

July 8, 2022

Ted Fire  
The Kraft Group  
One Patriot Place  
Foxborough, MA 02035

***Re: 40-42 Unified Parkway - Coupling and Decoupling of Trucks***

Ref 4679

Dear Ted:

It is our understanding that the Town has voiced a concern with respect to the sound from coupling and decoupling of trucks, and whether or not those sounds were included in the model. As discussed below, these sounds are within the conservatisms of our sound modelling, and in practice we anticipate minimal added sound from such activities at this site.

It is important to note a few key features of this project as we analyzed this issue. In this case, these activities will be at least 500 feet or more from the nearest dwelling across dense vegetation and wetlands where nature and weather conditions typically provide their own variable sounds that will mask these rare and extremely short activities. In fact, most trucks will arrive, be loaded, or offloaded at the loading docks, and leave the site without ever decoupling or coupling. To the extent they do, the project has much better control over these activities because, unlike a general trucking depot, this facility will have trucks that are part of the facility process. And unlike a general trucking facility that sees mostly independent contractors, the truckers here will be employees of the facilities.

Therefore, based on the foregoing and the analysis from our model, we conclude that there will be minimal added sound, day or night, from coupling or decoupling activities. Proper procedures for decoupling and coupling a truck are discussed below. When performed properly, there will be little to no added sound to the area above the typical trucking operations already included in our analyses. Further, Tech also explored the possibility of a less than precise coupling or decoupling operation occurring with a sound power of 109 dBA. Even at this elevated sound power, the sound off-site at the nearest dwellings will still not exceed the World Health Organization maximum criteria for sleep disruption to the abutting residences.

The following are the proper procedures for decoupling and coupling a truck along with added comments on the critical parts with respect to sound that were included in the modelling. The steps necessary for disconnecting and connecting trailers includes the following:

Disconnecting the Trailer

1. Back the truck into the parking space (within back-up alarms included in the model)
2. Shut off the air supply to the trailer (within idling sound included in the model)
3. Disconnect the electrical and air hoses to the trailer (within idling sound included in the model)
4. Disengage the hook from the “fifth wheel” which opens jaws to king pin (within idling sound included in the model)

5. Lower the landing gear of the trailer with a hand crank to a point where the gear is hovering just above the ground (within idling sound included in the model)
6. Pull the truck out to a point where the truck is resting on both the landing gear and the fifth wheel skid plate (within idling sound included in the model)
7. Get out and check the gear (within idling sound included in the model)
8. Once confirmed, pull the truck away from the trailer (within the traveling sound included in the model)

#### Connecting the Trailer

1. Back the truck into position aligned with the trailer to 8 inches from king pin (within back-up alarms included in the model)
2. Turn on the air suspension (air bags) to raise the trailer to the king pin (within idling sound included in the model)
3. Back the truck until connects with king pin (within back-up alarms included in the model)
4. Get out and check the gear (within idling sound included in the model)
5. Raise the landing gear of the trailer with a hand crank (within idling sound included in the model)
6. Connect the electrical and air hoses to the trailer (within idling sound included in the model)
7. Turn on the air supply to the trailer (within idling sound included in the model)
8. Pull the truck away with the trailer (within traveling sound included in the model)

While it is possible that this coupling/decoupling sound can be elevated, unlike the back-up beepers which by design have an OSHA requirement to be the loudest thing on-site for safety, the degree of coupling/decoupling sound is directly under the control, expertise, and desires of the truckers. This is not to say that it is impossible for there to be a loud sound created from coupling or decoupling that exceeds all other sounds due to working in a hurried or haphazard manner. However, when the procedures above are followed, these short-duration sound powers would be minimized to a level that is insignificant, and therefore not a nuisance concern.

Lastly, please note that this concern is being addressed only because we were asked to discuss it directly, not because the facility expects or anticipates the continual or even daily need to couple and decouple trucks.

Sincerely,

TECH ENVIRONMENTAL, INC.



Michael T. Lannan, P.E.  
President  
4679/ Sutton, MA Sound Study

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