Stockpile Management Plan

I. Purpose

This stockpile management plan has been developed to assist in the operation, maintenance and decommissioning temporary stockpile for remedial activities at Site 114. This plan is to be used in conjunction with the Site Health and Safety Plan (HASP) and Dust Control Plan (DCP). The stockpile location will generally be established at the beginning of the project and used throughout the project period. Once the project is complete the stockpile will be de-commissioned and the land restored back to near its original condition. All materials excavated during the IRM will be handled as hazardous wastes until otherwise classified via laboratory analysis.

II. Contaminants of Concern

The anticipated primary contaminants of concern include hexavalent chromium, other metals and, to a lesser degree, volatile organics (VOCs) that have been detected on Site. Significant quantities of wastes related to the former manufactured gas plant (MGP) are not anticipated. Visual examination of excavated soil and screening of the excavation limits with a photoionization detector (PID) will be conducted. Should any PID readings around the excavation limits be observed above 100 parts per million (ppm) or obvious MGP odors are detected by onsite personnel, the soil will be managed in accordance with the workplan. If MGP waste is encountered and odor control is required, foam may be employed and applied directly to the soils, and stockpiled separately.

III. Stockpile Construction

The soils will be temporarily stockpiled adjacent to excavation areas as needed by the contractor or within a designated temporary stockpile area on the 880 Garfield Avenue slab as these temporary stockpiles are depleted (removed) as the contractor progresses through the IRM excavation areas. The stockpile area will be constructed in accordance with the approved Soil Erosion and Sediment Control Plan (SESCP). In general, all stockpiles will include heavy duty plastic (minimum of 20-mil) and tear resistant (fiber reinforced) bottom and top liners. All stockpiles will include berms for containment of any water that drains from the soil. Stockpiles will be inspected at least three times a day and repaired as needed. At the end of each shift or when the stockpile is not in use for two hours or longer, the pile(s) will be securely covered with a heavy duty plastic and tear resistant (fiber reinforced) liner and inspected. The surface of stockpile area will be clean and free of debris prior to the placement of the bottom liner. Stockpile height will be limited to a maximum height of 10 feet.

All stockpiles will be handled as to prevent and/or reduce potential dust generation. A water spray will be utilized for dust suppression and foam or surfactant will be utilized for stabilization of stockpiles, if necessary. Containment area will be maintained for the duration of the staging period in order to prevent runoff from contaminated soil, leaching of contaminants into runoff water and fugitive dust.
emissions. Any stockpiles which may receive saturated soil will be equipped with diversionary structures in order to contain and collect all water which may drain from the soils. Stormwater which enters any active excavation or stockpile location will be collected and containerized for disposal as needed.

IV. Stockpile Waste Classification

The contractor will be directed to direct load or segregate and stockpile concrete, soil, and debris. Soils treated during the Feasibility Study (i.e. containing calcium polysulfide (CaSx)) will be stockpiled separately from other non-treated fill materials. Soils are anticipated to be further segregated into the following classifications based on visual impairment: hazardous waste and contaminated non-hazardous waste. The field engineer or other trained field technician will direct the contractor to direct load or stockpile based on field screening results and/or visual observations. Any staff designated to direct the contractor in this manner will be trained to identify chromium impacted soils (bright green leachate stained soil, chromium ore processing residue (COPR) and green gray mud), and MGP impacted soils that may be disposed of as hazardous wastes, if encountered.

It is anticipated that approximately 30,000 to 50,000 tons of material, excavated at a rate of approximately 500 tons per day, will be removed during IRM #1 activities. Restricting the stockpile height to no greater than 10 ft, the foot stockpile area of 14,500-square feet is anticipated adequate to accommodate the number of stockpiles anticipated to be generated in one week. Waste classification sample analysis will be performed in an expedited manner so that the stockpile will be loaded for off-site disposal within a week from its generation.

Source waste materials classified as Chromate Chemical Production Waste (CCPW) (i.e. bright green chromium stained materials, green gray mud and mixed fill with 25% or more COPR) will be direct loaded if possible. If the CCPW is saturated, it will be stockpiled separately from materials not containing CCPW or showing visual impairment. Soils with visual or olfactory evidence petroleum contamination or with PID readings greater than 100 ppm will also be stockpiled separately. Concrete/debris will be stockpiled separately as required by the disposal facilities. Excess soils will be shaken from concrete/debris to the reasonable extent possible prior to stockpiling.

Information regarding each stockpile will be appropriately documented. At a minimum, the following will be recorded in the site field book: name and date of stockpile, a description of the materials within each stockpile, including CCPW waste (COPR, green gray mud, mixed fill with COPR), MGP related wastes, concrete and debris, non-hazardous soils, etc., a sketch of the stockpile area including stockpile dimensions on the given day, and screening results/visual observations as necessary. Each stockpile will be labeled “A, B, C, D, etc.” The letter designation with a description of the materials included in the stockpile will be recorded in the field notebook.

All wastes generated during the field operations at the Site will be handled as generally detailed in the NJDEP Guidance Document for the Remediation of Contaminated Soils (1998), and the Field Sampling
Plan / Quality Assurance Project Plan (FSP-QAPP) and disposed of off-site as either non-hazardous or hazardous waste. Wastes that will be generated include excavated soils, concrete and debris, contaminated personnel protective equipment (PPE), decontamination fluids, purge water, dewatering liquids, and general garbage. Solids such as well abandonment cuttings and decontamination solids will be containerized in USDOT approved 55-gallon drums or stockpiled for disposal off-site. All drums will be stored on-site in the stockpile area. Waste characterization sampling will be performed as required by the disposal facility.

V. Sampling Procedures

Stockpiled materials will be sampled to verify that the materials meet the requirements of the receiving facility prior to loading for transport. Initially, a minimum of one sample will be collected for every 500 tons of material within a given stockpile. Composite samples will be collected from a minimum of three locations within each stockpile and biased to the location(s) of greatest contamination based on field screening results and visual observations. Field blanks and field duplicates are not required for waste classification sampling.

Each sample will be analyzed for the parameters required by the receiving disposal facility. Each waste class sample may be collected and analyzed for the following anticipated parameters: Full TCLP Waste Classification (Method SW846/EPA), RCRA characteristics (Method SW846/EPA), Polychlorinated Biphenyls (Method SW846 8082), Volatile Organics (Method SW846 8260B), Semi-volatiles (Method SW846 8270C), Target Analyte List Metals (Method SW846/EPA), Total Petroleum Hydrocarbons, and hexavalent chromium. Specific disposal facility sampling requirements will be forwarded to NJDEP upon selection of facilities as an addendum to the IRM Work Plan, prior to the commencement of IRM activities.

The following nomenclature will be Site-Stockpile and Sample Number-Date (ymmd). For example, a sample collected at Site 114 from the first stockpile, designated Stockpile A, on April 15th, 2010 will be labeled "114-A1-100415".

Information regarding each stockpile sample will be appropriately documented. At a minimum, the following will be recorded in the site field book: name of sample collected following the nomenclature described above, parameters sampled, a sketch indicating the time and location of sample collected, and screening results/visual observations, if appropriate.

Samples for laboratory analysis will be placed in pre-cleaned containers. The containers will be clearly labeled with the same identification, date of collection, and analysis to be performed. Samples will be submitted to a NJ certified laboratory for analysis. Analyses will be performed in accordance with EPA- and NJDEP-approved analytical protocols and the revised FSP-QAPP, submitted to NJDEP under separate cover. Standard chain-of-custody procedures will be followed.

All chain of custodies shall be scanned and filed prior to the next workday.
VI. Disposal

Waste transportation will be documented by manifest or bill of lading and recorded in the field book. AECOM will sign on behalf of PPG Industries as the generator to sign manifests or bills of lading. All manifests or bills of lading will be scanned and filed prior to the next workday. In addition, information regarding waste transportation will be recorded in the field book including: time in, time out, truck name, truck number, truck license plate number, the receiving facility and which stockpile the truck collected material from.

VII. Records

The relevant person controlling the stockpile site, for example the Site Engineers will ensure:

- A register or similar records of all types and quantities of material incoming and outgoing as well as where re-use or recycled material is being used and
- Inspection Records are kept.

VIII. Inspection and Reporting

Daily inspection of stockpile will be incorporated if there are stockpiles within the temporary stockpile area in order to:

- Monitor the effectiveness of the control measures and to ensure the environmental impacts are being minimized.
- Ensure the requirements and inspection frequencies are being met.

The frequency of inspection will be discussed with the contractor and will reflect the each stockpile’s location, material being stockpiled, surrounding environment and any specific issues associated with it.

Any issues that are observed during the inspection will be dealt with in accordance to a non-conformance procedure. Any issues that arise which were not covered in the original requirements will be managed as corrective action requests to improve either implementation or the documentation.

The non-conformance and corrective action procedure will include the following:

- Details of the stockpile site;
- Issues observed;
- Corrective action taken; and
- Preventative action.

Inspection reports and non-conformance reports will be forwarded to the compliance manager through the field technician or field engineer.