

STATE OF MINNESOTA
DEPARTMENT OF NATURAL RESOURCES
PRELIMINARY DRAFT RULES

61XX

Silica Sand Mine Reclamation

Draft 2/12/2015

PURPOSE OF THIS DOCUMENT: *This document contains preliminary draft language related to silica sand reclamation rules. The formation of draft rules is and continues to be an iterative process and language in this document may change.*

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1 GENERAL PROVISIONS

2 61XX.0010 DEFINITIONS.

3 Subpart 1. **Scope.** The terms used in parts 61XX.0020 to 61XX.0260 have the following meanings:

4 Subp. 2. **Above grade pond.** “Above grade pond” means a pond used in the processing of silica
5 sand where the top of the constructed embankment is greater than four feet above the outside limit of
6 the pond.

7 Subp 3. **Air blast.** “Air blast” the airborne shock wave or acoustic transient generated by an
8 explosive.

9 Subp 4. **Borrow site.** “Borrow site” means a temporary pit or quarry associated with a specific road
10 construction or transportation-related project.

11 Subp. 5. **Contingency reclamation.** “Contingency reclamation” means the process of reclaiming a
12 mine due to an unexpected shutdown.

13 Subp. 6. **Corrective actions.** “Corrective actions” means measures specified by the regulatory
14 authority to an operator to mitigate violations of an approved reclamation plan.

15 Subp. 7. **Existing mining project.** “Existing mining project” means any mine area recognized by the
16 local zoning authority as a legal nonconforming land use for mining operations or a mine area where
17 the operator possesses a valid permit by a regulatory authority issued before the date of adoption of
18 chapter 61XX.

19 Subp. 8. **Financial assurance.** “Financial assurance” means a commitment of funds or resources by
20 an operator to a regulatory authority that satisfies the requirements in 61XX.0220 and sufficient to pay
21 for corrective actions and reclamation activities required by this chapter.

22 Subp. 9. **Highwall.** “Highwall” means a vertical or nearly vertical face in bedrock or a slope of
23 consolidated or unconsolidated material that is steeper than 3:1.

24 Subp. 10. **Intermittent mining.** “Intermittent mining” means mining with expected periods of
25 inactivity greater than nine months, with the intent to resume mining at a future date.

26 Subp. 11. **Mine area.** “Mine area” means contiguous or adjacent lands, under control of the same
27 person, used in connection with present or proposed silica sand mining. Mine area includes the lands
28 used in combination with silica sand mining on which:

29 (1) material is deposited;

- 30 (2) silica sand facilities are located;
- 31 (3) mineland water bodies used in the mining process are located; and
- 32 (4) auxiliary lands that are used or intended to be used in a particular mining operation are
- 33 located.

34 Mine area excludes access roads outside of the mine area or lands that have been release from

35 financial assurance under [61XX.0420](#).

36 Subp. 12. **Mine waste.** “Mine waste” means silica sand that remains after processing or earthen

37 material displaced by mining activities.

38 Subp. 13. **Mining.** “Mining” means all or part of the process involved in extracting silica sand for the

39 sale or use by the operator. Silica sand mining includes use of mining equipment or techniques to

40 remove materials from silica-rich sandstones, including drilling and blasting, as well as associated

41 activities such as excavation, grading, and dredging. Silica sand mining does not include removal of

42 earthen materials that contain minimal or incidental amounts of silica sand.

43 Subp. 14. **New mining project.** “New mining project” means any mine area that meets the

44 following criteria:

- 45 (1) proposed mine area requiring a first-time permit to excavate silica sand by a regulatory
- 46 authority;
- 47 (2) existing silica sand mine area requiring a new or amended permit to expand beyond the
- 48 permitted boundary;
- 49 (3) existing silica sand mine area requiring a new or amended permit to increase their
- 50 permitted production rate greater than 25%; or
- 51 (4) existing silica sand mine area requiring a new or amended permit to change the geologic
- 52 material being excavated to silica sand.

53 Subp. 15. **Operator.** “Operator” means any person who is engaged in, or has applied for an

54 approval of a reclamation plan for silica sand mining, whether individually, jointly or through

55 subsidiaries, agents, employees, contractors or subcontractors.

56 Subp. 16. **Overburden.** “Overburden” means earthen material that overlies an economic deposit of

57 silica sand and excludes topsoil and subsoil.

58 Subp. 17. **Person.** “Person” means an individual, owner, operator, firm, partnership, corporation,

59 joint venture, or other legal entity.

60 Subp. 18. **Phased reclamation.** “Phased reclamation” means the sequential or progressive

61 reclamation of portions of the silica sand site mine area affected by mining operations that is

62 performed in advance of final site reclamation. Phased reclamation may or may not be final

63 reclamation, but is performed to minimize the area exposed to erosion, at any one time, by mining
64 activities.

65 Subp. 19. **Qualified Professional.** “Qualified professional” means a person who is licensed as a
66 professional engineer, geoscientist, or landscape architect as provided by Minnesota Statute, chapter
67 [326](#).

68 Subp. 20. **Reclamation.** “Reclamation” means the rehabilitation of a silica sand mining area that
69 achieves a land use specified in an approved reclamation plan identified in [61XX.0100](#) to [61XX.0260](#).

70 Subp. 21. **Regulatory authority.** “Regulatory authority” means the governmental unit responsible
71 for approving the permit to mine for a silica sand mine area within their jurisdiction and includes the
72 Department of Natural Resource under Minnesota Statutes 103G.217, Silica Sand Mining Trout Stream
73 Setback.

74 Subp. 22. **Self-sustaining.** “Self-sustaining” means the ability to maintain and self-renew without
75 intervention.

76 Subp. 23. **Silica sand.** “Silica sand” means an earthen material derived from silica-rich sandstones.

77 Subp. 24. **Silica-rich sandstone.** “Silica-rich sandstone” means an earthen material consisting of
78 quartzose sedimentary rock of mostly sand-sized particles. Quartzose is a physical characteristic of a
79 sedimentary rock formation where greater than 90% of the constituent rock particles consist of pure
80 quartz. Examples of silica-rich sandstones include formally recognized and described quartzose
81 sandstones defined in Paleozoic Stratigraphic Nomenclature for Minnesota, Minnesota Geologic
82 Survey, Report of Investigation 65 (2008).

83 Subp. 25. **Silica sand facility.** “Silica sand facility” means any facility that:

- 84 (1) operates silica sand processing equipment;
- 85 (2) operates equipment used for transloading silica sand;
- 86 (3) establishes and maintains an open storage pile; or
- 87 (4) operates a silica sand storage system.

88 Subp. 26. **Subsoil.** “Subsoil” means the layer or stratum of earthen material immediately under the
89 topsoil. Like topsoil it is composed of variable amounts of silt, sand, or clay, but lacks the organic
90 matter and humus content of topsoil. Subsoil is equivalent to the B horizon of a soil profile.

91 Subp. 27. **Topsoil.** “Topsoil” means the upper most portion of a soil where soil organic matter is
92 mixed with mineral material and is more fertile than underlying soil layers. Topsoil is equivalent to the
93 A horizon of a soil profile.

94 **61XX.0020 PURPOSE.**

95 The process of reclamation begins with mine planning, continues through mine operation, and
96 concludes when the criteria for reclamation at the cessation of a mine have been met. The purpose of
97 parts **61XX.0010** to **61XX.0430** is to require reclamation of silica sand mine areas in order to

- 98 A. control the possible adverse environmental effects of silica sand mining and to conserve natural
99 resources;
- 100 B. ensure the usefulness, productivity, and scenic values of all lands and waters involved in silica
101 sand mining within the state will receive the protection and reclamation to the greatest extent
102 practical at the earliest opportunity following silica sand mining;
- 103 C. provide for the greatest practicable degree of statewide consistency in the reclamation of silica
104 sand mining; and
- 105 D. ensure that reclamation is consistent with local land use plans.

106 This chapter establishes standards for reclaiming silica sand mine areas, sets out requirements for
107 reclamation plans, defines standards for blasting, defines procedures and requirements applicable to
108 mines subject to parts **61XX.0010** to **61XX.0430**, and defines procedures for administering silica sand
109 reclamation plans, including the exercise of regulating authorities for inspections. These rules are
110 promulgated under Laws 2013, chapter 114, article 4, section 105(b).

111 **61XX.0030 SCOPE.**

112 Subpart 1. **Approval.** No person may engage in silica sand mining or silica sand mining reclamation
113 without receiving approval for a reclamation plan from the regulatory authority, unless the activity is
114 exempted in **subpart 5**.

115 Subp. 2. **Applicability.** Parts **61XX.0010** to **61XX.0430** apply to items A through B and nothing in
116 these parts waive the requirements of federal, state, and local regulations governing environmental
117 regulations, public health, safety and welfare.

- 118 A. All new mining projects of silica sand that are proposed after the adoption of this rule,
119 except as exempted in **subpart 5**. Parts **61XX.0010** to **61XX.0430** do not apply to silica sand
120 mine areas where mining permanently ceases before the enactment of this rule.
- 121 B. Silica sand mining conducted by or on behalf of the state of Minnesota, by or on behalf of a
122 local government, or for the benefit or use of the state or any state agency, board,
123 commission or department, except that the financial assurance requirements of **61XX.0220**
124 do not apply to silica sand mining conducted on behalf of the state, a state agency, board,
125 commission, department, or local government.

126 Subp. 3. **Joint applications.** When two or more operators are or will be engaged in silica sand
127 mining, all persons shall join in the application, and the approved reclamation plan must be issued
128 jointly.

129 Subp. 4. **Duration of reclamation plan approval.** The reclamation plan approved under this part
130 must last through the mine's operation and final reclamation. If changes occur within the mine area,
131 the nature of planned reclamation, or other aspects of mining required by the approved reclamation
132 plan, the operator shall apply for a modification of the reclamation plan under **61XX.0350**.

133 Subp. 5. **Exempt activities.** Parts **61XX.0010** to **61XX.0430** do not apply to any of the following
134 activities:

- 135 A. excavations or grading under one acres by a person of disturbance solely for domestic or
136 farm use at that person's residence or farm;
- 137 B. excavation or grading conducted for the construction, reconstruction, maintenance or
138 repair of a highway, railroad, airport facility, or any other transportation facility where the
139 excavation or grading is entirely within the property boundaries of the transportation
140 facility;
- 141 C. grading conducted for preparing a construction site or restoring land following a flood or
142 natural disaster;
- 143 D. dredging for navigational purposes;
- 144 E. constructing or maintaining drainage ditches;
- 145 F. remediation of environmental contamination and the disposal of spoils from these
146 activities; and
- 147 G. excavation of a borrow pit that will be opened and reclaimed within 36 months and is under
148 contract with a regulatory authority or the Minnesota Department of Transportation.

149 **STANDARDS**

150 **61XX.0100 PERFORMANCE STANDARDS.**

151 Subpart 1. **Environmental regulations, public health, safety and welfare.** Silica sand mining
152 reclamation must be conducted and completed in a manner that assures compliance governing public
153 health, safety and welfare.

154 Subp. 2. **Water Quality and Quantity.** Silica sand mining reclamation must be conducted and
155 completed in a manner that assures compliance with applicable water quality and quantity standards.

156 Subp. 3. **Area disturbed and phased reclamation.** Silica sand mining reclamation must be
157 conducted, to the extent practicable, to minimize the area disturbed by silica sand mining and to
158 provide for silica sand mining reclamation of portions of the silica sand mine area while silica sand
159 mining continues on other portions of the silica sand mine area.

160 Subp. 4. **Final Topography.** Unless specified by the final approved reclamation plan and approved,
161 final topography must comprise sinuous contours, rolling mounts and hills, and blend with adjacent
162 topography to a reasonable extent. Straight planar slopes and right angles must be avoided. If the
163 mine area intersects the Decorah edge, topography restoration must provide for the creation of
164 perched, vegetated, wetlands.

165 Subp. 5. **Stormwater runoff.** The mine area must be designed and graded to produce post-
166 development hydrology that does not exceed predevelopment runoff rates and volumes to
167 surrounding properties based on modeling of existing or pre-mining site conditions, conditions during
168 operations, and conditions following final reclamation. The mine area must be able to manage the
169 entire frequency of rainfall events that are anticipated at the development site up to and including the
170 100-year storm event.

171 Subp. 6. **Revegetation and site stabilization.** Except for permanent roads or similar surfaces, or
172 areas otherwise approved for continued subsequent use as identified in the reclamation plan, all
173 surfaces affected by silica sand mining must be reclaimed and stabilized with vegetation or other
174 means compatible with local land use plans. Revegetation and site stabilization must be in accordance
175 with the approved reclamation plan and must be performed as soon as practicable after mining activity
176 has permanently ceased in any part of the mine area. All seed and plant materials shall be certified
177 noxious weed-free.

178 Subp. 7. **Ecological rehabilitation.** When the land use proposed by the approved reclamation plan
179 requires ecological or habitat rehabilitation, it must be reclaimed, to the extent practicable, to an
180 ecologically self-sustaining condition as outlined by the individual reclamation plan. A use of a state
181 approved seed mix is required. A use of native species must be used whenever possible.

182 Subp. 8. **Invasive species.** An occurrence of an invasive species within the mine area must be
183 reported to the Minnesota Department of Agriculture. The spread of plants on the noxious weeds
184 control list must be controlled within the mine area. If possible, cut wood must remain on-site. The
185 transportation of cut wood out of the mine area must follow state and federal quarantine laws.

186 Subp. 9. **Mine waste.** Silica sand mine waste must be used in accordance with the approved
187 reclamation plan. Other solid or hazardous wastes must be disposed of in accordance with applicable
188 rules.

189 Subp. 10. **Blasting.** Blasting must be conducted in a manner that prevents injury to persons,
190 damage to public or private property outside of the mine area, mitigates adverse impacts on any
191 underground mine, and mitigates changes in the availability of surface or groundwater outside the
192 mine area.

193 **61XX.0110 TOPSOIL AND OVERBURDEN MANAGEMENT.**

194 Subp. 1. **Volume.** The operator shall obtain the volume of soil required to perform final
195 reclamation by removal of on-site topsoil or topsoil substitute material or by obtaining topsoil or
196 substitute material as needed to make up the volume of topsoil as specified in the reclamation plan.

197 Subp 2. **Removal.**

- 198 A. Topsoil and subsoil must be immediately used to reclaim adjacent segments or stockpiled on
199 site for use in reclamation.
- 200 B. Topsoil must be carefully removed where mining activities destroy existing vegetation and
201 cause erosion within the mine area. Handling of topsoil during wet conditions must be avoided.
- 202 C. Topsoil must be separated from subsoil and overburden to the extent practicable.
- 203 D. No topsoil must be sold or permanently moved off-site unless approved by the regulatory
204 authority.

205 Subp. 2. **Storage requirements.**

- 206 A. Topsoil must be stored in separate piles from overburden and when possible stored separate
207 from subsoil. Piles must be labeled by material type.
- 208 B. Stockpiled material must be placed on a stable site within the mine area and site must be
209 chosen to protect the material from compaction, erosion, further disturbance, and
210 contamination.
- 211 C. For long-term storage, stockpiled material must be protected from wind and water erosion
212 through prompt establishment and maintenance of an effect, quick growing vegetative cover or
213 through other measures approved by the regulatory authority.
- 214 D. Composting chipped wood and vegetative debris with topsoil is encouraged. Compost piles
215 must be regularly turned and maintained.

216 Subp. 3. **Substitution.** If topsoil is of insufficient quantity or of poor quality for sustaining
217 vegetation, topsoil may be substituted, amended, or brought in off-site to achieve reclamation goals.
218 Topsoil amendments, substitution, or replacement must be free of contamination of toxic material and
219 is in a usable condition for sustaining vegetation when restored during reclamation. If requested by
220 the regulatory authority, operators must disclose sources of fill material.

221 **61XX.0120 GRADING AND SLOPES.**

222 Subpart 1. **Safe conditions.** All mine areas must be addressed in the approved reclamation plan,
223 under **61XX.0200 through 61XX.0260**, to provide that a stable and safe condition consistent with the
224 operational procedures and post-mining land use is achieved.

225 Subp. 2. **Bedrock highwalls.** Upon approval of the regulatory authority, the reclamation plan may
226 designate bedrock highwalls or other unmined and undisturbed natural solid bedrock as stable and
227 safe and not in need of reclamation.

228 Subp. 3. **Benching.** Unless approved by the regulatory authority, benches must not be greater than
229 30 feet.

230 Subp. 4. **Final slopes.**

231 A. May not be steeper than a 3:1 horizontal to vertical incline, unless a steeper slope is
232 determined by meeting one of the following:

233 (1) steeper slopes are shown to be stable through a field plot demonstration approved
234 as part of an approved reclamation plan; or

235 (2) steeper slope is determined as stabled through a site-specific engineering analysis
236 performed by a qualified professional engineer. All areas in the silica sand mine area
237 where topsoil or topsoil substitute material is to be reapplied must be graded or
238 otherwise prepared prior to topsoil or topsoil substitute material redistribution to
239 provide the optimum adherence between the topsoil or topsoil substitute material
240 and the underlying material, or

241 (3) Alternative requirement approved by the regulatory authority specified in part
242 **61XX.0370**.

243 B. Exhibit varied steepness and have no rectilinear topographic elements.

244 C. Must be compacted if significant backfilling is required to produce the final reclaimed slopes
245 and if the regulatory authority determines that compaction is necessary.

246 D. Must be left roughly graded creating depressions and small mounds to trap clay-bearing soil
247 and promote natural revegetation when reasonable.

248 **61XX.0130 MINELAND WATER BODIES.**

249 Subpart 1. **Goal.** Water bodies within the mine area must be designed, constructed, and operated
250 to be structurally sound and minimize hydrologic impacts.

251 Subp. 2. **Operation.**

252 A. Water bodies must be designed and operated to maintain sufficient freeboard to prevent
253 overtopping of embankments.

254 B. Operators must maintain design capacity and function of water bodies through periodic
255 dredging of settled material.

256 Subp. 3. **Construction of above grade pond.**

257 A. Operator must take proper measures to prevent undesirable seepage that could cause
258 water quality degradation, cause flooding outside the mine area, or adversely affect the
259 stability of the embankments or adjacent slopes.

260 B. Qualified professional engineers proficient in the design, construction, operation, and
261 reclamation of settling ponds must approve the design of the above grade pond.

262 C. Design for above grade pond must include subitems 1 through 5.

263 (1) Provide a rationale for the site selection, with regard to dam safety and
264 characteristics of the site that could affect, or could be affected, by the pond;

265 (2) Describe materials, construction, and operating performance specifications and
266 limitations that must be maintained to ensure protection of human safety and
267 natural resources;

268 (3) Identify monitoring locations to ensure compliance with the design;

269 (4) Include a schedule for a qualified professional engineer to inspect the construction,
270 operation, and maintenance of the pond; and

271 (5) Describe how the pond will be deconstructed and reclaimed during closure of the
272 mine area.

273 Subp. 4. **Reclaimed water body.**

274 A. Approved final grade at the edge of a mineland water body must:

275 (1) have slopes no steeper than 3:1 at a designated location or locations, depending on the size
276 of the water body, to allow for a safe exit; and

277 (2) extend into the water body vertically 6 feet below the lowest seasonal water level as
278 feasible

279 B. Operator shall provide measures within the reclamation plan to establish a beneficial water
280 body by developing natural wildlife habitat and incorporating such features as irregular
281 shoreline configurations, sinuous bathymetry and shorelines, varied water depths, peninsulas,
282 islands, and subaqueous areas less than 1.5 foot deep.

283 Subp. 5. **Karst.** In areas where there is less than 50 feet of unconsolidated material directly over
284 Prairie du Chein Group, St. Lawarance Formation, or karstic carbonate units, the design of mineland
285 water bodies requires:

286 A. geotechnical investigation signed by qualified professional engineer; and

287 B. geophysical evaluation of the underlying bedrock for subsidence features and voids by a
288 licensed professional geologist,

289 C. ponding depth less than 10 feet

290 D. a liner that meets Minnesota Pollution Control Agency standards for permeability.

291 **61XX.0140 BLASTING STANDARDS.**

292 Subpart 1. **Applicability.** Blasting requirements apply to buildings or other structures with the
293 following exemptions:

294 A. buildings and structures owned by the operator or landowner and not leased to another
295 person, and

296 B. building and structures owned by the operator or landowner and leased to another person, if a
297 written waiver by the lessee is submitted to the regulatory authority before blasting.

298 Subp. 2. **Air blast standards.** Air blasts due to blasting operations must not exceed the maximum
299 limit of 133 dB(L) (0.013 psi). For structures and utilities not defined in **subp. 1**, air overpressure limits
300 must be independently established based on technical justifications by qualified persons and experts
301 familiar with blasting related projects.

302 Subp. 3. **Ground vibrations.** The ground vibrations or particle velocity on any axis must not exceed
303 the limitations specified by [Code of Federal Regulations, title 30, chapter VII, subchapter K, part 816,](#)
304 [section 816.67, paragraph \(d\)\(4\)](#) as amended. For registered historic structures, the ground vibration
305 must be no greater than 0.5 inch per second for frequencies less than 10 Hz. For utilities, ground
306 vibration limits must be independently established based on technical justifications by engineers or
307 qualified personnel familiar with blasting-related projects.

308 Subp. 4. **Flyrock.** Flyrock travelling in the air or along the ground must not be cast from the blasting
309 site in an uncontrolled manner that could result in personal injury or property damage. Flyrock must
310 not be propelled from the blast site onto property not contracted by the blasting operation or onto
311 property for which the owner has not provided a written waiver to the operator.

312 Subp. 5. **Pre-blast surveys.** The operator shall conduct pre-blast surveys. Survey requirements
313 must meet items A through D.

314 A. At least 45 days prior to the initial blasting, the operator shall notify a resident or owner of a
315 dwelling or structure within one-half mile or at a distance of potential impact determined
316 by a scale distance formula from of any part of the mine area of the right to requesting a
317 pre-blast survey. Means of this notification to the resident or owner must be approved by
318 the regulatory authority.

319 B. A resident or owner of a dwelling or structure within one-half mile or distance of potential
320 impact determined by a scale distance formula from of any part of the mine area may
321 request a pre-blast survey. The request must be made, in writing, directly to the operator.
322 The operator shall promptly conduct a pre-blasting survey of identified dwellings or
323 structures and promptly prepare a written report of the survey. An updated survey of any
324 additions, modifications, or renovations must be performed by the operator if requested by
325 the resident or owner.

326 C. Pre-blast surveys must be completed by a third party, independent consultant.

327 D. Any survey requested within 14 days before the planned initial blast must be completed by
328 the operator before the initial blasting.

329 Subp 6. **Monitoring.** The operator shall monitor all blasts. Monitoring stations must be located
330 adjacent to the nearest structure located on lands not owned or controlled by the operator and where
331 the regulatory authority deems necessary to investigate complaints. Monitoring protocols include
332 items A through D.

333 A. Blasting seismographs used to monitor ground and air vibrations must comply with
334 International Society of Explosives Engineers "Performance Specifications for Blasting
335 Seismographs."

336 B. Blasting seismographs must be deployed in the field according to the International Society
337 of Explosives Engineers "Field Practice Guidelines for Blasting Seismographs."

338 C. When blasting monitoring with a blasting seismograph is not required by the regulatory
339 authority, the operation must comply with the scaled distance factors at the nearest
340 building or structure outside the mine area.

341 D. The operator shall notify the regulating authority if a blast exceeds the standards in **subp.**
342 **(2) and subp. (3)** within seven days of the blast.

343 Subp. 7. **Records.** Operators shall keep a blaster's log of production blasts, which must be retained
344 for 3 years, containing the following:

345 A. date and time of blast;

346 B. type of explosive used;

347 C. ignition layout with locations of blast holes and time intervals of delay;

348 D. pounds of explosives per each delay of eight milliseconds or more;

349 E. total pounds of explosives;

350 F. types of material blasted;

351 G. monitoring locations and results of monitoring when conducted;

352 H. meteorological conditions that include cloud cover, wind speed and directions as can be
353 determined from the United States Weather Bureau, and ground-based observations; and

354 I. directional orientation of free faces of bench to be blasted.

355 **61XX.0150 INTERMITTENT MINING.**

356 Intermittent mining may be conducted provided that the possibility of a temporary shutdown of
357 operations is addressed in an operator's reclamation plan, no environmental pollution or erosion of
358 sediments is occurring, and financial assurance for reclamation under **61XX.0220** is maintained
359 covering all remaining portions of the site that have been affected by silica sand mining and that have
360 not been reclaimed.

361 **RECLAMATION PLAN**

362 **61XX.0200 APPLICATION REQUIREMENTS.**

363 Subpart 1. **Application contents.** An operator who conducts or plans to conduct silica sand mining
364 shall submit to the regulatory authority an application conforming to subsection A through I.

365

- 366 A. The names, addresses, and telephone numbers of all persons or organizations who are
367 owners or lessors of the property on which the silica sand mine area is located.
- 368 B. The name, address, and telephone number of the person or organization who is the
369 operator.
- 370 C. The organizational structure of the applicant including, parent companies, owners, partners,
371 joint venturers or affiliated companies.
- 372 D. The organizational relationships between or among joint applicants.
- 373 E. A certificate issued by an insurance company authorized to do business in the United States
374 that the operator has a public liability insurance policy in force for the mining operation for
375 which the reclamation plan approval is sought, or evidence that the operator has satisfied
376 other state or federal self-insurance requirements, to provide personal injury and property
377 damage protection in an amount adequate to compensate any persons who might be
378 damaged as a result of the mining operation or any reclamation or restoration operations
379 connected with the mining operation.
- 380 F. The following certifications must be submitted as condition of the reclamation plan:
- 381 (1) A certification by the operator and landowner of their intent to comply with reclamation
382 standards established by 61XX.0100 through 61XX.0150; and
- 383 (2) A certification that the operator will provide financial assurance as required by
384 61XX.0220 upon approval of the reclamation plan before mining construction begins or
385 transfers of the reclamation plan.
- 386 G. List civil and criminal fines relating to the permit to mine or environmental violation that the
387 operator or affiliate companies have been issued over the past 10 years.
- 388 H. A map of the location of the proposed silica sand mine area with brief description of nature
389 of the silica sand mine area.
- 390 I. A reclamation plan approved and signed by a qualified professional with demonstrated
391 knowledge on similar projects that conforms to 61XX.0100 through 61XX.0260.

392 Subp. 2. **Information.** The operator shall provide digital geospatial information used to fulfill the
393 requirements of 61XX.0100 through 61XX.0260 to the regulatory authority upon request. To avoid
394 duplication, the plan application and submittals required by subsection A through H, may incorporate
395 existing plans or materials that meet the requirements of this chapter.

396 **61XX.0210 PRE-MINING CONDITIONS.**

397 Subpart. 1. **Goal.** The existing conditions of the proposed or existing mine area must be described
398 before the construction of mining operations to establish baseline measurements to be used for
399 reclamation planning.

400 Subp. 2. **Requirements.**

- 401 A. Maps of the location of the mine area including property boundaries, ownership within the
402 mine area and one-half mile adjacent to mine area.
- 403 B. Maps and description of current land use of project area and one-half mile adjacent to mine
404 area including location and type of all structures within and one-half mile adjacent to mine
405 area, including pipelines and utilities.
- 406 C. Map of the distribution, thickness and type of topsoil within the proposed or existing mine
407 area.
- 408 D. Geologic setting of the deposit to be excavated including the following:
- 409 (1) a description of the bedrock geology;
- 410 (2) areal extent, thickness, depth, and geologic composition of the deposit; and
- 411 (3) thickness and characterization of overburden.
- 412 E. Description of the surface hydrology that includes the following;
- 413 (1) the location of the mine area within the major and minor watersheds,
- 414 (2) the location of existing draining patterns, streams, rivers, lakes, and wetlands located
415 within or adjacent to the project area;
- 416 (3) the location of sinkholes or known karst features within or one-half mile adjacent to the
417 mine area boundary.
- 418 F. Description of any part of the mine area that is within one mile of a designated trout stream
419 within the area of the state contained within the boundaries of the Department of Natural
420 Resources Paleozoic plateau ecological section and requires a permit as provided by
421 Minnesota Statutes, section 103G.217.
- 422 G. Hydrogeological description of the mine area that includes the location of the approximate
423 elevation of groundwater in feet above mean sea level within the mine area, direction of
424 ground water flow within the mine area, the location of wells within 1.5 miles of the
425 boundary of the mine area. In specific instances where the existing hydrogeological
426 information is insufficient for purposes of the reclamation plan, the applicant may

- 427 supplement the information with the opinion of a licensed professional geologist or
428 hydrologist.
- 429 H. Existing topography as shown on contour maps of the site at intervals specified by the
430 regulatory authority.
- 431 I. Maps of existing roads, railroads, and transportation infrastructure within the proposed or
432 existing mine area.
- 433 J. For proposed project sites that include previously mined areas, a plan view drawing that
434 shows the location and extent of land previously affected by surface mining, including the
435 locations of piles, wash ponds, sediment basins, and other features that may be specified by
436 regulatory authority. The operator must include all approved reclamation plans associated
437 with previous mining activity.
- 438 K. Map and description of pre-European settlement vegetation within the mine area.
- 439 L. Within the mine area, map or assessment of existing biological resources, known or inferred
440 threatened or endangered species, and plant communities.
- 441 M. Proof from the State Historical Preservation Office of a completed cultural resource
442 assessment within the mine area.

443 **61XX.0211 DESCRIPTION OF MINING ACTIVITIES.**

444 Subpart 1. **Goal.** A description of the expected mining activities must be provided to the regulatory
445 authority.

446 Subp. 2. **Requirements.**

- 447 A. Description of the projected life of the operations including beginning and ending of
448 operations and any phases or stages.
- 449 B. Description of methods and equipment used to mine and process the deposit.
- 450 C. Map of the proposed mine area that includes subitems 1 through 7.
- 451 (1) Boundaries of the areas to be disturbed by mining.
- 452 (2) Setback boundaries that apply to the project site.
- 453 (3) Avoidance areas with description on the reason for avoidance.
- 454 (4) All permanent boundary markers.

- 455 (5) Location of buffers, berms, fences, and gated mine entrance.
- 456 (6) Location of proposed and existing water wells, operation plants, processing areas,
457 load out sites, and transportation related infrastructure within the mine area.
- 458 (7) If applicable, the location of natural highwalls that will not be excavated.
- 459 E. A topsoil management and preservation plan that meets the standards of **61XX.0110**.
- 460 F. If the mine area contains mineland water bodies, the description must include proposed
461 location and description of the mineland water bodies. Descriptions of above ground pond
462 design must include information specified in **61XX.0130, sub 2, item C**.
- 463 G. Description of the anticipated lowest mined elevation in feet above mean sea level of the
464 pit floor.
- 465 H. Description of how invasive species and noxious weeds will be controlled within the mine
466 area including stockpiles, berms, and road shoulders.
- 467 I. Description of the methods used to control dust on haul roads and tracked out sediment
468 from the mine area.
- 469 J. If intermittent mining is expected to occur within the mine area, provide a description of
470 subitems 1 through 6 for the periods of temporary shutdown.
- 471 (1) Reasonable efforts to address public safety.
- 472 (2) Reasonable efforts to prevent vandalism, illegal dumping, and trespassing.
- 473 (3) Maintenance or removal of mining infrastructure and on-site buildings.
- 474 (4) Control methods to prevent erosion and off-site sedimentation.
- 475 (5) Site-inspection schedule by the operator.

476 **61XX.0212 POST-MINING LAND USE.**

477 Subpart 1. **Goal.** The reclamation plan must specify a proposed post-mining land use for the mine
478 area. The proposed post-mining land use must be consistent with local land use plans and local zoning
479 at the time the plan is submitted, unless a future change to the land use plan or zoning is proposed.
480 The proposed post-mining land use must also be consistent with any applicable state, local, or federal
481 laws in effect at the time the plan is submitted.

482 Subp. 2. **Requirements.**

- 483 A. A description of the proposed earthwork and reclamation, including final slope angels,
484 highwall reduction, benching, terracing, and other structural slope stabilization measures
485 and if necessary a site-specific engineering analysis performed by a qualified professional.
- 486 B. The description of material used in reclamation and methods used to replace and stabilize
487 topsoil, subsoil, overburden, or topsoil substitute material. Redistribution must occur in
488 stratigraphic order.
- 489 C. A plan or map which shows anticipated topography of the reclaimed site and any water
490 impoundments or artificial lakes.
- 491 D. A plan or map which shows remaining surface structures, roads, and related facilities after
492 the completion of mining.
- 493 E. Indexed estimation of the cost of reclamation in the first stage of the project or the entire
494 site if phased reclamation is not planned.
- 495 F. A revegetation plan delineating the timing and methods of seed bed preparation, rates and
496 kinds of soil amendments, seed mix, seed application timing, mulching, netting and any
497 other techniques needed to accomplish soil and slope stabilization. The revegetation plan
498 must meet the criteria of 61XX.0240 or provide alternative criteria to be approved by the
499 regulatory authority.
- 500 G. A description or drawing, if necessary, showing erosion control measures to be employed
501 during reclamation activities.
- 502 H. A description of how the reclamation plan addresses the long-term safety of the reclaimed
503 mining site. The description must include a discussion of site-specific safety measures to be
504 implemented at the site and include measures that address public safety with regard to
505 adjacent land use.

506 **61XX.0220 FINANCIAL ASSURANCE.**

507 Subpart 1. **Purpose.** The purpose of financial assurance is to ensure a source of funds exists to be
508 used by the regulatory authority cover all costs occurred by the regulatory authority for administrating
509 the reclamation plan if the operator fails to perform items A and B.

- 510 A. Reclamation activities including closure and postclosure maintenance needed if operations
511 cease; and
- 512 B. Corrective action as required by the regulatory authority if noncompliance with design and
513 operating criteria in the reclamation plan.

514 Subp. 2. **Applicability.** Financial assurance is required for each site and two or more sites of less
515 than two acre by the same operator. A state, county, municipality, or township operating a silica sand
516 mine area is not required to obtain financial assurance.

517 Subp. 3. **Reclamation cost estimates.** An operator intending to conduct a silica sand mining
518 operation must submit to the regulatory authority, as part of the reclamation plan, a documented
519 estimate of the cost necessary to implement the reclamation plan under part 61XX.0200 through
520 61XX.0230 and corrective actions 61XX.0260. Financial assurance must be payable exclusively to the
521 regulatory authority that has jurisdiction and who issues the approval for the reclamation plan.

522 A. Cost estimate must be based on the following:

523 (1) current dollar value at the time of the estimate;

524 (2) an itemized cost estimate of each mine to the regulatory authority of administering and
525 hiring a third parties to implement either the final reclamation or contingency
526 reclamation according to the approved reclamation plan of all silica sand sites the
527 operator has under permit; and

528 (3) the cost of necessary postclosure monitoring and maintenance requirements.

529 B. No salvage value attributed to the sale of wastes, facility structures, equipment, land or
530 other assets must be used for estimating purposes.

531 C. The financial assurance is dictated by the period of time required for the site to be self-
532 sustaining in a manner protective of natural resources and approved within the mine
533 reclamation plan and when postclosure maintenance is no longer necessary.

534 Subp. 4. **Corrective action cost estimates.** When the regulatory authority determines that a
535 corrective action plan is required under part 61XX.0260, the operator shall submit a documented
536 estimate of costs to perform the corrective action before implementation.

537 A. The operator shall annually adjust cost estimate for corrective action to the regulatory
538 authority undertaken according to an approved corrective action plan by the regulatory
539 authority under 61XX.0260, subp. 2.

540 B. Itemized cost estimate must be based on the following:

541 (1) current dollar value at the time of the estimate; and

542 (2) the cost to the regulatory authority of administering and hiring a third party to conduct
543 corrective action activities.

544 Subp. 5. **Criteria for financial assurance mechanisms.** Financial assurance mechanisms for
545 reclamation and for corrective action must meet the items A through F to be approved for use.

546 A. The mechanism must equal the amount determined by **subp. 3**, post closure care, and
547 corrective action that are available to the regulatory authority at all times.

548 B. The mechanism must be fully valid, binding, and enforceable under state and federal law.

549 C. Assurance that the funds can be accessed by the regulatory authority by action within
550 boundaries of the United States.

551 D. The financial assurance mechanism must not be dischargeable through bankruptcy.

552 E. Assurance the regulatory authority will be notified 120 days prior to the cancellation of a
553 financial assurance mechanism.

554 F. The regulatory authority may accept a lesser initial amount of financial assurance at the
555 beginning of a new project or transfer of a project provided that the operator initiates a
556 process to continuously increase the amount of financial assurance until it is adequate to
557 effect reclamation. An escrow account in cash may be established that is based on
558 production gross sales and serves to provide regular payments to an account that is
559 designed to grow to the amount necessary to guarantee performance of reclamation by the
560 expected time of reclamation.

561 Subp. 6. **Form and management.** The operator shall provide financial assurance that is acceptable
562 to the regulatory authority.

563 A. All terms and conditions of the financial assurance must be approved by the regulatory
564 authority. The regulatory authority, in evaluating financial assurance, shall use individuals
565 with documented experience in the analysis. The reasonable cost of the evaluation must be
566 paid by the applicant.

567 B. Financial assurance must be submitted to the regulatory authority for approval before the
568 approval of the reclamation plan and before granting a significant amendment to the plan.

569 C. Financial assurance arrangements may include, at the discretion of the regulatory
570 authority, more than one mechanism.

571 D. The amount of financial assurance must be reviewed as needed but no less than every three
572 years to assure the financial assurance equals outstanding reclamation costs. The
573 regulatory authority may notify the operator in writing about the review of financial
574 assurance.

- 575 (1) If the new cost estimate approved by the regulatory authority is greater than the
576 amount of the existing financial assurance, the operator shall provide additional
577 financial assurance in an amount equal to the increase, or
- 578 (2) If the new cost estimate approved by the regulatory authority is less than the amount of
579 existing financial assurance, the operator shall be released from maintaining financial
580 assurance in an amount equal to the decrease.

581 E. The regulatory authority may cancel a financial assurance mechanism, only after it is
582 replaced by an alternate mechanism or after the operator is released from financial
583 assurance according to **subp. 8**.

584 F. Financial assurance must meet the criteria of **subp. 5**.

585 **Subp. 6. Multiple projects.** With approval by the regulatory authority, an operator who obtains a
586 plan approval from the regulatory authority for two or more silica sand sites within their jurisdiction
587 may elect, at the time the second or subsequent site is approved, to post a single financial assurance in
588 lieu of separate financial assurance mechanism for each silica sand mining site. When an operator
589 elects to post a single financial assurance in lieu of separate financial assurances for each mining site,
590 financial assurances previously posted on individual mining sites must not be released until the new
591 financial assurance has been accepted by the regulatory authority and is in effect.

592 **Subp. 7. Multiple jurisdictions.** In cases where more than one regulatory authority has
593 jurisdiction, a cooperative financial security arrangement may be developed and implemented by the
594 regulatory authorities to avoid requiring the operator needing to prove financial assurance with more
595 than one regulatory authority for the same silica sand mining site.

596 **Subp. 8. Forfeiture of financial assurance.** Financial assurance must be made available to the
597 regulatory authority under items A to C when the operator is not in compliance with either the
598 reclamation or the corrective action plan.

599 A. A proceeding to access financial assurance must be commenced by:

- 600 (1) serving an order to forfeit the financial assurance on the person, institution, or trustee
601 holding the financial assurance; and
- 602 (2) serving a notice to the operator of the measures required to correct the situation and
603 the time available for correction.

604 B. If conditions that provided grounds for the order are corrected within a period established
605 by the regulatory authority and if measures approved by the regulatory authority are taken
606 to ensure that the conditions do not recur, the order must be canceled.

607 C. If the conditions that provided grounds for the order are not corrected, the regulatory
608 authority shall proceed with accessing and expending the funds provided by this part to
609 implement the contingency reclamation or corrective action plans.

610 Subpart 10. **Failure to comply.** The regulatory authority shall take one or more of the following
611 actions if the failure to comply with any portion of this part occurs:

- 612 A. deny the reclamation plan approval under part 61XX.0340;
- 613 B. modify the reclamation plan under part 61XX.0350; or
- 614 C. suspend or revoke a reclamation plan approval under part 61XX.0360.

615 **61XX.0230 ANNUAL REPORTING REQUIREMENTS.**

616 Subpart 1. **Goal.** The operator shall submit annual reports for all active and intermittent mining
617 areas to the regulatory authority for each calendar year until silica sand mining reclamation at the site
618 is certified as complete under 61XX.0230 subp. 2 or at the time of release of financial assurance under
619 61XX.0230.

620 Subp 2. **Requirements.** The annual report must include items A through H.

- 621 A. The name and mailing address of the operator.
- 622 B. Location of the silica sand mine area with permit number and parcel identification number
623 if available.
- 624 C. The acreage currently affected by silica sand mining and not yet reclaimed.
- 625 D. The amount of acreage that has been reclaimed to date on a permanent basis and the
626 amount reclaimed on a temporary basis.
- 627 E. A plan, map or diagram accurately showing the acreage described in subdivision D and E.
- 628 F. Updated financial assurance describing the cost estimate if operations were to close in the
629 upcoming year.
- 630 G. A certificate issued by an insurance company authorized to do business in the United States
631 that the operator has a public liability insurance policy in force for the mining operation for
632 which the reclamation plan approval is sought, or evidence that the operator has satisfied
633 other state or federal self-insurance requirements, to provide personal injury and property
634 damage protection in an amount adequate to compensate any persons who might be
635 damaged as a result of the mining operation or any reclamation or restoration operations
636 connected with the mining operation.

637 H. The following certification, signed by the operator: “I certify that this information is true
638 and accurate, and that the silica sand mine area described herein complies with all
639 conditions of the applicable silica sand reclamation plan approval and Chapter 61XX,
640 Minnesota Rules.

641 Subp. 3. **Submission.** The annual report must be submitted by a date specified by the regulatory
642 authority.

643 Subp 4. **Alternative report.** A regulatory authority may, at its discretion, obtain the information
644 required in **subp. 2** for a calendar year by written documentation of its inspections of a silica sand
645 mining site. If the regulatory authority obtains and documents the required information, the annual
646 report need not be submitted by the operator. If the regulatory authority determines that the operator
647 need not submit an annual report under this subsection, the regulatory authority shall advise the
648 operator in writing at least 30 days before the end of the applicable calendar year. In that case, the
649 regulatory authority shall require the operator to submit the certification required in **subp. 2, items F**
650 **and G.**

651 Subp 5. **Records.** A regulatory authority shall retain annual reports required by **subp. 2** or
652 equivalent records as provided in **subp. 4** for 10 years after they are submitted, and shall make them
653 available upon request by the public.

654 **61XX.0240 CRITERIA FOR SUCCESSFUL COMPLETION OF RECLAMATION.**

655 Subpart 1. **Goal.** The criteria for assessing when reclamation is complete and, therefore, when the
656 financial assurance may be released shall be specified in the reclamation plan and approved by the
657 regulatory authority. Reclamation criteria shall be specified in one, three, and five year increments.

658 Subp 2. **Upland requirements.** After five growing seasons following initiation of vegetation, a 90
659 percent cover consisting of living vegetation and its litter, must exist on all areas. No more than 10
660 percent cover of invasive, non-native vegetation is allowed.

661 Subp 3. **Wetland requirements.** After five growing seasons following initiation of vegetation, a 70
662 percent cover consisting of native grasses, sedges and forbs. No more than 10 percent cover of
663 invasive, non-native vegetation is allowed.

664 Subp 4. **Comparisons.** If required by the regulatory authority, the operator shall obtain baseline
665 data on the existing plant community for the use in the evaluation of reclamation success.
666 Revegetation success may be determined by the following comparisons:

667 A. to an appropriate reference area;

668 B. to baseline data acquired at the mining site prior to its being affected by mining; or

669 C. to an approved alternate technical standard.

670 **61XX.0250 POST-CLOSURE MAINTANCE.**

671 During the period of the site reclamation, after the operator has stated that reclamation is complete
672 but prior to release of finance assurance, the operator shall perform any maintenance necessary to
673 prevent erosion, sedimentation or environmental pollution, comply with the standards of **61XX.0100**
674 through **61XX.0150**, or to meet the goals specified in the reclamation plan.

675 **61XX.0260 CORRECTIVE ACTIONS.**

676 Subpart 1. **Goal.** On the observation of violations of the permit to mine, immediate actions
677 shall be taken to correct the violation.

678 Subp. 2. **Requirements.** Corrective action requirements include those in items A to D.

- 679 A. When the operator is aware that the reclamation requirements of parts **61XX.0200** and
680 **61XX.0240** are not being met, the operator shall immediately notify the regulatory
681 authority.
- 682 B. On notification or observation of violations of parts **61XX.0100** through **61XX.0410**, the
683 regulatory authority shall order the operator to:
684 (1) immediately take corrective action, or
685 (2) submit, within two weeks, a corrective action plan for approval before the operator
686 implements corrective action that includes:
687 (a) cause for failure to comply;
688 (b) methods, sequence, and schedule of corrective action activities that will result in
689 compliance
690 (c) corrective action cost estimates, and
691 (d) maps and cross sections at an appropriate scale.
- 692 C. If there is an immediate threat to human safety or natural resources resulting from the
693 mining operation, the operator shall take immediate corrective action and report to the
694 regulatory authority.
- 695 D. The regulatory authority may take one or more of the following actions if the operator fails
696 to comply with any portion of this part:
697 (1) suspend or revoke the reclamation plan under part **61XX.0360**.
698 (2) modify the reclamation plan under part **61XX.0350**.

699 **ADMINISTRATIVE PROCESSES**

700 **61XX.0300 RECLAMATION PLAN SUBMISSION.**

701 Subpart 1. **Purpose.** The purpose of this section is to establish requirements and procedures for
702 the processing a complete submission and administration of silica sand reclamation plans.

703 Subp. 2. **Decision.** The regulatory authority shall approve, approve conditionally, or deny a
704 reclamation plan under 61XX.0310 through 61XX.0430.

705 **61XX.0310 PUBLIC NOTICE.**

706 Subpart 1. **Notice.** A regulatory authority that has received and determined that the reclamation
707 plan meets the requirements of 61XX.0100 through XXXX.0260 shall publish a public notice of the
708 application in a qualified newspaper under Minnesota Statutes, section 331A.02 that is circulated in
709 the locality of the proposed mining operation no later than 30 days after receipt of a complete
710 reclamation plan. The notice must contain items A through E.

- 711 A. A brief description of the mining and reclamation planned at the silica sand mine area.
- 712 B. Location or map of the mine area.
- 713 C. Mine ownership and operator.
- 714 D. Mention the opportunity for public meeting under this section.
- 715 E. A notice of the deadline date and contact information for filing objections.
- 716 F. The locations at which the public may review the reclamation plan request and all
717 supporting materials.

718 Subp. 2. **Local Meeting.** A regulatory authority shall provide for the opportunity for a public
719 informational meeting on an application or request to approve a silica sand mine reclamation plan as
720 follows:

- 721 A. if there is meeting on the local permit to mine for the silica sand mine area, the regulatory
722 authority shall provide an opportunity at this meeting to present testimony on reclamation
723 related matters. This opportunity must fulfill the requirement for public meeting for a silica
724 sand reclamation plan required by this section. The regulatory authority shall consider the
725 reclamation-related testimony in the local permit to mine meeting in deciding on the
726 adequacy of a reclamation plan; or
- 727 B. if there is no opportunity for a local permit to mine for the silica sand mine area as
728 described in item A, an opportunity for public meeting required by this section must be
729 provided as follows. Any person residing within, owning property within, or whose principle
730 place of business is within 1000 feet of the boundary of the parcel or parcels of land in
731 which the silica sand mine area is located or proposed may request a public informational

732 meeting within 30 days of the actual date of public notice under **subp. 1**. This public
733 meeting must be conducted as an information meeting for the purpose of explaining and
734 receiving comment from affected persons on the nature, feasibility and effects of the
735 proposed reclamation.

736 **61XX.0320 COMMENTS.**

737 Subpart 1. **Filing.** Comments related to proposed reclamation plan may be filed with the regulatory
738 authority no later than 45 days following the notice of publication.

739 Subp. 2. **Comment statement.** A person submitting an objection statement to the regulating
740 authority shall include the following information in items A through C.

- 741 A. A statement of the person's interest in the proposed reclamation plan;
- 742 B. A statement of the action that the person wants the regulatory authority to take, including
743 specific references to the plan or application; and
- 744 C. The reasons supporting the person's position, stated with sufficient specificity to allow the
745 regulatory authority to investigate the merits of the person's position.

746 Subp. 3. **Considerations.** All comments must be considered by the approved authority.

747 **61XX.0330 DETERMINATION.**

748 Subpart 1. **Issuance.** Unless denied under **61XX.0340**, the regulatory authority shall approve in
749 writing the reclamation plan submitted under **61XX.0200** to issue an approval of the reclamation plan
750 for a proposed silica sand mining project. The decision must be made no later than 120 days following
751 receipt of the complete reclamation plan that meets the requirements of **61XX.0210** through
752 **61XX.0220**, unless a public meeting is held under **61XX.0310 subp 2**.

753 Subp. 2. **Conditions.** The regulatory authority may approve a reclamation plan subject to
754 general or site-specific conditions if needed to assure compliance with the reclamation requirements
755 of this chapter. One required condition of the approved reclamation plan must be that the mine
756 obtains financial assurance under **61XX.0220** prior to construction or disturbance under this plan.

757 Subp. 3. **Multiple jurisdictions.** If more than one regulatory authority has jurisdiction over a single
758 silica sand mine area, the regulatory authorities shall cooperatively issue a single approval for the
759 reclamation plan.

760 **61XX.0340 DENIAL.**

761 Subpart 1 . **Authority.** The denial of a reclamation plan must be denied in writing no later than 120
762 days following the receipt of the complete reclamation plan. The denial must contain documentation
763 of the reasons for denial.

764 Subp. 2. **Grounds for denial.** A reclamation plan must be denied if the regulatory authority finds
765 any of the following:

- 766 A. The proposed silica sand mine area cannot be reclaimed in compliance with the reclamation
767 standards of **61XX.0100 through 61XX.0170** or the applicable local land use ordinance.
- 768 B. The applicant, or its agent, principal or predecessor has, during the course of silica sand
769 mining in Minnesota, within 10 years of the plan application or modification request being
770 considered, shown a pattern of serious violations of this chapter or of federal, state or local
771 environmental laws related to silica sand reclamation. The regulatory authority may
772 consider the following:
- 773 1. results of judicial or administrative proceedings involving the operator or its agent,
774 principal, or predecessor.
 - 775 2. suspensions or revocations of silica sand mining permits or reclamation plans.
 - 776 3. forfeiture of financial assurance.

777 **61XX.0350 MODIFICATION.**

778 Subpart 1. **Modification by regulatory authority.** A regulatory authority may order the
779 modification of a reclamation plan when the regulatory authority determines that:

- 780 A. it is necessary to correct conditions that jeopardize public health or safety or that could
781 result in injury to persons or property;
- 782 B. because of changing conditions, the silica sand mining area is no longer in compliance with
783 the reclamation plan or parts **61XX.0100 through 61XX.0260**.
- 784 C. new information related to reclamation becomes available that needs to be addressed and
785 incorporated into the reclamation plan.

786 Subp. 2. **Modification by the operator.** If an operator desires to modify a silica sand reclamation
787 plan, the operator shall submit an application to modify the plan to the regulatory authority. The
788 application must be subject to the requirements of this chapter. The regulatory authority shall make a
789 determination on the significance of modification.

790 Subp. 3. **Beginning of proceedings.** A proceeding to significantly modify a reclamation plan must
791 follow [61XX.0310](#) through [61XX.0330](#).

792 **61XX.0360 SUSPENSION OR REVOCATION.**

793 Subpart 1. **Grounds.** A regulatory authority may suspend or revoke a reclamation plan issued
794 under this chapter if it finds that the operator has done any of the following:

- 795 A. failed to submit a satisfactory annual report within the time frames specified in this
796 subchapter;
- 797 B. failed to submit or maintain financial assurance as required by this chapter;
- 798 C. failed to comply with corrective actions; or
- 799 D. failed on a repetitive and significant basis to follow the approved reclamation plan.

800 Subp. 2. **Suspension.** If the regulatory authority makes any of the findings in subpart 1, the
801 regulatory may suspend a reclamation plan. During the time of suspension, the operator may not
802 conduct mining at the site, except for reclamation or measures to protect human health and the
803 environment as ordered by the regulatory authority. Operator must maintain financial assurance under
804 [61XX.0220](#).

805 Subp. 3. **Revocation.** If a regulatory authority makes any of the findings in subpart 1, the regulatory
806 authority may revoke its silica sand reclamation plan approval. Upon revocation, the operator shall
807 forfeit the financial assurance it has provided under [61XX.0220](#) to the regulatory authority. The
808 regulatory authority may use forfeited financial assurance to reclaim the site to the extent needed to
809 comply with this chapter.

810 **61XX.0370 VARIANCE.**

811 Subpart 1. **Criteria.** A regulatory authority may approve an alternate requirement to the
812 reclamation standards established in this chapter if the operator demonstrates and the regulatory
813 authority finds the criteria A through C are met.

- 814 A. The silica sand mining site, the surrounding property, the mining plan, or reclamation plan
815 has a unique characteristic which requires an alternate requirement.
- 816 B. Unnecessary hardship which is peculiar to the silica sand mining site or plan will result
817 unless the alternate requirement is approved.

818 C. Reclamation in accordance with the proposed alternate requirement will achieve the
819 planned post-mining land use and long term site stability in a manner that will not cause
820 environmental pollution or threaten public health, safety or welfare.

821 **Subp 2. Procedures.**

- 822 A. An operator who requests an alternate requirement shall submit the request in writing as
823 required in the applicable local land use ordinance.
- 824 B. If the regulatory authority is a county or municipality, the alternate requirement must be
825 approved or disapproved as provided in the applicable local land use ordinance. Approval or
826 disapproval must be in writing and must contain documentation of the reasons why the
827 alternate requirement was or was not approved.
- 828 C. A request for an alternate requirement may be incorporated as part of an application to
829 issue or modify a silica sand reclamation plan.
- 830 D. An applicable reclamation ordinance may provide opportunity for public informational
831 meeting under this subchapter prior to the regulatory authority's action on a request for an
832 alternate requirement.

833 **61XX.0380 TRANSFERS.**

834 Subpart 1. A new operator may apply for a transfer of an approved reclamation plan upon
835 submittal to the regulatory authority the information under **61XX.0200 items A through F**. The
836 previous operator shall maintain financial assurance until the new operator has received approval and
837 provided the financial assurance under this section. The transfer is not valid until meeting all of the
838 following criteria:

- 839 A. the new operator submits financial assurance under **61XX.0220**;
- 840 B. the regulatory authority accepts the financial assurance; and
- 841 C. the regulatory authority determines compliance with all conditions of the approved
842 reclamation plan.

843 **61XX.0390 CHANGE OF REGULATORY AUTHORITY.**

844 If there is a change of regulatory authority for a silica sand mine area, the approved reclamation plan
845 must remain in effect and be enforceable until the plan is modified by the new regulatory authority.

846 **61XX.0400 REVIEW OF DECISION.**

847 Any persons who meet the requirements of **XXXX.0000**, may obtain a contested case meeting
848 under **XXXX.0000**, on a county or municipal regulatory authority's decision to approve, deny or modify
849 a silica sand reclamation plan. SECTION IS STILL UNDER REVIEW.

850 **61XX.0410 NOTICE OF COMPLETION.**

851 Subpart 1. **Request.** The operator shall submit to the regulatory authority a request to be
852 released from an approved reclamation plan. The request must include items A through C.

- 853 A. A declaration by the operator of how each portion of the mine area for which a release is
854 requested has been made to comply with the requirements of parts **61XX.0100** to
855 **61XX.0260** and the conditions placed within the local permit to mine.
- 856 B. Identification of the ownership of the mine area.
- 857 C. A map that prepared by a qualified professional that shows the following:
- 858 (1) the location and status of all mining land forms and facilities created or used during the
859 mining operation;
- 860 (2) the areas for which the release is being requested;
- 861 (3) location of open and sealed water wells;
- 862 (4) the areas on which postclosure maintenance is being conducted;
- 863 (5) the final topography of all mining land forms;
- 864 (6) the location, type, extent, percent coverage of vegetation that has been established;
- 865 (7) the existing and ultimate anticipated level of groundwater;
- 866 (8) the locations of safe accesses of any open water;
- 867 (9) if applicable, the location of all sealed access points to underground mine workings;
- 868 (10) the location of any approved highwalls or gradients that exceed a 1:3 slopes; and
- 869 (11) other tests or borings specified by regulatory authority within the approved
870 reclamation plan.

871 **61XX.0420 RELEASE OF FINANCIAL ASSURANCE.**

872 Subpart 1. **Notification.** The operator shall apply to the regulatory authority for approval, by filing
873 a notice of completion under **61XX.0410**, at the time the operator determines that reclamation of any

874 portion of the mine area, corrective action, or entire mine area satisfies all terms and conditions of
875 parts 61XX.0100 to 61XX.0260.

876 Subp. 2. **Determination of completeness.** The regulatory authority shall inspect the mine area or
877 portion thereof that was the subject of the notice of completion to make a determination of
878 completion using criteria under 61XX.0240. The regulatory authority, in evaluating reclamation
879 completion, shall use individuals with documented experience in the analysis. The reasonable cost of
880 the evaluation must be paid by the applicant. The regulatory authority shall make a determination
881 under this subsection that:

- 882 A. Reclamation is not yet complete;
- 883 B. It is not possible to assess whether reclamation is complete due to weather conditions,
884 snow cover or other relevant factors;
- 885 C. Reclamation is fully complete and conditions necessitating postclosure maintenance no
886 longer exist and are unlikely to recur;
- 887 D. Corrective actions have been successfully accomplished.

888 Subp 3. Release. The regulatory authority shall release the operator from the responsibility to maintain
889 financial assurance within 90 days of a determination of completion under in subp 2. C or D, unless the
890 determination for release is challenged in a legal proceeding.

891 61XX.0430 REGULATORY AUTHORITY RIGHT OF INSPECTION

892 Subpart 1. **Access.** No person may refuse entry or access onto a silica sand mine area of a duly
893 authorized office, employee, or agent of the regulatory authority who presents appropriate credentials
894 to inspect the site for compliance with silica sand reclamation plan required by 61XX.0100 through
895 61XX.0260.

896 Subp. 2. **Inspector requirements.** Any person who enters the site under this right of inspection
897 shall obtain training and provide their own safety equipment needed to comply with any federal, state,
898 or local laws or regulations controlling persons in the silica sand mining area.

899 Subp. 3. **Records.** If requested, the regulatory authority shall furnish to the operator a written
900 report of its inspection under this section, setting forth all relevant observations, information, and data
901 which relate to the mine area's compliance status under this chapter.