Permit Condition for Dust Control during Construction

A Construction Dust Management Plan and active monitoring of onsite dust conditions by Applicant are recommended as part of a conditional approval of the Grove Street Earth Removal Permit. This is intended to protect the residents surrounding the site, as well as maintain acceptable air quality of the larger neighborhood, during the period of excavation and earth removal at the Site. This condition directs the Applicant to perform ambient air monitoring during all soil disturbance and excavation activities on the Grove Street site ("the Site") to monitor and record dust levels at the subject property for the duration of active soil excavation and earth-moving activities to be carried out.

90 days prior to the start of excavation activities, Contractor will provide to Selectmen for review and approval a Dust Management Plan for the following specific purpose:

- Provide a Dust Management Plan to Selectmen for review and approval that carries out "best management practices" for dust control;
- Identify key issues and areas of air quality concern on the Site and along its immediate boundaries in order to implement appropriate controls; and
- Describe control measures and monitoring/recording procedures that will be used to minimize dust and exhaust emissions from equipment and vehicles operating on the Site.

The goals of this Plan are to:

- Ensure construction-generated dust particulates and air pollution are minimized and properly managed;
- Minimize adverse air quality impacts; and
- Achieve target dust particulate deposition and particulate benchmarks consistent with National Ambient Air Quality Standards (NAAQS) as stated in MassDEP regulations (310 CMR 7.09) and federal regulations (29 CFR 1010.1000).

Monitoring requirements under the Plan include the following conditions:

- During onsite construction activities, dust will be measured as Particulate Matter (PM10) through use of portable High Volume Air Samplers (HVAS) such as TSI Dust Trak model 8520-1 or equivalent, to be located across the Site perimeter at specified and approved locations. These monitoring stations will be inspected once each week and the filter media sent to a laboratory for measuring of particulate levels. In addition, a hand-held dust meter (Thermo Personal DataRAM or equivalent) will be used daily by a designated responsible person experienced in its use to record "real time" dust readings across the Site.
- The portable HVAS units shall operate for the first four months of excavation and construction activities, in conjunction with the daily readings by hand-held meter. Following this initial period of operation and recording of hand meter readings, HVAS readings and laboratory results, Applicant may request eliminating the portable HVAS units based on demonstrating to the Selectmen that there is strong correlation between the laboratory results from the HVAS and the results shown on the hand-held meter logs recorded in the field. Applicant shall prepare a letter report documenting their
findings of air quality readings and correlation and submit to the Selectmen for review and approval.

Prior to the start of construction and excavation, the Applicant will, first, establish background air quality readings across the site using both the fixed monitoring stations and hand-held meter. The readings from the hand-held meter shall be correlated with lab results from the weekly monitoring stations to establish a benchmark “background” limit of acceptable particulate levels during excavation operations as recorded by the hand-held meter. This limit will be used as the threshold of allowable particulates in daily field measurement using the hand-held meter. This pre-construction monitoring will serve as a baseline of existing background air quality conditions for subsequent monitoring of onsite particulates during construction. The criteria to be used to determine when dust levels onsite exceed acceptable limits will be based on the recorded background air quality concentration, as measured by the hand-held meter and correlated with the fixed monitoring station lab results. As an example, a typical meter limit may be 5 mg/m³, above which construction activities must be suspended and dust control measures implemented until the air quality dust levels recede to below the limit.

When a condition of dust exceedence occurs, either determined from visual observation by Contractor (or other designated individual) or from results of hand-held meter readings, Contractor will immediately stop work and apply dust suppression measures to entire Site, with particular attention to areas of active excavation and equipment movement. Following the application of dust suppression measures, Contractor will measure dust levels across the Site using hand-held meter and may resume work when readings fall below the limits established by the baseline criteria.

Contractor shall include all labor, equipment, supervision, materials, and quality control necessary to provide and maintain onsite ambient air quality control measures for the duration of the construction and excavation project and in accordance with applicable local, state, and federal regulations.

In addition, Contractor shall not allow any trucks that are on the Site, parked and waiting to enter the site, or in queue waiting to be loaded to idle with their engines running.