

**Operational Procedure and Permitting Questions
Submitted to Richard Harris January 8, 2019**

Operational

1. Is the existing and proposed Sand and Gravel Pits Excavation considered a Dry Pit Mining Operation?
2. Is any water used in the operation of the existing excavation site?
3. Has water ever pooled in the existing excavation pit, and if so how is this handled? Does the site have a dewatering pump for this purpose? If the pit is dewatered, where is this water pumped onsite?
4. What is the current depth of the existing excavation site? How many additional cubic feet of sand and gravel will be removed from this area, and to what site elevation depth does the operation plan to terminate?
5. Does the excavation site have access to City water or private wells? Could the sand/gravel be washed on site? How and where will the product be prepped/cleaned for use?
6. Could the sand and gravel be screened onsite to remove large debris before it is loaded in trucks? If so how is the larger material handled onsite (organics & trash).
7. Is material that has been excavated from the pit stored in stock piles waiting for transfer to trucks?
8. Please provide the list of chemicals used in the last 5 years of the current operation. And provide a list of all chemicals planned for use in the expanded operation- *required by section 255-35 (b)[1] of the South Hadley zoning bylaws. List should include brand name and product code for each chemical, so that any chemical additives may be reviewed and considered.*"
9. Does the site have an equipment/truck maintenance area (concrete slab with collection sump for containment of hydraulic fluids and oils with rain shelter to help prevent risk of an oil release).
10. How is equipment currently refueled onsite and what are the plans for fueling for the expanded operation?
11. Will trucks be covered to prevent spillage during transportation? How will this be monitored and reported?
12. What is the company's complaints and grievance mechanism to handle complaints from the public? The owner said in the Town Reminder there could be up to 160 trucks/day.
13. What is the transportation plan for hauling sand, gravel, and concrete? Are there specific times of travel, specified routes, truck weighing equipment to ensure loads are within limits for roads? Will random breathalyzers be used to ensure no DUIs? What policies and safeguards exist to ensure drivers do not use cell phones while driving? Will remote speed alarms be used in trucks? How will these mechanisms be monitored and reported? What mechanisms are in place to ensure that all contractors adhere to these procedures?
14. Any transportation route will rely on Route 47, which is a National Scenic Byway. What studies have been done to that show to clarify the impacts increased heavy truck traffic (up to 160 per day) will have on tourism and the local economy?

15. Adding up to 160 heavy trucks a day will impact traffic patterns, public safety, and noise. Operations with similar haul loads have negatively impacted housing prices and public safety. How is the applicant going to manage, monitor, and report impacts to public safety? Has the applicant considered affects on housing prices and what are they going to do to protect residents' home values (i.e., escrow) along the transport route?
16. How does the applicant plan to manage and track maintenance of trucks/equipment that are not owned and operated by Chicopee Concrete?
17. Does the existing operation have a procedure in place managing contracted haulers & that specifically prohibits trucks from dumping partial loads at this site. This is a common way for haulers to dispose of contaminated soil that would otherwise have to be disposed of legally (and for a fee). This is of critical concern at the site--leaching of oils or other contaminants from stockpiles at this site (with sandy highly permeable soils) would put the town aquifer at risk for contamination.
18. Has an environmental and social impact assessment (ESIA) been conducted and can it be shared? Typically permitting authorities would require the permit seeker to have a third party conduct an ESIA to determine how a project and its operations will impact an area economically, environmentally, and socially, protecting the permitting authorities from legal liability. Please share the ESIA and if it has not been requested, why not?
19. What is the applicant's Chance Finds Procedure in the event of archeological and anthropological disturbances, and how will it be monitored (considering that dinosaur fossils have been found in the immediate area to the West, East, and South of the site)?
20. What is the expected life of operation?
21. The current application notes that restoration of the site will be approximately \$860K, in today's dollars. What mechanisms are in place to ensure that this is indeed sufficient for the purpose, and to adjust if for (inevitable) inflation?

Permitting Questions

22. Sand and Gravel Excavation/Mining is considered an industrial mining operation not agricultural. Has the town reclassified zoning of the existing parcels being used for sand and gravel mining? Can the town or applicant provide a copy of the existing special permit for this operation?
23. Was there an expansion of mining operations beyond the historical mining area at any time after 1992 through and including the current date? If so, what authority permitted such expansion? Provide evidence, if any, of such permission or approval by public authority(ies)
24. Can the applicant share copies of all existing environmental permits, health and safety permits, and operational plans for the existing facility? A quick search of State and Federal regulations, reveal that the sand and gravel excavation is a regulated industry by US EPA and the Mining Safety and Health Administration (MSHA). Searching the MSHA database (<https://arlweb.msha.gov/drs/drshome.htm>) there is no record of any existing operation in South Hadley or for Chicopee Concrete, meaning required federal trainings and audits have not been performed to date (there is a listing for an abandoned

sand and gravel mine in Westfield for Leo Ouellette Jr). Below is a listing of permits typically required by industrial operations, and mining operations:

- Please provide a copy of the MSHA permit. (Required per Federal Mine Safety & Health Act of 1977, Public Law 91-173, as amended by Public Law 95-164*)
 - Please provide a copy of the mine safety plan. Refer here for details:
<https://www.mass.gov/service-details/mine-safety-and-health-program-safety-and-training-information>
 - Please provide a copy of the SPCC Plan (Spill, Prevention, Control and Containment Plan) -typical best management plan when operation is aware that there are risks of spills especially activities that could result in an oil or fuel spill. If fueling is to occur onsite as part of a regular process, then provisions for containment may be required.
 - Please provide a copy of the NPDES permit for discharges related to industrial activities (Federal regulations at 40 CFR 122.26(b)(14)(i)-(xi) require stormwater discharges associated with specific categories of industrial activity to be covered under NPDES permits) <https://www.epa.gov/npdes/stormwater-discharges-industrial-activities>
 - Please provide the existing operation's source point permit (NPDES through MA-DEP) (EPA promulgated the Mineral Mining and Processing Effluent Guidelines and Standards (40 CFR Part 436) in 1975, and amended the regulation in 1976, 1977, 1978, and 1979. The regulation covers wastewater discharges from mine drainage, mineral processing operations and stormwater runoff.)
<https://www.epa.gov/eg/mineral-mining-and-processing-effluent-guidelines>
 - Please provide a copy of the SWPPP (Stormwater Pollution Prevention Plan) usually part of a NPDES permit, and usually required in mining operations.
 - Please provide a copy of any MA-DEP air permits & explain how the applicant controls dust and PM emissions during excavation activities.
 - Please provide the Operations Plans for the existing quarry.
25. Will the expanded facility have the same ownership as the existing operation? If not, the new owner will need to file for modifications to the existing permits showing new ownership, and add data related to the expansion. In addition all maintenance and operation plans would need to be updated to reflect the expanded operation.
26. According to the Massachusetts Environmental Policy Act (MEPA), the applicant requires a MEPA review. When will this be done?
301-CMR11.03(1)B(1) Direct alteration of 25 or more acres of land, unless the Project is consistent with an approved conservation farm plan or forest cutting plan or other similar generally accepted agricultural or forestry practices.
27. According to SH Bylaws, (N) Water Supply Protection District, 8. Special Permit Uses, c. Additional Procedures for Special Permit in the Water Supply, 2. The Special Permit Granting Authority may grant the required special permit only upon finding that the proposed use meets the following standards and those specified in Section 9 of this By-Law. The proposed use must:

- *In no way, during construction or thereafter, adversely affect the existing or potential quality or quantity of water that is available in the Water Supply Protection District, and;*
- *Be designed to avoid substantial disturbance of the soils, topography, drainage, vegetation and other water-related natural characteristics of the site to be developed.*

A hydrologic study with a pump test at maximum rates would clarify whether activities may adversely affect potential water quality and quantity, and provide a clear understanding on groundwater flows and time of travel, as well as determine the legally defined aquifer protection area. Can the town or applicant provide details how this is going to be conducted?

28. Some research of other mining operations have revealed that quarries should have a copy of a comprehensive **Operations Plan**. The operational plan that has been submitted to the Planning Board for the new Sand and Gravel Excavation Quarry should include the following:

Background

Ownership

Location: “ the site is located at”

and legal description :” map ##### Block ##### Lot #####.....

Site and Vicinity Description: The subject property is comprised of.....

Description of Structures and Roads, other Improvement on site:

“Access to the site is through the

Current Uses of the Property: “The subject site is.....

Past Uses of the Property: “ Past uses of the property was

Future Use of the Property: It is expected that at some point in the future all of some of the land would be

Seasonality and Economic Conditions: “ The quarry operates all year round. Commercial demand for the product is

Marketing and Distribution: The Company’s short and long term goals are

Education and Community Information:

Competition: “The sand and gravel industry is The company competes

Lease: “The Company’s lease

Personal and Subcontractors: “The Company employs XXXX on a daily basisthe operation also is made up of XXX subcontractors

Equipment: “The operation is made up of the following equipment

Safety: “ The Company operations are subject to regulation and oversight and over the last XXXX years

General Quarry Operations: “The main operation consisting of the following processes will occur from 7 am to 330 Pm Monday through Friday.

Transportation Plan:

Dust Monitoring Plan:

**Main Quarry Layout Map:
MSHA Mine Identification Number:**

Provide a narrative plan for reclamation of overburden piles specifying the timing and extent of overburden piles returned to the pit and final grading of the overburden areas for blending into existing contours

Identify the final grading and drainage pattern including topographic contours and a description of compaction and stabilization techniques. Provide cross-sections showing permit line setbacks, final post mining slopes, post mining watertable and safety benches.

Provide a sequence of operations (relative timetable) for the accomplishments of the major stages in the reclamation plan demonstrating compliance with the concurrent reclamation requirements in MA XXXXXX.

29. As discussed above the **Operations Plans should include language about prohibiting dumping of materials onsite, and how this is managed by the operations team.** There needs to be some language and oversight mechanism to prohibit trucks from bringing material into the quarry and dumping it to then be able get loaded with sand or gravel.

Questions about proposed excavation sites:

1. Are any of the new properties proposed for the new excavation sites used actively for farming? This land is currently zoned agricultural, will Town property taxes get updated once it is zoned industrial? Does the existing parcel now being used as a sand and gravel excavation site pay taxes on industrial or agricultural land?
2. What is the estimated tree density per acre of the properties proposed for new excavation?
3. What is the work plan for the Phase 1 and Phase 2 excavation sites? Does the entire site get cleared of trees, then graded? Then commencement of excavation? Or will the excavation take part in small parcels of the overall excavation site (i.e. 5 acre sections, with requirements for ongoing reclamation for each 5 acre parcel).
4. Please include a site plan overlaid on a large Google Earth map/image showing properties affected, the proposed excavation pits and the location of the city wells.

Monitoring Plan:

1. It seems that the frequency of monitoring should increase as more material is removed from the site, as the risk for contamination increases as more material is excavated and the grade elevation approaches the water table elevation.
2. Since we understand that this sand deposit is a recharge area for the aquifer, would it make sense to monitor groundwater for quality (after a significant rain event (like a 10 year storm event, or other significant predefined rain events)?

3. Monitoring wells should be installed and baseline water quality data collected before any site alterations are performed. Parameters for testing should include all those that are currently monitored for drinking water for Water District 2.
4. A site specific study has been recommended upfront to better understand the geology and hydrogeology of the site before defining and siting a matrix of monitoring wells. Soil permeability, hydraulic conductivity, travel times all need to be understood before a frequency of monitoring can be properly defined.