

# Earth Removal Advisory Committee Meeting Minutes 10-23-2019

## Meeting held at Town Hall

**Members Present:** John A. Picariello, Tonia Bandowicz, Cabot Dodge, and Ted Smith, ERAC; Marzie Galatlea, Community Development; Kevin McGrath, resident; Pete Bennett and Ken Smith, Maine Drilling and Blasting; and Kirk Hind and Jarrett Temple Aggregate Industries (AI)

The meeting was called to order at 7:00 pm

John Picariello asked if anything had been done regarding a dust study. Kirk stated that AI has been in contact with Tech Environmental and that a test would be done on level 3, where the area is dryer, and in the next few days. The only problem is that the wind is from the northwest so a blast will not affect the Nichols Street neighborhood. When the wind direction turns around then another study would be done on Nichols Street. Jarrett said the monitor would be put in tomorrow and left there for two blasts, on Monday and Wednesday, at the Danvers Road end with continuous monitoring. The sample of the drilling rig dust will be sent out for testing of mineral components. Cabot suggests that the monitor be placed on his property for the next test. The best time for dust testing is when the weather is dryer, summer, which will be added to the permit. The dust monitors from the operators were tested and were in an acceptable range.

Asked if there was a timeline for when the residents' letters would go out, which would include pre blast surveys, siren sound, etc., ~~Kirk~~ said that Lisa Young is working on the letter and it would be sent to town hall for review and approval. The area that the letters will be sent to needs to be defined, a radius from the quarry was discussed. John suggested that the people who were at the Select Board meeting and complained should be on the list. One resident from Fairview Ave should get the letter. A further discussion about who gets the letter and how far out from the quarry the radius should go continued.

Weather restrictions was next discussed. Asked what a reasonable wind speed restriction would be, Pete Bennett said that would be hard to calculate when they are loading the holes for a blast. Jarret said that the dust study would help identify if the wind, and at what speed wind affects dust. A weather station will be setup for the dust study to record wind speed and direction, but it is not permanent. Ken Smith stated that the humidity helps control the dust from a blast. Asked if he has looked into a Monsoon sprayer, Kirt says he hasn't, but it is still an option. Weather reports from Logan airport was discussed in relation to cloud ceiling height and blasting on severely overcast days. That information is available every day. Ken gave weather "thermal inversion" information on air blasts. Ken verified that the time of day to blast in the permit was correct to avoid blasting during a thermal inversion. Ken summed up by saying that the three things that ~~have to~~must be considered are wind speed, wind direction and thermal inversions.

Kevin McGrath, resident from Essex Street, was asked if he felt the blast noise was a problem. He says that he hears them, knows they are coming but it is what it is. Toni sums up by noting that the wind speed and direction affects noise and dust but not vibrations.

Ken then provided information on vibration speed and level as it passes distances. He said having a floating seismic monitor in the areas with the most concerns is a good practice. John asked Kirk if he can add a question to the letter to residents of whether residents want a monitor on their property to assess questions of vibration damage. Pete stated that he has placed monitors on Weiss property for two blasts and that the property owner doesn't mind if they want to do it more often. Toni asked if the length of the video blast could be longer than currently recorded per Chief Breen request. Pete said that it will be put on a thumb drive because the file is too long to email.

John asked if the siren location and or decibels have been addressed. Kirk will add that question to the resident letters, i.e., if they can hear it, want to hear it.

| The hours of blasting were discussed, and the thought ~~wasthatwas that~~ what is currently stated in the permit is the best time of day.

Blasting at depths of 80 plus feet will not be allowed on the quarry floor and will be written in the permit. However further discussion of the 80' bench of level 3 and blasting needs to be addressed. MSHA is concerned in the safety of the depth of the benches as they approach the maximum circumference of the quarry walls. Pete said that the best approach on level 3 is to continue to blast the 80 because trying to get to the lower 40' after blasting the top 40' is not safe. The bench width on a finished wall is between 25 and 30'. On a bench with further mining the bench needs truck access so it would be 30 to 50' wide. A definition of the blast at the bottom of the quarry, sump area, was cleared up by stating that the blast would be two 40' blasts and not 40', a gap breaks and another 40' on top shoot at the same time.

Ken said energy will take the path of least resistance, so a blast on a face wall will fall away vs. a blast on the quarry floor. The question was asked if blasting at the bottom sump area were to happen again in the future would it be advisable to lessen the number of holes or charge. Pete said that they don't have enough data to determine what is the best practice on sump area blasting. Currently breaking the blast to 40' and 40' blasts should reduce vibration travel.

Set hours of blasting was compared with the blast regulation of the Peabody quarry, which is on Thursdays at 1pm. Pete said that Swampscott's current permit limits are adequate. Kirk has agreed to only blasting two days in a calendar week, weather permitting. Asked if the restriction of two blasts a week will ~~have an effect on~~ influence production Kirk said only in the development blasts at the quarry floor; production blasts will not be a problem.

Ken then gave a description on blast duration and how it is perceived in relation to vibration levels. Maine blasting is trying to control the duration to 500 milliseconds per blast. John said the three blasts a week could be less trouble than just two.

The subject of Swampscott imposing its own limits vs. the state limits on blasting was discussed.

Ken thought that it is possible but it is a long process to set limits other than those mandated by the state. Toni suggested that this conversation needs to be forwarded to the town's legal council to follow up on. Ken? also said that a third party consultant should be contacted to write into the permit the most current best practices for the Swampscott quarry.

Marzie said the form for blast reporting is on the town's web site. Asked if the residents have the ability to claim damages for prior blasting damages, Ken reported that the claims need to be completed in thirty days. He stated that claims filed after that deadline have been looked at in a good will gesture. He continues to read the state blasting regulation that states that if within the limits no structural damage should occur. Toni brought up the Peabody language for claims to consider adding to ~~the permit~~ the permit.

The question was asked if the permit limits the size of the drill hole, the number of holes in a blast and the amount of explosive loaded how that would affect vibration and production. Ken said the new technology has increased the diameter size to 4". The fear is that the drill hole will not be straight which will change the desired blast sequence. Shrinking the size of the hole would mean increasing the number of holes, in turn increase the pounds of explosive which would increase the vibrations.

At what level of PPV are the blaster trying to agree to reaching? An explanation of frequency vs. vibrations was given by Ken. It was suggested that Ken be at the Select Board meeting to give the knowledge he has to the obvious many questions the Select Board would have.

Tonia made a motion to adjourn, vote was unanimous at 8:45 pm.



