

- 1 • Notes from July - no comments. Will plan to post on Tuesday, but email Nathan if major issues.
- 2 • DNR Part 1
 - 3 ○ See PowerPoint
 - 4 ○ Rules may end up applying to aggregate because of application by LGU
 - 5 ▪ Many folks would like to see silica ordinance separate from aggregate, but
 - 6 cities/counties have been advised that they need to be rolled together in order to
 - 7 be legally defensible; need to be able to make the case from a legal perspective
 - 8 about why they should be separate
 - 9 ▪ How do the feds separate out the two industries?
 - 10 ▪ Usually SIC or NAICS code
 - 11 ▪ DNR can't distinguish between SIC codes, concern is for the
 - 12 hole in the ground and not where the material went
 - 13 ▪ Big issue from a township perspective because aggregate is needed for
 - 14 roads, so it is better to keep them separate because of costs
 - 15 ▪ Need to keep aggregate affordable for small cities and townships
 - 16 ▪ Fillmore County has separate ordinances for non-metallic aggregate and
 - 17 silica sand
 - 18 ▪ Don't know how defensible anything is until challenged in court
 - 19 ▪ Sounds like Agencies have decided not to use end use, which makes it hard to use
 - 20 NAICS codes. Fillmore County uses size and quantity to separate industrial sand
 - 21 from other sand (lots of sand used for cattle bedding)
 - 22 ▪ DNR is going to write rules for silica sand, but it will rely on local ordinances - DNR
 - 23 cannot determine how local governments will choose to write those ordinances,
 - 24 whether they wrap in aggregate or not
 - 25 ▪ Financial assurance also relies on open acres
 - 26 ▪ Can be large aggregate operations
 - 27 ▪ It may be easier for counties to only have to administer one set of
 - 28 ordinances regardless of industry type
 - 29 ▪ NR 135 is applied to both aggregate and silica sand
 - 30 ▪ WI administrators like it
 - 31 ▪ Flexibility to adjust - they could address silica sand when it came in
 - 32 ▪ Works well because pretty simplistic and it is uniform - counties don't have
 - 33 a lot of ability to change
 - 34 ▪ Some counties in WI are having trouble recouping their costs for monitoring
 - 35 and enforcement
 - 36 ▪ DNR would like to talk to folks from WI counties who have concerns
 - 37 ▪ Issue may be monitoring and enforcement being pushed to the
 - 38 county level rather than the ordinance
 - 39 ▪ Might actually be a concern with mining licenses, which is a
 - 40 separate program than NR 135
 - 41 ▪ NR 135 allows counties to bill back to WI DNR
 - 42 ▪ Counties in WI do come out and go over reclamation, changing bond, yearly
 - 43 fees, etc. - facility goes through bond assurance
 - 44 ▪ Companies should fund monitoring after reclamation
 - 45 ▪ County level versus township level
 - 46 ▪ Explore different powers at different levels of government
 - 47 ▪ Can charge back monitoring, enforcement, etc. Through ordinance
 - 48 ▪ Examples in EQB ordinance library

- 1 ▪ What about already open mines - before rules complete
- 2 ▪ Licensing fees and ordinances - based on what is done in WI
- 3 ○ Goals:
- 4 ▪ Go through financial assurance (structured like 6132 and with input from WI NR
- 5 135)
- 6 ▪ Not wordsmith, but go through concepts
- 7 ▪ This is just version 1, still lots can change
- 8 ○ Blasting Rules - how do they apply?
- 9 ▪ We have them for iron and nonferrous
- 10 ▪ Reclamation really applies from the beginning to be sure the mine can close safely
- 11 ▪ Looking at federal standards and BMPs
- 12 ○ Financial Assurance
- 13 ▪ Very loose, preliminary draft, for the purpose of discussion
- 14 ▪ RFC comment period still open, people can certainly comment, but remember that
- 15 this is still in formation
- 16 ▪ Modeled off non ferrous
- 17 ▪ Purpose is to ensure funding for mine closure and corrective actions
- 18 ▪ Big omission is legal or administrative costs for compelling reclamation of
- 19 contracting for the work; likely would need a legal process before stepping
- 20 on to the property to assess
- 21 ▪ Should be calculated in with financial assurance
- 22 ▪ It is a criteria in the section, just in a subpart separate from purpose
- 23 ▪ Make clear who is responsible - all costs are borne by owner, see
- 24 subpart 2
- 25 ▪ Current dollar value at the time of the estimate
- 26 ▪ Current dollar of what?
- 27 ▪ Ignoring time value of money - will need more money in future
- 28 ▪ Reevaluated regularly to update for current costs - this
- 29 should be in the rule
- 30 ▪ Would the calculation require knowing the restoration and administrative
- 31 costs on day one?
- 32 ▪ There needs to be a plan that is agreed to
- 33 ▪ Financial assurance must cover what is in the plan
- 34 ▪ Gap?: what happens and has costs between the day the company
- 35 walks and the day the reclamation
- 36 ▪ Think this is covered by the statement about the
- 37 administration of the reclamation
- 38 ▪ Some counties have annual meetings
- 39 ▪ Legal costs - item 2 does not ensure legal costs will be covered, or it
- 40 isn't clear that they can be
- 41 ▪ But if reclamation is an ongoing purpose, should this apply for
- 42 noncompliance for blasting as well?
- 43 ▪ Yes, corrective actions would cover noncompliance with blasting, or
- 44 any noncompliance that needs money to be fixed
- 45 ▪ It is important that blasting enforcement be considered
- 46 ▪ Fines are different, corrective actions fix something
- 47 ▪ This is for on the mine site, not for any impacts that happen
- 48 off the mine site

- 1 ○ LGUs have had bonds canceled midstream
- 2 ○ Cash as an option
- 3 ▪ Some LGUs like this
- 4 ▪ Be clear that it would need to be very carefully
- 5 ▪ Cash escrow (is this like a trust fund?)
- 6 ○ Obtaining credit is difficult, there is a lot of review by banks
- 7 ○ Maybe multiple mechanisms - something that is smaller and more immediately accessible,
- 8 and then a larger sum that might be a little harder to get to
- 9 ○ Regulatory authority must approve
- 10 ▪ Applicant must cover cost of review
- 11 ○ Options are good, but there should be training or info to LGUs on what their options are
- 12 ▪ WI has lots of options, but bonds are the surety of choice and have been used for 15
- 13 years
- 14 ▪ Should list all options
- 15 ○ Some don't like self-insurance
- 16 ○ Might want to just list the "best" in the rule
- 17 ▪ But there is the issue of LGU control, LGU might want to be able to say something is
- 18 not acceptable, so DNR may not want to specify what is acceptable and what isn't.
- 19 ▪ Flexibility
- 20 ○ Technical advisory committee can help
- 21 ○ Can LGUs be more restrictive? Yes that is goal.
- 22 ○ Site review is important
- 23 ○ NR 135 requires annual review - why is this weaker?
- 24 ▪ Want at least as much monitoring as WI
- 25 ▪ A minimal defined amount needs to be in there, not open ended
- 26 ▪ "As needed but no less frequently than" or similar
- 27 ○ Were other states reviewed?
- 28 ▪ Yes, but most are broadly written for surface mining
- 29 ○ Incentive for smaller footprint
- 30 ○ 90 day cancellation notice
- 31 ▪ Allows LGU to take assurance until new mechanism provided
- 32 ○ Mechanisms can cover multiple sites
- 33 ○ Multiple governments
- 34 ▪ Can negotiate for one package
- 35 ▪ Clarify government entities versus facility
- 36 ▪ Clarify governmental unit
- 37 ○ Completion needs LGU approval
- 38 ○ Forfeiture
- 39 ○ Who has authority to spend the money? If LGU goes and gets it, it is under their control
- 40 ○ What is important to keep?
- 41 ▪ Flexibility
- 42 ▪ Bonding
- 43 ▪ Review and inspect plans no less frequently than 3 years
- 44 ▪ Protection against bankruptcy
- 45 ▪ Subp 4 criteria
- 46 ▪ Jurisdiction able to afford to do the right thing if an operator walks
- 47 ▪ LGU has full control over decision as to whether reclamation is complete (with
- 48 qualified inspector) and return of funds

- 1 ▪ Subp. 10
- 2 ▪ Blasting
- 3 ▪ Define self-sustaining and keep it in subp 2c
- 4 ▪ Easy access within Minnesota
- 5 ○ Missing or concerns
- 6 ▪ Resources?
- 7 ▪ Inspection frequency concerns
- 8 ▪ Good - adjustable financial assurance
- 9 ▪ More info - financial instrument options and differences
- 10 ▪ Concern about subp 10 - more options for curing problems especially for more
- 11 minor infractions, any failure to comply with any part number of the part
- 12 ▪ Schedule of compliance?
- 13 ▪ The administrative procedures or process are not yet in there
- 14 ▪ What exists, what needs to go in rule
- 15 ▪ Subp. 7
- 16 ▪ Unclear on the last sentence - size in acres versus yards
- 17 ▪ Unresolved issues for exemptions
- 18 ▪ Accepting lower/lesser financial assurance and risk
- 19 ▪ LGUs having qualified professionals to help them
- 20 ▪ Role of technical team - especially legal/financial for FA
- 21 ▪ Development agreements
- 22 ▪ Definitions
- 23 ▪ Reclamation activities
- 24 ▪ Government unit
- 25 ▪ Corrective action
- 26 ▪ When needed
- 27 ▪ Subp 2, c
- 28 ▪ Soil, water, vegetation, standards at state level
- 29 ▪ LGUs have to be able to do math right
- 30 ▪ Problems after closed and approved; post-closure care
- 31 ▪ Especially impacts near/in aquifers
- 32 ○ Need to think about overlaps
- 33 ▪ Also details in reclamation plan
- 34 ▪ Good framework, lots of progress
- 35 ▪ Without performance standards, hard to tell how the rule is shaping up - those are
- 36 critical
- 37 • EQB
- 38 ○ Throughput and storage piles are hard to estimate
- 39 ○ Like local control but concerned about expertise
- 40 ○ Concern about smaller operations becoming financially burdened (animal bedding)
- 41 ▪ And have been operating for years
- 42 ○ Trying to get at an intensity threshold
- 43 ▪ Based on quantity - cubic yards, numbers of trucks, etc.
- 44 ▪ Make quantities relatable - tonnage = rail cars = truck numbers?
- 45 ▪ Based on history and real data
- 46 ○ Yes, do need to protect construction mining as valuable industry
- 47 ○ Remember that some mines provide to multiple industries, not just fracking
- 48 ▪ Lots of different products made with the silica sand material

- 1 ○ Reclamation piece is also a very rough draft
- 2 • MPCA concept document
- 3 ○ Q: Lots of references to BMPs - how are these enforced?
- 4 ▪ These are generally used when there isn't a stack, so it is through a monitoring plan
- 5 (opacity)
- 6 ▪ Ambient monitors - are there spikes
- 7 ▪ Logs, record keeping and reporting
- 8 ○ Missing - diesel pollution from on and off road equipment
- 9 ▪ Requirements for diesel pollution at least for equipment at the mine, if not at the
- 10 truck/transport level
- 11 ▪ Especially for counties that do not have rail
- 12 ▪ Permit program is for stationary sources, so cannot deal with trucks off site
- 13 ▪ Calculations for permitting do include engines
- 14 ▪ Federal Tier standards
- 15 ▪ States cannot set tailpipe emission standards
- 16 ○ Q: Monitoring
- 17 ▪ Is it 1 or 2?
- 18 ▪ May have 1 for pre-construction, but 2 once operating
- 19 ▪ Be more clear
- 20 ▪ Concern about 1 in 6 day
- 21 ▪ Concern about PM10 or PM4 option
- 22 ▪ Need information about the percent of PM10 is PM4, is it different in
- 23 different areas or seasons?
- 24 ▪ 95% UCL measured over a year, with 1 in 6, it is only 60 samples
- 25 ▪ Concerns about 95%
- 26 ▪ Which way is the wind blowing?
- 27 ▪ Diluting the sample when the piles are covered during the hear
- 28 ▪ EPA three year time period
- 29 ▪ 2014 has been very wet, so impacts low
- 30 ▪ Need a three year period in statistically normal conditions before not
- 31 requiring any ongoing monitoring
- 32 ▪ Measure should not be valid until you have three years
- 33 ▪ Two monitoring studies now in peer review on PM4 silica, showing levels far below
- 34 the 3 microgram HBV
- 35 ▪ WI has a website that publishes PM10 and PM2.5 data from sand
- 36 ▪ Monitoring criteria look like federal requirements, for monitoring schedule, etc.
- 37 ▪ Sites have up wind, down wind, and weather stations, so you know which way the
- 38 wind is blowing when the monitor takes its measurement
- 39 ▪ Concern: continued monitoring if showing levels far below health standards
- 40 ▪ How long is needed to show compliance? Will monitoring be permanent?
- 41 ▪ Some feel it needs to stay to keep up with changes
- 42 ▪ Concern: Having all the types of particulate matter measured at one site is too much
- 43 ▪ Major concern is silica, so a measurement for silica PM4 is the most
- 44 important and has a standard
- 45 ▪ Narrative uses the word pollution but air quality may be more appropriate
- 46 ▪ Monitoring should direct the need for more stringent controls
- 47 ▪ Enclosure should not be required for storage
- 48 ▪ BMPs are better

- 1 ▪ Storage pile is ambiguous, there are queues of materials throughout the
- 2 process - which ones are covered
- 3 ▪ Can we somehow adjust monitoring after three years of good data?
- 4 ▪ Reduce monitoring after that
- 5 ▪ Monitoring frequency based on results of previous year? Yes, that could be
- 6 a good idea. If less of the standard, less frequent monitoring
- 7 ▪ Daily logs, working control equipment are still in place
- 8 ▪ Can't schedule what year you monitor - no way to tell what an average year is
- 9 ▪ Need monitoring
- 10 ▪ Reward for meeting the standard, but what about a dry and windy year?
- 11 ▪ Opacity is human -
- 12 ▪ There is a certification to be able to do opacity measurements
- 13 ▪ Needs to be done for fugitive dust
- 14 ▪ Maybe balance enclosure and monitoring
- 15 ▪ If piles are enclosed, maybe no or less monitoring
- 16 ▪ Or BMPs
- 17 ▪ Existing facility
- 18 ▪ Define clearly - current CUP for mining of silica sand and have continually
- 19 been producing for a period of time
- 20 ▪ Limit time needed to come into compliance - a couple of years
- 21 ▪ Concern about use of water as a suppressant

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Department of Natural Resource Reclamation – Financial Assurance

August 28, 2014

After review and comments on the Financial Assurance document:

What the members of the panel **liked** or thought **worked** for them:

- Flexibility of different financial options
- Review and inspection of plans, no less than every year; three years (differing thoughts from members, one year or three years)
- Protection against bankruptcy
- Part 4 criteria
- Provide financial assurance direction so local jurisdiction can do the right thing
- Local governmental unit has control over decision of complete reclamation; with a qualified inspection
- Variety of financial assurance options; performance bonds, reclamation bonds, etc.
- Subpart 10 – changing to “shall”
- Blasting included
- “Self-sustain” needs to be defined
- Periodic review; financial assurance amount adjusted based on acreage
- Able to access financial assurance in Minnesota/United States

What the member had as **areas of concern** or things **missing**:

- Financial resources for LGU to do this work
- Experts able to understand and discuss various forms of financial assurance
- Subpart 10 – more options to address failure to comply; remediation; flexibility/cure period
- Subpart 7 last sentence – confusing, needs to be clarified (acres vs. cubic yards)
- Accepting lower amounts for financial assurance
- LGU needing or securing assistance; qualified individual, cost to obtain
- Financial assurance – technical assistance team to vet it through
- Historical review or due diligence for company looking for accidents or bad actors
- Want option to use development agreements
- Definition of terms: reclamation, when needed, government unit, corrective action, self-sustain
- Subpart 2 (c); maintenance issue and impact on soil and water, etc.; standards at state level
- LGU will not do the math right for abandoned mines
- What happens if there is an approved closure and two years later there is a problem?