



Chemical Weapons Convention Bulletin

Department of Commerce
Bureau of Industry and Security

Chemical Weapons Convention: Lessons Learned from Industry Inspections

On April 27, 2006, the Bureau of Industry and Security (BIS) promulgated amended final Chemical Weapons Convention Regulations (CWCRC) (15 CFR 710 et seq.). The CWCRC requires commercial facilities engaged in the production, processing, or consumption of certain toxic chemicals and their precursors to submit annual declarations and to provide access for on-site inspections conducted by the Organization for the Prohibition of Chemical Weapons (OPCW), which administers the Convention.

BIS acts as the host and escort for OPCW inspection teams during inspections of U.S. facilities subject to the CWCRC (see part 716 of the CWCRC). In addition, BIS provides advance preparation assistance for inspections during site assistance visits and Advance Team activities which occur immediately after a facility is notified of an inspection. To date, BIS has hosted more than 60 inspections at Schedule 1, Schedule 2, Schedule 3, and unscheduled discrete organic chemical (UDOC) facilities. Although all facilities have unique characteristics and proprietary concerns, there are common issues that have arisen in preparation for and during inspections. This publication highlights these issues and offers advice to facilities on preparing for and expediting inspections.

Plant Site Delineation

How a company delineates a facility or plant site affects the potential scope of on-site verification activities conducted by OPCW inspection teams. Schedule 1 facilities tend to be relatively small, self-contained areas that are easy to delineate. Schedule 2, Schedule 3, and UDOC plant sites are sometimes more difficult to delineate given their size and the complexity of their activities and organizational structure. While there are common conceptions of what the terms “plant site” and “plant” mean to U.S. industry, the CWCRC contain precise definitions (see §710.1) that should be followed and assist in establishing the scope and conduct of on-site verification activities.

Plant site is the local integration of one or more plants, with any intermediate administrative levels, which are under one operational control, and includes “common infrastructure”

(e.g., medical center, central analytical laboratory, utilities, warehouse storage). Operational control is the key criterion and does not necessarily equate to ownership. Chemical complexes that have multiple operators under one owner – e.g., at the business unit or division level – should delineate a plant site that is not equivalent to the fence line, provided different operational control can be demonstrated. Although there is no treaty-based criterion for determining operational control, the operator is likely responsible for budget, profits, production planning, and decision making for declared and undeclared “plants” under its control within a chemical complex. A company with multiple tiers of on-site operators should use this criterion as the baseline for determining the appropriate plant site delineation.

All declared and undeclared *plants*, defined as relatively self-contained areas, structures, or buildings containing one or more *units* (items of equipment, including vessels and vessel set up, necessary for the production, processing, or consumption of a chemical) with “auxiliary and associated infrastructure” (e.g., storage/handling areas for feedstock and products, waste treatment), under one operational control, plus “common infrastructure,” whether or not controlled by this operator, constitute the “declared plant site.” “Auxiliary and associated infrastructure” usually are dedicated to a declared plant’s operations (i.e., not shared among declared or undeclared plants) and under the plant site operator’s control.

If the “declared plant site” is not the company’s fence-line, it is useful if the plant site name on the declaration is unique to the declared area (i.e., not the name of the chemical complex). This notifies inspection teams prior to arrival on-site that the “declared plant site” will not be equivalent to the fence line and facilitates discussions of plant site delineation. Companies are responsible for explaining the delineation of declared plant sites to the BIS Host or Advance Team prior to inspection team arrival (e.g., via organizational charts).

For more information see [“Plant” & “Plant Site” Delineation, CWC-009](#) publication for more detailed information.

Pre-Inspection Briefing

A critical prelude to a successful inspection is a comprehensive pre-inspection briefing (PIB). The PIB sets



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the tone and mood for the inspection, affording company representatives the opportunity to inform and orient the inspection team to the facility and propose a methodology for demonstrating compliance while minimizing burdens on operations.

Section 716.4(c) of the CWCR outlines required and suggested topics for the PIB. A comprehensive PIB covers:

- introduction of key facility personnel;
- management, organization and history;
- activities, business and manufacturing operations with an emphasis on the commercial end-uses of the products associated with the declared chemicals;
- physical layout of the chemical complex for orientation;
- delineation of the declared facility (highlighting plants, auxiliary/associated infrastructure, common infrastructure) with explanations of the operational control concept if the declared plant site is not equivalent to the fence line and activities occurring on the declared site;
- identification of units specific to declared operations;
- list and location of all declared and undeclared scheduled chemicals on-site;
- explanation of the chemistry associated with the declared activities (UDOC plant sites do not have to identify chemical names);
- simplified process flow or block flow diagram;
- confidential business information (CBI) concerns;
- types and locations of records to verify the declaration;
- updates/amendments to the declaration;
- indicators of the absence of Schedule 1 chemicals, except if in accordance with the Convention (see discussion below on indicators of Schedule 1 chemicals);
- health and safety orientation, including information on plant site alarms and evacuation routes, and areas where access may be restricted for health and safety reasons;
- administrative and logistical information (e.g., locations of work rooms, bathrooms, lunchroom, transportation, etc.);
- review of (draft) facility agreement, if applicable;
- proposed inspection plan, specifying times/dates personnel and areas are available to support inspection activities; and
- question and answer period.

All facility personnel involved with the inspection should attend the PIB. This ensures that all personnel have the same understanding as the inspection team of the ground rules for inspection activities (e.g., areas of sensitivity). The PIB may not exceed three hours. As soon as the PIB is completed, the inspection period begins.

For further information see BIS's "[Interactive Pre-Inspection Briefing \(PIB\)](#)" at www.cwc.gov.

"Windshield" (Orientation) Tour

A "windshield" tour is normally conducted as soon as the inspection period commences and helps orient the inspection team to the declared plant site. Although the tour is not a regulatory requirement, it facilitates inspection activities as they progress. All areas comprising the declared plant site (i.e., declared and undeclared plants, auxiliary/associated infrastructure, common infrastructure) should be included on the windshield tour along with explanations of the purpose of each area, building, or structure. The tour normally includes visual access of the units and auxiliary/associated infrastructure related to declared activities. Since verifying the absence of Schedule 1 chemicals is a primary aim of all inspections, the facility should point out the lack of indicators of Schedule 1 chemicals during the windshield tour (see discussion below on indicators of Schedule 1 chemicals).

There are no access requirements for conducting a windshield tour. Facilities, in cooperation with BIS Advance Teams, should prepare the tour in advance of inspection team arrival, taking into consideration sensitive areas and information.

Access

The Convention contains explicit provisions governing access during inspections. Inspection teams have "*unimpeded access*" to declared Schedule 1 facilities. Under the CWC's "*unimpeded access*" provisions, the Host Team and facility may take such measures as necessary to protect CBI provided that compliance can be demonstrated.

For Schedule 2 inspections, inspection teams have "*unimpeded access*" to declared plants, which are the focus



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of the inspection. Inspection teams requesting access to other areas of a declared Schedule 2 plant site to clarify an ambiguity have *managed* access to such areas. Under managed access, inspection teams are limited to viewing only those areas where clarification is requested and the Host Team and facility have the right to take measures to protect sensitive installations and prevent disclosure of CBI not related to chemical weapons.

Inspection teams have “*unimpeded access*” to declared Schedule 3 plants and *managed* access to declared UDOC plants, which are the focus of the inspection. If inspection teams request access to other areas of a declared Schedule 3 or UDOC plant site to clarify an ambiguity, the extent of access must be *agreed* by the Host Team.

Since the focus of a Schedule 1 inspection is the declared facility and the focus of a Schedule 2, Schedule 3, and UDOC inspection is the declared plant(s), facilities should focus their efforts on identifying CBI in these areas and developing protective measures to prevent disclosure. Protective measures include, *inter alia*, route planning (i.e., routing inspectors around and through areas, structures, or buildings to avoid sensitive installations) and shrouding. All facility personnel should understand what information and areas are sensitive, and provide consistent responses to inspection team requests. Facilities should inform Host Teams of what information is sensitive and should not be disclosed to the inspection team.

The suggested route for providing visual access to the declared facility or plant is to follow the process flow -- i.e., from raw material storage/handling, to production/processing/consumption, to the transfer of the final product from the declared area. Access to other areas of the plant site will be case-by-case pursuant to a clarification request.

Absence of Schedule 1 Chemicals

Verifying the absence of Schedule 1 chemicals, except if present in accordance with obligations under the Convention, is an inspection aim for Schedule 2, Schedule 3, and UDOC inspections. It is not possible to prove a negative and the Convention does not propose an inspection protocol for verifying the absence of Schedule 1 chemicals. BIS has developed an inspection hosting protocol for verifying the absence of Schedule 1 chemicals

by demonstrating the absence of, or providing explanation for, potential indicators of Schedule 1 activity.

During inspection activities, plant site representatives should point out the absence of possible indicators of Schedule 1 activity. BIS recognizes that facilities have legitimate reasons for having indicators (many of which are required or routine in the United States but possibly not in other countries) that may need to be explained to the inspection team. While not exhaustive, discussion of the following list of indicators has enabled plant sites to demonstrate compliance with this inspection aim:

- precursors of Schedule 1 chemicals on-site;
- proximity of plant site to residential areas vs. government installations;
- routine personal protective equipment used on-site;
- decontamination equipment;
- alarm systems;
- posted evacuation routes;
- chemical release monitoring equipment, deluge systems, and spray systems;
- emergency shelters;
- enclosed control rooms, storage, and process areas, and laboratories;
- blast (overpressure) protection systems;
- process equipment metallurgy and materials of construction; and
- medical facilities prepared to respond to Schedule 1 exposures.

Records that may assist in demonstrating the absence of Schedule 1 chemicals include the SARA Title III, Tier II list (from 40 CFR Part 355) and a database search for Schedule 1 CAS numbers.

Records Review

Records review is critical to verifying the consistency of the declaration and assists in verifying other inspection aims such as the absence of Schedule 1 chemicals and non-diversion of Schedule 2 (see discussion above). It also is a laborious process, requiring detailed attention to material accountancy and the protection of CBI. Advance Teams can provide assistance in preparing documentation for review.



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BIS has developed a methodology for assisting Schedule 2 plant sites in preparing records for review. The first step is to provide inspection teams with an overview of the facility's recordkeeping system and the methodology used for preparing the declaration. Next, records should be organized so that inspection teams can quickly move from the annual production, processing, consumption declaration numbers to individual accountancy sheets (e.g., batch, receipt, transfer): annual summary sheet → monthly summary sheet → batch records. Inspection teams request selected batch records to verify the summary sheets.

The type of information provided to inspection teams should be based on a material accountancy methodology. The following equations provide a suggested methodology for verifying the declared levels of production, processing, or consumption:

- production: opening inventory + amount produced = transfers + closing inventory.
- processing: opening inventory + receipts (amount processed) = transfers + closing inventory.
- consumption: opening inventory + receipts = amount consumed + closing inventory.

This accountancy should, in theory, balance out. Deviations, usually for reasons such as waste, reblends, calculations, material not completely removed from drums/tankwagons, etc., need to be explained to inspection teams. In addition to verifying the declaration, this material balance also allows inspection teams to verify the non-diversion of Schedule 2 chemicals.

Records review during Schedule 3 and UDOC inspections must be agreed between the host and inspection teams. Material balance summaries are not necessary. Instead, spot checks of records (e.g., production logs, maintenance records, utility reports) should suffice in verifying that the quantity produced is consistent with the range declared.

Prior to disclosure, the Host Team will classify and control all information provided to the inspection team. Unless agreed otherwise by the facility, all information reviewed by the inspection team will remain on-site and must be returned at the end of the inspection. The facility will acknowledge release and return receipt and the inspection team will acknowledge receipt and return of all information

on the Host Team's information control log.

Working Off-Site

OPCW inspectors often request to stay at the facility after normal work hours to prepare the inspection report (Preliminary Findings (PF)). If the facility is unable to accommodate the inspection team's request, the Host Team may acquire workspace off-site (e.g., hotel conference room). In such circumstances, BIS would seek the facility's approval to remove inspection team laptops and support documents. The Host Team will maintain possession of the laptops and records except in the provided workspace, which will be jointly occupied. Once the inspection team arrives at the off-site workspace, the Host Team will sign over the laptops and documents. Upon completion of their work, the inspection team will return all documents and laptops to the Host Team, which maintains control until work begins on-site the next morning.

Schedule 2 Subsequent Inspections

Subsequent inspections at declared Schedule 2 plant sites are very similar to initial inspections (e.g., PIB, orientation tour, access for the purpose of the inspection, records review). However, there are steps the inspected plant site can take to help facilitate the subsequent inspection:

- Review the Final Inspection Report (FIR) from the initial (or previous) inspection and be prepared to address all changes (e.g., process description, records to review, plant, plant site, Schedule 2 chemical storage, etc.). The inspection team is expected to focus on these changes and document them in the PF. This preparation should help prevent the inspection team from repeating activities reviewed during the initial inspection.
- Determine the CBI located on the plant site. Once CBI has been identified and located, site personnel can work with the BIS Advance Team to determine the best protective measures to use.
- Review the PIB from the initial inspection for consistency with current activities. This will help the inspection team prepare their inspection plan and start the writing of the PF for the subsequent inspection.



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- Locate and review the documentation used to develop CWC declarations since the initial inspection. If inconsistencies are found, the plant site should address them in the PIB. If the initial inspection was more than 3 years ago, the inspectors will only focus on the data not verified during the previous three years.
- Review the Draft Facility Agreement (DFA) from the initial inspection for consistency with current activities. If the facility does not wish to renegotiate the DFA, the inspection team may only wish to address changes from the initial inspection and/or attach an addendum to the DFA referencing the changes (e.g., facility change in ownership, name changes, etc.). This will be used along with the initial draft when the final facility agreement is negotiated.

Further Information

To learn more about CWC inspections or request a site assistance visit, visit our website at www.cwc.gov or contact BIS's Treaty Compliance Division at (703) 605-4400 or fax (703) 605-4424.