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Conflict-Free Smelter Program (CFSP) Audit Protocol for Tin and Tantalum

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# Introduction

The CFSI established the Conflict Free Smelter Program (CFSP) in order to cultivate transparent mineral supply chains and sustainable corporate engagement in the mineral sector with a view to prevent the extraction and trade of minerals from becoming a source of conflict, human rights abuses, and insecurity.

This protocol was developed as a specific, practical means of validating the tin and tantalum supply chains at the smelter level, the point at which mineral is converted into a generic metallic product. It follows guidance provided by the final report of the UN Group of Experts to the Security Council, 15 November 2010, and by the Organization of Economic Co-operation and Development Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas (OECD Guidance). The OECD Guidance provides a working framework for companies to approach compliance with the due diligence requirements outlined in existing regulations or upcoming legislative initiatives.

This protocol aims to bring the CFSP validation into alignment with the OECD Guidance. It places increased emphasis on the review of management systems and applies a global definition of Conflict Affected and High-Risk Areas (CAHRAs), including but not limited to countries designated to be high-risk by Section 1502 of the Dodd-Frank Wall Street Reform and Consumer Protection Act. The validation process reviews a smelter’s supply-chain due diligence activities of all relevant raw material inputs and assesses their alignment with the five-step framework of the OECD Guidance.

It includes an analysis of the smelter’s:

1. Internal Material Control Systems.
2. Internal Management Systems, including:
	* Conflict Minerals Policy
	* Management Structure
	* Supplier Engagement
	* Supply Chain Control and Transparency System, including sourcing traceability and origin determination.
3. Identification and assessment of supply-chain risk(s).
4. Risk management program and related activities.
5. Public reporting on supply-chain due diligence.

Steps related to the establishment of strong management systems, collection of supply chain information, and reporting are expected to be implemented by all smelters, regardless of the source of material. Steps related to the mitigation of risks specific to sourcing from CAHRAs are only required to be implemented by smelters sourcing from such areas. See Table 1 below.

Table : Applicability of Oecd 5-step framework

|  |  |
| --- | --- |
| **OECD Due Diligence Guidance** | **Application for CFSP Audit** |
| Design of System / Processes | Implementation |
| Step 1: Strong Management Systems  | All smelters | All smelters |
| Step 2: Risk Assessment  | All smelters | All smelters |
| Step 3: Risk Mitigation | Smelter sourcing from Level 2, Level 3, or Other CAHRAs categories | Only if Step 2 identified risks |
| Step 4: Third Party Audit of Due Diligence | Conducted by the CFSP | Conducted by the CFSP |
| Step 5: Reporting on Due Diligence | All smelters | All smelters |

Downstream companies using the tin and tantalum processed by smelters audited to this protocol can utilize the outcome of a CFSP audit as a means of demonstrating reasonable due diligence and country of origin inquiry.

Following the OECD Guidance, audits will be conducted in accordance with third party auditing requirements of ISO 19011.

# Cross-Recognition

In some cases, CFSP may evaluate the cross-recognition of other smelter/refiner third party auditing programs and recognize these other programs as meeting the standards set forth in this audit protocol.[[1]](#footnote-2)

# Application

The CFSP audit is available to all tin and tantalum smelters that meet the following conditions:

* Meet the definition of a tin or tantalum smelter as defined in Section VI.1.
* Subject each individual production site/facility seeking validation to an individual audit.
* Allow all organizational units involved in the smelter’s supply chain due diligence measures to be assessed during the audit.
* Sign the appropriate agreements (e.g. Non-Disclosure Agreement and Auditee Agreement).
* Agree to fund the audit, or retain other accessible funding to pay for the audit.
* Agree to publish a conflict minerals policy.
* Agree to publish audit summary reports with due regard taken to business confidentiality and other competitive concerns.

# Disclaimers

The CFSP and this protocol follow the ISO 19011 auditing standard in conducting an independent third party audit. Auditor shall follow reasonable methods to conduct the validation of the smelter’s management system according to the sampling criteria established in this protocol. Typically, not all transactions will be validated. When necessary, the auditor may need to draw compliance conclusions with consideration for the data available, the systems and processes in place, and the percent of missing documentation relative to the total material processed.

Country of Origin and chain of custody documentation exists in forms that vary by country, region, and company. Some countries may not issue certain types of (or any) documents from the government and this will be considered in document evaluations. While this protocol attempts to note the types of documents that can be used to successfully demonstrate chain of custody, other forms may equally meet the intent of the audit and may be substituted.

The focus of the audit is a risk-based validation approach that the smelter has implemented adequate company level management processes and due diligence to support responsible mineral procurement per the OECD Guidance. The audit is not expected to determine that material at a smelter is conflict-free. The CFSP audit is not a material certification audit.

If sourcing from CAHRAs, compliance to this audit is expected to meet the expectations set forth in the OECD Guidance. Other upstream assurance systems provide critical information to support this audit protocol.

# Confidentiality and Third Party Documentation

The smelter should make sufficient effort to obtain the necessary documents from traders or other suppliers but may have difficulty in doing so due to business confidentiality concerns. In such cases, the smelter may request that the trader or other supplier provide the necessary documents directly to the CFSP auditor for review. This process should be an interactive process between the smelter, the auditor, and the smelter's supplier. The auditor will confirm gap closure on such items as soon as reasonably possible to assist the smelter and supplier in providing further documentation as necessary. It is optimal that these interactions occur either before or during the on-site audit, after the Line Item Summary (LIS) has been provided. This should be considered an exception process as delays in receiving the required documentation may incur higher audit costs for the smelter.

In the case where origin and chain of custody information is held within a third-party upstream assurance system, the upstream assurance system may send this information to the CFSP auditor directly in order to both address confidentiality issues and increase efficiency.

# Audit Scope

The CFSI has the sole discretion to determine whether a company is eligible to participate in a CFSP audit. It is the responsibility of the company to provide sufficient evidence to the CFSI to confirm that the company meets the eligibility requirements and is therefore eligible to participate in a CFSP audit.

## Companies within the scope of the CFSP audit

All companies meeting the definition of smelter below are included within the scope of this audit. Any production site/facility within a group company that meets the definition of smelter will also be considered in scope for audit. Compliance to this protocol is determined at the level of the production site/facility.

**Tantalum (Ta) smelter**

The audit protocol will apply to all Primary and Secondary tantalum smelters who voluntarily choose to participate.

Primary and Secondary tantalum smelters are defined as follows:

* *Primary smelter:*A company with one or more production sites with the ability to convert:

a) tantalum containing ores (such as tantalite, columbite, etc.), b) tantalum containing tin slags, c) tantalum concentrates (including synthetic concentrates), and d) tantalum bearing secondary materials into tantalum containing intermediates for direct sales or further processing into tantalum containing products.

* *Secondary Smelter:* A company with one or more production sites with the ability to convert tantalum containing secondary materials into tantalum containing intermediates for direct sales or further processing into tantalum containing products.

**Tin (Sn) Smelter**

The audit protocol will apply to all Primary and Secondary tin smelters who voluntarily choose to participate.

Primary and Secondary tin smelters are defined as follows:

* *Primary smelter:*A company with one or more production sites with the ability to convert:

a) tin containing ores (e.g., cassiterite, etc.), b) tin slags, c) tin concentrates (including synthetic concentrates), and d) tin bearing secondary materials into tin metal for direct sales or further processing into tin containing products.

* *Secondary Smelter:* A company with one or more production sites with the ability to treat secondary materials[[2]](#footnote-3) by reduction[[3]](#footnote-4) for the production of crude or higher grade tin or tin product such as solder.

See Annex IV for further information about additional tin company and material types.

## Companies outside the scope of the CFSP audit

Any company not meeting the definition of smelter as identified in Section VI.1. is outside the scope of the CFSP audit. This includes but is not limited to the following examples:

* *Materials treatment specialist:* Companies solely processing materials sent for external treatment are not within the scope of this audit. For example, a materials treatment specialist might take materials originating from, and returning to, the smelter to remove hazardous waste contaminants (e.g., arsenic, radioactivity, etc.). Such materials, if continually owned by the smelter, will also not require additional origin information on their return from such a company.
* *Trading companies:* Companies trading in materials where there is no mechanical or heat treatment or other process performed, and the material traded is in the same chemical and physical state as received, are not within the scope of this audit.
* *Tantalum Intermediate Processor:* A company with one or more production sites with the ability to convert tantalum containing intermediates into tantalum containing products.
* *Recycler/Handler:*A company with one or more production sites with the ability to process secondary materials using mechanical and/or physical means to size, organize, blend, isolate, or prepare surfaces. Examples include shearing, cutting, sawing, shredding, briquetting/compacting, shot/sand blasting (wheel abrade and pneumatic) and machining. Recycler companies do not conduct production scale chemical or thermal processing to remove intrinsic impurities and/or significant contamination nor do they have the ability to fundamentally change the chemical composition of the underlying metal.

Companies out of scope for this audit may elect to undergo the CFSI downstream assessment for a separate, voluntary, and independent validation of conflict-free sourcing practices.[[4]](#footnote-5)

## Materials in scope

All materials designated for production of tin or tantalum products physically delivered, held, and/or processed during the audit period, regardless of origin and type, are included in the audit.[[5]](#footnote-6)

All materials in inventory, and that has been physically received prior to the audit period, is included in the audit scope for the first CFSP audit, even if it does not have to be documented in the LIS. For subsequent audits, materials in inventory are included in the audit scope solely for purposes of the mass balance calculation.

Material sent to or received from another smelter for processing under a tolling agreement during the audit period will be considered part of the originating smelter’s receipts and production, and therefore a material origin verification is required.

## Audit period and frequency

The initial audit period will cover the period from one year prior to the date of the LIS. The Auditee may determine the end date it wishes to utilize for the LIS as long as it is not more than four weeks before the LIS is provided to the CFSI.

The next audit conducted on an Auditee who has failed to maintain their compliance status will include the entire period of non-compliance up to a maximum of two years.

An Auditee who has previously been found to be non-compliant due to unresolved findings will not be permitted on the CFSP Compliant List for a period of six months. At the time they re-enter the audit process, the Auditee will need to include the entire period from the end of the last LIS submitted, up to a maximum of two years.

An Auditee who has been accepted into the Risk-Based Audit Program will undergo a full CFSP audit every three years.

## Start-up arrangements

It is recognized that a CFSP audit cannot be performed on a smelter until after operations have begun. Smelters planning to commence operations may apply to the CFSP to be listed as Active smelters; however, the audit cannot be conducted until the smelter has at least three months of material transactions and has produced intermediates and/or products.

# Origin Determination

Various types of documentation will be required to verify origin of materials, depending on the type of material, as well as the risk level associated with the material source. Not all materials require an origin determination. Each level requires increasing documentation as the origin of material approaches CAHRAs or is undetermined. If materials received by the smelter are a combination of different categories of origin, the documentation requirements shall follow that of the more stringent category. Smelters shall refer to Section VIII.2 and Annex I for the compliance requirements for each category of material in scope.

The material categories include:

1. Mined material.
2. Intermediate material received from another smelter (i.e. a supplying smelter).
3. Secondary material (commonly referred to as “recycled” or “scrap”).
4. Legacy material (materials "outside the supply chain" prior to January 31, 2013, also referred to as “grandfathered” material).
5. Assay Samples.

For Category 1, mined material, origin determination is required.

For Category 2, intermediate material, origin determination is required unless the material is processed by a company which is itself CFSP compliant or is compliant with a cross-recognized program.

For Categories 3 – 5, secondary, legacy, and assay, origin determination is not required.

Please refer to Annex I for more details on the compliance requirements for materials that do not require the origin determination.

# CFSP Compliance Requirements

This section defines the CFSP compliance requirements. The compliance requirements are divided into two main areas:

**Internal Material Control Systems**: These requirements serve to validate the smelter’s ability to record, control and monitor the material received, stored, processed or otherwise handled by the smelter. This section includes CFSP specific compliance requirements and relates to the period where material is owned and/or physically under the smelter’s control.

**Due Diligence Management Systems**: Thee requirements serve to validate the smelter’s alignment with the five (5) steps of the OECD Guidance so as to ensure that risks related to armed conflict and serious human rights abuses are identified and adequately mitigated by the smelter. This section includes due diligence compliance requirements and relate to the period that is **prior or during** the time when material is owned and/or physically under the control of the smelter

## Internal Material Control Systems

The smelter shall establish, implement, and maintain the following processes:

### Material Control Systems

1. A process to receive, weigh, and allocate unique lot numbers to incoming materials based on the physical receipt of material and regardless of the point of transition of ownership. The process shall record the date the material is received.
2. A process to record the location, status and weight of in-process inventory. The process shall ensure changes in weight due to processing are monitored for losses. Unreasonable losses shall be investigated and the findings established in writing.
3. A process to record weights and allocate unique lot numbers for products and shipments.
4. A process to record products shipped and dates these were shipped from the smelter during the audit period.
5. A regular, at a minimum annual, process for the reconciliation of receipts, inventories, losses, tolled and sales quantities to demonstrate receipts are fully accounted for in a mass balance.
6. A process to investigate any discrepancies observed in the course of the regular reconciliation.
7. Documented list of all purchases and/or receipts with lot numbers assigned (including toll materials) such as the LIS[[6]](#footnote-7).
8. A material balance statement on the opening and closing dates of the audit period.

### Mass Balance Calculation

Using the information generated by the internal material control system, the smelter shall be able to calculate the mass balance as a means to substantiate the total material processed by the smelter facility subject to the audit. The mass balance verifies the quantity of material received and in inventory during the audit period matches that expected, taking into account the possible error margin of inventory, stock and loss estimation.

For the purpose of the CFSP audit, the mass balance calculation shall provide the following information:

*Closing inventory (calculated) = Opening inventory (declared) + receipts – product shipments – estimated losses*

The closing inventory (declared) and the closing inventory (calculated) must be within the allowed maximum margin of error of 10%. For the purposes of the CFSP audit, the margin of error % will be calculated as follows:

$\frac{(closing inventory(calculated)-closing inventory(declared)}{total material processed}$ x 100 <10%

where:

*closing inventory*calculated = see theoretical *‘Closing stock at time of audit’* equation above

 *closing inventory*declared = actual closing stock based on physical material inventory in existence at the time of audit

 *total material processed* = total material processed by the facility during the audit period; this figure must be calculated by the Smelter. The total material received during the audit period (see the LIS) can be used as an alternate during the audit if the calculation cannot be made for some reason.

## Due Diligence Management Systems

### OECD Due Diligence Guidance: Step 1 – Strong Management Systems

To achieve the intended outcomes of the OECD Guidance, including continual improvement over time, the smelter shall establish, implement, and maintain a management process to adequately manage risks. The smelter shall designate the availability of resources necessary to support the operations and monitoring of the management process. The management process should, at minimum, include the following components and their interactions.

#### Conflict Minerals Policy

The smelter will have a documented, effective, and publicly communicated conflict minerals policy for procurement of tin or tantalum containing materials. The policy will be implemented within company management processes and include the following key components:

**Definition of scope**

1. Acknowledges the issue which the policy pertains to, including the identification of the conflict mineral(s), region(s) and material covered by the policy and procurement practices.

**Due Diligence requirements**

1. Defines the criteria for conflict-affected and high-risk sourcing for tin or tantalum supply chains. The criteria must be consistent with the red flags defined in the OECD Due Diligence Guidance Supplement for Tin, Tantalum and Tungsten.
2. Describes the supply chain due diligence process.
3. Commits to monitoring transactions.
4. Aligns with Annex II of the OECD Due Diligence Guidance.

**Implementation**

1. Is publicly communicated, such as posted to the company’s website, contained within a Corporate Responsibility Report, Supplier Code of Conduct or other official public company communications, and/or posted to an industry association website.
2. Includes and effective date for when the policy was established and/or adopted.

#### Management Structure

The smelter shall implement the conflict minerals management process within its own operation(s), including:

1. Identifying a senior management person responsible for implementation of the due diligence management process; reporting findings on actual and/or potential risks identified in the supply chain to the senior management person.
2. Providing regular training (at least on annual basis) to relevant employees covering critical information on the due diligence management process; maintaining training records within company records.

#### Supplier Engagement

The smelter will communicate the expectations on responsible supply chains, including the Conflict Minerals Policy, to supplier(s) providing relevant materials that contain tin or tantalum. Adherence to the Conflict Minerals Policy and due diligence process shall be required as part of written agreements and/or contracts with suppliers that can be applied and monitored.

#### Systems of Controls and Transparency over the Supply Chain

The smelter will establish a system of controls and transparency over the mineral supply chain. The system of controls shall include, at a minimum, the following elements:

1. A formal or informal record management system that ensures the availability of evidence for this audit.
2. Records generated by the due diligence management process shall be maintained for a minimum of five (5) years.
3. An effective, consistently implemented and documented process to:
	1. Purchase tin or tantalum material, which specifies due diligence requirements as defined in this audit protocol, the smelter’s policy, responsible sourcing mechanisms, and the OECD Due Diligence Guidance, as necessary.
	2. Determine the origin and chain of custody of relevant raw material(s) received by means of chain of custody or traceability information.
	3. Review the origin and chain of custody or traceability information with the goal to identify supply-chain risk(s) consistent with this audit protocol and the company’s policy.
	4. Identify and act upon inconsistencies in regards to transactions received so as to verify that risk(s) are appropriately captured. The process shall provide that no further action is taken and the material concerned is stored separately until the inconsistency is resolved.
	5. Communicate, monitor and mitigate risk(s) consistent with the company’s policy.

To implement the process above, the smelter shall carry out the following steps:

**Step 1: Applicability of Origin Determination**

To determine if a given transaction requires a full origin determination, the smelter shall follow the process flow in Figure 1 below. For each transaction of mined material, the source must be identified as being from Large Scale Mining (LSM) or Artisanal and Small Scale Mining (ASM).

Figure : Applicability and determination of origin process flow



**Step 2: Collection of Source and Transport Documentation**

For each transaction, the smelter shall obtain, review and maintain on file the necessary origin and chain of custody or traceability documentation per the tables in Annex I for the appropriate risk level of the country of origin and the type of mining operations. Copies of documents are acceptable.

**Step 3: Review of Documentation and Monitoring of Transactions**

The smelter shall review and monitor transactions in accordance with the type of material and risk associated with each source of material prior to accepting any material.

Utilizing the origin and chain of custody or traceability documentation collected, the smelter shall validate links between key documents and lot number, weight, smelter and/or supplier assays and smelter receipts for transactions. The smelter shall preliminarily inspect all transactions for conformity with information available on the type of material, weight and quality of the material.

The smelter shall investigate any discrepancies noted during the review and follow up with relevant supply chain actors to address those discrepancies. The smelter shall document such investigations/findings.

**Step 4: Availability of Documentation**

All origin and chain of custody or traceability documentation must be maintained on file and available for review upon request during the audit. A sample of transactions will be selected by the auditor for validation in accordance with the sampling guidance in Annex III.

### OECD Due Diligence Guidance: Steps 2 and 3 – Risk Assessment and Mitigation

The smelter is responsible for performing supply chain due diligence following a risk-based approach before entering into a business relationship with any supplier and during the business relationship. The risk-based approach shall include, at a minimum, the following elements:

#### Categorization of Material by Source and Associated Risk Level

**Step 1: Determination of Material Source**

The smelter shall categorize materials in accordance with their source using Table 1. See Annex IV and Annex V for a description of different material types for tin and tantalum.

Table : Categories of material

|  |  |
| --- | --- |
| **Category** | **Source** |
| Mined Materials | Large Scale Mining |
| Artisanal and Small Scale Mining |
| Secondary Materials | Commercial |
| Individual |
| Legacy Materials | Any source |
| Intermediate Materials | CFSP (or equivalent) validated smelter |
| Non-CFSP (or equivalent) validated smelter. |

**Step 2: Determination of Risk Level**

The smelter shall conduct a risk assessment to determine the appropriate risk level for each material type. The risk assessment shall include, at a minimum, the following elements:

1. All risks addressed by the OECD Due Diligence Guidance, Annex II Model Policy. Specifically, these are risks related to:
* Serious abuses associated with the extraction, transport or trade of minerals:
	+ Any forms of torture, cruel, inhuman and degrading treatment;
	+ Any forms of forced or compulsory labor;
	+ The worst forms of child labor;
	+ Other gross human rights violations and abuses such as widespread sexual violence;
	+ War crimes or other serious violations of international humanitarian law, crimes against humanity or genocide.
* Direct or indirect support to non-state armed groups.
* Public or private security forces.
* Bribery and fraudulent misrepresentation of the origin of minerals.
* Money laundering.
* Payment of taxes, fees and royalties to governments.
1. The plausibility of material coming from the declared sources. The smelter is responsible to determine plausibility and shall consider:
* Reasonable efforts to understand production and export trends for areas the smelter sources mined material from.
* Available information on the mining site such as geological studies, on-site visits or other data where the smelter has a direct relationship with a mine.
* The type, volume and tin / tantalum content of material received for secondary material.
1. The criteria defined in Table 2. If a smelter’s risk assessment or monitoring identifies sourcing from CAHRAs, other than the specific countries listed in as Level 2 and 3 in Annex VII, these will be classified as Other CAHRA.

Table : Mining Material Risk Level

|  |  |  |
| --- | --- | --- |
| **Type of Material** | **Risk Level** | **Definition** |
| Mining Material | Level 1 | Supply chains where tin or tantalum is mined in a country that is not identified as Level 2 or Level 3. |
| Level 2 | Supply chains where tin or tantalum material is mined in a country where materials from CAHRAs areas are known to transit, legally or illegally.Level 2 countries include, but are not limited to: Kenya, Mozambique, South Africa[[7]](#footnote-8). |
| Level 3 | Supply chains where tin or tantalum material is mined in a CAHRA as defined by the mineral origin and/or supplier red flags of the OECD Supplement on Tin, Tantalum and Tungsten:1. The minerals originate from or have been transported via a CAHRA (as defined by the OECD)
2. The minerals are claimed to originate from a country that has limited known reserves, likely resources, or expected production levels of the mineral in question (i.e. the declared volumes of mineral from that country are out of keeping with its known reserves or expected production levels).
3. The company’s suppliers or other known upstream companies have shareholder or other interests in companies that supply minerals from or operate in one of the above-mentioned red flag locations of mineral origin and transit.
4. The company’s suppliers’ and/or other upstream companies are known to have sourced minerals from a red flag location of mineral origin and transit in the last 12 months.

Level 3 countries include: The Democratic Republic of the Congo (DRC) and its nine adjoining countries as outlined in Section 1502 of the Dodd Frank Act. These include Angola, Burundi, Central African Republic, DRC, Republic of the Congo, Rwanda, South Sudan, Tanzania, Uganda, and Zambia. These are also commonly referred to as "covered countries”. |
| Mining Material | Other CAHRA(s) | Other supply chains where tin or tantalum material is mined in a CAHRA as defined by the mineral origin AND known legal and illegal transit routes and / or supplier red flags of the OECD Supplement on Tin, Tantalum and Tungsten:1. The minerals originate from or have been transported via a CAHRA (as defined by the OECD).
2. The minerals are claimed to originate from a country that has limited known reserves, likely resources, or expected production levels of the mineral in question (i.e. the declared volumes of mineral from that country are out of keeping with its known reserves or expected production levels).
3. The minerals are claimed to originate from a country where materials from CAHRAs areas are known to transit, legally or illegally.
4. The company’s suppliers or other known upstream companies have shareholder or other interests in companies that supply minerals from or operate in one of the above-mentioned red flag locations of mineral origin and transit.
5. The company’s suppliers’ and/or other upstream companies are known to have sourced minerals from a red flag location of mineral origin and transit in the last 12 months.
 |

**Step 3: Determination of Due Diligence Requirements (Levels 2, 3, and Other CAHRAs)**

For Level 2, Level 3, and Other CAHRAs sourcing, the smelter is required to exercise due diligence over the mineral supply chain in accordance with the OECD Due Diligence Guidance. Smelters are expected to implement due diligence as a continual, ongoing process and are expected to improve performance over time.

Table 3: OECD Conformance Expectation

|  |  |
| --- | --- |
| **Level 2** | Conformance with the OECD Due Diligence Guidance required as applicable to risks related to mineral transit. |
| **Level 3** | Full conformance with the OECD Due Diligence Guidance required. |
| **Other CAHRAs** | Full conformance with the OECD Due Diligence Guidance required within three (3) years. Progress towards full conformance required every year. |

To demonstrate conformance with the OECD Due Diligence Guidance, the smelter shall complete the OECD Conformance Assessment Tool prior to the CFSP audit. The OECD Conformance Assessment Tool:

* Specifies areas that may be addressed by an upstream assurance system and defines under what circumstances such areas do not need to be included in the CFSP audit scope.
* Details expectations for Level 2, Level 3 and Other CAHRAs sources;
* Identifies requirements that may be met over time (three year period) for sourcing from Other CAHRAs;

Smelters are expected to use good faith and reasonable efforts in their due diligence, including monitor emerging risks and incidents in their supply chain(s) and shall take these components into account in their due diligence activities.

Risk assessment and mitigation for Level 2, Level 3, and Other CAHRA sourcing shall include, at a minimum, the following minimum components:

#### Risk Assessment

1. Identify the scope of the risk assessment as done in Step 2 of this section, applying the red flag criteria.
2. Map the factual circumstances of the supply chains, underway and planned, including the origin of minerals and the activities/relationships of suppliers.
	1. Assess the context of mineral sourcing.
	2. Clarify the chain of custody.
3. Assess risks in the supply chain by comparing the factual circumstances against the risks in the OECD Due Diligence Guidance Annex II Model Policy.

#### Risk Mitigation

Where risks are identified in the supply chain, the smelter shall:

1. Report findings to senior management.
2. Devise and adopt a risk management plan, adopting a risk management strategy as defined in the OECD Due Diligence Guidance Annex II Model Policy. Risk mitigation strategies include:
3. Continuing trade throughout the course of measurable risk mitigation efforts.
4. Temporarily suspending trade while pursuing ongoing mitigation efforts.
5. Disengaging with a supplier in cases where mitigation appears not feasible or unacceptable.
6. Implement the risk management plan, monitor and track performance of risk mitigation, report back to senior management and consider suspension or discontinuation of the business relationship with the supplier(s) after failed attempts at mitigation.
7. Undertake additional fact and risk assessments, as required.

### 3. OECD Due Diligence Guidance: Step 5 – Public Reporting

Smelters shall publicly disclose information on their due diligence. Information shall be published directly by the smelter as a mandatory requirement for any smelter participating in the program. Publication of such information shall take due regard to business confidentiality and other competitive concerns.

The following table outlines the type of information and publication method to be applied by the smelter:

Table 4: Publication requirements

|  |  |
| --- | --- |
| **Published by the Smelter[[8]](#footnote-9)** | **Published by the CFSI** |
| **CFSI Members Only** | **Public** |
| * Conflict Minerals Policy
* CFSP Summary Audit Report
 | Aggregated Country of Origin Information:* Level 1
* Level 2
* Level 3
* DRC
* Other CAHRA
* Recycle/Scrap
 | * Smelter ID number
* Smelter Name
* Country
* Group Company Name
* Compliance Status
* Link to Conflict Minerals Policy
* Link to CFSP Audit Summary Report
 |

# Annexes

##

## Annex I: Document Examples by Material Type

### Mined Materials

Table 5: Mined Material

| **Material Type** | **Expectation** | **Example Document Types****(Not every document is necessary)** |
| --- | --- | --- |
| Mined Materials L1 | Source | * Customs export record
* Official (e.g.,, government) issued country of origin certificate
* Official (e.g., government) issued mine license
* Purchase or other contract showing mine name
 |
| Transport (domestic) | Transportation documents must include, at a minimum, the following data points: Physical location of origin of the shipment; physical location of final destination of the shipment, description of the material (type and weight) and date of physical transportation of the material. Subsequent documents are examples that may be used by the smelter to demonstrate the above data points:* Trucking documentation or transportation logs
* Warehouse receipts
* Contract showing transporter name
* Invoices from appointed transport agent
* License from appointed transport agent
 |
| Transport (international) | Transportation documents must include, at a minimum, the following data points: Physical location of origin of the shipment; physical location of final destination of the shipment, description of the material (type and weight) and date of physical transportation of the material. Subsequent documents are examples that may be used by the smelter to demonstrate the above data points:* Inland forwarding note (for example, from warehouse to export city)
* Bill of lading (by sea)
* Through bill of lading
* Customs import record (smelter’s country)
 |
| Mined Materials L2 | OECD Conformant Process | Records to demonstrate conformance with requirements **related to transit routes** of the OECD Due Diligence Guidance, Supplement on Tin, Tantalum and Tungsten, Step 2 Identify and Assess Risks in the Supply Chain, Sub-Section I.A, I.B and I.C.Records to demonstrate conformance with OECD Due Diligence Guidance, Supplement on Tin, Tantalum and Tungsten, Step 3 Design and Implement a Strategy to Respond to Identified Risks, Sub-Sections A, B.1, B.2.a).i), B.2.b)i), C.1 and D.**The sections below define required information to be provided during the CFSP audit. For further guidance on specific document types, please refer to the OECD Conformance Tool or the OECD Due Diligence Guidance.**  |
| Management System | * The completed CFSP OECD Conformance Tool
 |
| Context | * Information on the political, economic, social and security context of the Level 2 country in as far as the information relates to the transit of minerals from conflict-affected and high-risk areas
 |
| Circumstances: Source  | * Identification and Know Your Customer information on supply chain actors, e.g.:
	+ Level 1 Example Document Types for Sources
	+ Government issued mine license[[9]](#footnote-10)
* Qualitative information on conditions in the supply chain, e.g.:
	+ Reports or data from supplier, company or external source to validate as known production areas and substantiate the output declared by the source / mine
	+ Smuggling of minerals
	+ Occurrence of bribery, money laundering or non-payment of taxes, fees and royalties
	+ Manipulation / fraud of documentation of origin or transportation
 |
| Chain of Custody or Traceability | * Validation of the entire chain of custody or traceability from mine to smelter, e.g.:
	+ Level 1 Example Document Types for Transportation for each step of the supply chain
 |
| Risk Assessment | * Risk Assessment
* On-going monitoring of risks
 |
| Risk Mitigation | * Risk Mitigation Plan
* Internal Reporting
* Monitoring and tracking of performance on risk mitigation
 |
| Mined Materials L3 | OECD Conformant Process | Records to demonstrate conformance with OECD Due Diligence Guidance, Supplement on Tin, Tantalum and Tungsten, Step 2 Identify and Assess Risks in the Supply Chain, Sub-Section I.A, I.B and I.C.Records to demonstrate conformance with OECD Due Diligence Guidance, Supplement on Tin, Tantalum and Tungsten, Step 3 Design and Implement a Strategy to Respond to Identified Risks, Sub-Sections A, B.1, B.2.a).i), B.2.b)i), C.1 and D.**The sections below define required information to be provided during the CFSP audit. For further guidance on specific document types, please refer to the OECD Conformance Tool or the OECD Due Diligence Guidance.** Documentation requirements to demonstrate conformance with the OECD Due Diligence Guidance may be reduced if the smelter has undergone an independent assessment as part of an upstream assurance system. The final scope for the CFSP audit will be determined based on the completed OECD Conformance Tool. |
| Management System | The completed CFSP OECD Conformance Tool |
| Context | Information on the political, economic, social and security context of conflict-affected and high-risk area. |
| Circumstances: Source  | * Identification and Know Your Customer information on supply chain actors, e.g.:
	+ Level 1 Example Document Types for Sources
	+ Government issued mine license[[10]](#footnote-11)
* Qualitative information on conditions in the supply chain, including:
	+ Presence and / or involvement of armed groups
	+ Occurrence of serious human rights abuse
	+ Occurrence of child labour
	+ Occurrence of forced labour
	+ Presence and role of public or private security forces
	+ Occurrence of bribery, money laundering or non-payment of taxes, fees and royalties
* Reports or data from supplier, company or external source to validate as known production areas and substantiate the output declared by the source / mine
 |
| Chain of Custody or Traceability | * Validation of chain of custody or traceability from mine to smelter, e.g.:
	+ Level 1 Example Document Types for Transportation for each step of the supply chain
	+ Identification of all location(s) in the supply chain
	+ Chain of Custody or Traceability information
 |
| Risk Assessment | * Risk Assessment
* Upstream Risk Assessment
* On-going monitoring of risks
 |
| Risk Mitigation | * Risk Mitigation Plan
* Internal Reporting
* Monitoring and tracking of performance on risk mitigation
 |
| Mined Materials Other CAHRAs | OECD Conformant Process | Records to demonstrate conformance with OECD Due Diligence Guidance, Supplement on Tin, Tantalum and Tungsten, Step 2 Identify and Assess Risks in the Supply Chain, Sub-Section I.A, I.B and I.C.Records to demonstrate conformance with OECD Due Diligence Guidance, Supplement on Tin, Tantalum and Tungsten, Step 3 Design and Implement a Strategy to Respond to Identified Risks, Sub-Sections A, B.1, B.2.a).i), B.2.b)i), C.1 and D.**OR*** A plan to achieve full conformance with the OECD Due Diligence Guidance over a period of three (3) years.
* Records demonstrating the tracking and monitoring of performance of the plan.
* Records demonstrating progress in the implementation of the plan.

**The sections below define required information to be provided during the CFSP audit. For further guidance on specific document types, please refer to the OECD Conformance Tool or the OECD Due Diligence Guidance.** Documentation requirements to demonstrate conformance with the OECD Due Diligence Guidance may be reduced if the smelters has undergone an independent assessment as part of an upstream assurance system. The final scope for the CFSP audit will be determined based on the completed OECD conformance tool. |
| Management System | The completed CFSP OECD Conformance Tool |
| Context | Information on the political, economic, social and security context of conflict-affected and high-risk area. |
| Circumstances: Source  | * Identification and Know Your Customer information on supply chain actors, e.g.:
	+ Level 1 Example Document Types for Sources
	+ Government issued mine license[[11]](#footnote-12)
* Qualitative information on conditions in the supply chain, including:
	+ Presence and / or involvement of armed groups
	+ Occurrence of serious human rights abuse
	+ Occurrence of child labour
	+ Occurrence of forced labour
	+ Presence and role of public or private security forces
	+ Occurrence of bribery, money laundering or non-payment of taxes, fees and royalties
* Reports or data from supplier, company or external source to validate as known production areas and substantiate the output declared by the source / mine
 |
| Chain of Custody or Traceability | * Validation of chain of custody or traceability from mine to smelter, e.g.:
	+ Level 1 Example Document Types for Transportation for each step of the supply chain
	+ Identification of all location(s) in the supply chain
	+ Chain of Custody or Traceability information
 |
| Risk Assessment | * Risk Assessment
* Upstream Risk Assessment
* On-going monitoring of risks
 |
| Risk Mitigation | * Risk Mitigation Plan
* Internal Reporting
* Monitoring and tracking of performance on risk mitigation
 |

###  Secondary Materials

Table 6: Secondary Materials

| **Material Type** | **Expectation** | **Example Document Types****(Not every document is necessary)** |
| --- | --- | --- |
| Secondary Materials, Low Risk[[12]](#footnote-13) | Source | * Supplier identification
* Supplier location, description, and URL (as available)
* Description of supplier’s operations, including a description of the source of secondary materials and the material type
* Supplier contract and/or purchase agreement(s) containing description of secondary material
* Information on the composition or form of the materials such as analysis data, information on physical form, photos, or explicit descriptions of the material lot may be utilized as available
 |
| Transport | * Bill of lading or any other transport and / or receipt documents or purchase agreement containing a description of secondary material and supplier identification
 |

### Legacy Materials

Mined materials "outside the supply chain" prior to January 31, 2013[[13]](#footnote-14), do not require a determination of origin. Smelters shall provide sufficient documentation to demonstrate the materials are legacy materials as defined in this Audit Protocol.

Table 7: Legacy Materials

|  |  |  |
| --- | --- | --- |
| **Material Type** | **Expectation** | **Example Document Types****(Not every document is necessary)** |
| Mineral, Level 1 or Level 2  | Production Date | * Document showing the date of mineral production
 |
| Metal / Material generated from smelting, partially processed materials,Level 1 or Level 2 | Production Date | * Document showing the date of mineral production, e.g. Certificate of Analysis (CoA) [[14]](#footnote-15)
 |
| Source | * Identity of immediate supplier storing the materials
 |
| Transport | * Transportation document from storage location of supplier to the smelter
 |

Mineral stocks are known to exist in Level 3 and Other CAHRA countries after January 31, 2013. These are not considered to be outside the supply chain. These minerals may not have all the required origin, chain of custody or traceability, and due diligence information and may present a high risk. Auditees and CFSI will adopt appropriate due diligence requirements for these minerals as agreed to by relevant international stakeholders.

### Assay Samples

Assay samples and other small quantities of materials are excluded from the determination of origin requirement provided the aggregate amount received by the smelter over the audit period is less than 0.3% of the total receipts over the same period.

## Annex II: Supplying Smelter / Exchanges Origin Determination Requirements

Table 8: Supplying Smelter and Exchanges

|  |  |  |
| --- | --- | --- |
| **Supplier Type** | **Requirement** | **Example Document Types****(Not every document is necessary)** |
| **CFSP, or equivalent, compliant smelters** | Deliveries of materials from a CFSP-compliant smelter do not need independent origin determination.Documentation requirements are significantly reduced, regardless of the level of risk associated with the type and source of the materials. | * Certificate of Analysis (CoA) or other appropriate documentation showing production date
* Identity of the supplying smelter
* Transport documentation from the supplying smelter
 |
| **Non-CFSP, or equivalent, compliant smelters** | Non-CFSP (or equivalent) compliant smelters include any smelter that has not been audited and found compliant yet, including:* CFSP active smelters
* Extended Corrective Action Plan Smelters
* Non-CFSP compliant tolling smelters
* Smelters without a CFSI identification number (CID number)
* Any other smelter that has not been audited and found compliant by CFSP or an equivalent program

Materials sourced from non-CFSP (or equivalent) compliant smelters have not been validated yet and require the following steps: **Step A:** Determine the material initially sourced by the supplying smelter and that were used to produce the materials received by the audited smelter. If specific inputs cannot be identified by the supplying smelter, **all inputs** of the supplying smelter must be validated.**Smelters must conduct the same process of determination of applicability and origin determination for the specific inputs identified or, if that is not possible, ALL inputs used by the supplying smelter. All documentation shall be requested from the supplying smelter.****Step B:** Determination of applicability of the origin determination, See Section VII.D, Figure 1: Flow Chart for detailed requirements. * Identify the type of material purchased by the supplying smelter.
* Use the Flow Chart of this Audit Protocol to determine if the material requires the full origin determination.

**Step C:** Implement the system of supply chain control and transparency, Steps 1-6 for mined material and Steps 1-4 for any other material on the material originally sourced by the supplying smelter. See Section XI for detailed requirements.* Conduct the plausibility assessment for all material purchased by the supplying smelter.
* Collect and review origin documentation in accordance with the type of material sourced as outlined in Annex I of this Audit Protocol.

**Step D:** Conduct the risk assessment for all material originally purchased by the supplying smelter. See section XII for detailed requirements.* + - * Determine the category of material
			* Determine the risk level for each purchase
* Conduct the risk assessment.
* For Level 2, Level 3, and Other CAHRA purchases, conduct risk mitigation in accordance with the OECD Due Diligence Guidance.
 | * Identify of the supplying smelter;
* Transport documentation from the supplying smelter;
* Reasonable records identifying specific inputs used for the production of materials received from the supplying smelter; OR
* LIS (or equivalent) from the supplying smelter;
* Documentation of origin for each material initially used by the supplying smelter to produce the materials received, in accordance with the tables in Annex I.
 |
| **Tin Refining Companies & Tolling**  | Independent tin refiners perform the tasks of removing impurities or other unwanted materials.In cases of tolling, a conversion of the overall makeup of the materials including the treatment or removal of specific undesirable elements is carried out by a smelter on behalf of the client. Material sent to another smelter for processing is considered part of the audited smelter’s receipts and production.Material received from another smelter for processing is considered part of the supplying smelter’s receipts and production.Materials demonstrated to be from a CFSP (or equivalent) compliant smelter:* *CFSP, or equivalent, compliant smelters* requirements apply.

Materials produced by a non-CFSP (or equivalent) compliant smelter: * *Non-CFSP, or equivalent, compliant smelters* requirements apply.

Where the same material is shipped to another smelter for processing and the same material is returned to the audited smelter, requirements are:* Evidence must be provided by the smelter showing that no external material has been added to the material received from the audited smelter.
* If such evidence is not available, *Non-CFSP, or equivalent, compliant smelters* requirements apply

The source of inputs into the independent refining companies required verification and such companies are within the scope of this audit. | * Tolling Agreement or agreement with tin refiner
* Transportation documentation for all transfers of physical material between the audited smelter, the tin refiner and tolling smelter
* Documentation demonstrating segregation of material sent for tolling / refining, e.g.
	+ Internal material control process / procedures
	+ Production records for material sent
* Site visit report of the smelter or refiner
* If the above documentation is not available:
	+ LIS (or equivalent) from the supplying smelter;
	+ Documentation of origin for each material initially used by the tin refiner or tolling smelter to produce the materials received, in accordance with the tables in Annex I.
 |
| **Metal obtained from warehouses / exchanges** | Materials demonstrated to be from a CFSP (or equivalent) compliant smelter and produced within that smelter’s compliance period:* *CFSP, or equivalent, compliant smelters* requirements apply.

Materials produced by a non-CFSP (or equivalent) compliant smelter or produced outside of the compliance period: * *Non-CFSP, or equivalent, compliant smelters* requirements apply.

The smelter remains responsible for obtaining the required documents directly from the warehouse operator or the supplying smelter. | * Warehouse notice / release warrant
* Certificate of Analysis (CoA), including original production date
* Transport documentation from the warehouse / exchange
* Identity of supplying smelter
* Documentation in accordance with the requirements for CFSP compliant or Non-CFSP compliant supplying smelters.
 |

## Annex III: Sampling Guidance

The auditor will carry out sampling in accordance with this sampling guidance[[15]](#footnote-16).

Sampling may be employed exclusively for low risk transactions, categorized as “Level 1” or “low risk” sources. For transactions from medium or high risk origin, “Level 2”, “Level 3”, “Other CAHRA”, 100% of transactions received within the audit period will be reviewed.

The review of transactions selected primarily serves to test systems and processes of the smelter. Nevertheless, CFSI applies a representative sampling approach to gather sufficient evidence to reasonably allow for inference about the conformity of the whole population.

The sampling process includes two (2) steps:

**Step 1:** Scoring of risk associated with transactions based on a number of weighted criteria.

**Step 2:** The risk score obtained in Step 1 determines the sample size to be selected by the auditor.

The auditor will randomly select samples from the total population in accordance with the sampling plan applicable to the risk score.

**Step 1: Scoring of Risk**

The auditor will review the completed LIS (or equivalent file) to assign risk a score to each of the five (5) criteria below:

|  |  |  |  |
| --- | --- | --- | --- |
| **Criteria** | **Description of Criteria** | **Points** | **Score** |
| 1 | The total number of transactions received during the audit period is: |  |  |
|  | More than 1’000 | 3 |  |
|  | More than 100 but less than 1’000 | 1 |  |
|  | Less than 100 | 0 |  |
| 2 | The percentage of secondary material transactions as part of the total number of transactions is: |  |  |
|  | Less than 50 per cent | 5 |  |
|  | More than 50 per cent but less than 100 per cent | 3 |  |
|  | 100 per cent | 0 |  |
| 3 | The total number of active suppliers within the audit period is: |  |  |
|  | More than 5 | 3 |  |
|  | Less than 5 | 0 |  |
| 4 | The percentage of traders / trading companies as part of the total number of active suppliers for mined material is: |  |  |
|  | More than 10 per cent | 3 |  |
|  | Less than 10 per cent | 1 |  |
| 5 | The total number of countries of origin for mined AND for recycled material is: |  |  |
|  | More than 10 | 5 |  |
|  | More than 1 but less than 10 | 3 |  |
|  | 1 country | 0 |  |

|  |  |
| --- | --- |
| Maximum Score | 19 |
| Minimum Score | 1 |
| Risk Score: |  |
| **Low Risk: 1 - 11** |
| **Standard Risk: 12 - 19** |

**Step 2: Selection of Sample**

Based on the risk score, the auditor will randomly select samples in accordance with the sampling plans below. The auditor is responsible to ensure the selected sample is representative in regards to:

1. The proportion of secondary and non-secondary material as well as sub-categories of material (e.g. different intermediate products).
2. The active suppliers.
3. The countries of origin.
4. Any anomalies observed in the review of transactions.

**Low Risk Sampling Plan**

|  |  |
| --- | --- |
| **Number of Level 1 and low risk transactions** | **Sampling Size** |
| 1 – 100 | 10 |
| 101 – 250 | 11 – 15 |
| 250 – 500 | 16 – 20 |
| 501 – 1000 | 21 – 25 |
| 1001 – 5000 | 25 – 30 |
| 5001 – 10000 | 31 - 50 |

**Standard Risk Sampling Plan**

|  |  |
| --- | --- |
| **Number of Level 1 and low risk transactions** | **Sampling Size** |
| 1 – 100 | 10 |
| 101 – 250 | 11 – 20 |
| 250 – 500 | 21 – 30 |
| 501 – 1000 | 31 – 45 |
| 1001 – 5000 | 46 – 100 |
| 5001 – 10000 | 101 - 250 |

Where reasonable doubt remains, the auditor shall increase the sample size and shall justify the applied sampling approach in the audit report.

## Annex IV: Tin Company and Material Types

**Tin Companies**

Downstream from the smelting process, companies may perform a range of metal treatment or processing such as refining or alloying, and may have the capability to utilize a range of primary or secondary tin containing materials creating the opportunity for non-CFSP validated materials to enter the supply chain. In consideration of this complex situation (See Figure 1 below), independent audit or another form of evaluation of non-smelter companies may be necessary. Notes regarding possible evaluation of refining companies, tin product manufacturers, and traders are provided below.

*Tin refining companies:*

Smelters typically operate refining facilities at the smelting facility in order to remove impurities or other unwanted material from the tin metal output from the smelting plant and produce fully refined tin of various grades. The refining stage, if occurring at a smelter, would be included in the mass balance and LIS evaluation of the smelter company audit, therefore providing verification that input into smelter refineries is from a conflict-free source.

*Tin product manufacturing companies:*

While product manufacturers such as solder and other alloy manufacturers are not traditionally considered smelters or refiners, some may have the capability to utilize a range of input materials aside from standard grade(s) of tin, in particular low grade/impure or unbranded tin. Smelters operating refineries, as well as independent refineries, may also continue processing to manufacture tin product such as solder.

The differentiation between a refiner and alloy manufacturer, especially when secondary input materials may be used, is not clear and the need for auditing of the input sources of such companies will be evaluated on a case by case basis by the CFSP depending on the company capabilities and operations.

Figure : complexity of the tin supply chain



**Material Types**

Tin has many hundreds of uses both as the metal, and as organic and inorganic compounds. Tin containing material may therefore arise from hundreds of sources and cannot be specifically described.

A smelter may receive material which is not in ingot form from a supplying smelter or a tin product manufacturer, the composition of which is mainly tin and which is unused for its primary purpose. In this case the material does not fall under the definition of secondary materials.

As an indication, secondary materials and sources may include, but are not limited to those described below:

1. Manufacture of tin tubes, foils, and other similar forms. Producers of tin and tin alloys, lead, copper (for example, brasses, bronzes, gunmetal, Babbitt metal, etc.), zinc, titanium, aluminum, steel, cast iron and a variety of other metal alloy manufacturers.

* Melting drosses, skimmings, ashes and runouts from the casting processes
* Refining and spent dross and refining slag (dross produced in liquid form)
* Off-cuts, or out of specification or contaminated material
* Gas cleaning sludge and dust
* Water treatment sludge
* Filter dust or similar materials (for example, tin oxides)

2. Manufacturers of alloy - components, powders or final products, for a range of industries such as automotive, electrical and electronics, plumbing and building, radiator manufacturing, bearings, brazing, coins, printing, model making, jigging and fixturing, ammunition, dental, ornamental items, toys and jewelry, and for various types of general engineering.

* Ashes, drosses, skimmings and runouts from the anode casting melting dross
* Contaminated or waste metal
* Out of specification or contaminated material
* Metallic blocks or items as off-cuts of casting failures
* Runners and risers from casting processes
* Scrap wire, strip, stampings, trimmings, turnings, pieces, cuttings, dust, powder, etc.
* Machining, grinding and polishing waste, ball mill fines
* Gas cleaning sludge and dust
* Water treatment sludge
* Filter dust or similar materials (for example, tin oxides)
* Copper slags and refractory slags from the copper alloying or other alloying industries.

3. Printed circuit board manufacturers and other industrial solder users of any kind of lead, lead-free, high temperature or other solders

* Solder dross
* Spent anodes
* Return solder products (for example, bar, paste, spheres, preforms, wire)
* Contaminated solder pot material
* Waste solder paste
* Spillings and drippings
* Filter dust or similar materials (for example, tin oxides)

4. Users of tin metal or chemicals in the plating industry, for example, manufacture of components for automotive, electrical, electronic, medical and general engineering industries, etch resist material as well as canning and other types of packaging. Plating may be pure tin or tin alloy coatings such as tin-nickel, tin-zinc, tin-copper, tin-lead or any other combination of materials producing the required final properties. Tin plating may be applied to almost any other metal alloy, including but not limited to steel and copper and their alloys.

* Ashes, drosses, skimmings and runouts from the anode casting process
* Spent anodes
* Plating sludges from any hydro-metallurgical or electrolytic tinning process
* Plated off-cuts or reject items

5. Hot tinning and solder dipping operations as well as thermal spray coating processes in general engineering, electrical and electronic and other product manufacture

* Drosses
* Contaminated metal
* Filter dust or similar materials (for example, tin oxides)
* Overspray

6. The glass manufacturing, forming, and coating industries using tin metal and/or compounds

* Metal and drosses from glass float processes
* Metal and drosses from sputtering targets
* Filter dust or similar materials (for example, tin oxides)
* Spent sputtering targets

7. Manufacturers and users of tin chemicals in a very wide range of industries such as brake pads, fire retardants, foams, polymers, rubbers, ceramic pigments, glazes, conductive films, crystal glasses, mirrors, textiles, wood and other preservatives, food additives, soaps, toothpastes and cosmetics, veterinary products, cements, mercury sorbants, fluxes and anti-sludge agents

* Tinny sludge from tin chemical or pharmaceutical manufacturing processes
* Other waste or reject tin containing materials
* Any other type of residue, drosses, skimmings as a byproduct of production
* Filter dust or similar materials (for example, tin oxides)

8. Tin or tin compounds used as catalysts for polymerization, alkylation, esterification, oxidation, hydrogenation and use in gas sensors, as well as reducing agents activators, sensitizing agents, passivation, and stabilizers during a manufacturing process.

* Tinny sludge from manufacturing processes
* Other waste or reject tin containing materials
* Any other type of residue, drosses, skimmings as a byproduct of production

9. De-tinning operations for recovery of tin from any type of plated or coated general items, for example, tin-coated copper alloy or steel

* Tin bearing sponge

10. Operators reclaiming any tin containing metals and items manufactured from them, such as organ pipes, wires, pewter plates and vessels, costume jewelry, candlesticks, light fittings, clocks, kilt pins

* All forms of materials

11. Copper recovery operations using pyro-metallurgical and/or other relevant processes

* All forms of materials, including copper slag or dross

12. Lead refiners or similar processors recovering tin as drosses, stannates and other materials from, for example, battery and other lead based alloys

* All forms of materials, including lead slag or dross

13. Recovery of end of life scrap and other wastes from any semi-finished or final products related to the above processes, for example, electrical or electronic equipment, automobiles, heat exchangers, plumbing, ships, aircraft, packaging, building demolition, infrastructure replacement and any consumer product

* All forms of materials, which might include any kind of metal process arising from these types of non-smelting production facilities

14. Recovery of end of life engineering components of tin compounds and minerals, such as tin oxide bricks

* All forms of materials

Any forms of tin which have been extracted, smelted and then used for their primary purpose and are no longer used for such purpose are capable of being recycled. Tin containing secondary materials suitable for recovery may arise from practically any type of metal, polymer, ceramic, glass, rubber, chemical production, use or recovery plant as well as numerous types of industrial and consumer products.

Note that residues such as ashes, drosses, skimmings and other forms of similar material mentioned above may be 100% oxidic, 100% metallic or any combination of the two, with or without organic contamination or moisture.

## Annex V: Tantalum Company and Material Types

**Secondary tantalum-containing material** is generally reclaimed from end-user products, or post-consumer, such as:

* Capacitors, vacuum and electron tubes, light bulbs, electrodes, watches
* Sputter targets, furnace parts, coating overspray
* Chemical processing equipment such as valves, pipes, tanks, heat exchange coils and heating elements
* Metal wire, sheet, foil, tubes and pipes
* Super alloys in jet engines and gas turbine components such as blades and vanes
* Carbide tools, drill bits, drilling chips
* Camera lenses, optical lenses
* Neutron shielding components from nuclear power applications
* Neutron targets in cyclotrons
* Penetrator component in missile warheads
* Orthopedic implants, medical tools
* Excess cuttings, spills and rejects from the above manufacturing (in the form of whole or partial components, offcuts, stampings, metal turnings, powder, and sludge)

**Tantalum containing intermediates** include but are not limited to:

* tantalum pentoxide (Ta2O5)
* tantalum scrap
* K-salt (K2TaF7)
* metallurgical grade tantalum powder
* tantalum hydroxide
* tantalum oxalate
* tantalum pentachloride
* lithium tantalate
* tantalum carbide

**Tantalum-containing products** include but are not limited to:

* Capacitor grade tantalum powder
* Tantalum sheet, bar, rod and wire
* Tantalum ingot powder
* Tantalum sputter targets
* Tantalum alloy additions
* Tantalum metallurgical grade powder

## Annex VI: Approach for ASM Sourcing

a) Reduced Documentation Requirements

ASM material will not always be traceable to the mine site of origin, and documentation commonly requested for large operators may not be available. ASM material should be traceable at least to the “mining area,” if not the site of origin. The smelter shall obtain a supplemental document for all ASM sourcing, such as a declaration of ASM area of origin from the exporter, trader, supplier, etc. or immediate supplier.

b) Limitations of Plausibility Assessments

It is recognized that statistics on ASM production are not typically collected through official channels, nor is the production always known. The smelter should attempt to collect information that is generally available. Quantities reportedly available across an area are not directly relevant to one purchasing smelter, since other purchasers may be operating and taking additional unknown quantities from the same locations.

Due to the higher inherent risk for Level 3 countries, the audit will include a more extensive discussion of efforts made by the smelter to understand any increasing production trends. The smelter should expect its supplier(s), directly or through an upstream assurance system, to have access to and provide this information.

c) ASM Documentation Examples

Table 9: ASM

|  |  |  |
| --- | --- | --- |
| **Material Type** | **Expectation** | **Example Document Types****(Not every document is necessary)** |
| Mined material, ASM, Level 1  | Source | * Declaration of region of origin of mine within Level 1 country
 |
| Mined material, ASM, Level 2 ASM | Source | * Reports or date from supplier, company, or external source to validate as known production area, for example:
	+ Trading entity data
	+ 3rd party representative data
	+ Industry association data
	+ Research entity data
	+ Geographical studies
	+ Sales statistics
 |
| Mined material, ASM, Level 3 | All expectations | Refer to Annex I, Table 4: Document Examples: Mined Materials, Section on Mined Materials, Level 3 |

## Annex VII: Terms and Definitions

**Ability to convert or process**: direct, in-house capability and is not applicable to companies that wholly contract or sub-contract those processes.

**Artisanal and Small-Scale Mining (ASM):** “formal or informal mining operations with predominantly simplified forms of exploration, extraction, processing, and transportation. ASM is normally low capital intensive and uses high labor intensive technology. “ASM” can include men and women working on an individual basis as well as those working in family groups, in partnership, or as members of cooperatives or other types of legal associations and enterprises involving hundreds or even thousands of miners.”[[16]](#footnote-17)

**ARC:** Audit Review Committee. The ARC reviews audit reports for consistency in implementing the audit protocol and it makes a compliance determination. ARC also reviews corrective actions when completed.

**Audit period:** The period of time covered by the Line Item Summary, typically one year.

**BSP:** Better Sourcing Program

**Bill of Lading:** A document issued by a carrier, or its agent, to the shipper as a contract of carriage of goods. It is also a receipt for cargo accepted for transportation, and must be presented for taking delivery at the destination.[[17]](#footnote-18)

**CAHRAs:** Conflict –Affected and High Risk Areas. A country where the mineral origin and / or supplier red flags of the OECD Supplement on Tin, Tantalum and Tungsten apply.

**Closing Inventory (declared):** Closing inventory at the Line Item Summary end date based on normal inventory calculation and reporting processes of the smelter, declared by the smelter. Inventory may be physical or calculated as appropriate for the business circumstances of the smelter.

**Closing Inventory (calculated):** Closing inventory at the Line Item Summary (LIS) end date calculated by the auditor based on transactions reported over the audit period by the smelter.

**CFSI:** Conflict-Free Sourcing Initiative

**CFSP:** Conflict-Free Smelter Program

**CoA:** Certificate of Analysis which will show production date, or in the case of non-registered metal brands, similar appropriate documentation.

**"Conflict Minerals":** cassiterite, columbite-tantalite, gold, wolframite, or their derivatives, or any other minerals or their derivatives determined by the United States Secretary of State to be financing conflict in the covered countries (referred to in this protocol as Level 3 countries).

**Conflict-affected and high-risk areas (CAHRAs):** Conflict-affected and high-risk areas are identified by the presence of armed conflict, widespread violence or other risks of harm to people. Armed conflict may take a variety of forms, such as a conflict of international or non-international character, which may involve two or more states, or may consist of wars of liberation, or insurgencies, civil wars, etc. High-risk areas may include areas of political instability or repression, institutional weakness, insecurity, collapse of civil infrastructure and widespread violence. Such areas are often characterized by widespread human rights abuses and violations of national or international law.

**Critical Information:** For the purpose of this audit protocol, “critical information” refers to any and all information related to the smelter’s upstream assurance system and that is necessary for any and all parties involved in the program, specifically employees and suppliers, to effectively carry out the tasks and responsibilities assigned to them as part of the program.

**Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd Frank Act):** A federal statute in the United States that was signed into law on July 21, 2010. Section 1502 added Section 13(p) to the Securities Exchange Act of 1934, which requires the Securities and Exchange Commission to promulgate rules requiring issuers with conflict minerals that are necessary to the functionality or production of a product manufactured by such entity to disclose annually whether any of those materials originated in the Democratic Republic of the Congo or an adjoining country.
<http://www.sec.gov/about/laws/wallstreetreform-cpa.pdf>

**EICC:** Electronic Industry Citizenship Coalition

**Estimated Losses:** Unrecoverable production losses. Such losses in tin can be described as fume and fugitive losses; and in tantalum such losses can be described as residual solid tantalum in ore/scrap materials, dissolved tantalum in liquid waste streams, and tantalum fines in waste streams.

**GeSI:** Global e-Sustainability Initiative

**Immediate supplier:** the company which is immediately before the smelter in the supply chain, which may be upstream producers such as a smelter, or downstream user, as well as traders.

**Inland forwarding note:** refers to a transportation document from the importing country to the smelter. It generally refers to overland transportation, but can refer to a document demonstrating transportation from the sea or air port to the smelter where a bill of lading or import record is unavailable.

**Inventory** (whether calculated or declared): will include stocks of ore, secondary material, and finished product, work in progress materials not calculated in stocks, and similar material.

**iTSCi:** ITRI Tin Supply Chain Initiative

**Large Scale Mining (LSM):** For the purposes of this document this definition includes all formal operations characterized by substantial capital, heavy equipment, high technology and a significant workforce (large and medium in size) not considered to be within the ASM definition.

**Legacy Material:** materials "outside the supply chain" prior to January 31, 2013, also referred to as “grandfathered” materials

**Level 1 Country:** A country that is not identified as Level 2 or Level 3.

**Level 2 Country:** A country where tin or tantalum materials from conflict-affected and high-risk areas are known to transit, legally or illegally. This currently includes Kenya, Mozambique, and South Africa.

**Level 3 Country:** A country where the mineral origin and / or supplier red flags of the OECD Supplement on Tin, Tantalum and Tungsten apply. This currently includes The Democratic Republic of the Congo (DRC) and its nine adjoining countries as outlined in Section 1502 of the Dodd Frank Act. These include Angola, Burundi, Central African Republic, DRC, Republic of the Congo, Rwanda, South Sudan, Tanzania, Uganda, and Zambia. These are also commonly referred to as "covered countries" in the Dodd Frank Act Section 1502.

**Line Item Summary (LIS):** A listing of all inventory, receipts and related documents in the audit period.

**Mass balance:** Method by which auditors will verify the quantity of material received and in inventory during the audit period matches that expected from the transaction records, taking into account the possible error margin of inventory, stock, and loss estimation.

**Opening Inventory (declared):** Opening inventory at the start date of the LIS based on the inventory calculation and reporting processes of the smelter and declared by them. Inventory may be physical or calculated as appropriate for the business circumstances of the smelter.

**OECD Guidance:** General term for the Organization for Economic Co-operation and Development Due Diligence Guidance for Responsible Supply Chains on Minerals from Conflict-Affected and High Risk Areas. <http://www.oecd.org/daf/inv/mne/GuidanceEdition2.pdf>.

**Origin:** The location where the ore was mined, to the best detail possible. At a minimum the description must include the country, but province/state, city, mine site and mine name are further details that are helpful to locate the origin.

**Outside the supply chain:** Per the Dodd-Frank Act, this refers to conflict minerals that have been smelted or fully refined, or if they have not been smelted or fully refined, are outside the Level 3 Countries, or “covered countries”, prior to January 31, 2013.

**Product shipments:** Include any finished good, secondary, intermediate, semi-processed, or other materials that are sold and then shipped out of the facility during the audit period.

**Receipts:** all material received during the audit period. To be used as part of the Mass Balance calculation.

**Refining:** process of purification of a (1) substance or a (2) form; the term is broad, and may include more drastic transformations, such as the reduction of ore to metal[[18]](#footnote-19)

**RCOI:** Reasonable Country of Origin Inquiry, a requirement of the Dodd Frank Act Section 1502.

**SEC Conflict Minerals Rule**: US Security and Exchange Commission Conflict Minerals Rule, <http://www.sec.gov/rules/final/2012/34-67716.pdf>

**Secondary Materials:** Commonly referred to as recycle/scrap. Recycled metals as defined by the OECD Guidance, and referenced by the U.S. Securities and Exchange Commission are 'reclaimed end-user or post-consumer products, or scrap processed metals created during product manufacturing including: excess, obsolete, defective, and scrap metal materials which contain refined or processed metals that are appropriate to recycle in the production of tin/tantalum. As defined by the OECD Guidance, minerals partially processed, unprocessed, or a byproduct from another ore (for example,, slags) are not recycled materials. See Annex B for additional examples.

**Supplying smelter:** When a smelter receives material from another entity, the supplying smelter is the last point in the supply chain in which the material was processed. Trading companies and other pass-through segments of the supply chain would not be considered supplying smelters.

**Tantalum intermediate products:** powder, ingot, sintered bars, tantalum hydroxides, in process scrap (processor level), K2TaF7 (also known as K-salt or "KTaF"), Ta unrefined powders and other Ta containing products for further processing.

**Tolling:** A transaction where materials are processed by a smelter on behalf of a client who retains ownership of the agreed to elements and/or volume of those materials. This includes a conversion of the overall makeup of the materials including the treatment or removal of specific undesirable elements (for example, radioactivity, arsenic, etc.).

**Total material processed:** With respect to the mass balance calculation, this term refers to total metal content of the material processed by the smelter during the audit period. This will include as relevant ore, secondary material and internal recycle/reclaim, whether the smelter’s own material or material received for toll processing.

## Annex VIII: References

**Audit Program Documents**

* Audit procedure: [www.conflictfreesmelter.org/documents/AuditProcedure\_SnTa.pdf](http://www.conflictfreesmelter.org/documents/AuditProcedure_SnTa.pdf)
* Line Item Summary: [www.conflictfreesmelter.org/documents/LineItemSummary\_SnTa.xlsx](http://www.conflictfreesmelter.org/documents/LineItemSummary_SnTa.xlsx)
* Pre-audit checklist : [www.conflictfreesmelter.org/documents/CompanyPreAuditChecklist\_SnTa.docx](http://www.conflictfreesmelter.org/documents/CompanyPreAuditChecklist_SnTa.docx)
* Audit Checklist: [www.conflictfreesmelter.org/documents/AuditChecklist\_SnTa.docx](http://www.conflictfreesmelter.org/documents/AuditChecklist_SnTa.docx)
* Template AECI and agreements: [www.conflictfreesmelter.org/documents/AECI\_AA.zip](http://www.conflictfreesmelter.org/documents/AECI_AA.zip)

**External Reference Documents**

* OECD Due Diligence Guidance for Responsible Supply Chains on Minerals from Conflict-Affected and High-Risk Areas: <http://www.oecd.org/daf/inv/mne/GuidanceEdition2.pdf>
* Dodd Frank Wall Street Reform and Consumer Protection Act, Section 1502: <http://www.sec.gov/about/laws/wallstreetreform-cpa.pdf>
* US Security and Exchange Commission Conflict Minerals Rule: <http://www.sec.gov/rules/final/2012/34-67716.pdf>
* UN Guidance: <http://www.un.org/sc/committees/1533/egroupguidelines.shtml>

**Upstream Assurance Programs**

* List of currently approved upstream assurance programs can be found here: INCLUDE LINK

## Annex IX: Effective Date & Revision History

This revision of the audit protocol replaces all prior versions and is in effect as of the date identified on the cover page as the “Effective Date.” For those audits already scheduled prior to the “Effective Date,” the smelter will have the option of conducting their audit using either the prior or current versions of the audit protocol. All audits scheduled after the “Effective Date” must use the most current version of the audit protocol which is identified by the “Publication Date” on the cover page of each revision.

## Annex X: Revision History

Rev X 2016 – Includes expanded definition of conflict affected and high-risk areas, aligned to OECD guidance and 5-step process, improved definitions for companies in scope, clarified origin determination requirements, removal of procedural aspects, reformatted.

Rev 21 November 2013 - Reformatted, reorganized and improved language of the entire document. Added several new introductory sections Purpose, Scope, Definitions, etc. Enhanced tin and tantalum smelter definitions. Added an Applicability and Origin Determination Process Flow. Shifted to a document expectation focus versus a document type focus. Added a document expectation table. Added a Level 1 document sampling methodology. Added allowances for supplying smelters, but new startup smelters as well as transitional smelters trying to get into the audit program. Removed tungsten to a separate protocol. Removed the requirement for auditors to conduct an internal lot traceability exercise (from finished product to incoming lots). Change the tantalum initial audit period to by one year.

Rev 21 December 2012: Merged tin, tantalum and tungsten protocols into one 3T's document. Separated the audit procedure into a separate document. Major reorganization of the content from prior document revisions. Removal of the list of smelters. Addition of secondary materials sampling procedure. Merger of formal level 2B and Level 3 country expectations into a new Level 3, and renaming of Level 2A countries to Level 2. Major realignment of Level 3 documentation requirements with the OECD guidance. Establishment and revision of documentation expectation dates for stocks (legacy materials) and partially-processed and byproduct materials (for example, slag).

Rev 15 September 2011 (Sn), 09 Aug 2011 (W), 15 Jan 2011 (Ta) - initial release of protocols.

1. Information on current cross-recognized programs can be found here: INSERT WEBLNK. [↑](#footnote-ref-2)
2. A company classified as a secondary smelter may not in the normal course of business treat cassiterite but does have the capability to do so. [↑](#footnote-ref-3)
3. Recyclers of solder dross and similar oxide based materials with the capability to perform reduction to metallic tin would be classified as a secondary smelter. [↑](#footnote-ref-4)
4. More information about the downstream assessment can be found here INSERT WEBLINK. [↑](#footnote-ref-5)
5. Sintered bars of <10% Ta-contained made exclusively from slags of <2% tin are excluded from the scope of the compliance audit. A purchaser of this type of bar would only need documentation similar to secondary materials. [↑](#footnote-ref-6)
6. Subject to all required data points being included, smelters may replace the LIS for a similar format to present the data on all transactions within the audit period. The samples selected and reviewed by the auditor must be presented in the LIS. [↑](#footnote-ref-7)
7. Update list based on recent research and documented criteria. [↑](#footnote-ref-8)
8. Where the smelter sources from or participates in an upstream assurance system, some of the information may be published by this program and does not need to be repeated by the smelter. This concerns in particular descriptions of methodologies or systems of control over the supply chain. It is the responsibility of the smelter to request and obtain this information from the upstream assurance system and to make it available for the CFSP audit. Smelter may be subject to confidentiality agreements in regards to information generated by the upstream assurance system. [↑](#footnote-ref-9)
9. Replaces export record for domestic source. [↑](#footnote-ref-10)
10. Replaces export record for domestic source. [↑](#footnote-ref-11)
11. Replaces export record for domestic source. [↑](#footnote-ref-12)
12. Additional details available in Annex IV and V. [↑](#footnote-ref-13)
13. Date is aligned with the final rules published by the US Securities and Exchange commission for Section 1502 of the Dodd Frank Act. [↑](#footnote-ref-14)
14. The CoA should be available for material produced from mineral and should also be available for pure metal produced from secondary sources, but not other types of material. [↑](#footnote-ref-15)
15. This sampling guidance is based on ISAEL Alliance, Assurance Code Version 2014, Section 6.4.4 [↑](#footnote-ref-16)
16. OECD Due Diligence Guidance for Responsible Supply Chains on Minerals from Conflict-Affected and High Risk Areas, <http://www.oecd.org/daf/inv/mne/GuidanceEdition2.pdf> [↑](#footnote-ref-17)
17. http://www.businessdictionary.com/definition/bill-of-lading-B-L.html [↑](#footnote-ref-18)
18. <http://en.wikipedia.org/wiki/Refining> [↑](#footnote-ref-19)