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March 18, 2014

Mr. Larry Alden New York State Department of Environmental Conservation Division of Environmental Remediation 625 Broadway Albany, NY 12233

Subject: NYSDEC Former Cleanerama (Site No. 401056) Soil Excavation Work Plan

Dear Mr. Alden,

Shaw Environmental & Infrastructure Engineering of NY, PC (Shaw) has prepared this Soil Excavation Work Plan for the Former Cleanerama Site (Site No. 401056) in Loudonville (Colonie), Albany County, New York (**Attachment A: Figure 1**). This Soil Excavation Work Plan is being submitted to both the New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (NYSDOH) for review and approval. The soil excavation will be performed in accordance with NYSDEC work assignment D006132-33 and consist of removing soil near soil boring PDG-5 (**Attachment A: Figure 2**). This boring was advanced during the 2010 post-demolition investigation completed by Continental Placer, Inc. Tetrachloroethylene (PCE) was detected in this location at a concentration of 8,300 μ g/kg (parts per billion or ppb) which exceeds the NYSDEC Department of Environmental Remediation Part 375 unrestricted use Soil Cleanup Objective (SCO) of 1.3 parts per million (1,300 ppb) .

Shaw anticipates removing the soil in an area approximately 10 feet long by 15 feet wide to an anticipated maximum depth of 8 feet below ground surface (bgs) in the location of soil boring PDG-5 using a backhoe or similar excavating machinery as determined by the remedial contractor. A depth of 8 feet bgs was arbitrarily chosen based upon a review of historic sampling data collected at PDG-5 which showed PCE concentrations above unrestricted use SCOs at a depth of ~7 feet bgs, but below the SCOs at a depth of 9 feet bgs. The excavation area will be sloped consistent with site soils. Excavated soils will be loaded directly into trucks licensed to transport hazardous wastes. Shaw further anticipates that NYSDEC will issue a "contained-in" hazardous waste determination for the excavated soil to allow for the continuous removal and

transportation of soil to ESMI. This would eliminate the need for double handling (stockpiling/staging and sampling) the excavated soils. Shaw will ensure that trucks are properly covered for transport prior to leaving the Site. It is expected that trucks will enter the Site from Osborne Road, exiting onto Albany Shaker Road. Shaw Staff will serve as spotters during ingress and egress from the Site.

If saturated soil (groundwater) is encountered in the excavation, two confirmatory soil samples will be collected from the bottom of the excavation and submitted to Shaw's standby analytical laboratory, Chemtech Consulting Group (Chemtech) of Mountainside, NJ, for Volatile Organic Compounds (VOC) analysis by United States Environmental Protection Agency (USEPA) method 8260. Intrusive activities will cease until analytical results are received; if analytical results remain greater than the applicable SCOs an alternative plan will be developed and implemented in conjunction with the NYSDEC. Shaw staff and its subcontractors will conduct work in a manner consistent with the site specific health and safety plan (provided to NYSDEC under separate cover) and with the site specific Community Air Monitoring Plan (CAMP, **Attachment B**).

Shaw will collect a minimum of ten confirmatory soil samples; eight from the sidewalls (two per wall) and two from the bottom of the excavation. The samples will be submitted to Chemtech for VOC analysis by USEPA method 8260. Additionally, one set of quality assurance and control (QA/QC) samples including (field duplicate, matrix spike, matrix spike duplicate, and a trip blank) will be collected. The confirmatory samples will be analyzed by Chemtech under an accelerated turn-around-time. The results of these analyses will be compared to NYSDEC Part 375 SCOs for unrestricted use. The excavation will remain open until laboratory results from confirmatory sampling indicate that contaminant concentrations are below unrestricted use SCOs. Temporary fencing with a locking gate will be erected around the open excavation and will remain in-place until the excavation is completely backfilled.

Should you have any questions, comments, or require any clarification, please do not hesitate to contact me.

Sincerely,

Heather Fariello, CHMM

Project Manager

Please Reply To: Heather Fariello

Phone: 518.785.2346

E-Mail Address: heather.fariello@CBI.com

Heather A. Fariello

Attachments:

Attachment A: Figures

Attachment B: Site Specific Community Air Monitoring Plan (CAMP)



Attachment A
Figures



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COMMUNITY AIR MONITORING PLAN (CAMP) OFF-SITE INVESTIGATION

Former Cleanerama Site Colonie, Albany County, New York

Site Number 401056 Contract Work Authorization (WA) Number: D006132-33

Shaw Project No.: 134685.33

March 2014

Prepared for

Larry Alden, P.E. New York State Department of Environmental Conservation Division of Environmental Remediation 625 Broadway Albany, New York 12233

Prepared by

Shaw Environmental & Infrastructure Engineering of New York, P.C. 13 British American Boulevard Latham, New York 12110-1405

Table of Contents	
1.0	INTRODUCTION1
1.1 1.2 1.3	Site Description / Remedial History
	of Figures
Figure	1 Site Location Map
List	of Appendices
Appen	dix A. New York State Department of Health Generic Community Air Monitoring Plan

Fugitive Dust and Particulate Monitoring.

1.0 Introduction

Shaw Environmental & Infrastructure Engineering of New York, P.C. (Shaw) has prepared this site specific Community Air Monitoring Plan (CAMP) for the Former Cleanerama site located in Loudonville (Colonie), Albany County, New York (Site). (Figure 1, Site Location Map). As discussed in the New York State Department of Health (NYSDOH) Generic CAMP (Appendix A), a CAMP requires real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area when certain activities are in progress at contaminated sites. The CAMP is not intended for use in establishing action levels for worker respiratory protection (which is addressed in Shaw's Health & Safety Plan (HASP). Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air.

1.1 Site Description / Remedial History

The site is approximately 0.9 acre, primarily flat parcel that formerly contained a strip mall housing retail tenants, including a dry cleaner (Former Cleanerama). Former Cleanerama operated at the site from approximately 1960 to 1995. The on-site building was demolished and debris removed. The Site was poorly re-graded using soil and partial asphalt surface with a few remaining trees and brush. Currently, grading voids exist on the site and the site is not level in areas. On-site investigative and remedial work has occurred from 2003 to 2008, under New York State Department of Environmental Conservation (NYSDEC) Spill Program oversight, and from 2008 to present under NYSDEC Remedial Program oversight via an independent Order of Consent. Tetrachloroethene (PCE), a typical historical dry cleaning agent, and its degradation chemicals have been found both on-site and off-site, at the immediately down-gradient multi-use retail property.

The most recent previous owner (Osborne Road Associates, LLC, "the LLC") and the NYSDEC, in cooperation with the NYSDOH, executed an Order on Consent in 2008 to address on-site investigative and remedial work associated with the demolition of the existing building, removal of additional PCE-contaminated soils, construction of new commercial building, continued site management, and associated citizen participation. During the 2010 investigation activities, PCE was detected in soil on-site at concentration of 8.3 mg/Kg (parts per million, ppm) which was

above the NYSDEC Department of Remediation Part 375 unrestricted use Soil Cleanup Objective (SCO) of 1.3 ppm.

Under NYSDEC direction, Shaw conducted additional site investigation activities both on-site and off-site between 2011 and 2013. Shaw identified contaminated groundwater migrating from the Site as well as potential soil vapor impacts to nearby/adjacent buildings. PCE was observed during the 2011 site investigation activities at maximum concentrations of 280 μ g/L (parts per billion or ppb) on-site and 370 ppb off-site.

1.2 Scope of Work

Existing sampling data indicates the presence of PCE, a typical historical dry cleaning agent, and its degradation chemicals in on-site at soils concentrations above NYSDEC unrestricted use SCOs. More specifically, PCE was detected in one soil sample, PDG-5 (5-7 feet bgs) above the unrestricted use SCO. This soil sample was collected during a 2010 investigation by Continental Placer, Inc.

The NYSDEC has requested that a soil excavation be completed in the area of PDG-5. The intent of the soil excavation is to excavate and remove soil in this area until confirmatory sampling indicates that there are no residual compounds in soil above the unrestricted use SCO (based upon past-excavation laboratory analytical data). Additional detail is provided in the Soil Excavation Work Plan.

This site specific CAMP will be implemented during the completion of soil excavation activities. It outlines the air quality monitoring procedures that will be followed to protect the downwind community (i.e. offsite receptors, including residents and workers) from potential airborne contaminant releases that may result from the site assessment activities. It is consistent with and directly paraphrases the NYSDOH CAMP (which is included as **Appendix A**).

1.3 Project Purpose and Objectives

The principal purpose of the site specific CAMP is to monitor air quality in the vicinity of the proposed excavation. The site specific CAMP requires the monitoring of dusts and vapors on both a periodic and continuous basis.

Continuous monitoring will be conducted for all ground intrusive activities. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil borings or monitoring wells.

Periodic Monitoring for VOCs is required during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing monitoring wells. "Periodic" monitoring during sample collection will consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or monitoring during well baling/purging, and taking a reading prior to leaving a sample location.

Monitoring of this project will include all standard monitoring functions for environmental remediation projects including real-time air monitoring for particulate matter/dust and VOCs, observations for visible emissions and odors, inspection and monitoring of the contractor's work practices, and reporting to the NYSDEC and the NYSDOH.

VOC Monitoring, Response Levels, and Actions

VOCs will be monitored at the downwind perimeter of the immediate work area on a continuous basis or as otherwise specified. Upwind concentrations will be measured at the start of each workday and periodically thereafter to establish background conditions, particularly if wind direction changes. The monitoring work will be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment will be calibrated daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment will be capable of calculating 15-minute running average concentrations which will be compared to the levels specified below and in the NYSDOH Generic CAMP (Appendix A).

- 1. If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities will be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities will resume with continued monitoring.
- 2. If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities will be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities will resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.

- 3. If the organic vapor level is above 25 ppm at the perimeter of the work area, activities will be shut down.
- 4. All 15-minute readings will be recorded on a field sheet or dedicated log book and will be available for State (NYSDEC and NYSDOH) personnel to review. Instantaneous readings, if any, used for decision purposes will also be recorded.

Particulate Monitoring, Response Levels, and Actions

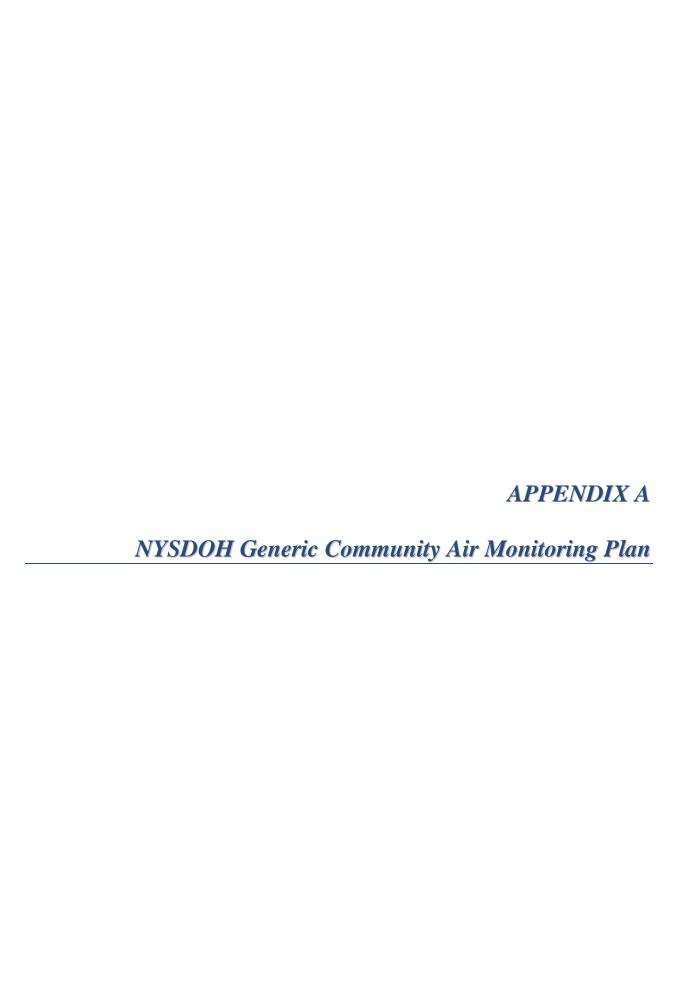
Particulate concentrations will be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. These locations will be determined in consultation with the NYSDEC/NYSDOH personnel. The particulate monitoring will be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment will be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration will be visually assessed during all work activities.

- 1. If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m³) greater than background (upwind perimeter for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques will be employed as detailed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 mcg/m³ above the upwind level and provided that no visible dust is migrating from the work area.
- 2. The dust suppression technique that will be employed during remedial activities will include wetting of the excavation equipment, soils and/or general work area. If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 mcg/m³ above the upwind level, work will be stopped and a reevaluation of activities initiated. Work will resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150mcg/m³ of the upwind level and in preventing visible dust migration.
- 3. All readings will be recorded in a dedicated log book or field sheet and will be available for State (NYSDEC and NYSDOH) and County Health personnel to review.





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Appendix 1A New York State Department of Health Generic Community Air Monitoring Plan

Overview

A Community Air Monitoring Plan (CAMP) requires real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area when certain activities are in progress at contaminated sites. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air.

The generic CAMP presented below will be sufficient to cover many, if not most, sites. Specific requirements should be reviewed for each situation in consultation with NYSDOH to ensure proper applicability. In some cases, a separate site-specific CAMP or supplement may be required. Depending upon the nature of contamination, chemical-specific monitoring with appropriately-sensitive methods may be required. Depending upon the proximity of potentially exposed individuals, more stringent monitoring or response levels than those presented below may be required. Special requirements will be necessary for work within 20 feet of potentially exposed individuals or structures and for indoor work with co-located residences or facilities. These requirements should be determined in consultation with NYSDOH.

Reliance on the CAMP should not preclude simple, common-sense measures to keep VOCs, dust, and odors at a minimum around the work areas.

Community Air Monitoring Plan

Depending upon the nature of known or potential contaminants at each site, real-time air monitoring for VOCs and/or particulate levels at the perimeter of the exclusion zone or work area will be necessary. Most sites will involve VOC and particulate monitoring; sites known to be contaminated with heavy metals alone may only require particulate monitoring. If radiological contamination is a concern, additional monitoring requirements may be necessary per consultation with appropriate DEC/NYSDOH staff.

Continuous monitoring will be required for all ground intrusive activities and during the demolition of contaminated or potentially contaminated structures. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil borings or monitoring wells.

Periodic monitoring for VOCs will be required during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing monitoring wells. "Periodic" monitoring during sample collection might reasonably consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or

Page 204 of 226 Final DER-10 May 2010

overturning soil, monitoring during well baling/purging, and taking a reading prior to leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals, continuous monitoring may be required during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence.

VOC Monitoring, Response Levels, and Actions

Volatile organic compounds (VOCs) must be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions, particularly if wind direction changes. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment should be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

- If the ambient air concentration of total organic vapors at the downwind perimeter of the work 1. area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.
- If total organic vapor levels at the downwind perimeter of the work area or exclusion zone 2. persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.
- If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be 3. shutdown.
- All 15-minute readings must be recorded and be available for State (DEC and NYSDOH) personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

Particulate Monitoring, Response Levels, and Actions

Particulate concentrations should be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring should be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment must be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

Final DER-10 Page 205 of 226

- If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m³) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 mcg/m³ above the upwind level and provided that no visible dust is migrating from the work area.
- If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 mcg/m³ above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 mcg/m³ of the upwind level and in preventing visible dust migration.
- All readings must be recorded and be available for State (DEC and NYSDOH) and County Health personnel to review.

December 2009

Appendix 1B Fugitive Dust and Particulate Monitoring

A program for suppressing fugitive dust and particulate matter monitoring at hazardous waste sites is a responsibility on the remedial party performing the work. These procedures must be incorporated into appropriate intrusive work plans. The following fugitive dust suppression and particulate monitoring program should be employed at sites during construction and other intrusive activities which warrant its use:

- 1. Reasonable fugitive dust suppression techniques must be employed during all site activities which may generate fugitive dust.
- 2. Particulate monitoring must be employed during the handling of waste or contaminated soil or when activities on site may generate fugitive dust from exposed waste or contaminated soil. Remedial activities may also include the excavation, grading, or placement of clean fill. These control measures should not be considered necessary for these activities.
- 3. Particulate monitoring must be performed using real-time particulate monitors and shall monitor particulate matter less than ten microns (PM10) with the following minimum performance standards:
 - (a) Objects to be measured: Dust, mists or aerosols;
 - (b) Measurement Ranges: 0.001 to 400 mg/m3 (1 to 400,000 :ug/m3);
- (c) Precision (2-sigma) at constant temperature: +/- 10 :g/m3 for one second averaging; and +/- 1.5 g/m3 for sixty second averaging;
 - (d) Accuracy: +/- 5% of reading +/- precision (Referred to gravimetric calibration with SAE fine test dust (mmd= 2 to 3 :m, g= 2.5, as aerosolized);
 - (e) Resolution: 0.1% of reading or 1g/m3, whichever is larger;
 - (f) Particle Size Range of Maximum Response: 0.1-10;
 - (g) Total Number of Data Points in Memory: 10,000;
- (h) Logged Data: Each data point with average concentration, time/date and data point number
- (i) Run Summary: overall average, maximum concentrations, time/date of maximum, total number of logged points, start time/date, total elapsed time (run duration), STEL concentration and time/date occurrence, averaging (logging) period, calibration factor, and tag number:
- (j) Alarm Averaging Time (user selectable): real-time (1-60 seconds) or STEL (15 minutes), alarms required;
 - (k) Operating Time: 48 hours (fully charged NiCd battery); continuously with charger;
 - (1) Operating Temperature: -10 to 50° C (14 to 122° F);
- (m) Particulate levels will be monitored upwind and immediately downwind at the working site and integrated over a period not to exceed 15 minutes.
- 4. In order to ensure the validity of the fugitive dust measurements performed, there must be appropriate Quality Assurance/Quality Control (QA/QC). It is the responsibility of the remedial party to adequately supplement QA/QC Plans to include the following critical features: periodic instrument calibration, operator training, daily instrument performance (span) checks, and a record keeping plan.
 - 5. The action level will be established at 150 ug/m3 (15 minutes average). While conservative,

this short-term interval will provide a real-time assessment of on-site air quality to assure both health and safety. If particulate levels are detected in excess of 150 ug/m3, the upwind background level must be confirmed immediately. If the working site particulate measurement is greater than 100 ug/m3 above the background level, additional dust suppression techniques must be implemented to reduce the generation of fugitive dust and corrective action taken to protect site personnel and reduce the potential for contaminant migration. Corrective measures may include increasing the level of personal protection for on-site personnel and implementing additional dust suppression techniques (see paragraph 7). Should the action level of 150 ug/m3 continue to be exceeded work must stop and DER must be notified as provided in the site design or remedial work plan. The notification shall include a description of the control measures implemented to prevent further exceedances.

- 6. It must be recognized that the generation of dust from waste or contaminated soil that migrates off-site, has the potential for transporting contaminants off-site. There may be situations when dust is being generated and leaving the site and the monitoring equipment does not measure PM10 at or above the action level. Since this situation has the potential to allow for the migration of contaminants off-site, it is unacceptable. While it is not practical to quantify total suspended particulates on a real-time basis, it is appropriate to rely on visual observation. If dust is observed leaving the working site, additional dust suppression techniques must be employed. Activities that have a high dusting potential-such as solidification and treatment involving materials like kiln dust and lime--will require the need for special measures to be considered.
- 7. The following techniques have been shown to be effective for the controlling of the generation and migration of dust during construction activities:
 - (a) Applying water on haul roads;
 - (b) Wetting equipment and excavation faces;
 - (c) Spraying water on buckets during excavation and dumping;
 - (d) Hauling materials in properly tarped or watertight containers;
 - (e) Restricting vehicle speeds to 10 mph;
 - (f) Covering excavated areas and material after excavation activity ceases; and
 - (g) Reducing the excavation size and/or number of excavations.

Experience has shown that the chance of exceeding the 150ug/m3 action level is remote when the above-mentioned techniques are used. When techniques involving water application are used, care must be taken not to use excess water, which can result in unacceptably wet conditions. Using atomizing sprays will prevent overly wet conditions, conserve water, and provide an effective means of suppressing the fugitive dust.

8. The evaluation of weather conditions is necessary for proper fugitive dust control. When extreme wind conditions make dust control ineffective, as a last resort remedial actions may need to be suspended. There may be situations that require fugitive dust suppression and particulate monitoring requirements with action levels more stringent than those provided above. Under some circumstances, the contaminant concentration and/or toxicity may require additional monitoring to protect site personnel and the public. Additional integrated sampling and chemical analysis of the dust may also be in order. This must be evaluated when a health and safety plan is developed and when appropriate suppression and monitoring requirements are established for protection of health and the environment.