of this permit.

Table 3: Class VI Project Reporting Requirements

Activity	Reporting Requirements
Groundwater quality monitoring	Semiannually
Plume and pressure-front tracking	In the next semiannual report
Monitoring well MITs	Within 30 days of completion of test
Financial responsibility updates pursuant to H.2 and H.3(a) of this permit	Within 60 days of update

Note: All testing and monitoring frequencies and methodologies are included in the Testing and Monitoring Plan of this permit.