



MICHELLE LUJAN GRISHAM
GOVERNOR

JAMES C. KENNEY
CABINET SECRETARY

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

October 20, 2023

Ruikun Xin, R&D Engineer
SolMem, LLC
5252 Hollister Street, Suite 501 A
Houston, TX 77040

RE: Response to Produced Water Pilot Project Notice of Intent; Discharge Permit Not Required for SolMem LLC

Dear Ruikun Xin:

The New Mexico Environment Department (NMED) received a Produced Water Pilot Project Notice of Intent (PW-NOI) from you on July 27, 2023, and revised NOI submitted on September 14, 2023 regarding the proposed pilot project for treated produced water research at the Brackish Groundwater National Desalination Research Facility (BGNDRF) for SolMem, LLC. The proposed pilot project is located at 500 Lavelle Road in Alamogordo, in Section 36, Township 16S, Range 9E, Otero County.

The notice satisfies the requirements of Subsection A of 20.6.2.1201 NMAC, Ground and Surface Water Protection Regulations (20.6.2 NMAC).

The PW-NOI identifies the pilot project details as follows:

SolMem LLC will conduct testing at the BGNDRF facility in Alamogordo to treat produced water from the oil and gas industry. The pilot project is expected to last 12 weeks and treat approximately 4 barrels (168 gallons) per day of produced and other waters, using their Solar Multi-Effect membrane distillation technology (SolarMEMD). The SolarMEMD technology extracts water from saline wastewater using solar energy and is a low cost zero carbon footprint process. All treated produced water will be sampled for lab analyses and returned to a SWD for disposal. SolMem LLC has confirmed that the project will be conducted in a closed loop system, and there will be no discharge of treated or produced water to ground or surface water.

This “No DP Required” letter is applicable to SolMem LLC activities involving the treatment of produced water. The existing NMED discharge permit DP-1472 is applicable to all other SolMem LLC treatment activities that do not use produced water.

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Ground Water Quality Bureau | 1190 Saint Francis Drive, PO Box 5469, Santa Fe, New Mexico 87502-5469

Telephone (505) 827-2900 | www.env.nm.gov/gwqb/

Based on the information provided in your PW-NOI, NMED has determined that NMED is not requiring a Discharge Permit if the Produced Water Pilot Project occur as described. A Discharge Permit is not required at this time because the information provided indicates the pilot project will be conducted in a manner that will not result in treated produced water directly or indirectly moving into ground or surface water.

Although NMED is not requiring a Discharge Permit for this Produced Water Pilot Project at this time, this does not relieve you of your liability should your operation result in actual pollution of surface or groundwater. Further, this decision by NMED does not relieve you of your responsibility to comply with any other applicable federal, state, and/or local laws and regulations, zoning requirements, plumbing codes, and nuisance ordinances.

If at some time in the future you intend to change the pilot project location, processes, scope, or plan in any way you must file a revised PW-NOI with NMED. If NMED determines that you are conducting the pilot project in a manner other than as described in your PW-NOI, you must file a revised PW-NOI with NMED and you may be subjected to an enforcement action by NMED.

This determination is pursuant to WQCC Regulation 20.6.2.3106.B NMAC, and the NMED Delegation Order dated March 24, 2023, through which the Cabinet Secretary has delegated this authority to sign responses to a NOI to discharge to the Chief of the Ground Water Quality Bureau. If you have any questions, please contact either Kathleen Murphy at (505) 660-7567 or Jason Herman, Program Manager of the Ground Water Pollution Prevention Section, at (505) 649-3871 or submit an email to pps.general@env.nm.gov.

Sincerely,

Justin D. Ball, Chief
Ground Water Quality Bureau

JB:KM

cc: John Rhoderick, WPD Division Director, NMED
Kathryn Becker, Tribal Liaison, NMED
Andrew Knight, Assistant General Counsel, NMED
Jason Herman, Program Manager, GWQB PPS, NMED
Susan Lucas-Kamat, Program Manager, SWQB PSR
Produced Water No DP Required File
Dylan Fuge, Division Director, OCD EMNRD
Jim Griswold, Special Projects, OCD EMNRD
Patricia Sullivan, Director, NMPWRC - NMSU

Ruikun Xin
October 20, 2023
Page 3 of 3

Mike Hightower, Manager, NMPWRC - NMSU