



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 1

5 POST OFFICE SQUARE, SUITE 100
BOSTON, MA 02109-3912

Date: *Dated as shown on electronic signature(s)*

Subj: Inspection Report
Clean Water Act - National Pollutant Discharge Elimination
System ("NPDES")
Granite State Concrete Co.

From: Jeremy Rolfe
Thru: Solanch Pastrana Del Valle SOLANCH
PASTRANA-DEL
VALLE
To: File

Digitally signed by SOLANCH
PASTRANA-DEL VALLE
Date: 2023.03.23 16:10:33
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I. Facility Information

- A. *Facility Name:* Granite State Concrete Co.
- B. *Facility Location:* 534 Groton Rd
Westford, MA 01866
- C. *Facility Contacts:* John MacLellan, President
180 Phoenix Avenue
Lowell, MA 01852
978-458-1223, Jmaclellan@jgmaclellan.com
- D. *NPDES ID No(s):* MA0020231, MAR053686

II. Background Information

- A. *Date(s) of inspection:* January 25, 2023; 9:00AM
- B. *Weather Conditions:* Snow/Rain
- C. *US EPA Representative(s):*
Solanch Pastrana Del Valle, Jeremy Rolfe (ECAD);
Sharon DeMeo (Water Division)
- D. *State/Local Representative(s):*
None
- E. *Federally Enforceable Requirements Covered During the Inspection:*
- National Pollutant Discharge Elimination System (40 C.F.R. §122)(September 1, 2010)
 - NPDES 2021 Multi-Sector General Permit (March 1, 2021)
 - Oil Pollution Prevention regulations (40 CFR Part 112)

F. Previous Enforcement Actions:

No previous enforcement actions against this facility. The Agency did enter a Consent Agreement and Final Offer against two of JG MacLellan companies on September 5, 2018.

III. Type and Purpose of Inspection

U.S. Environmental Protection Agency (“EPA”) staff conducted an announced compliance evaluation inspection at Granite State Concrete (“Granite State”, the “Facility” or the “Site”). The Group inspected compliance under the facility’s National Pollutant Discharge Elimination System (“NPDES”) Individual Permit (“2010 Permit”), compliance under the NPDES 2021 multi-sector general permit (“MSGP”) for stormwater associated with industrial and compliance with the federal Spill Prevention Control and Countermeasures (“SPCC”) Oil Pollution regulations.

The Facility’s NPDES Individua Permit is currently on the process of getting re-issued by EPA’s Region 1 Water Division.

Slide numbers mentioned throughout the report, correspond to the slides in the attached inspection photo album.

IV. Facility Description

Granite State Concrete Company, referred to here after as the “Facility”, “GSC” or the “site” is a private ready-mix concrete and stone crushing plant owned by JG MacLellan Concrete Company. The Facility is located on 534 Groton Road, Westford, MA on a large plot of approximately 30 acres. John MacLellan, President of GSC, indicated that the facility employees about 10 people and operates 10 hours per day, 5 days a week. During the summer months, it may operate on Saturday if needed. During the winter months operation is dependent on snowfall and temperature.

The facility is authorized through their NPDES permit (MA0020231)(issued on June 24, 2010) to discharge quarry water, consisting of the quarry process water, groundwater and stormwater, all of which collects at the bottom of quarry and discharges through Outfall Serial Number 001 to Gilson Brook. They are also authorized under the 2021 MSGP (MAR053686) to discharge industrial stormwater from their facility through the stormwater outfall 001 to Gilson Brook Pond.

On-site two companies conduct operations. GSC operates the stone crushing operations while Granites of America (tenant) utilizes parts of the quarry located on-site, additionally owning a property directly across Groton Road from the GSC facility being inspected. Granites of America, cuts and transports granite blocks from GSC to their facility via trucks. Mr. MacLellan stated that there is no processing of the blocks at the GSC location by Granites of America.

All information contained in this report was obtained through discussions with Facility personnel unless otherwise indicated.

V. Inspection

The site visit was announced on January 24, 2023, via a phone call to Mr. MacLellan's secretary.

A. Opening Conference

Solanch Pastrana-Del Valle, Jeremy Rolfe ("inspectors") and Sharon DeMeo ("permit writer"), arrived at the site at approximately 9:00AM and met Mr. MacLellan, at a converted office building on the site. The inspectors presented their EPA credentials in a meeting room and Mr. MacLellan provided his business card. Opening questions regarded the background of the quarry, which previously was owned by Fletcher Granite Company. Activity at this Groton Road site first began in 1881. This parcel was acquired by GSC in the 1990s, when Fletcher Granite Company went bankrupt.

Industrial activities at the site include production of crushed stone for concrete, production of ready-mix concrete, stone cutting, and sand mixing (sand is brought from off-site locations for use in the concrete). According to Mr. MacLellan any water used on the site is for dust control, truck cleaning/filling, or for stone saw cooling. Mr. MacLellan stated that the crushed rock for the concrete is produced via a "dry screen" method that does not require water. This is due to the "quality stone" present at the site. The water that goes into the post-production concrete inside the mixers is ratio'd as 250 gallons to 1 load of concrete. Mr. MacLellan stated that there "may have been times we pumped from [the pond], but not recently" and that the water normally comes from an on-site well.

At the moment of the inspection a large truck labeled as "Water Truck" was observed near the stone crushing operation. Mr. MacLellan indicated that the water truck is used to spray water for dust control (slide 36). This water is pumped from Gilson Brook Pond directly and excess water can be stored in a large water tank at the bottom of the quarry near the crushed rock operation (slide 30).

There are 4 settling pits on the site, used during the concrete drum washout process (slides 46-47). The ponds are connected in sequence, with water flowing through a pump system. The first pit captures the washout directly from the drum. The washout is a combination of solids and wastewater. The other three ponds are used for filtering. The water in the last pond is recycled and used on the trucks. These pits are located next to Gilson Brook Pond on the south side of the site and are cleaned out every "6-12 months".

According to Mr. MacLellan, any waste concrete in the drums is reused. Waste concrete is poured into large block molds which, when filled, are crushed to make "high quality fill material" that is used in various construction projects, such as foundation fill, road base, or other material fill.

There is a cistern system located in Gilson Brook that is used to remove water from the quarry (slide 19). This facility discharges quarry water to Gilson Brook via a pipe that goes from the quarry to the pond. A filter bag system used to be utilized on this pipe, but the filter bag has since been removed and is no longer used as samples from before and after the bag showed no change (slides 7-9). Mr. MacLellan indicated that stormwater flows from the entire site into the quarry, which is pumped into Gilson Brook Pond every other month or as necessary in a “typical year” via this pipe; Mr. MacLellan indicated that this year has been unusually dry and that there was less pumping this summer than is usual. This is done via a large pump that runs for several days when the quarry needs to be drained. An employee turns on the pump and sends a photo of the process to Mr. MacLellan. There are smaller pumps that pull water for the stone saws.

GSC personnel conducts are responsibilities under their individual permit (testing, data submittal, applications, etc.). The sampling location is done at the transition point from the Gilson Brook Pond to Gilson Brook and not at the pipe discharge point (slide 15).

Inspections and sampling for the MSGP is done by a third-party consulting firm. The firm also uploads the results to NetDMR with Mr. MacLellan signing off.

The SPCC plan is done by a third party and kept inside a building on-site.

Further cleaning of the site is done via a sweeper truck which cleans the paved roads that the site’s trucks access. These sweepers capture particulate matter dragged out to the paved roads. There are additional access roads that provide fire access and some paths along the perimeter of the quarry that are not vehicle accessible.

Inspectors and Mr. MacLellan left the converted office building at 10:28 AM in GOV for site inspection.

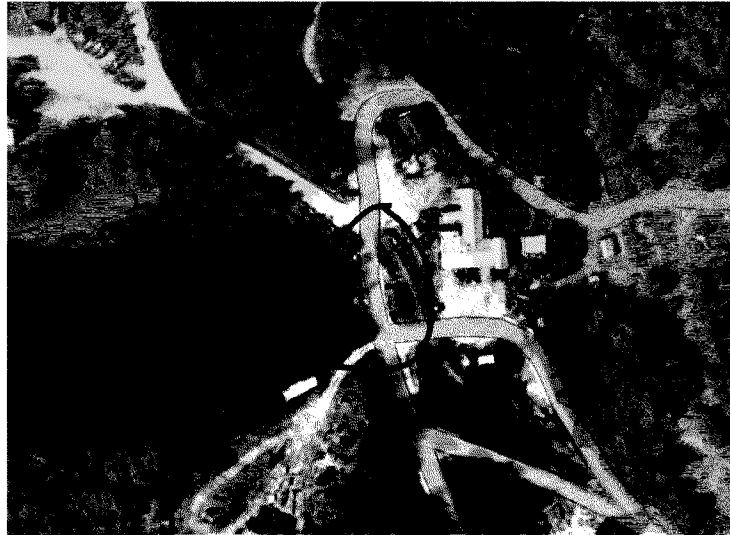
B. Facility Tour

Inspectors and Mr. MacLellan proceeded toward the quarry in two vehicles (EPA GOV and private vehicle). We stopped at the rim of the quarry and Mr. MacLellan pointed out the main quarry pit, the large settling pond, and Granites of America’s operational area as the quarry was operating during the inspection (slides 3-5). There were a number of parked bulldozers and dump trucks around the area, but Mr. MacLellan stated that they were old machines no longer in use and that the engine fluids had been drained (slide 6). Mr. MacLellan indicated that there is no maintenance performed on-site; damaged vehicles or in-need of work are taken to other GSC facilities for maintenance.

The inspection continued down the rim of the quarry by vehicle toward the outflow pipe from the quarry leading down to Gilson Brook Pond. This is the pipe that formerly had a filter bag on it, discussed at the opening conference (slides 7-8). There is a long pipe running from the quarry toward a drain, but the pipe is not connected to the drain and allows water to freely flow via a ditch. This ditch holds debris, both manmade and natural, as well as the mounting foundation for the removed filter bag. The drain has a grate over the entrance, but it is visibly impeded by debris (slide 9) both on the outside of the gate and behind it. Mr. MacLellan stated that they do not clean the drain. Above the

drain is a wooded area where rusted scrap metal was observed on the hill leading up to the quarry rim.

At the bottom of the access road that the drain pipe crossed under (slide 10) was the outfall into Gilson Brook Pond, directly across a private access road to Groton Road. In this area multiple building, materials and debris were observed in different states of deterioration (slide 11-14).



Gilson Brook runs perpendicular to this access road, behind a cement berm, flowing from the corner of the pond (slides 15-16). Gilson Brook Pond was observed to be capped with a thin sheet of ice, although areas of water flow were thawed and clear of ice (slides 17-19). This was observed where the stream exits the pond, as well as thinner ice around the inlet pipe going into the pond. Additionally, there is an outlet pipe that the pump truck uses to remove water from Gilson Brook Pond for dust suppression activities (slide 18). Mr. MacLellan stated that sampling was taken at the point Gilson Brook exited Gilson Brook Pond (slide 15).

Directly across the access road, there is a small pump house building (seen in the above map as the brown-roofed building inside the circle)(slides 20-24). This pump house has two rooms, one filled with scrap and materials and the other with a pump and pipe system. There was an observed pressure vessel in the pump side as well as several pipe inlets and pipes leading out the side of the pump house. There are additionally smaller pipes that simply lead out into the yard directly adjacent to the pump house (slide 26). Directly behind the pump house, there is a railroad car that appears to be used as a scrap repository (slide 25). Mr. MacLellan stated in the post-inspection conference that this is a transitory location and is not used for long-term storage. Additionally he indicated that all of the observed pumps were operated by Granites of America.



Inspectors then traveled down the access road into the stone crushing area (Section 1 on above map)(slides 31-35). This area contained crushed rock piles of various sizes and consistencies. Mr. MacLellan stated that these piles are self-contained and stabilized, although no stabilization measures were observed. Additionally, a large tank of unknown capacity that contains non-potable water pumped from Gilson Brook Pond by the spray truck, was observed in the area (slide 30). Mr. MacLellan stated that the spray truck can either take directly from the pond or from the non-potable water tank when needed (slide 36). Inspectors then moved toward the back of the gravel area (Section 2 in the above map). This area was observed to have a large body of standing water (slides 27-29) that was not listed as a settling pond in the facility's site map. Mr. MacLellan stated that this area has trucks driving in and out of it and that it is not "more than 1 foot deep". Additionally, he stated, that the water is accumulation of rain and snowmelt, and that it is contained in the area. GSC does not pump or remove the water from here, they allow it to infiltrate to the ground or to evaporate. The flooded area reached to the far back of the quarry wall and represented a large percentage of the gravel processing area. A cap of unbroken ice was observed at the far back of the area and it did not seem to be disturbed.



Leaving the gravel area, the inspection team moved toward the rear of the facility to inspect old outfalls and ready-mix concrete operations (slide 37). In Section 1 of the above map, we observed standing water sections that flow to the stormwater outfall (slide 38-39). The stormwater outfall 001 pipe was observed on Gilson Brook Pond (slide 40).

Section 2 led up to the wooded paths leading above the quarry wall, though a marshy area going toward Fletchers Pond (body of water at the top northwest point of the above map). Inside Section 3 there was observed an old foundation that Mr. MacLellan stated was used by the former owner of the property, Fletcher Granite, to pump water from the quarry to a pond on the far northwest side of the inspection area. This pond is owned by the Town of Westford and the public has access to it. The pump is no longer in use and the foundation is dilapidated. There was an observed container and debris at this site that was overgrown and difficult to get to. At the far back of the property, the inspection team tried to find a way of getting to the top of the back quarry wall. This attempt failed due to deep snow and lack of navigable path. Mr. MacLellan stated that the back area of the quarry was close to the property line and that the land parcels behind the quarry wall were not owned by his company.

Additionally, a culvert was observed in Section 2, with a heavy flow into the wetlands present in that area (slide 41). Mr. MacLellan stated that he did not know the source of the water flowing, but though it was just run off from higher areas. No inlets to the culvert were observed during the inspection.



The final area of the inspection was the truck washing/filling station. This is the area where concrete trucks both take warm water into their mixers and wash out after delivering the concrete (slide 42, 45, 48).

Upon entering the washing area, in Section 1 of the above map, containers with different materials exposed to stormwater were observed to be rusted and several sections of the metal containers were bulged or split, allowing material to escape (slide 43-44). At the post-inspection meeting, Mr. MacLellan stated that this was due to their machinery having to constantly push and pull material from the containers and bulging them.

The inspection then proceeded to Section 2 in the above map and observed the water adding process directly into the trucks. This is also the area where the four washout pits collect processed wash water (slides 46-47). This water is drained through a large drain system (slides 65-66) and is pumped into each of the pits. The washout pits are lined in concrete and were full of water during the inspection. There was a sheet of ice on all of the pits the day of the inspection. Cement trucks were lined up along the road between sections 1 and 2 on the map above, so inspectors were able to directly observe the trucks taking in hot water into the concrete mixers as well as seeing a strong flow in the drainage system (slides 47-48). The washout pit pumps were not moving water across the pits on the day of the inspection.

Directly behind these washout pits, in Section 3, it was observed by the inspection team that the area of Gilson Brook Pond was thawed approximately 10 feet out from the shore (slides 49, 62) Over the course of the inspection, the team had the opportunity to observe

the ice conditions on the pond and this thawed area was not typical. Therefore, the team moved to the small, wooded area directly between the four settling pits and the pond. Behind the pits, there is significant debris from earlier pumping operations, including pipes that lead into the pond itself (slide 63-64). Furthermore, there is a pipe that is in use for pumping pond water into the “fill building”, which is what the site calls the building where cement trucks take on water for their mixing (building at the far right of Section 2 in the above map) (slides 54-61). This pipe runs from the pond, up and over the truck entrance, and then to an outlet pipe that can be fitted with a hose that would then lead into the adjacent building for tank storage. At the moment of the inspection the pipes were not connected (slide 56).

At this point the inspection team met Mr. Steve Fox, the site Operations Manager. Mr. Fox and Mr. MacLellan informed the inspection team that the majority of the pipes in the area behind the settling pits were not in use. It was observed that these pipes are uncapped and many were below the snow line on the day of the inspection. When asked if it was possible the warm water being used in the fill building could be the cause of the observed thawing in Gilson Brook Lake, he stated that he didn’t believe it was possible due to the water capture system previously observed. It was recommended to Mr. MacLellan to remove all old equipment not in used from this area as a best management practice.

C. Closing Conference

The inspection team and Mr. MacLellan returned to the converted office for the closing conference. The inspection team had several housekeeping BMP recommendations, which included: removing the unused pipes from behind the washout pits; labeling of in-use pipes; general cleaning around the site to remove scrap metal and processed stone materials; and fixing corroded or split containers. Further, the site was notified that their sampling location on their individual permit would be changed from where water exits Gilson Brook Pond to the correct location, where the water enters into Gilson Brook Pond, as it was in their 1986 permit. This is because the current sampling location is “not representative of what [the site] is discharging” as the sampling currently occurs after the sample is diluted by the pond.

Further, the site was directed to send the SPCC plan and previous MSGP monthly inspections (from 2021 to present) to the inspection team for review. [Completed by Facility on January 30, 2023].

The group departed the site at approximately 1:20 PM.

Unless otherwise noted, this report describes conditions at the facility/property as observed by EPA inspector(s), and/or through records provided to and/or information reported to EPA inspector(s) by facility representatives and as understood by the inspector(s). This report may not capture all operations or activities ongoing at the time of the inspection. This report does not make final determinations on potential areas of concern. Nothing in this report affects EPA’s authorities under federal statutes and regulations to pursue further investigation or action.