



REGION 9

SAN FRANCISCO, CA 94105

August 6, 2025

Sent via email only

Matthew Jalali
Bakersfield Renewable Fuels, LLC
6451 Rosedale Highway
Bakersfield, CA 93308

Dear Matthew Jalali:

On March 27, 2025, the United States Environmental Protection Agency, Region 9 (EPA) met with Bakersfield Renewable Fuels (BKRF) to discuss their request for a variable maximum allowable injection pressure (MAIP) for injection wells "Red Ribbon" WD-1, "Red Ribbon" WD-2, and "Red Ribbon" WD-3. A modification of the MAIP is allowed under Part II.D.3 of the permit through written request and justification via step rate testing (SRT). BKRF proposed a range of MAIPs for each well based on SRTs conducted on WD-2 and WD-3, calculating a rate-driven MAIP for each well to improve the efficiency of the injection operations at the facility. This was done by using various flow rates to calculate friction pressure loss in the well. The following MAIP ranges were developed for each well:

WD-1

Injection Rate		Friction Pressure Loss (psi)	Calculated MAIP (psi)
Barrels of Water Per Day (BWPD)	Gallons Per Minute (GPM)		
0 - 2,999	0 - 87.5	0	1,303
3,000 - 3,499	87.5	41.9	1,353
3,500 - 3,999	102.1	103.1	1,402
4,000 - 4,499	116.7	167.2	1,453
4,500 - 4,999	131.3	234.3	1,507
5,000 - 5,499	145.8	304.2	1,563
5,500 - 5,999	160.4	377.1	1,621
6,000 - 6,499	175.0	453.0	1,682
6,500 - 6,999	189.6	531.8	1,745
7,000 - 7,499	204.2	613.5	1,810
7,500 - 8,000	218.8	698.1	1,878

WD-2

Injection Rate		Friction Pressure Loss (psi)	Calculated MAIP (psi)
Barrels of Water Per Day (BWPD)	Gallons Per Minute (GPM)		
0 - 499	0 - 14.6	0	1,297
500 - 999	14.6	20.5	1,330
1,000 - 1499	29.2	53.8	1,357
1,500 - 1,999	43.8	94.5	1,389
2,000 - 2,499	58.3	141.1	1,427
2,500 - 2,999	72.9	192.5	1,468
3,000 - 3,499	87.5	248.2	1,512
3,500 - 3,999	102.1	307.6	1,560
4,000 - 4,499	116.7	370.4	1,610
4,500 - 5,000	131.3	436.4	1,663

WD-3

Injection Rate		Friction Pressure Loss (psi)	Calculated MAIP (psi)
Barrels of Water Per Day (BWPD)	Gallons Per Minute (GPM)		
0 - 2,999	87.5	0	1,267
3,000 - 3,499	87.5	41.9	1,317
3,500 - 3,999	102.1	103.1	1,366
4,000 - 4,499	116.7	167.2	1,417
4,500 - 4,999	131.3	234.3	1,471
5,000 - 5,499	145.8	304.2	1,527
5,500 - 5,999	160.4	377.1	1,585
6,000 - 6,499	175.0	453.0	1,646
6,500 - 6,999	189.6	531.8	1,709
7,000 - 7,499	204.2	613.5	1,774
7,500 - 8,000	218.8	698.1	1,842

EPA hereby approves the above MAIP ranges for WD-1, WD-2, and WD-3 with the following conditions:

- Prior to injecting at pressures above 1,250 psi, BKRF must upgrade their piping systems to accommodate higher injection rates.
- In the quarterly report, BKRF is required to report the calculated MAIP for each recorded injection rate. The report must also include a graph illustrating flow rate (gpm) and injection pressure (psi) against time (minutes). All quarterly data regarding injection pressure, flow rate, and calculated MAIP values must be plotted to clearly identify any exceedances.
- If the tubing in any of the injection wells is changed or replaced, the friction pressure loss and

MAIP must be recalculated and submitted for EPA approval, prior to receiving re-authorization to inject.

- EPA will request that BKRF re-evaluate the friction pressure loss periodically and will determine potential changes to the approved MAIP ranges based on these re-evaluations.

If you have any questions regarding this matter, please contact me at (415) 972-3971 or call Kaylee Ball at (415) 972-3944.

Sincerely,

**DAVID
ALBRIGHT**

David Albright

Manager, Groundwater Protection Section

Digitally signed by DAVID
ALBRIGHT

Date: 2025.08.06 11:46:05 -0700

cc (via email): Bob Lorton, Bakersfield Renewable Fuels

Chris Jones, CalGEM Inland District

Alex Olsen, Central Valley Regional Water Quality Control Board