PCBs in Priority Building Materials Program

Managing PCBs During Whole Building Demolitions

Polychlorinated Biphenyls (PCBs)

Applicant Package

July 2019

CITY OF PALO ALTO

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QUESTIONS?

Please Visit:

cityofpaloalto.org/pcbdemoprogram

Or Contact the City's Watershed Protection Group:

Email: cleanbay@cityofpaloalto.org
Phone: (650) 329-2122

Disclaimer

Please be advised that new requirements regarding stormwater control during building demolition for polychlorinated biphenyls (PCBs) will be in effect starting July 1st, 2019, in accordance with the San Francisco Bay Municipal Regional Stormwater NPDES Permit, Order No. R2-2015-0049.

The material presented in this document is intended solely for the implementation of the City of Palo Alto's regulatory program required by the San Francisco Bay Area Regional Water Quality Control Board Municipal Regional Stormwater Permit for the protection of water quality under the Clean Water Act.

Sampling may trigger additional requirements by the United States Environmental Protection Agency (EPA) or other federal or state agencies. Advanced approval from EPA or other regulatory agencies may be required prior to building demolition. It is recommended that applicants begin the PCBs assessment as early as possible during the planning entitlement stage in order to minimize delays.

This document does not address other environmental programs or regulations, including, but not limited to, the following: polychlorinated biphenyls (PCBs) regulations under the Toxic Substances Control Act; federal, state, or local regulations for hazardous material handling and hazardous waste disposal; health and safety practices to mitigate human exposure to PCBs or other hazardous materials; recycling mandates; and abatement at sites with PCBs (or other contaminants). The applicant is responsible for knowing and complying with all relevant laws and regulations.

Overview of Screening Assessment Process

This screening process is part of a program for water quality protection and was designed in accordance with requirements in the MRP. [1] Follow all applicable federal and state laws if PCBs are found in priority building materials. Sampling may trigger requirements by the United States Environmental Protection Agency (EPA) or other federal, state, or local agencies. Advanced approval from EPA or other regulatory agencies may be required prior to building demolition. It is recommended that applicants begin the PCBs assessment as early as possible, so that projects are not significantly delayed. **See the Notice to Applicants section for important additional information.**

This document describes a PCBs in Priority Building Materials Screening Assessment process to be conducted by applicants applying for a whole building demolition. A flow chart illustrating this process is provided on page 3.

Applicants proposing to conduct a complete demolition of a building must conduct the PCBs screening assessment described in this application package. Through the PCBs screening assessment, applicants will:

1) Determine if the structure to be demolished is likely to have building materials containing PCBs. (see discussion of covered structure in Part 2 of the Form);
2) Determine if PCBs are present in priority building materials at a concentration ≥50 parts per million (ppm); and if so,
3) Follow all federal and state laws if PCBs are found in priority building materials. ***Sampling may trigger United States Environmental Protection Agency (EPA) requirements.***

Use the *PCBs Screening Assessment Form* (page 7) to summarize and certify the information required for a City of Palo Alto building/demolition permit. The form is divided into four parts:

- **Part 1: Owner and project information—provide as requested.**
- **Part 2: PCBs Screening Criteria—**complete the questions to identify whether the project involves a covered *structure*. If the demolition does not involve a covered structure, the form may be certified and submitted without completing Part 3.
- **Part 3**: **PCBs Concentrations—**complete the questions to provide the concentrations of PCBs in any *priority building materials*. Applicants can use the sampling protocol per the Form instructions for reference.
- **Part 4** certify the information being submitted.

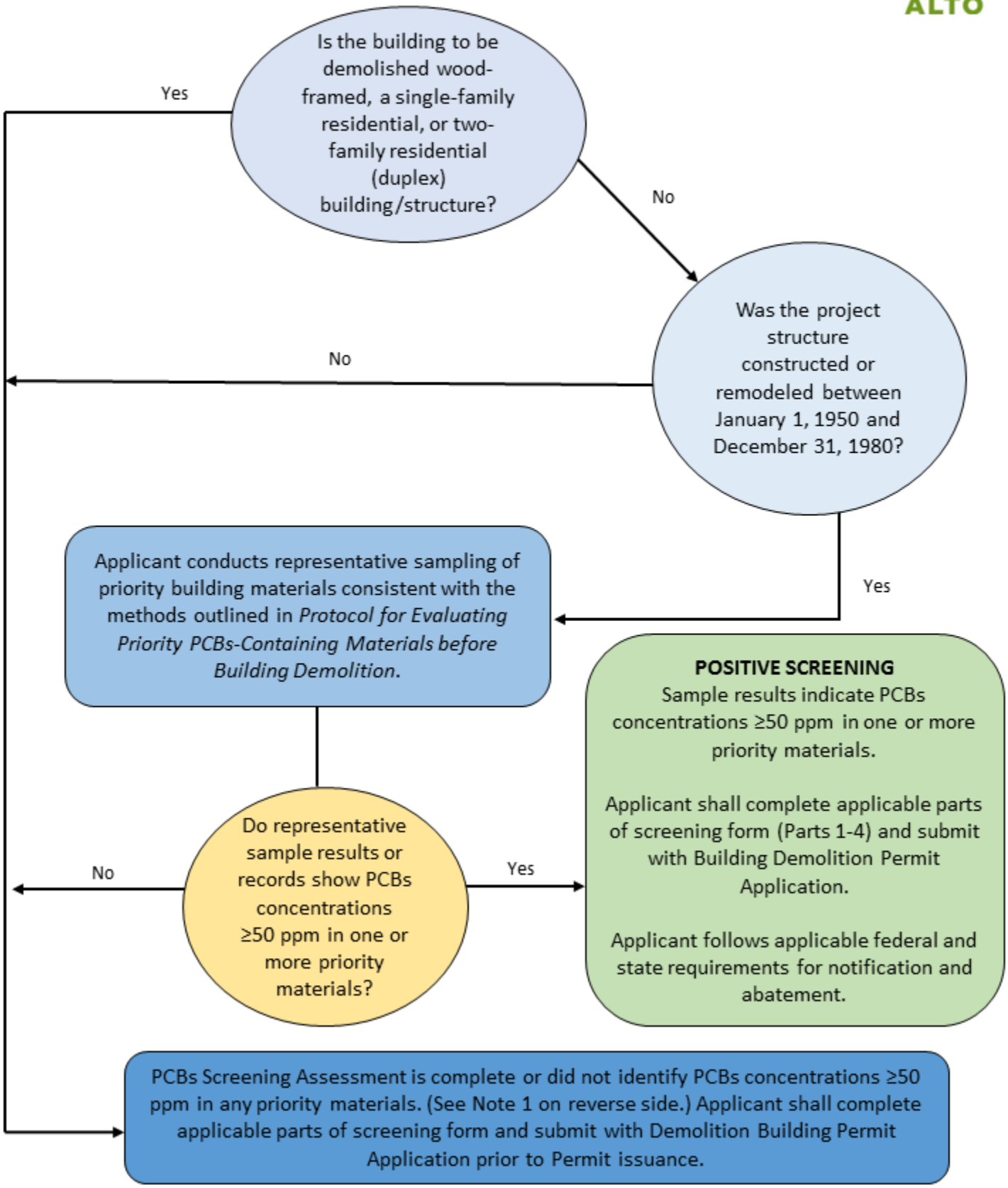
San Francisco Bay water quality is regulated by the San Francisco Bay Area Regional Water Quality Control Board (Regional Water Board). In 2015, the Regional Water Board reissued the Municipal Regional Stormwater Permit (MRP) [1] that regulates discharges of stormwater runoff. The MRP includes provisions for reducing discharges of PCBs in stormwater runoff and requires municipalities to develop a program to identify priority PCBs–containing building materials during demolition.

The City must implement this program by July 1, 2019. Existing federal and state regulations create the framework for managing the removal of PCBs-containing building materials once those PCBs are identified through this program and for disposing of wastes containing PCBs.

Note that fluorescent light ballasts, polyurethane foam furniture, and Askarel fluid used in transformers, all of which may contain PCBs, are typically managed during pre-demolition activities under current regulations and programs that require removal of universal waste and outdated transformers. For this process, it is assumed that those materials will be evaluated and managed under those existing programs.

[1] A National Pollutant Discharge Elimination System (NPDES) permit, Order No. R2-2015-0049, issued to municipalities in the counties of Alameda, Contra Costa, San Mateo, and Santa Clara, and the Cities of Fairfield, Suisun City, and Vallejo.

PCBs Screening Assessment Process Flow Chart



Applicant Instructions for Completing the PCBs Screening Assessment Form

Applicants applying for a building/demolition permit of a whole fort building and who trigger Part 2 Program requirements must conduct an assessment to screen for PCBs in *priority building materials*. The *PCBs Screening Assessment Form* on page 7 must be filled out and certified in order for the applicant to receive a building/demolition permit from the City of Palo Alto.

If the project includes the demolition of multiple buildings, one form must be completed for each building.

Part 1. Owner and Project Information

Fill out the information for the owner and consultant as well as the project location.

For the section regarding *Type of Construction*, write in one of the following options that best matches the type by which the building is constructed:

- **Wood Frame** (lumber or timbers, which make up the studs, plates, joists, and rafters)
- **Masonry Construction** (concrete blocks or bricks as the load bearing walls typically with the floors and ceilings constructed with wooden joists)
- **Steel Frame Construction** (steel studs or steel columns and steel joists or trusses to support floors and roofs. Includes light gauge steel construction and high-rise steel construction)
- **Concrete Frame** (reinforced concrete columns, concrete beams, and concrete slabs)
- **Pre-Engineered** (pre-engineered parts bolted together)

Part 2. PCBs Screening Requirement Criteria

Part 2 documents the determination of whether the proposed complete demolition will affect an *applicable*[2] *building or structure* in regard to the building's age, type and use. If the demolition does not affect *applicable building or structure*, then the assessment is complete, and the form can be certified (Part 4).

This determination screens out buildings that are a lower priority with regard to PCBs-containing materials, therefore providing an off-ramp from the rest of the screening process.

Question 2.a: Is the building to be demolished wood framed, single family residential and/or two-family (duplex) residential?

- If YES, the PCBs Screening Assessment is complete. Skip to the certification in Part 4.
- If NO, continue to Question 2.b.

KEY DEFINITIONS

DEMOLITION means the wrecking, razing, dismantling or tearing down of a building. The definition is intended to be consistent with the demolition activities undertaken by contractors with a C-21 Building Moving/Demolition Contractor's License.

PRIORITY BUILDING MATERIALS are:

1. Caulk;
2. Thermal insulation;
3. Fiberglass insulation;
4. Adhesive mastics; and
5. Rubber window gaskets.

BUILDINGS are structures with a roof and walls standing more or less permanently in one place. Buildings are intended for human habitation or occupancy.

COVERED STRUCTURES are defined as buildings constructed or remodeled between January 1, 1950 and December 31, 1980. Buildings that are either wood-framed, single-family residential, or two-family residential (duplex) are exempt and not considered APPLICABLE structures regardless of the age of the building.

[2] City of Palo Alto's Municipal Code language refers to "covered" instead of *applicable*. This document will use the term applicable in keeping with regional terminology.

Question 2.b: Was the building (to be demolished) constructed or remodeled between January 1, 1950 and December 31, 1980?

- If YES, continue to Question 2.c.
- If NO, the PCBs Screening Assessment is complete. Skip to the certification in Part 4.

Question 2.c: Is the proposed demolition a complete demolition of the building (as defined in key definitions of this document)?

- If YES, continue to Part 3.
- If NO, the PCBs Screening Assessment is complete. Skip to the certification in Part 4.

Studies have found the highest concentrations of PCBs in building materials in structures that were built or remodeled from 1950 to 1980.

For this process, the date that the building was constructed will be used to determine applicability.

Applicants can verify the age of the building using the Santa Clara County Assessor's data found on the City of Palo Alto's Online Parcel Reports database[3].

Part 3. Report of Concentrations of PCBs in Priority Building Materials

Part 3 documents the results of the assessment of PCBs concentrations in *priority building materials*. Part 3 is only required for a proposed demolition of a *covered structure*, as determined in Part 2. Check the option used.

- **Option 1.** Conduct representative sampling and analysis of the *priority building materials* per Bay Area Stormwater Management Agencies Association's (BASMAA) *Protocol for Evaluating Priority PCBs-Containing Materials before Building Demolition* (dated August 2018) (hereinafter referred to as the *Protocol*).
- **Option 2.** Use existing sampling results of the *priority building materials*. Applicants who have conducted sampling prior to the publication of the *Protocol* may use that data provided it is consistent with the *Protocol* (e.g., analytical methods, sample collection frequency, Quality Assurance and Quality Control). It is anticipated that prior sampling results will rarely be available, and that most Applicants will need to use Option 1.

3.a Option 1 – Conduct representative sampling

Check this box if representative sampling and analysis of the *priority building materials* was conducted per the *Protocol*.

- Complete the applicable tables for each priority building material.
- Attach the contractor's report[4] documenting the evaluation results.
- Attach (or include in the contractor's report) the QA/QC checklist (see page 12 of this packet and *Protocol*, Section 3.2.4, page 19).
- Attach copies of the analytical data reports.

3.a Option 2 – Use existing sampling records

In some cases, a property owner may have conducted sampling of the *priority building materials* for PCBs. If such data exist, the applicant may use these data to demonstrate the concentration of PCBs in the *priority building materials* for the PCBs screening. However, the sampling must be consistent with the *Protocol.*

[3] See City of Palo Alto's Online Parcel Reports (http://xmap.cityofpaloalto.org/parcelreports/)
[4] See section 3 of the *Protocol* for the contractor's report of the findings of the PCBs building material evaluation.

- Complete the applicable tables for each priority building material.
- Attach the contractor's report/statement that the results are consistent with the *Protocol*.
- Attach copies of the analytical data reports.

Part 3 Tables – Summarize concentrations of PCBs in priority building materials

Use these tables to summarize the concentrations of PCBs in the *priority building materials*.

- Each page of the table is for a different material. Duplicate the pages as needed to report all concentration data.
- A blank page is provided. Applicants have the option of submitting PCBs concentration data on other materials in addition to the priority building materials. Testing of other building materials may be beneficial to detect levels of PCBs that may not be accounted for while testing the mandatory priority building materials.

Column 1: required for all priority building material PCBs concentrations

- Use Column 1 to report all PCBs concentrations in the *priority building materials*. Provide short description of the sample location and concentration.

Column 2: only required for PCBs concentrations ≥50 ppm

- Use Column 2 to estimate the amount of material associated with each sample.

Part 4. Certification

- Complete the certification on page 8. The certification must be signed by the property owner or the owner's agent or legal representatives and the consultant who completed the application form.

For City Staff Use Only	
Date Received	
Permit #	

PCBs Screening Assessment Form

This screening process is part of a program for water quality protection and was designed in accordance with requirements in the Bay Area regional municipal stormwater NPDES permit (referred to as the Municipal Regional Permit). This process **does not** address other environmental programs or regulations (e.g., PCBs regulations under the Toxic Substances Control Act (TSCA); federal, state, or local regulations for hazardous material handling and hazardous waste disposal; health and safety practices to mitigate human exposure to PCBs or other hazardous materials; recycling mandates; or abatement at sites with PCBs or other contaminants). **The applicant is responsible for knowing and complying with all relevant laws and regulations. See Notices to Applicants section in the Applicant Instructions and at the end of this form.**

Complete all applicable parts of the PCBs Screening Assessment Form, and submit with the building/demolition permit application.

All Applicants must complete Part 1, Part 2, and Part 4. Part 3 must be filled out by those applicants required to sample priority building materials per the Protocol.

Part 1. Owner/Consultant and Project Information		
Owner Information		
Name		
Address		
City	State	Zip Code
Contact (Agent)		
Phone	Email	
Consultant Information		
Firm Name		
Address		
City	State	Zip Code
Contact Name		
Phone	Email	
Project Location		
Address		
City	State	Zip Code
APN (s)		
Year Building was Built	Type of Construction	
Estimated Demolition Date		

Part 2. PCBs Screening Requirement Criteria

2.a Is the building to be demolished wood framed, single family, and/or two-family residential? ☐ Yes ☐ No

If the answer to Questions 2.a is **Yes**, the PCBs Screening Assessment is complete, skip to Part 4.
If the answer is **No**, continue to Question 2.b.

2.b Was the building (to be demolished) constructed or remodeled between January 1, 1950 and December 31, 1980, inclusive? ☐ Yes ☐ No

If the answer is **Yes**, continue to Question 2.c.
If the answer to Questions 2.b is **No**, the PCBs Screening Assessment is complete, skip to Part 4.

2.c Is the proposed demolition a complete demolition of the building? ☐ Yes ☐ No

If the answer to Questions 2.c is **No**, the PCBs Screening Assessment is complete, skip to Part 4.
If the answer is **Yes**, continue to Part 3.

All applicants deemed to be demolishing covered structures (per Part 2) must complete Part 3 and provide required supporting documents.

Part 3. Report of Concentrations of PCBs in Priority Building Materials

Option 1. *Applicants conducted representative sampling and analysis of the priority building materials per the Protocol (BASMAA, August 2018).*

Option 2. *Applicants possess existing sample results that are consistent with the Protocol.*

3.a Select option from above and report PCBs concentrations in the priority building materials and the source of data for each of the priority building materials. Provide the required supporting information.

☐ Option 1. Conduct Representative Sampling

- Summarize results in the Part 3 Tables; and
- Attach the following supporting information:
  - ☐ Contractor's report documenting the assessment results;
  - ☐ QA/QC checklist *(see page 12);* and
  - ☐ Copies of the analytical data reports.

☐ Option 2. Use Existing Sampling Records

- Summarize results in the Part 3 Tables; and
- Attach the following supporting information:
  - ☐ Contractor's report/statement that the results are consistent with the *Protocol for Evaluating Priority PCBs-Containing Materials before Building Demolitions*
  - ☐ Copies of the analytical data reports.

All Applicants must complete Part 4.

Part 4. Certification

I certify that the information provided in this form is, to the best of my knowledge and belief, true, accurate, and complete. I further certify that I understand my responsibility for knowing and complying with all relevant laws and regulations related to reporting, abating, and handing and disposing of PCBs materials and wastes. I understand there are significant penalties for submitting false information. I will retain a copy of this form and the supporting documentation for at least 5 years.

Signature:_____ Date: _____
(Property Owner/Agent/Legal Representative)

Print/Type:_____
(Property Owner/Agent/Legal Representative Name)

Signature:_____ Date: _____
(Consultant Completing Application Form)

Print/Type:_____
(Consultant Completing Application Form)

Contractor's Report from Pre-demolition Building Survey for PCBs

PROJECT INFORMATION

Property Address: _____

Construction Type: ☐Concrete frame ☐Masonry ☐Steel frame ☐Pre-engineered ☐Wood frame ☐Other:_____

Year of construction start: _____ **APN** (List all if there are multiple)**:**_____

Contractor/Consultant Information:
Name: _____
Address: _____
Telephone:_____
Email:_____

Property Owner/Representative Information:
Name: _____
Address: _____
Telephone:_____
Email:_____

PCBS SCREENING ASSESSMENT AND SURVEY

Date(s) that the PCBs building survey was conducted: _____

Certified laboratory name: _____
Location of lab: _____
Contact name: _____
Telephone: _____
Email: _____

Description of the survey methods, including sampling procedures, number of samples collected, sample identification numbers, types of materials sampled, and descriptions of sample locations (attach maps):

_____
_____
_____
_____

Summary of the testing results, including PCBs concentration in each sample of priority building material that was collected. Also include the estimated amount of material (1. linear feet for caulking or rubber window gaskets; 2. square feet for mastics/adhesives or insulation) associated with each sample with a PCBs concentration ≥ 50 ppm (this information may be provided by completing and attaching the **Part 3 Tables from the Applicant Package**):

Check boxes to indicate that the following documents are attached:

☐Analytical laboratory reports.

☐QA/QC checklist

☐If filled out by contractor, Part 3 Tables from this Applicant Package (as applicable). Otherwise, applicant shall submit Part 3 Tables.

Quality Assurance and Quality Control (QA/QC) Checklist

For this program, general QA/QC procedures will be utilized. The following checklist shall be used by the contractor performing the evaluation:

- ☐ Proper specified sampling equipment was used (e.g., pre-cleaned or other, stainless steel);
- ☐ Proper decontamination procedures were followed;
- ☐ Sampling collection spatial frequency was met;
- ☐ A National Environmental Laboratory Accreditation Program (NELAP) laboratory was utilized;
- ☐ Samples were received by the laboratory within proper temperature range;
- ☐ Samples were extracted and analyzed within the method holding time for EPA Method 8082/8082A; and
- ☐ Sample reporting limit met data quality objectives.

Part 3. Priority Building Material: Caulk		
Column 1. *Report all PCBs concentrations for each homogeneous area of caulking area (see Page 31 of Protocol, Section 2.2.2). Use sample designators/descriptions from laboratory report.*		***Column 2.*** *Complete for each concentration ≥ 50 ppm*
Caulk Application Sample Description	**Concentration (mg/kg)**	**Estimate Amount of Material (in Linear Feet)**
Example: Caulk Sample 1	*320*	*48*
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

Duplicate page if additional space is needed.

Part 3. Priority Building Material: Fiberglass Insulation		
Column 1. *Report all PCBs concentrations for each homogeneous area of caulking area (see Page 31, Section 2.2.2). Use sample designators/descriptions from laboratory report.*		***Column 2.*** *Complete for each concentration ≥ 50 mg/kg*
Fiberglass Insulation Application Sample Description	**Concentration (mg/kg)**	**Estimate Amount of Material (in Square Feet)**
Example: Fiberglass Insulation Sample 1	*78*	*86*
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

The area of insulation wrapped around a pipe may be estimated using the following formula:
Area (square feet) = 2πrh, where r is the pipe radius (feet) and h is the pipe length (feet).

Duplicate page if additional space is needed.

Part 3. Priority Building Material: Thermal Insulation		
Column 1. *Report all PCBs concentrations for each homogeneous area of caulking area (see Page 31, Section 2.2.2). Use sample designators/descriptions from laboratory report.*		***Column 2.*** *Complete for each concentration ≥ 50 mg/kg*
Thermal Insulation Application Sample Description	**Concentration (mg/kg)**	**Estimate Amount of Material (in Square Feet)**
Example: Thermal Insulation Sample 1	*20*	
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

The area of insulation wrapped around a pipe may be estimated using the following formula:
Area (square feet) = 2πrh, where r is the pipe radius (feet) and h is the pipe length (feet).

Duplicate page if additional space is needed.

Part 3. Priority Building Material Applications Table: Adhesive Mastic Insulation		
Column 1. *Report all PCBs concentrations for each homogeneous area of caulking area (see Page 31, Section 2.2.2). Use sample designators/descriptions from laboratory report.*		***Column 2.*** *Complete for each concentration ≥ 50 mg/kg*
Adhesive Mastic Insulation Application Sample Description	**Concentration (mg/kg)**	**Estimate Amount of Material (in Square Feet)**
Example: Adhesive Mastic Insulation Sample 1	*87.4*	*800*
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

Duplicate page if additional space is needed.

Part 3. Priority Building Material Applications Table: Rubber Window Gasket		
Column 1. *Report all PCBs concentrations for each homogeneous area of caulking area (see Page 31, Section 2.2.2). Use sample designators/descriptions from laboratory report.*		***Column 2.*** *Complete for each concentration ≥ 50 mg/kg*
Rubber Window Gasket Application Sample Description	**Concentration (mg/kg)**	**Estimate Amount of Material (in Linear Feet)**
Example: Window Gasket Insulation Sample 1	*70*	*75*
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

Duplicate page if additional space is needed.

Part 3. Priority Building Materials Table: Other		
Column 1. *Optional: Use this form to report PCBs concentration data from materials other than priority building materials. Report PCBs concentrations for each material and homogeneous area. Use sample designators/descriptions from laboratory report.*		***Column 2.*** *Complete for each concentration ≥ 50 mg/kg*
Material Sample Description	**Concentration (mg/kg)**	**Estimate Amount of Material (units vary)**
Example: Wall paint Sample 1	*228*	*1,500*
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

Duplicate page if additional space is needed.

Notice to Applicants Regarding Federal and State PCBs Regulations

Applicants that determine PCBs exist in priority building materials must follow applicable federal and state laws. This may include reporting to U.S. Environmental Protection Agency (EPA), the San Francisco Bay Regional Water Quality Control Board, and the California Department of Toxic Substances Control (DTSC). These agencies may require additional sampling and abatement of PCBs.

Depending on the approach for sampling and removing building materials containing PCBs, applicants may need to notify or seek advance approval from EPA before building demolition. Even in circumstances where advance notification to or approval from EPA is not required before the demolition activity, the disposal of PCBs waste is regulated under the Toxic Substances Control Act (TSCA), and therefore, the applicant should refer to those requirements.

Additionally, the disposal of PCBs waste is subject to California Code of Regulations (CCR) Title 22, Section Division 4.5, Chapter 12: Standards Applicable to Hazardous Waste Generators.

Building owners and employers should consider worker and public safety during work involving hazardous materials and wastes including PCBs.

The following is information provided as a reference for applicants. Please note that this does not describe all details an applicant or legal representative is responsible for regarding compliance with all regional, state, and federal regulations.

Federal and State Regulations

See 40 Code of Federal Regulations (CFR) 761.3 for important information relative to disposal of PCBs-containing building materials, including definitions of PCBs bulk product wastes and PCBs remediation wastes. Also see the memorandum dated October 24, 2012 “PCB Bulk Product Waste Reinterpretation” from Suzanne Rudzinski, Director, Office of Resource Conservation and Recovery, EPA.

Disposal of PCBs wastes are subject to TSCA requirements such as manifesting of the waste for transportation and disposal. See 40 CFR 761 and 40 CFR 761, Subpart K.

TSCA-regulated does not equate solely to materials containing PCBs at or above 50 ppm. There are circumstances in which materials containing PCBs below 50 ppm are subject to regulation under TSCA. See 40 CFR 761.61(a)(5)(i)(B)(2)(ii).

Disposal of PCBs wastes are subject to California Code of Regulations (CCR) Title 22, Section Division 4.5, Chapter 12, Standards Applicable to Hazardous Waste Generators.

California hazardous waste regulatory levels for PCBs are 5 ppm based on the Soluble Threshold Limit Concentration test and 50 ppm based on the Total Threshold Limit Concentration test, see CCR, Title 22, Section 66261.24, Table III.

Agency Contacts

Applicants should contact the appropriate agencies and review the relevant guidance and information about PCBs in building materials. City of Palo Alto staff are not able to advise applicants regarding the requirements of the applicable federal and state laws.

Agency	Contacts & Useful Links
US Environmental Protection Agency	• EPA PCB website (epa.gov/pcbs) • PCBs in Building Materials Fact Sheet and Q/A Document • USEPA PCB Facility Approval Streamlining Toolbox (PCB FAST) • See Information for Contractors Working in Older Buildings that May Contain PCBs
San Francisco Bay Regional Water Quality Control Board	• Water Boards San Francisco Bay PCBs TMDL Project • Water Boards Site Cleanup Program
Department of Toxic Substances Control	• Regulatory Assistance Office o 1-800-72TOXIC o RAO@dtsc.ca.gov • EPA Guide to Selecting a Consultant
California Division of Occupational Safety and Health (known as Cal/OSHA)	• CalOSHA Consultations Services o 1-800-963-9424 • Cal/OSHA Consultation Services Branch