4.0 CLEANUP STANDARDS

Cleanup standards consist of the following:

(a) Cleanup levels for hazardous substances present at the Site;
(b) The location where these cleanup levels must be met (point of compliance); and,
(c) Other regulatory requirements that apply to the site because of the type of action and/or location of the site ("applicable state and federal laws").

A cleanup level is the concentration of a hazardous substance in soil, water, air, or sediment that is determined to be protective of human health and the environment under specified exposure conditions. Cleanup levels, in combination with points of compliance, typically define the area or volume of soil, water, air, or sediment at a site that must be addressed by the cleanup action.

The first step in setting cleanup levels is to identify the nature of the contamination and the potentially contaminated media, the current and potential pathways of exposure and receptors, and the current and potential land and resource uses.

Based on discussions presented in Section 3, cleanup standards for PCBs in soils are developed in this section for the City Parcel Site. The only hazardous substance of concern is PCB-1260 and the only medium of interest is soil.

4.1 Soil Cleanup Levels

Soil cleanup levels are based on the reasonable maximum exposure expected to occur under both current and future site use conditions. MTCA allows for the establishment of soil cleanup levels based on two types of land use – **unrestricted land use** and **industrial land use**. The site use requiring the most protective cleanup levels is residential land use.

For **unrestricted land use**, the soil cleanup level is based on the reasonable maximum exposure expected to occur under residential land use conditions or child exposure scenario. Restrictions on the future use of the land are not required where these soil cleanup levels are met at the point of compliance.

For **industrial land use**, the soil cleanup level is based on an exposure expected to occur under industrial use conditions or on an adult worker exposure scenario. Restrictions on the future use of the land are required if industrial soil cleanup levels are established, even if the cleanup levels are met to ensure the exposure scenario is met.

Various methods are available to establish cleanup levels under MTCA for either land use. MTCA provides for three approaches for establishing soil cleanup levels – **Method A, Method B, or Method C**. **Method A and Method B** are two options used for establishing soil cleanup levels for **unrestricted land use**. **Method A and Method C** are the two options used for establishing soil cleanup levels for **industrial land use**.

Method A is used for routine sites or sites that involve relatively few hazardous substances. MTCA provides for the establishment of Method A cleanup levels for either unrestricted land use or industrial land use. Method A soil cleanup levels are set at concentrations at least as stringent as the following concentrations:

- The numerical values provided for in the appropriate MTCA Method A table;
- Concentrations established under applicable state and federal laws; and,
- Concentrations that protect the environment or concentrations that result in no significant adverse effects on the protection and propagation of terrestial ecological receptors (plants and animals).

The natural background or the practical quantitation limit (PQL), whichever is higher, may be used as the Method A level if numerical values under MTCA or under applicable state and federal laws are not available.

Method B may be used to establish soil cleanup levels at any site. Method B cleanup levels are used for residential land use conditions. Standard Method B method uses default formulas, assumptions, and procedures to develop cleanup levels. Under modified Method B, chemical-specific or site-specific information may be used to change certain assumptions to calculate the cleanup levels. Method B soil cleanup levels are developed under WAC 173-340-740(3).

Method C is the standard method for establishing soil cleanup levels at industrial sites and its use is conditioned upon the continued use of the site for industrial purposes. Under Method C, cleanup levels are established the same as under Method B with different exposure scenarios. Method C soil cleanup levels are developed under WAC 173-340-745(5).

4.2 Land Use of the Site

The City of Spokane does Comprehensive Planning that is in compliance with Chapter 36.70 RCW (Growth Management Act). The Site is zoned M1 – Light Industrial - which is intended for those light industrial users which produce little noise, odor and smoke and for industrial parks. The City Parcel property and the City of Spokane property meet the definition of "Industrial Properties" in WAC 174-340-200.

The City Parcel property is currently occupied by three businesses. City Parcel operates package-sorting and truck-loading businesses each morning and afternoon at the Site. Two other small businesses lease space on the north side of the building as a small engine repair shop and a small storage and truck parking space.

The City of Spokane property (former John Barrier Trust property) is being planned for development in 2004. The City intends to develop this property as a washing and storage facility to support the City's Operations Maintenance Facility located north across the

street. The entire area will be paved and wastewater will be directed to a treatment system off-property. Public access to this City property will be restricted.

The alleyway east of the building has unrestricted public access. This alleyway separates the City Parcel Property from the former John Barrier Trust Property which was purchased by the City of Spokane in 2003. In the interim, to prevent current exposure to PCB-contaminated surface soils in the alleyway, the City had covered the alleyway with gravel at the request of Ecology.

Under MTCA [WAC 173-340-745 (1)(a)(i)], the following characteristics shall be considered to determine if the alleyway is "zoned for industrial use":

(A) People do not normally live on industrial property. The primary potential exposure is to adult employees of businesses located on the industrial property;
(B) Access to industrial property by the general public is generally not allowed. If access is allowed, it is highly limited and controlled due to safety or security considerations;
(C) Food is not normally grown/raised on industrial property. (However, food processing operations are commonly considered industrial facilities);
(D) Operations at industrial properties are often (but not always) characterized by use and storage of chemicals, noise, odors and truck traffic;
(E) The surface of the land at industrial properties is often (but not always) mostly covered by buildings or other structures, paved parking lots, paved access roads, and material storage areas – minimizing potential exposure to the soil; and
(F) Industrial properties may have support facilities consisting of offices, restaurants, and other facilities that are commercial in nature but are primarily devoted to administrative functions necessary for the industrial use and/or are primarily intended to serve the industrial facility.

The alleyway cannot be considered to be "zoned industrial" since it does not restrict access to the general public.

4.3 Site Cleanup Standards

4.3.1 Site Cleanup Levels

The department has determined that **industrial land use** represents the reasonable maximum exposure for the **City Parcel** property and the **City of Spokane** property. **Residential land use** conditions represent the reasonable maximum exposure in the alleyway.

To use industrial soil cleanup levels, the following criteria must also be met [WAC 173-340-745 (1)(a)(ii)(iii)]:

- The cleanup action provides for appropriate institutional controls to limit potential exposure to residual hazardous substances. This shall include, at a minimum, placement of a covenant on the property restricting use of the area of the site where industrial soil cleanup levels are proposed to industrial property uses; and
- Hazardous substances remaining at the property after remedial action would not pose a threat to human health or the environment at the site or in adjacent nonindustrial areas.

Method A is used to establish soil cleanup levels because PCB-1260 is the only hazardous substance of concern and numerical standards are available in MTCA for PCBs. The Method A cleanup level for PCB mixtures is 1 mg/Kg (Table 740-1, Unrestricted land use) or 10 mg/Kg (Table 745-1, Industrial Properties). These levels are based on an applicable federal law, 40 C.F.R. 761.61, The Toxics Substances Control Act (TSCA).

It is not necessary to establish a soil concentration that results in no significant adverse effects on the protection and propagation of terrestial ecological receptors for this site. The criteria under WAC 173-340-7491 (1), exclusion from a terrestrial ecological evaluation, will be met at this Site. Upon implementation of the cleanup action, all soils contaminated with PCBs will be covered by buildings, paved, covered with physical barriers, or removed from the Site. The cleanup action will prevent plants or wildlife from being exposed to any PCB contamination remaining on site.

The following are the Site cleanup levels for PCBs in soils:

Property	PCBs Cleanup Level, mg/kg	Notes
City Parcel Property	10	Method A Industrial – cleanup level based on applicable federal law (40.C.F.R. 761.61). This value may be used only if the PCB contaminated soils are capped and the cap maintained by 40 C.F.R. 761.61.
City of Spokane Property (former Barrier Property)	10	
Alleyway	1	Method A Residential – cleanup level based on applicable federal law (40 C.F.R.761.61)

4.3.2 Points of Compliance

The PCB soil cleanup levels for this Site are based on human exposure via direct contact or other exposure pathways where contact with the soil is required to complete the pathway. The point of compliance as required under WAC 173-340-740(6)(d) and WAC 173-340-745(7) shall be in the soils throughout the Site from the ground surface to fifteen feet below the ground surface. This represents a reasonable estimate of the depth of soil that could be excavated and distributed at the soil surface as a result of site development activities.