

New Regulations on Brine Application for Dust and Ice Control Informational Meeting

February 28, 2023

The Antrim County Road Commission (ACRC) is very aware of its responsibility of stewardship of the environment and has made this a part of its mission statement. We conduct all of our operations with this in mind. We also must balance this stewardship with our responsibility for maintaining a safe and efficient state and county road system within the county.

However, on February 13, 2023, the Michigan Department of Environment, Great Lakes and Energy (EGLE) held a webinar to present their new proposed changes to oil well and mineral well brine use for dust and ice control. EGLE indicated that this was the beginning of a public comment period on the new rules and that they will take effect on April 1, 2023.

The ACRC has used mineral well brine for the last several years after oil field brine was no longer available. Oil field brine was free for our use and purchasing mineral well brine added a significant cost to our dust control operation. This is also when we started making only one application per year. These new EGLE regulations will add even more cost to our dust control operations. It will consume tremendous road commission resources to comply, if even possible.

Some of the more important issues include:

Summer dust control:

- Requirement of a ground water discharge permit with no defined permit fee.
 - One more extra cost.
- Impractical logging of brine application.
 - Will be resource intensive.
- Brine cannot be applied during precipitation event.
 - Some moisture is helpful for the brine to be absorbed.
- Brine cannot be applied within 100 feet of surface water.
 - This will create a massive amount of complaints about why one area was brined on a road and another was not.
 - Will be impractical to map the locations of all surface waters and define the 100 foot boundaries.

Winter brine use:

- Brine can only be applied when air temperature is above 20°.
 - Many times it is necessary to apply salt below this temperature and the addition of brine helps lower the melting point of salt.
- Brine can only be applied at a minimum rate and frequency to control ice in order to protect the public health, safety and welfare.
 - The addition of brine to salt and sand is exactly for this purpose. It is used to make salt work faster, more efficiently, and to lower temperatures. It makes the salt stay in the road better as dry salt will scatter much more. All this keeps the salt use down to a minimum necessary to melt ice and snow.

Some of the options that the Board of County Road Commissioners are discussing include:

- Switch to the use of manufactured calcium chloride brine (LIQUIDOW).
 - We assume that this is not going to be regulated by the EGLE.
 - It costs about three times as much as mineral well brine.
 - This increased cost is not in the ACRC budget and would have to be paid by others...most likely the townships.
- Cease all dust control activities.
 - Will cause extremely dusty gravel roads and generate many complaints.
 - Will cause gravel roads to become wash boarded much more quickly.
 - Will cause the loss of the fines or clay in the gravel which binds the gravel surface together.
- Attempt to comply with all regulations.
 - Will cause complaints when a road is not brined within 100 feet of surface water.
 - Will increase the cost of brine use significantly due to the resource intensive planning, mapping and reporting requirements.

All options will increase the cost of operations to some degree. Whether it is increased blading and loss of clay of un-brined roads, or the extra cost of a different brine, or the significant demand on road commission resources to comply.

The EGLE is taking public comments on their not so publicly developed rules. The County Road Association of Michigan and its member road commissions will be making comments during this period, as well as trying to hold meetings with EGLE personnel involved to make changes to these rules. The hope is that common sense, practical rules that incorporate long standing road commission best practices can be established. And that these rules will not impact road commission resources so significantly while addressing the concerns of chloride discharge.