# MODIFIED SELF-IMPLEMENTING PHASE III PCB REMEDIATION PLAN

## EPA ID: CTD000847707

*Site Location*

**Century Enterprise Center**
**New Milford**

*Site Owner*

**Town of New Milford**
New Milford, Connecticut

*Certifying Party*

**TRC Environmental Corporation**
Windsor, Connecticut

January 2015

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TRC Project No. 220697.00004
January 2015

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# 1.0 INTRODUCTION

## 1.1 Site Location and Description

The Site is known as the Century Enterprise Center (CEC) and is located along Aspetuck Road in New Milford, Connecticut. Historically, the CEC has been referred to by other names, including the "Century Brass Facility", "Century Brass Tube Mill" or "Davko Site", depending on former usage. According to the Town of New Milford Tax Assessor's files, the Site is identified on Map 34/Blocks 40 and 41, and Map 35/Blocks 2, 4, and 5. The site access is obtained via a gate at the end of Scovill Street off Aspetuck Road. A substantial amount of site background and characterization information has previously been submitted in various reports, correspondence, and other documents, including the reports referenced in Section 1.3.

The Site is currently abandoned and is owned by the Town of New Milford (Town). Although certain structures have been demolished and/or removed from the site during previous demolition and remediation projects, the main mill building, nominally 40 feet high and having an overall footprint of approximately 320,000 square feet, still remains. The building is not considered suitable for reuse, is currently considered unsafe for structural reasons principally related to the roof, and has been designated for demolition.

## 1.2 Purpose

Demolition of the building, which will include certain abatement and remedial activities, is intended to move the Site closer to a beneficial reuse scenario using available funding sources. The Town is ultimately seeking to achieve unrestricted use status for the property. Based on site-specific documentation reviewed by TRC, a limit of 1 mg/kg PCBs in soil and concrete, if any, to remain on site will be appropriately protective to allow unrestricted use (assuming other contaminants besides PCBs are also adequately addressed).

TRC has been retained by the Town to provide certain environmental consulting and engineering services directed toward future site re-development. Accordingly, TRC has prepared this Modified Self-Implementing Plan (Plan) in support of Phase III PCB Remediation at the Site, which will be performed as part of the overall building demolition project. The nature of the proposed Phase III work is further described in various sections of this Plan. Consistent with the PCB remediation plans utilized for prior projects at the Site, the Plan is considered to be a modified SIP, due to the fact that the verification sampling frequency for the overall slab surface differs

from what is specified in 40 CFR 761. Contents of this Plan, once approved, will be incorporated into Bid Documents used to obtain public bids as needed for the demolition of the existing building, under a recent grant obtained in cooperation with the State of Connecticut Department of Economic and Community Development (CT DECD).

## 1.3 Historical Investigations and Remedial Actions

As the Site is regulated under both RCRA and TSCA programs, a number of associated, historical Site investigations and remedial actions have been performed and documented to date. The TSCA program exclusively regulates ongoing remediation of PCB containing building materials and equipment, as well as PCB impacts to the building floor slab and other structures. The impacts to the building floor slab have been primarily attributed to release(s) from transformers formerly installed at the Site. Due to tracking by movement of equipment during historical site operations, PCB impacts have been detected primarily, but not exclusively, in the upper 1-inch of most of the building slab, and in concrete and surficial soil at four different building entryways. The widespread PCB contamination in the building slab was previously characterized by Marin Environmental using a nominal 100-foot grid pattern for the main mill building footprint, and a nominal 10-foot grid pattern at select areas, including areas adjacent to former transformers, inside the electrical room, and outside building entryways (see the red circles on **Figure 1**).

To date, two phases of PCB remediation activities have been performed, both under the supervision of Tighe & Bond of Middletown, Connecticut. Details regarding these Phase I and Phase II PCB remediation activities, along with certain other investigations and remedial actions, have previously been provided to the United States Environmental Protection Agency (EPA) in various documents, which include the following key reports and letters:

- Phase III Environmental Site Assessment (ESA), Marin Environmental (December 2000)
- RCRA Facility Investigation Report (RFI), Tighe & Bond (July 2003)
- Engineering Evaluation/Cost Analysis, Building Interior, Tighe & Bond (October 2004)
- Phase I PCB Source Removal Plan, Tighe & Bond (December 2004)
- PCB Disposal Approval Letter, EPA (March 16, 2005)
- Phase II PCB Remediation Plan, Tighe & Bond (December 2004)
- PCB Cleanup and Disposal Approval Letter, EPA (January 24, 2007)

- Modification to March 16, 2005 Phase II PCB Disposal Approval, Tighe & Bond (February 2007)
- Interim Remedial Action Report (IRAR), Tighe & Bond (September 2014)

As described in the applicable documents, Phase I PCB source removal activities, completed between 2005 and 2006, included removal of concrete and soil in former transformer areas, and other limited areas within the footprint of the building. Areas exhibiting PCB concentrations greater than 50 mg/kg were reportedly removed and disposed at a TSCA facility. In addition, the floor drain system adjacent to former Transformer No. 2 was reportedly removed in Phase I (according to Tighe & Bond's Phase II PCB Remediation Plan).

Phase II PCB remedial activities, completed between 2007 and 2009, included the removal of concrete and soil containing PCB concentrations greater than 1 mg/kg outside the building at building entryways, as well as the decontamination (as needed) and removal of certain PCB-contaminated porous/non-porous materials within the building (such as some previously dismantled overhead cranes which were on the floor of the building). Removal and disposal of remaining floor drains, associated piping and acid lines was originally planned for Phase II, but were de-scoped and deferred to a later phase of work.

## 1.4 Results of PCB Building Materials Inspection

Initial building surveys and sampling were performed by TRC in October 2014 to categorize interior and exterior caulks and glazings at the Site. The building survey was performed following techniques generally employed in the Building Sciences industry to identify, locate and sample homogeneous building materials (i.e. Asbestos Hazard Emergency Response Act [AHERA] asbestos sampling guidelines). Sampling methodology generally involved collecting three (3) grab samples per homogenous material type identified, when feasible, by completely removing the caulk and the glazing from the location and inspecting to determine if there were any other older/historical caulks/glazings present at the location. All caulks and glazings were determined to be original to construction. Samples were extracted and analyzed using EPA Methods 3540C and 8082, respectively, and all analytical results were reported on a dry weight basis.

Of the seventeen (17) homogeneous building caulk and glazing types sampled, all caulk and glazing samples were found to contain total PCB concentrations <50 ppm. Twelve (12) of these seventeen (17) types of building caulks and glazings sampled were determined to be Federally

Excluded PCB/State Regulated Products with in-situ total PCB concentrations >1 <50 ppm. The remaining five (5) types of caulk or glazings contained in-situ total PCB concentration <1 ppm and were determined to be Federally Excluded PCB Products/Non-Regulated PCB Products.

Subsequent to this initial sampling, additional investigations were performed in December 2014 to determine potential PCB concentrations within building materials (CMU, Concrete, Brick, Glazed Block & Transite) adjacent to and in direct contact with Federally Excluded PCB/State Regulated Products and to characterize the extent of any impacts to soil or other surface cover materials that may have been affected by flaking or deteriorating Federally Excluded PCB/State Regulated Wastes. All porous substrate samples were found to contain PCB concentration <1 ppm. Of the exterior surface cover samples collected, five (5) were found to have a total PCB concentration >1 and <50 ppm while the remainder were found to have total PCB concentrations <1 ppm.

## 1.5 Proposed Phase III PCB Remediation Scope of Work

The primary objective of Phase III PCB remediation work will be to ensure that known PCB impacts within and above the concrete floor slab are addressed. Since the building is being demolished as part of this economic development project, it will be necessary to complete the abatement/remediation of the remaining PCB-containing materials attached to or within the building structure (i.e., above the floor) first. The known remaining PCB containing/impacted materials associated with the building structure consist of State regulated PCB caulk/glaze identified in Section 1.4, as well as the final two remaining overhead cranes (previously shown to be PCB-impacted, based on wipe samples) that are supported on beams inside the building. These items will be addressed prior to building demolition activities or other disturbances as noted in Sections 2.3 and 2.4.

Another critical aspect of the proposed Phase III PCB remediation work is to address widespread, surficial PCB contamination remaining in the existing building slab. As indicated in **Figure 1**, most of the nominally 8-inch thick floor slab in the mill building, and in the electrical room, contains PCBs exceeding 1 mg/kg in the upper 1-inch portion, and in some areas exceeding 10 mg/kg. Although comparatively small areas of the slab were removed as part of the Phase I PCB remediation, most of the documented contamination in the slab surface still remains. During the proposed Phase III remediation, the upper 1-inch portion (at a minimum, subject to verification

sampling) of the contaminated slab areas will be milled off and disposed, followed by removal of limited sections of the slab in certain areas (see Section 2.5). Milling has been determined to be the most feasible and economical way of addressing the widespread, surficial PCB impacts, whether or not the entire slab will ultimately be excavated. Solvent washing is not expected to be as effective in uniformly reducing PCB concentrations to below 1 mg/kg in the upper 1-inch portion of the entire slab based on the pilot tests conducted at the site.

It should be noted that, based on data contained in Tighe & Bond's IRAR, there remains one location on the floor slab where PCBs above 50 mg/kg (i.e., sample location T4-6 in the electrical room is shown to have 59 mg/kg PCBs.). Additionally, the data in the IRAR indicate that soil at certain locations adjacent to the building (i.e., outside the electrical room overhead door known as Exterior Bay Door 1, and outside the overhead door known as Exterior Bay Door 2, near floor slab sample location B-39) contain PCBs at concentrations greater than 1 mg/kg (inferred from composite sample analytical results). These areas will be removed and verified prior to demolition or milling, to ensure that further tracking or cross contamination does not occur.

Depending on whether the milled slab, and possibly the building foundations, are to be partially or fully removed as part of the overall demolition project (based on funding) certain subslab and foundation PCB remediation work may be incorporated into Phase III as described in Section 1.6, or else may be deferred to a later phase.

## 1.6 Potential Additional Phase III Work

As previously mentioned, certain additional subslab and foundation PCB remediation work may be performed as part of this project, or else may be deferred to a later phase, depending on the extent to which the slab and foundations are removed as part of this project.

If sufficient funding is available, the remaining floor drains, associated piping and acid lines, which are known to contain PCBs and other contaminants, will be removed and disposed offsite. The locations of floor drains and acid lines are shown on **Figure 2**.

Additionally, Phase I PCB remediation verification sample data in Tighe & Bond's IRAR indicate the presence of PCBs in subslab soil or concrete foundations at concentrations above 1 mg/kg (including one above 50 mg/kg) at a certain discrete or composite sample locations. These areas consist of subslab soil and/or foundations at the former Transformer #1 area (as indicated in Tighe & Bond's IRAR, although the presence of foundations at the sample locations does not

appear consistent with historical facility drawings) and subslab soils at the former Transformer #3 area.

These various remaining subslab PCB impacts may be remediated during Phase III (again depending on whether sufficient funding is available). Note that the former Transformer #1 area and Transformer #3 excavation were re-capped with concrete during Phase I PCB remediation activities, along with the other transformer area excavations.

## 1.7 PCB Remediation Work Excluded from Phase III

It is expected that subslab soil and foundation PCB impacts which are not addressed as part of this project would be remediated in later phases.

Even if subslab soil and foundation impacts are completely addressed as part of this project, certain areas outside the building, including stormwater discharge piping and outfalls, one of which remains impacted with PCBs, have been designated to be part of a separate project, and are therefore not covered under this Plan.

Work-scope items that are deferred to future phases will be addressed in new and/or revised plans or submittals, as required.

## 2.0 REMEDIATION PROCEDURES

### 2.1 General Demolition Project Scope/Sequence

To provide context, the anticipated overall demolition project scope/sequence, including work not directly related to PCB remediation, is outlined below. The sections following the outline provide details regarding specific aspects of the planned PCB remediation activities. Except where specifically noted, associated characterization/delineation or confirmation/verification sampling grids will be established at the frequency specified in the regulations (i.e., 10-foot and 5-foot grids, respectively). Grids will be expanded horizontally and/or vertically, if required based on the results of sample analyses. Additional details will become available as part of the bidding process, based on the preparation of bid documents and solicitation of contractor work plans, etc.

1. Provide necessary regulatory notifications to the EPA and CTDEEP before proceeding
2. Address residual soil PCB contamination greater than 1 mg/kg at certain areas adjacent to the building exterior
3. Address previously identified floor slab contamination greater than 50 mg/kg not addressed during Phase I PCB remediation activities (one known location, which is inside the electrical room).
4. Perform abatement of remaining asbestos containing materials, and other hazardous/regulated materials with the exception of the roof.
5. Perform abatement/remediation of PCB-containing materials in the building (State regulated caulking/glaze) and the overhead cranes.
6. Demolish the building by "dropping" the roof and systematically removing the structural steel and cutting/removal of columns down to slab elevation.
7. Separate the steel for salvage and ship remaining building and roofing material for off-site disposal
8. Remove an area of floor slab in the former lumber storage/box shop area (as discussed in Section 2.5).
9. Mill applicable areas of floor slab (main mill building, plus additions on west side, and the electrical room) to remove widespread, surficial PCB contamination
10. Remove all, or selected portions of, the remaining floor slab and foundations, and subslab contamination of PCBs or other contaminants (as applicable)
11. If the slab will remain, cap sand-filled excavations, including those associated with former equipment supports/foundations (former drawbenches, etc.) as necessary to prevent infiltration
12. Perform final cutting and capping of utilities
13. Backfill and compact excavations (as applicable)
14. Perform final grading and site restoration (as applicable)

15. Compile and submit RAR (or interim RAR, if PCB impacts above 1 mg/kg are to remain for future phases)

## 2.2 PCB-Impacted Soil Adjacent to the Building Exterior

Available data indicate that the following two areas on the east side of the building contain soil containing PCBs above 1 mg/kg (based on grab samples and/or the results of composite sample analyses which apparently were not evaluated for mass-averaging effects): outside the building at the entry to the former electrical room, and outside the building at the overhead door nearest concrete slab sample location B-39. At these two areas, the 5-foot verification sampling grid previously utilized during Phase II verification sampling (see Tighe & Bond's IRAR) will be re-established to re-evaluate the vertical limits of PCB-impacts in soil at the exceedance locations. No compositing of samples is proposed for these areas. Soil impacted above 1 mg/kg will be excavated and disposed offsite based on 'as is' concentrations, which are expected to be compatible with disposal at a non-TSCA facility. Pending collection and analysis of new verification samples (from the same grid) confirming that the area meets the 1 mg/kg limit, excavated areas will be backfilled and compacted with clean fill. PCB impacts apparently remaining in the adjacent foundation wall will either be addressed at the same time (by cutting out a section and then verifying) or else will be temporarily isolated with HDPE sheeting or other approved materials to avoid potential for cross-contamination of clean soil backfill materials pending foundation removal at a later stage.

## 2.3 Remediation of Federally Excluded PCB/State Regulated Waste

Remediation of State Regulated Wastes (Caulks, Glazings & Exterior Surface Cover impacted by these caulks/glazings) will be performed in accordance with CTDEEP PCB Statutes 22a-463 through 469 and the PCB Specification for this site which will be submitted to CTDEEP prior to execution.

## 2.4 Remediation of PCB-Contaminated Overhead Cranes

The two overhead cranes remaining in place reportedly contain surface concentrations greater than 10 $\mu g/100\ cm^2$ on the surfaces. The oil and grease in the gearboxes of the cranes reportedly do not contain PCBs. The cranes will be removed and disposed offsite at a non-TSCA facility by a qualified contractor. Depending on dismantling/removal procedures proposed by the Contractor, as

well as any disposal facility requirements, the cranes may first be decontaminated by a performance-based method (proposed by contractor) to reduce surface PCB concentrations, in accordance with 40 CFR 761.61(4)(iii). Following decontamination (if applicable) verification wipe samples will be collected in accordance with Subpart P. Compositing of wipe samples (if applicable) will be performed in accordance with 761.312(b). After they have been decontaminated (if required), the cranes will be removed and disposed offsite.

## 2.5 Remediation of PCB-Impacted Floor Slab

Initially, the one area of the concrete floor slab still known to contain surficial PCB concentrations above 50 mg/kg will be addressed. It is expected that this degree of contamination does not extend deep into the slab, but this will be verified as part of this project. At a minimum, the upper 2 inches of concrete assumed to exceed 50 mg/kg will be excavated by a performance-based method (proposed by the selected contractor). Appropriate measures will be utilized to prevent the spread of concrete dust, particularly during any cutting (e.g., collection and containerization of slurry water as PCB containing waste). Following the initial excavation, verification samples will be collected. Pending collection and analysis of verification samples (from the same 5' grid) meeting the 50 mg/kg limit, excavated areas will be backfilled and compacted with clean fill and/or re-capped with concrete, as needed). The excavated, contaminated concrete will be placed into a lined, covered container pending disposal. Excavated concrete from the vicinity of T4-6 **(Figure 3)** will be handled and disposed of as PCB remediation waste > 50 mg/kg at a TSCA-permitted facility. Excavation and other equipment used for this and other PCB remediation tasks throughout the project will be decontaminated following the EPA-approved procedures previously used in other phases (double rinse/wash methods as defined in Subpart S).

Next, the widespread, surficial PCB impacts will be addressed by milling the upper inch of applicable areas of the floor slab. These areas consist of the main mill building (approximately 240,000 SF), the north mill extension (approximately 20,000 SF), the south mill extension (approximately 20,000 SF), the remaining portion of the former lumber shop/box shop area after associated, selective slab removal (approximately 10,000 SF), and the electrical room (approximately 2,000 SF). Different types of milling equipment may be used in different areas, in order to facilitate milling at both the main finished floor elevation, and at the lower elevation of

the comparatively narrow truck and rail car loading areas on the south end of the building. The Contractor will be directed to use equipment and methods that limit the generation and migration of dust particles, including the use of air mist as needed to meet the requirements of the approved air quality monitoring program for the project. Milling will be completed with the floor drains plugged, in order to further limit the migration of dust and dust control fluids into the floor drains and outfalls. Workers will be required to use suitable PPE (respiratory and dermal protection) in accordance with an approved project Health and Safety Plan.

Milling of the floor will proceed systematically, in stages, based on a proposed verification sampling grid. In particular, the same verification grids originally proposed by Tighe & Bond in their Engineering Evaluation/Cost Analysis, Building Interior (i.e., the blue circles on **Figure 1**) will be utilized to direct milling operations, and to determine locations of verification samples. As shown on the figure, a 50-foot verification grid is proposed for all of the targeted areas, except for the electrical room, where a grid based on 10-foot spacing is proposed. Note that Tighe & Bond's proposed 50-foot sampling grid will be extended/expanded into the north mill extension, in order to address known and expected residual impacts in that portion of the building floor slab. Millings will be placed into designated, lined, covered rolloff containers, and samples will be collected and analyzed as required by the approved disposal facility to confirm no exceedances of "as-is" disposal concentrations. The grid box(es) associated with the content of each rolloff will be tracked. The contents of a given rolloff will not be disposed until both the associated stockpile sample results, and the post-milling verification results, have been evaluated. Each verification sample will be a composite of 4 to 5 grid points from the 0 to 0.5-inch, post-milling depth, as previously proposed by Tighe & Bond. Milling will be continued to a greater depth at certain grids where composite-adjusted verification sample results are not less than 1 mg/kg. That is, where a verification sample is a composite of 4 distinct locations, for example, the concentrations of that verification sample will be compared to a remedial goal of 0.25 ppm. Any exceedances of this composite-adjusted endpoint would require additional milling (or other approved alternatives) in the vicinity.

Although milling of 1-inch (or more) is expected to remove the majority of the widespread surficial PCB contamination > 1 mg/kg in the applicable portions of the building floor slab, available information indicates that it may not be practical to achieve this targeted remedial endpoint throughout the slab footprint by milling alone. Information contained in Tighe & Bonds'

IRAR indicates that the concrete in the underside of the slab still contains PCBs slightly above 1 mg/kg in some areas (i.e., at the limits of excavation at the former Transformer #1 area, and at the limits of excavation around sample B-19 in the north mill extension). More importantly, Tighe & Bonds' RFI report indicates that PCBs exceed 1 mg/kg (but are less than 50 mg/kg) throughout the full slab thickness in some (i.e., in the vicinity of samples B-35 through B-39) areas which appear to be in the general vicinity of former container storage areas. Available data suggest that such exceedances of the targeted 1 mg/kg endpoint do not extend into the underlying soil at these locations. In any case, it does not appear that remediation plans specifically addressing any of these areas have previously been proposed by Tighe & Bond. Due to the overall slab thickness, the potential presence of rebar deeper in the slab, and other considerations, it is proposed to cut out/excavate applicable sections of the slab after milling the top inch **(Figure 3).**

Initial delineation/characterization (on 10-foot grids) is proposed in the vicinity of B-38 and B-39, prior to cutting out/excavating and verifying these areas, which appear to be relatively isolated and therefore potentially amenable to removal of small sections of the slab. In contrast, a nominally 40-foot wide swath of the slab along the entire western wall of the south mill extension/lumber shed (i.e., encompassing samples B-35 through B-37) would be removed without delineation, and then subjected to composite verification sampling in subslab soils, and along the edge of the remaining, intact concrete slab.

After slab milling and cutout operations have been completed, the milled surface will be left predominantly in the 'as is' roughened state. Sealing, capping, or other restoration of the milled slab as a whole is not proposed to be part of the Phase III activities. Additional slab demolition activities may be conducted as a separate work scope option, as funding allows. If the slab is designated to remain, only limited areas where slab cutouts currently exist (e.g., old equipment foundations previously removed) or were created by the aforementioned operations, will be capped with concrete, where necessary. If aforementioned portions of the slab known to contain PCBs > 1 mg/kg are not removed during Phase III, such areas will remain under restricted use (i.e., recording of deed restriction within 60 days) until such time as remediation is completed to the targeted 1 mg/kg limit. Based on available data, it is anticipated that remaining PCB concentrations will be sufficiently low (i.e., less than 25 mg/kg) in the milled slab to allow designation as a low occupancy area, without the need to install a cap and/or fence. If this is not possible, then the affected areas will be surrounded by a fence and/or capped in accordance with

the regulations and applicable guidance (in addition to the deed restriction).

Since the source areas with PCBs greater than 50 mg/kg will have been delineated, removed, and verified prior to milling, it is anticipated that most, if not all, of the millings will be disposed of as PCB remediation waste < 50 mg/kg at an approved, non-TSCA facility (subject to sampling and analysis of the millings, and verification sampling of the material left behind) This overall, proposed approach for the widespread floor slab impacts is consistent with the conceptual model previously established by Tighe & Bond, and is expected to make beneficial reuse of the site more feasible.

## 2.6 Remediation of Subslab Soil and Concrete Foundations

As previously discussed, subslab PCB contamination may be wholly or partially addressed during Phase III PCB remediation activities. Known areas containing residual PCB impacts exceeding 1 mg/kg, consist of:

- Floor drains, associated piping, and acid lines within the building footprint (see **Figure 2**),
- Subslab foundations at the limits of excavation at the former Transformer #1 area (based on discrete and composite verification samples, respectively, collected during Phase I), and
- Subslab soils at the former Transformer #3 area (based on a single discrete verification sample)

To the extent designated for Phase III PCB Remediation, and if funding levels allow, the remaining floor drain structures, associated piping, and residual contents will be excavated and disposed of as PCB Remediation Waste > 50 mg/kg at a TSCA facility, as proposed in Tighe & Bond's Phase II PCB Remediation Plan. Acid lines and overlying concrete will be disposed of as PCB Remediation Waste < 50 mg/kg at a non-TCSA facility. After excavation of floor drains, verification soil samples will be collected on a 5-foot grid pattern from the base and walls of the excavations of the floor drains for the analysis of PCBs (and other parameters as needed to address RCRA program considerations). No compositing of associated verification samples is proposed. As proposed in Tighe & Bond's Phase II PCB Remediation Plan, if significant (i.e., greater than background) soil vapors are detected using a photo-ionization detector (PID) and/or field observations (e.g., visual, olfactory) indicate the presence of VOCs, samples will be analyzed for

VOCs in addition to PCBs. For investigation purposes, soil samples will be collected at each pipe joint, and otherwise at maximum 25-foot intervals, along the runs of piping and acid lines, and submitted for the same analyses.

The floor drain system in the vicinity of Transformer #2 was reportedly removed during the nominal 1-foot deep excavation in the vicinity, which was conducted as part of Phase I PCB Remediation activities. No additional sampling from this area is proposed, as it is assumed that Tighe & Bond determined that releases or exceedances were not evident at the depth of the removed drain and piping system. This area would only be revisited if data or information indicating otherwise becomes available. This may include observations made during field inspections.

Limited sections of subslab soil and foundations will be removed where the results of Phase I verification samples indicate PCBs exceed 1 mg/kg. New composite verification samples will be collected from the concrete at applicable locations and depths. It is expected that resulting data will indicate that some materials can be disposed as PCB remediation waste < 50 mg/kg, while others, particularly in the vicinity of former Transformer #1, will need to be disposed as PCB remediation waste > 50 mg/kg (based on 'as is' concentrations reported by Tighe & Bond).

Removal of the limited, known remaining areas of residual PCB impacts in this manner is intended to allow handling and/or disposal, or on-site crushing, of the remaining slab as C&D waste (assuming no other PCB impacts are identified, and any applicable RCRA program issues are addressed). It is anticipated that the foundations or portions thereof, will similarly either be crushed on site, or disposed of in the same manner. Since subslab soils were previously characterized by Marin Environmental on a 100-foot grid pattern, and known exceedances will have been addressed, no additional soil sampling and analysis for PCBs is proposed, even if the remediated slab is removed as part of this project. The former building slab footprint will likely either be finished with turf, paved, or otherwise stabilized or covered.

## 3.0 DOCUMENTATION

Documentation of the field activities will be performed on a daily basis by the contractor and TRC during the performance of the remediation, and will be summarized at the conclusion of the remediation in a Remedial Action Report (RAR) completed by TRC.

### 3.1 Field Notes

The field inspector will maintain a daily log of on-site activities. That log will include, but not be limited to the following:

- Daily health and safety meetings.
- Personnel and equipment on site.
- Field procedures and observations.
- Excavation progress and extents.
- Sample locations selection criteria, samples collected, analyses performed, sample handling.
- Telephone or other instructions.
- Equipment decontamination.
- Buried utility information.
- Concrete structure decontamination and testing.
- Waste transporter information.
- Backfill compaction testing.

### 3.2 Photographs

Daily photographs will be taken of representative activities, such as milling and excavation, sample locations, subsurface structures, and backfilling. The final extents of the excavations will also be photographed. Copies of selected photographs will be included in the RAR.

### 3.3 Survey

Sample locations will be confirmed and surveyed by the Contractor. Coordinates will be obtained for each grid/sample point. The horizontal extents of the excavations will also be documented by survey, referenced to a suitable benchmark. Vertical extents will be measured from the surrounding ground surface where the use of survey rods and other survey equipment to determine depth is not practical. The RAR will include documentation of the extent and depth of the excavations.

## 3.4 Transport and Treatment/Disposal Certifications

Manifests and/or Bills of Lading for the transportation, treatment and disposal of waste materials and certifications of the treatment or disposal of the wastes, if necessary, will be obtained from the transporter and from the treatment/disposal facility. Copies of these forms will be included in the RAR.

## 3.5 Report

The RAR will be prepared by TRC upon receipt of all analytical data confirming that the removal action was complete and receipt of certifications of treatment/disposal from the treatment/disposal facility. The RAR will include the following.

- Site description
- A description of field procedures
- Verification sample locations and analytical results
- A photographic record of the excavations and backfilling
- Figures showing the extent of excavations, utilities, and restoration
- Waste characterization sample data
- Backfill material characterization sample data
- Backfill compaction testing data
- Waste transport and treatment disposal information
- Copies of waste manifests and bills of lading
- Post-excavation depths and mapping
- Description of any known remaining PCB impacts (in which case, the report becomes an interim RAR, or IRAR)

## 3.6 Recordkeeping

TRC will prepare and maintain all records and documents required by 40 CFR Part 761, including all those records required under Subpart K. The records shall be maintained in a centralized location for a minimum of three years and will be available for inspection by representatives of EPA if required.

# FIGURES