

**SPECIAL CONDITIONS
GENERAL PERMIT WMGR064**

1. The approval herein granted is limited to the beneficial use of natural gas well brines for roadway pre-wetting (brines mixed with antiskid materials prior to roadway application), anti-icing (brines applied directly to roadway and walkway surfaces prior to precipitation event), and for roadway de-icing purposes (brine is applied directly to roadway surfaces after precipitation event). The approved use is limited to the wintertime application of the natural gas well brines in order to minimize the formation or development of bonded snow and ice to roadways and walkways.
2. The permittee/registrant is authorized by this permit to utilize natural gas well brines* for roadway pre-wetting, anti-icing, and de-icing purposes, which meet the following acceptance criteria:

Table 1

<u>Allowable Level</u> Pre-wetting	<u>Parameter</u>	<u>Allowable Level</u> Anti-icing/De-icing
>170,000 mg/l	TDS	>170,000 mg/l
>80,000 mg/l	Chloride	>80,000 mg/l
>40,000 mg/l	Sodium	>40,000 mg/l
>20,000 mg/l	Calcium	>20,000 mg/l
5 to 9.5	pH	5 to 9.5
<500 mg/l	Iron	<500 mg/l
100 mg/l	Barium	30 mg/l
10 mg/l	Lead	5 mg/l
<1,000 mg/l	Sulfate	<400 mg/l
<15 mg/l	Oil & Grease	<15 mg/l
<0.5 mg/l	Benzene	<0.5 mg/l
<0.7 mg/l	Ethylbenzene	<0.7 mg/l
<1 mg/l	Toluene	<1 mg/l
<1 mg/l	Xylene	<1 mg/l

* Natural gas well brines from sour gas wells are prohibited from use.

3. The roadway application rates for use of the natural gas well brines shall be limited to 10 gallons per ton for pre-wetting use, ≤50 gallons/lane/mile for anti-icing use, and 100 gallons/lane/mile for roadway de-icing. A walkway application rate of 1-3 oz/yd² shall be limited to wetting of the walkway surface to avoid any liquid run-off.
4. Natural gas well brines managed under this general permit shall not be mixed with other types of solid wastes, including hazardous waste, municipal waste, other residual waste (except bottom ash from the combustion of coal), special handling waste, or regulated radioactive waste.
5. Nothing in this permit shall be construed to supersede, amend, or authorize a violation of any of the provisions of any valid and applicable local law, ordinance, or regulations, providing that said local law, ordinance, or regulation is not preempted by The Solid Waste Management Act, 35 P.S. §6018.101 et seq; and the Municipal Waste Planning, Recycling and Waste Reduction Act of 1988, 53 P.S. §4000.101 et seq.

6. The activities authorized by this permit shall not harm or present a threat of harm to the health, safety, or welfare of the people or environment of this Commonwealth. The Department may modify, suspend, revoke, or reissue the authorization granted in this permit if it deems necessary to prevent harm or the threat of harm to the public health or the environment or if the process brines cannot be adequately regulated under the conditions of this permit.
7. Failure of the measures herein approved to perform as intended, or as designed, or in compliance with applicable laws, rules and regulations and terms and conditions of this permit, for any reason, shall be grounds for the revocation or suspension of the permittee's approval to operate under this permit.
8. Facilities and equipment used for the storage of natural gas well brines shall be maintained in good operating condition. All storage tanks, secondary containment systems, and transfer lines shall be set up and operated in a manner that prevents spills, leaks, or other releases.
9. Only trained and designated personnel shall be authorized to implement the pre-wetting and anti-icing program approved through this general permit. The training must consist of a working knowledge of the application rates specified in this permit and an understanding of the workings of the equipment used to mix and/or apply the brine to the antiskid and for direct roadway/walkway application.
10. This permit does not authorize and shall not be construed as an approval to dispose any waste, wastewater, or runoff from the activities authorized to the land or waters of the Commonwealth.
11. The waste managed under this general permit shall not be hazardous waste.
12. Due to the potential for groundwater contamination resulting from the pre-wetting of antiskid storage piles, the brine shall only be applied to the antiskid material just prior to roadway application. Application of the brine to uncovered antiskid storage piles is prohibited, unless Department approved run-off containment structures are in place.
13. Except for storage at the well site, all storage of natural gas well brines by the permittee shall be in tanks in a manner that complies with the requirements set forth in 25 Pa. Code Chapter 299.
14. The permittee/registrant shall comply with the terms and conditions of this general permit and with the environmental protection acts to the same extent as if the activities were covered by an individual permit. The Department may require an individual permit if the permittee/registrant is not in compliance with the conditions of this general permit or is conducting an activity that harms or presents a threat of harm to the health, safety, or welfare of the people or the environment.
15. Every three years for analytical verification purposes, each source of brine used for roadway pre-wetting, anti-icing, and de-icing purposes shall be analyzed for all the parameters contained in Table 1 within (60) days of use of the brines for the winter season. The analysis shall be for each individual well utilized or it may be a composite of one or more samples of brines from wells, which are in the same geological formation and zones. The DEP Bureau of Oil and Gas Management permit number for each well from which brine is to be used must be provided along with the county of origin and producing formation and zones. If the natural gas well brines used are obtained from a permitted brine treatment facility, the analysis of a representative composite sample shall be submitted along with the facility's NPDES permit

number.

16. For each new source of natural gas well brine, the permittee shall submit an analysis of a representative sample of the brine including all parameters contained in Table 1 to the Department at the address indicated in Condition 17. The brine analysis shall be submitted no less than fifteen days prior to brine use. The permittee/registrant may utilize the brine in accordance with the conditions of this permit after the aforementioned fifteen day period, unless otherwise instructed by the Department.
17. A person or municipality (registrant) proposing to obtain coverage under the terms and conditions of this general permit, after the date of its issuance, must register with the Department's Bureau of Land Recycling and Waste Management, Division of Municipal and Residual Waste, P.O. Box 8472, Harrisburg, PA 17105-8472, at least 15 days prior to initially commencing pre-wetting, anti-icing or de-icing activities authorized under this general permit.

At a minimum, the following information must be submitted on application forms provided by the Department.

- a. Name and street address of the registrant.
 - b. Name and location of the generator(s) of the natural gas well brines.
 - c. Contact person (name and title) of the registrant.
 - d. Number and title of the general permit.
 - e. Documentation that the pre-wetting, anti-icing and roadway de-icing natural gas well brines to be utilized is consistent with the general permit.
 - f. A signed and notarized statement by the registrant that the registrant accepts all the terms and conditions included in the general permit.
 - g. A \$250.00 registration fee, as specified in the residual waste management regulations, payable to the "Commonwealth of Pennsylvania."
 - h. Information that identifies the applicant (i.e., individual, corporation, partnership, government agency, association, etc.), including the names and addresses of every officer that has a beneficial interest in or otherwise controls the operation of the company.
 - i. Additional information the Department believes is necessary to make a decision.
18. Records of any analytical evaluations conducted on the natural gas well brines by the residual waste management regulations and this permit shall be kept by the permittee/registrant at the permittee's/registrant's place of business and shall be available to the Department for inspection. At a minimum, these records shall include information on the dates of testing, each parameter tested, the results, the laboratory sampling procedures, analytical methodologies and the person collecting the sample. This waste analysis information shall be retained by the permittee/registrant at the permittee's place of business for a minimum of five years after the analyses were performed.
 19. The permittee/registrant shall maintain records that contain: the name, address, and phone

number of each of its customers, the dates and quantity of natural gas well brines provided to each person or municipality, and the results of any visual observations and pH for each batch provided for pre-wetting, anti-icing and de-icing use. The permittee/registrant shall also maintain records of all spills and releases that contain: location, date, time, identification and quantity of spilled or released material, and a description of how the material was cleaned up. The records shall be retained by the permittee/registrant at the permittee's place of business for a minimum of five years from the date the records were generated.

20. Any person or municipality that registers under the provisions of this permit shall notify the Department (see address in Condition 17), in writing, within 15 days of any changes in: the company name, address, owners, operators and responsible officials; the chemical analysis of the natural gas well brines; and the status of any permit issued by the Department or federal government under the environmental protection acts.
21. The permittee/registrant shall immediately notify the Department's Emergency Hotline at (717) 787-4343 and the appropriate DEP regional office in the event of any spill of natural gas well brines in a quantity capable of reaching surface water and shall take immediate action to protect the health and safety of the public and the environment. Such spills shall also be recorded as specified in Condition 19.
22. The permittee/registrant shall provide a copy of the Appendix A to each person or municipality which purchases or obtains the natural gas well brines directly from the permittee/registrant for the beneficial use purposes approved under the provisions of this general permit. The names and addresses of each recipient of the brine and the amounts provided by the permittee/registrant are to be recorded in compliance with Condition 19. The Appendix A is also applicable to the permittee/registrant if the permittee/registrant is applying brine to roadways/walkways as authorized under this general permit.

APPENDIX “A”

USER RESTRICTIONS GENERAL PERMIT WMGR064

The following restrictions apply when natural gas well brine is beneficially used for roadway pre-wetting (mixed with antiskid materials), anti-icing (direct roadway/walkway application prior to precipitation event), and de-icing (direct roadway application after precipitation event) in order to remove or minimize the formation or development of bonded snow and ice on roadways/walkways. The use of the natural gas well brines shall be consistent with standard engineering procedures and practices, in addition to the following:

- A1. Approval is limited to the use of the natural gas well brines for roadway anti-icing and antiskid pre-wetting, and de-icing provided its use meets and satisfies the requirements of the Pennsylvania Department of Transportation’s specifications for such use.
- A2. The roadway application rates for use of the natural gas well brines shall be limited to 10 gallons per ton for pre-wetting use, ≤ 50 gallons/lane/mile for anti-icing use, and 100 gallons/lane/mile for roadway de-icing. A walkway application rate of 1-3 oz/yd² shall be limited to wetting of walkway surface to avoid any liquid run-off.
- A3. Hazardous waste, municipal waste, other residual waste, and special handling waste may not be mixed and/or stored or beneficially used with the natural gas well brines.
- A4. The storage, transportation, or use of the natural gas well brines shall be in a manner that will not create a nuisance or be harmful to the public health, safety or the environment.
- A5. The natural gas well brines may not be beneficially used or stored in direct contact with groundwater or surface water.
- A6. The permittee/registrant or user must ensure that only trained and designated personnel are authorized to implement the natural gas well brine pre-wetting, anti-icing, and de-icing program approved by the Department through the general permit. The training must consist of a working knowledge of the application rates specified in this permit and an understanding of the workings of the equipment used to mix and/or apply the brine to the antiskid and for direct roadway/walkway application.
- A7. Due to the potential for groundwater contamination resulting from the pre-wetting of antiskid piles, the brines shall only be applied to the antiskid material just prior to roadway application. Application of the brine to uncovered antiskid storage piles is prohibited, unless Department approved run-off containment structures are in place.
- A8. Persons or municipalities storing natural gas well brines, prior to their use in a pre-wetting, anti-icing or de-icing program, shall do so in a manner that complies with the requirements set forth in 25 Pa. Code Chapter 299.