

I. INTRODUCTION

This chapter provides basic information related to sampling air contaminants. Other reference resources are OSHA's [Chemical Sampling Information \(CSI\)](#) file and the OSHA [Field Operations Manual \(FOM\)](#). Sampling and analytical methods that have been validated by either OSHA or the National Institute for Occupational Safety and Health (NIOSH) should be used whenever possible. Sometimes the Salt Lake Technical Center (SLTC) will approve the use of procedures developed by other organizations. Only procedures approved by the SLTC should be used. The use of sampling methods not approved by the SLTC may require resampling with an approved sampling procedure. The SLTC is aware that unique sampling situations will arise during some inspections and it is essential that OSHA Compliance Safety and Health Officers (CSHOs) contact, and work closely with, the SLTC whenever questions arise.

Sampling strategies should be planned for a meaningful evaluation of air contaminants and prudent use of limited resources. Screening techniques and devices, such as detector tubes and direct-reading meters, may provide valuable information when their use and their detection limits are appropriate (see Section II: Chapter 3 Technical Equipment: On-Site Measurements). Knowledge of sampling procedures, including sampling media, recommended air volumes, and sample storage precautions, are essential in planning proper sampling strategies.

Bulk samples are sometimes necessary to support analyses of air samples, to document the source of air contaminants or to identify additional hazards. For example, in conjunction with air sampling for organic dusts, it may also be useful to collect bulk samples for analysis of explosibility and flash point to identify additional safety hazards. Or when air sampling for asbestos, it may also be useful to collect one or more bulk samples of suspect building materials to identify the source(s) of airborne fibers if this is not otherwise evident at the work site. Bulk samples are sometimes used in Hazard Communication inspections (i.e., Safety Data Sheet compliance). Consult OSHA's [CSI](#) file to determine when bulk samples are appropriate. Bulk samples often require special shipping and handling.

Ensure that appropriate sample shipping and handling requirements are followed and that the mode of shipment is appropriate for the requested analytical service. For example, "Rush Analysis" requires sample shipment with overnight delivery. If samples are for "Rush Analysis," then concurrence by the Area Director is required. Follow all chain-of-custody protocols. Apply tamper-evident seals (Form OSHA-21) to each sample as shown in [Appendix G](#), and ensure that the chain-of-custody information is not obstructed by the seal. Make certain that samples are properly documented using the sampling worksheet, which is accessed through the OSHA Information System (OIS).