



**CREAMER ENVIRONMENTAL, INC.**

## Construction Work Plan

**Chess Builders**

Front Street Former MGP Site Holder 4

218 Front Street

Brooklyn, New York

February 21, 2023

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## Section A: Project Planning

Upon receiving signed contract Creamer Environmental, Inc. (CEI) will begin procurement of materials.

CEI's Project Management Team will consist of a Project Manager, Project Superintendent, Project Engineer, and a Site Health and Safety Officer. CEI's Project Management Team will manage the day-to-day operations of the project including project health and safety, project planning, scheduling, implementation of scope of work, coordination of subcontractors, materials management and routine submittals. Site work will be directly managed by the Superintendent and Health and Safety Officer in coordination with the Project Manager, who will provide the project support in terms of resources as well as contract and administrative matters with assistance from the Project Engineer. Project planning and scheduling will be jointly performed by the Project Manager and Superintendent. The Project Superintendent and Health and Safety Officer will conduct the day-to-day project supervision and field safety operations for the duration of the project. The Project Manager, will review daily reports, manage any needed issues which may arise in the field, and attend key project meetings.

CEI's home office will provide program and project management and technical support for engineering and regulatory issues; administrative support for the processing of project invoices; payments to subcontractors; processing and tracking of paperwork required for invoice backups and project submittals (i.e., disposal receipts, material delivery receipts, etc.); and global project oversight.

## Section B: Health and Safety Program

CEI will retain the same Site-Specific Health and Safety Plan, (HASP) that was approved for the Holder 5 work.

The HASP will detail the site-specific hazards and mitigations for each construction activity required to complete the remediation. Additionally, the HASP will contain the personal air monitoring requirements and Personal Protective Equipment (PPE) upgrade procedures. CEI will provide a fulltime onsite Health and Safety Officer (HSO) who will conduct a daily "toolbox" safety meeting as well as oversee daily operations to ensure compliance with CEI's health and safety procedures, HASP, and specific Job Hazard Analyses (JHA). During ground intrusive activities, the HSO will perform personal air monitoring utilizing a photo-ionization detector, colorimetric tubes, 4 or 5-gas meter, and dust meter. The HSO will follow the HASP's guidelines and will make the decision to upgrade to a higher level of PPE protection, (i.e., from Level D to Level C) based on the readings obtained from the personal air monitoring. Once an area of work has been upgraded to a higher level of PPE, only personnel wearing the appropriate PPE will be permitted to enter. The HSO will set up the signage and delineation of the exclusion zones and maintain the personnel decontamination stations at the contamination reduction zones. The HSO will provide workers with the appropriate PPE, as needed for the task per the HASP and specific JHA. The HSO will maintain onsite the HASP and all training and safety documentation/records. The HSO will be assisted by the Project Superintendent, Project Engineer, and CEI's corporate Health and Safety Officer who will make periodic inspections of the worksite and safety records throughout the duration of construction.

## Section C: Mobilization and Permits

Site preparation work shall include the mobilization and installation of the temporary construction facilities (CEI's storage container, portable sanitary toilets, hand and eye wash stations) and controls (signs, tracking pad, equipment decontamination pad).

## Section D: Environmental Controls

### Odor, Vapor and Dust Control

Odor, vapor, and dust controls will be performed in accordance with specifications. CEI will apply Rusmar's AC-645 Long-Duration Foam whenever directed by Chess' Construction Manager, Engineer, and/or NYSDEC's onsite representative to mitigate and control emission of MGP-related odors and vapors during excavation of the remediation areas. The odor control will be applied and/or sprayed as directed by Chess to exposed or stockpiled soils and/or excavation faces.

Dust control measures will be used to prevent surface and air movement of dust from disturbed or open-soil areas that may cause off-Site damage, health hazards, or traffic safety problems. CEI will apply water to wet down temporary access roads, active haul routes at the site and stockpiled soils/excavation faces.

Other odor, vapor and dust control measures include but are not limited to covering excavations and/or stockpiles with odor control foam at the end of each workday, spraying water or foam on buckets during excavation and dumping, keeping open excavation areas to a minimum and restricting vehicle speeds to 10mph on temporary access roads and active haul routes at the Site.

Community Air Monitoring Program (CAMP) monitoring will be accomplished by AECOM and the technician from AECOM will be in direct contact with AECOM / CEI. If the CAMP monitors detect levels approaching or exceed the warning levels within the CAMP AECOM / CEI will be notified and appropriate measures will be taken (odor or dust control). The CAMP technician will have the responsibility to determine if the elevated levels are related to onsite or offsite activities and will be noted accordingly.

Site activities may need to be modified to maintain compliance with the action levels for volatile organic compounds, respirable dust and odor presented in the CAMP. Modification may include temporary work stoppages to identify potential sources of emissions and implement controls.

### Erosion and Sediment Controls

Stabilized temporary construction entrance and decontamination pad area will be installed in between Holder 5 and Holder 4. It will consist of geotextile separation fabric overlaid with 6" minimum thickness of size 2" stone. The stone will be placed and spread with an excavator. Water used to wash the tires will drain into surrounding site soils.

## Section E: Excavation and Backfill

### Excavation

The Chess Builders engineer supplied a signed letter stating that the current state of Holder 4 is acceptable as SOE support for personnel to enter the holder from street elevation to bottom of holder which is approximately 31' deep.

CEI will start the excavation by removing any loose soil and debris around the top of Holder 4. Once that is complete CEI will excavate along Front Street from the currently installed SOE to the top of Holder 4, all non MGP soil will be transferred back toward Holder 5 for loadout through the York Street gate.

The excavation will be sloped in order to maintain a working face within the holder. Once the excavation has advanced to the south end of the working platform, the excavation will be completed radially around the entranceway to remove as much material as is possible while maintaining the working and platform. A small ramp of non MGP soil will remain for the excavator to enter and sit on top of the holder crown. The excavator will remove the MGP soil starting from the north and work around the holder to the south.

Depending on site conditions the excavator may transverse the ramp to sitting outside the holder and remove the final MGP soil. The second option would be to start backfilling Holder 4 like was done in Holder 5 so the excavator can sit on top of the clean fill to load out the final MGP soil. The excavation will be performed by an excavator transferring the soil to a second excavator that will be direct loading into tri-axle dump trucks for off-site disposal.

The steel liner around the perimeter of Holder 4 will be removed as the excavation continues. As the steel liner is uncovered it will be cut so it can be removed both vertically and horizontally.

The portion of the excavation within the standing water on the bottom of the holder will need amending to control moisture content to meet the disposal facility acceptance requirements and will be amended as needed using Portland Cement.

### Backfill and Drainage Holes

Backfill will begin to be installed starting on the south side of the holder. The backfill material will be installed in approximately 1' lifts. Compaction of fill material will be performed with mechanical vibratory or tamping equipment that is suitable for the size of the excavation and maximum depth of the lift to achieve a completely compacted installed lift depth with a firm and unyielding surface.

After backfilling is completed to the grades provided by the Chess Builders surveyor, a sonic drill rig will be used to install drainage holes in the bottom of Holder 4. All spoils from the drill casing will be returned to the cored drill hole.

## Section F: Dewatering

### Construction Dewatering

Construction dewatering will be required for the water trapped within the gas holder. As the need arises to dewater to keep a dry excavation bottom, CEI will use a 3" gasoline powered centrifugal pump or electrical submersible pump which will transfer the water to the Chess Builders provided water treatment system. CEI will excavate sumps ahead of the excavation deeper than the current cut to dry the waste material prior to loadout. The sumps will be constructed with a slotted pipe and stone filter around the slotted pipe to minimize the amount of fines pumped from the excavation. The location and number of sumps will be dependent on how much water is encountered. Chess Builders will supply discharge permit and all consumable components such as bag filters as needed for continuous operation of the water treatment system.

## Section G: Material Handling, Staging and Loadout

Excavated material will be live loaded to the extent possible. All trucks receiving excavated material designated for offsite disposal will proceed to the loadout area. Once the truck is loaded, the truck will be decontaminated at the decontamination pad before leaving the site. Dry decontamination will consist of using plastic covering placed near the excavation under the load out trucks before loading commences. The trucks will back up over the plastic covering and loading will begin. After loading is complete soil and debris will then be swept off the trucks onto the plastic. The soil and debris will be compiled on the plastic and shoveled back into the excavation for future load out. Plastic covering will be changed out as needed. Wet decontamination if needed will consist of the truck pulling onto the decontamination pad that is made of non-woven fabric and 2" stone. The truck tires will then be power washed clean before leaving the site.

Each waste disposal truck will receive the proper manifest before exiting the site. Manifests will be signed by others. The CEI labor foreman will manage the manifests and submit them to the CEI Project Engineer at the end of the day. Each load will be tracked on a disposal log.

Facility	Estimated quantity shipped per day during full scale production	Estimated number of trucks per day during full scale production
MGP Impacted Soil Disposal CWM Waste Management Emelle	200 Tons	2 Rail Cars
Non-MGP Impacted Soil Disposal TBD - Chess Builders	TBD - As Needed	TBD - As Needed
Backfill Vulcan Material Fill	TBD - As Needed	TBD - As Needed

## Section H: Traffic Control Plan

- A. Vehicles will enter and exit the work site through the dedicated gate that is located off of York Street.
- B. Construction vehicles will remain on the site access roads or designated staging areas during work hours.
- C. Trucks will not be permitted to idle while they are not being loaded.
- D. No cell phone use is permitted while driving on site.
- E. The Golden Rule, that equipment has the right of way, will be followed on site.
- F. The speed limit on site will be 5 miles per hour.
- G. Trucks will stage onsite or within the closed DOT permitted parking lane area directly outside the perimeter fence to the extent possible while waiting to be loaded to minimize interference with local traffic.
- H. Drivers for soil disposal and material import will be provided with copies of the truck route and site flow prior to starting work at the site via their dispatchers.
- I. Trucks will be inspected to ensure they are in proper working condition. Material will be transported off site in tri-axle dump trucks with watertight tailgates, turnbuckles and tarps. Tarps must be solid and impermeable. If a truck arrives with a mesh cover then the load must be sprayed with odor control foam and 6-mil poly liner. Once leaving the site the trucking company is responsible for any potential releases.
- J. Flag men will be used as necessary to assist trucks accessing and exiting the site.
- K. CEI will install the necessary traffic and pedestrian signage prior to loading and hauling of contaminated material.
- L. All waste transporters will have a copy of their Part 364 Waste Transporter Permit

## Section I: Demobilization and Project Close-Out

Once the excavation and backfill has been completed CEI will begin demobilization activities including decontaminate and demobilize heavy equipment, remove all remaining materials, cleanup and vacate the site.