



**Draft Industrial Area  
Sampling and Analysis Plan  
FY04 Addendum #IA-04-12  
IHSS Group 700-8**

Approval received from the Colorado Department of Public Health and Environment

( ).  
Approval letter is contained in the Administrative Record.

**March 2004**

## 1.0 INTRODUCTION

This Industrial Area (IA) Sampling and Analysis Plan (SAP) (IASAP) (DOE 2001) Addendum #IA-04-12 includes Individual Hazardous Substance Site (IHSS) Group-specific information, sampling locations, and potential contaminants of concern (PCOCs) for IHSSs, Potential Areas of Concern (PACs), and Under Building Contamination (UBC) Sites proposed for characterization during Fiscal Year (FY) 04. This IASAP Addendum is a supplement to the IASAP (DOE 2001) and includes data and proposed sampling locations for IHSS Group 700-8, which includes IHSS 700-214 the 750 Pad Pondcrete/Saltcrete Storage. The locations of the IHSS Group and IHSSs proposed for FY04 characterization, are shown on Figure 1.

## 2.0 EXISTING CHARACTERIZATION INFORMATION

There are 15 existing sampling locations at IHSS Group 700-8 (DOE 2000). Existing concentrations and activities above the background means plus two standard deviations or method detection limits (MDLs) are presented on Figure 2. Existing information and data for this IHSS are available in Appendix C of the IASAP (DOE 2001), the Historical Release Reports (HRRs) (DOE 1992-2003), and the IA Data Summary Report (DOE 2000).

Previously collected data results are less than the Rocky Flats Cleanup Agreement (RFCA) wildlife refuge worker (WRW) and ecological receptor action levels (ALs) (DOE et al. 2003). Plutonium-239/240, americium-241, cyanide, nitrite, and metals exceed corresponding background (mean plus two standard deviations) in soil at several locations (Figure 2). Volatile organic compounds (VOCs) and polycyclic aromatic hydrocarbons (PAHs) were also detected at several locations.

## 3.0 SAMPLING

PCOCs and the proposed sampling methodology for IHSS Group 700-8 are summarized in Table 1. The IHSS Group sampling summary is presented in Table 2. The proposed sampling specifications (number and type of samples) for IHSS Group 700-8 are shown on Figure 3 and listed in Table 3. The 750 Pad is a Resource Conservation and Recovery Act (RCRA) facility and a 22-meter statistical grid was applied to the area. Additionally, the sampling design was augmented by biased sampling at known spill locations and within paved areas where the asphalt is cracked or failing. This includes areas where the pad was patched or repaired with asphalt. All samples collected beneath the pad will be from native material. Sampling intervals will begin at the base of non-native material such as gravel and fill. Biased samples will be collected in the seven storm drain inlets located along the eastern perimeter of the 750 Pad. The pad was engineered with a slight gradient toward the east, which effectively diverts all runoff from the pad to the stormwater inlets.

**Table 1  
PCOCs for IHSS Group 700-8**

IHSS Group	IHSS/PAC/UBC Site	PCOCs	Media	Data Source	Sampling Method
700-8	IHSS 700-214, 750 Pad-Pondcrete/Salcrete Storage	Radionuclides Metals VOCs SVOCs PCBs	Surface and subsurface soil	HRRs (DOE 1992-2003) Process knowledge (IASAP [DOE 2001]) IA Data Summary Report (DOE 2000)	Statistical Grid and Biased

**Table 2**  
**Sampling and Analysis Summary**

Category	Total
Number of Sampling Locations	57
Number of Samples	107
Number of Radionuclide Analyses	107
Number of Metal Analyses	107
Number of VOC Analyses	107
Number of SVOC Analyses	107
Number of PCB Analyses	107

Proposed new sampling locations are the starting point for IHSS Group characterization. After characterization starts, the number and type of samples may change based on sampling results. Statistical sampling locations within a building footprint may be adjusted in the field to collect samples from specific building features. If contaminant concentrations are found to be above ALs near the grid boundary, additional samples will be collected in consultation with the regulatory agencies and a contact record issued. Sampling locations will be field-checked and adjusted, as necessary, through the consultative process. Sampling and analysis activities will likely proceed in FY05.