



EICC[®] and GeSI Gold Supply Chain Transparency: Smelter Audit

Revision: 12, June 2012

EICC-GeSI Gold Supply Chain Transparency - Refiner Audit

A) Audit Overview

I. Background and Scope - Eligible Gold Refiners

The Electronic Industry Community Coalition (EICC) and Global e-Sustainability Initiative (GeSI) have created Conflict-Free Smelter/Refiner Programs by which electronics industry companies can validate due diligence of their supply chains to exclude sources that finance conflict. This is the EICC-GeSI audit protocol for gold refiners.

This protocol follows guidance provided by the final report of the UN Experts to the Security Council, 15 November 2010, and by the *OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas*, 15 December 2010. More particularly, the EICC-GeSI protocol follows the five-step framework for risk-based due diligence. (OECD Guidance, Annex I; UN Experts Report, para. 318) The OECD framework recommends that downstream companies identify “the smelters/refiners in the company's mineral supply chain through which the following information on the supply chain of minerals should be obtained: the identification of all countries of origin, transport and transit for the minerals in the supply chains of each smelter/refiner.” (OECD Guidance p. 24) The OECD and UN Experts then recommend that “smelters/refiners' due diligence practices [be] audited by independent third parties, including through an institutionalized mechanism” (OECD Guidance p. 19) and that “refineries and smelters be independently audited to examine their due diligence process.” Again following OECD guidance, audits will be conducted in accordance with ISO 19011:2002.

Because all gold used by the electronics industry must first be refined to a high concentration of purity, EICC-GeSI will audit gold refiners to certify their supply chains and products as conflict-free. EICC-GeSI defines a gold refiner as a metallurgical operation that produces fine gold with a concentration of 99.5% or higher from gold and gold-bearing materials with lower concentrations. Smelters and other upstream processors of gold-bearing materials that supply these materials to refiners and have been subject to EICC-GeSI audited refiners' internal management systems will not be independently audited under this protocol Any gold refiner that wishes to supply gold into the Electronic Components Supply Chain is eligible to participate in the EICC-GeSI Conflict-Free Program, provided that it has a policy of sourcing gold from only known and approved sources, and an internal management system that it uses to inquire, investigate, identify, approve and document its sources. An initial audit will cover the period from January 1, 2011 until the time of the audit (intended to be within 2011). Only exception is for bullion bars, all bars produced after January 1st, 2012 will be subject to the audit. All subsequent EICC-GeSI audits at a refinery (currently planned to be annual, but which may be reduced in frequency based upon criteria to be determined after 2012 audits) will cover the period from the end of the last audit period until the time of the new audit.

An EICC-GeSI audit will include an assessment of the total gold material balance based on a review of the reported receipts, inventories, and sales volume figures during the relevant audit period. Segregation of gold outside of the audit, and outside of its validation, will not be permitted.

II. Description of Documentation Required for Materials and Sources

Gold is sourced from three categories, and required documentation will differ according to category and location of source (see Section B below):

- (1) new production from mines,
- (2) new production from recycling, and
- (3) withdrawal from existing stocks of fine gold.

For purposes of the audit, every ‘gold-bearing material’ must be classified into one of these three categories. The term ‘gold-bearing material’ means only material containing sufficient gold for valuation based on gold content; materials that contain de minimis amounts of gold, and which have no market value attributable to gold content, are not included as gold-bearing material.

Category 1. Mining material: This term means any gold or gold-bearing material produced by or at a mine, in any form, shape and concentration, until it is fully refined (995 or greater), fabricated into a gold refinery product (e.g., bar, grain), and sold. The country of origin of mining material is the location of the mine or point of initial extraction, except for byproduct gold extracted from residues of other metal ores (described below). For compatibility with OECD Guidance, this is intended to conform to the first life cycle of gold.

New production from mines is about 2500 tonnes of gold per year, from about 100 countries. In large scale gold mining, ore is extracted, processed and smelted at or near the location of the mine to produce a high concentration alloy of metals, such as gold, silver, etc., referred to as doré. Doré is usually sent offsite to a gold refiner. Small and medium scale gold mining is more likely to produce a concentrate that is sent offsite for smelting and refining, or be placer mining, and its flake or dust product is also usually sent offsite to a gold refiner for final refining. A mining material that has been partially processed, i.e., an intermediate product such as an ingot, does not lose its identity as a mining material, or change category. All of this material is defined as mining material, and an inquiry related to its country of mining origin is necessary.

Gold is sometimes produced as a byproduct of other metal ores, notably silver, copper, lead and zinc, that are not classified as conflict minerals. The primary metal is processed first, typically in very large continuous processing steps in which many batches of source materials are mixed. Gold is only extracted months later from a final residue, such as electrolytic cell slimes, which then require substantial additional processing and refining. The constant mixing of the primary

metal materials precludes identification of byproduct gold from specific original non-gold mines. The country of origin of non-conflict mineral mining byproduct gold should therefore be the point at which a gold-bearing material is created for initial transfer into a gold recovery process, or at any point at which its gold concentration rises above one percent, whichever occurs first. A gold refiner's internal management system should collect and maintain documentation regarding its sources of mining material, in order to ensure that these sources and mining materials have not financed conflict at any point in the gold mining supply chain. There should be levels of such documentation; each level requires increasing documentation as the source of the gold approaches conflict regions. If sources of mining material are located in countries which are not known to have gold mining, a higher level of documentation will be necessary. In the four (4) levels described and countries listed below, attention has been specifically given to conflict in the Democratic Republic of the Congo. The levels will obviously change for other conflict-affected or high risk areas. It should be noted that listing of a country in a level other than level 3 below does not mean that it is also involved in conflict, or that its gold mining product is affected by conflict. However placement in a level may reflect a somewhat greater concern that conflict gold might be smuggled into another country and hidden within its native gold product. In such cases, that possibility should be examined in the course of due diligence.

A similar concern with smuggling and hiding may arise with non-conflict mineral mining byproduct gold. This is not plausible, however, because DRC gold is produced in that country in a highly-concentrated form as dust or nuggets, immediately marketable, immediately useable as a form of payment in the DRC, easily smuggled out in small batches, hand-carried on commercial airlines. In contrast, mining intermediates and slimes are high-volume, low concentration materials, difficult to manage and needing a great deal of additional processing and refining. Due diligence for mining byproduct gold should nevertheless consider whether DRC gold has been mixed and hidden in intermediate byproduct materials. Due diligence should require representations and warranties from the generator of a non-conflict mineral mining byproduct material, at the time when it is initially transferred into gold recovery processing or achieves a gold concentration of one percent or greater, whichever occurs first, that it is solely a non-conflict mineral mining byproduct material and that conflict gold has not been added into it.

Level 1 Documentation – normal commercial documents regarding persons, companies and transactions, required for sources of mining material from countries that are neither specifically identified as conflict regions nor identified as plausible destinations of smuggled or exported gold from conflict regions.

Level 2A Documentation – required for sources of mining material in countries which are known or plausible destinations of smuggled or exported gold from conflict regions.

Level 2A Countries:

Kenya
United Arab Emirates

Level 2B Documentation – required for sources in countries that have been specifically identified by national¹ or international² governmental agencies as having a significantly enhanced risk of smuggled or exported gold from conflict regions.

Level 2B Countries:

Angola
Burundi
Central African Republic
Republic of the Congo
Rwanda
South Sudan
Tanzania
Uganda
Zambia

Level 3 Documentation - required for sources of mining material in countries that have been specifically identified by national³ or international⁴ governmental agencies as engaged in conflict.

Level 3 Countries:

Democratic Republic of the Congo

Category 2. Recyclable material: Gold has been recycled for thousands of years; everything that has ever been produced with gold during those thousands of years is, as a metallurgical fact, recyclable for its gold content. This term traditionally encompasses anything that is gold-bearing and has not come directly from a mine in its first gold life cycle. In practical terms, recyclable material includes end-user, post-consumer products, scrap and waste metals and materials arising during refining and product manufacturing, and investment gold and gold-bearing products.

This category may also include fully-refined gold that has been fabricated into grain, good delivery bars, medallions and coins that have previously been sold by a refinery to a manufacturer, bank or consumer market, and that may thereafter need to be returned to a refinery to reclaim their financial value.

¹ United States Congress, Dodd-Frank Wall Street Reform and Consumer Protection Act, Section 1502

² UN Experts; OECD

³ United States Congress, Dodd-Frank Wall Street Reform and Consumer Protection Act, Section 1502

⁴ UN Experts; OECD

For clarity of understanding, however, mining material, of any form or shape or concentration, including intermediate material that has not yet been fully processed, fully refined (995 or higher), and sold is in its first gold life cycle, and is not yet recyclable material, but instead continues to be mining material for which an inquiry related to its mining origin continues to be necessary (except as described above for mining byproduct gold from non-conflict metals). Therefore a partially-refined product with a direct mining origin cannot simply be transferred to another refinery and be reclassified as a recycled material, for which no mine or country of origin would need to be identified. The only exception to this is for low grade scrap and other such materials (less than 1% gold), such as floor sweepings and pollution control materials, that arise in the processing and refining of mining material and that must be shipped to another operation for further processing; such material is recyclable material.

The following materials are recyclable materials:

- jewelry
- coins
- machine cuttings
- spent sputtering targets
- dental materials
- container residues
- gold furnace worker gloves
- gold furnace worker aprons
- gold furnace worker dust masks
- floor sweepings
- workbench sweepings
- sweeping tools
- gold furnace flue dust
- gold furnace bricks
- gold furnace crucibles
- assay laboratory cupels
- polishing compounds
- polishing rags
- polishing compounds
- electronic circuit boards
- electronic chips
- electronic connectors
- secondary copper electrolytic cell slimes
- process filters
- wastewater treatment sludges
- ion exchange resins
- wastewater collection devices (gold bugs)
- spill cleanup materials
- household ornaments

This list is not intended to be definitive and final, and the EICC-GeSI Gold Working Group will promptly review proposed descriptions of other recyclable materials.

A gold refiner's internal management system should collect and maintain documentation regarding its sources of recyclable materials, in order to ensure that these sources and recyclable materials have not financed conflict at any point in the recyclable material supply chain. A responsible supply chain inquiry into the origin of recyclable material requires that it be identified as recyclable material, to distinguish it from mining material. The country of origin of recyclable material is the point at which it has been generated as scrap or waste, or has been collected as end-user, post-consumer or investment material.

A gold refiner's internal management system should require the same four (4) levels of documentation described above or below in section B for recyclable material to ensure conflict gold is excluded in the recyclable material supply chain. Each level requires increasing documentation as the source of the gold approaches conflict regions.

Category 3. Existing Stocks of Fine Gold

A refiner's existing stocks of fine gold, e.g., investment products (ingots, bars and coins) with a verifiable refining date prior to January 1st, 2012, or prior to a date determined by the United States Securities and Exchange Commission as the date of exemption for existing stocks, whichever is later, will not require source/mine documentation within the scope of the EICC-GeSI audit. The process for audit of a refiner's existing stocks with a subsequent date, or without a verifiable date, is the same as described above for other gold-bearing material; a refiner must provide the same level of source/mine documentation.

III. Excluded Materials

No gold or gold-bearing materials, as defined above to include all but de minimis concentrations without market value, are excluded from the EICC-GeSI audit. The audit will have to determine, in accordance with this audit protocol, that all such material has come from a conflict-free source.

B) Standards for Compliance

D) The refiner must have a documented and communicated policy, implemented through an effective internal management system, for procurement of gold-bearing materials which explicitly avoids utilization of conflict minerals and adheres to regulations of these materials. Specifically, the policy must cover these items:

- a) All gold-bearing materials
- b) Conflict regions (e.g., Democratic Republic of the Congo)
- c) Applicable regulations
- d) Communication of the Policy
- e) Policy Embedded into Standard Operating Procedures or Systems

- f) Training
- g) For those companies sourcing from the DRC, nine surrounding countries and Kenya their sourcing policy will have to comply with *OECD Due Diligence Guidance for Responsible Supply Chains on Minerals from Conflict-Affected and High-Risk Areas OECD Due Diligence Guidance for Responsible Supply Chains on Minerals from Conflict-Affected and High-Risk Areas Gold Supplement*. The effective date of the policy must be such that it has been implemented not less than the six full calendar months prior to an EICC-GeSI audit (with allowances for amendments and recognition that such policy is a living document, always subject to change and improvement).

II) The refinery must have a mechanism for tracing products back to purchased material sources. Components will include:

- a) Receiving Shipping/transportation documentation (e.g., bill of lading, packing slip, waybill, invoice, etc.)• lot numbers assigned by refinery;
- suppliers identified;
 - weights.
- b) Sales documented with specific lot numbers;
- Documented list summarizing total sales volume.
- c) Reconciliation of receipts, inventories, and sales volumes to demonstrate receipts are fully accounted for in a mass balance.
- d) Products can be traced back to close approximation to sources. Exact lot-to-lot correspondence may be approximated due to mixing of batches and continuous processes.

III) Gold-bearing materials are appropriately documented (as detailed below) to be from non-conflict sources. All gold-bearing materials received for the audit period are included whether direct purchases or part of a tolling or other business agreement.

- a) Mining materials
- i) Level 1 –
- a) Government issued mine of origin certificate, if any
- b) Government issued import or export document, if any
- c) Shipping/transportation documentation (e.g., bill of lading, packing slip, waybill, invoice, etc.)
- d) Mine assay results and weights
- ii) Level 2A - Review Level 1 information plus the following:
- e) On-mine-site trip report(s) with the following information:
- 1) Verification that mining location agrees with concession, license or other form of government sanction of the operation;
 - 2) Assessment of capabilities - staffing, equipment, transportation routes;
 - 3) Validation of material source, by sampling at mine site or other verification.

4) Confirmation of mine/source capability/delivery plausibility using the previous three years of production for existing mining operations. Plausibility for new mines can be determined using throughput limitations associated with ore mining and processing equipment or as specified in permits.

iii) Level 2B – Review Level 2A information plus the following:

f) Determination of the amount of material coming from a given mine, or estimate for specific area known to be a location of significant artisanal mining, e.g., Eastern DRC. The figures obtained will be compared against the mine’s production capacity or country capacity in the case of artisanal mining.

g) Implementation of the *OECD Due Diligence Guidance for Responsible Supply Chains on Minerals from Conflict-Affected and High-Risk Areas*, including a chain of custody and/or traceability system, coupled with on-the-ground risk assessments. With specific regard to the determination of the origin of minerals, information required under the OECD Guidance. In order to generate the requested information, refiners may rely on a credible conflict free mineral traceability scheme that has been independently verified to conform to the OECD Guidance. For artisanal mine sources this may include bagging and tagging of mineral ore as a means to demonstrate due diligence on the original provenance of the ore or a similarly robust and credible system. A refiner must possess all documentation concerning the in-region sourcing at the refiner’s facility. For example if a bagging and tagging traceability scheme is used the refiner must possess the final bag tag and possess the supporting information which indicates mine or area of origin. When the supply originates from an industrial operation, a credible system of tracking and record keeping must be in place and available at the refiner. The date printed on the export documentation will be used to demonstrate compliance with EICC_GeSI audit protocol requirements..

iii) Level 3 – Review Level 2B information plus the following:

h) In accordance with the *OECD Due Diligence Guidance for Responsible Supply Chains on Minerals from Conflict-Affected and High-Risk Areas*, an on-the-ground risk assessment and documentation of the source(s) of information used to determine whether the mine was under the control of armed groups or mine did not directly or indirectly finance conflict. While making such a determination, the refiner may rely on such sources as the US State Department’s Conflict Minerals Map or other recognized equivalent maps, if they exist.

b) Recyclable materials

i) Level 1 –

a) Identification of source (e.g., manufacturer, collector)

b) Identification of type of recyclable material(s)

c) Government issued import or export document, if any

d) Shipping/transportation documentation (e.g., bill of lading, packing slip, waybill, invoice, etc.)

e) Assay results, if any, and weights.

ii) Level 2A - Review Level 1 information plus the following:

f) On-site trip report(s) to manufacturing or collection site;

g) Confirmation of source capability/delivery plausibility using the previous three years for existing operations. Plausibility for new sources can be estimated using market knowledge, processing equipment or other credible evidence.

iii) Level 2B - Review Level 2A information plus the following:

h) OECD gold supplement requirements when it is published

iii) Level 3 - Review Level 2B information plus the following:

i) OECD gold supplement requirements when it is published

c) Samples for analysis and process feasibility evaluation

A sample of gold-bearing material with gold content no greater than 1 troy ounce, provided to a refiner for assay and/or refining process feasibility analysis, is excluded from audit, provided that gold contained in such samples is in total less than 0.1% of sales of gold by a refiner.

C) Process for Conducting the Audit

1) The audit process will begin by confirmation of the following refinery information:

Name

Location

Types of gold-bearing materials received

Complete list of suppliers for each type of gold-bearing material

Types of gold products produced

Types of gold-bearing materials transferred to and from other company locations and/or other refineries.

2) The audited refinery will provide a copy of its policy and internal management system related to procurement of gold-bearing materials and the auditor will review it against Part B I of the Standard above.

3) The audited refinery will provide

a. a list of current gold inventory on hand;

b. a list of total gold product sales volume during the audit period (including total amount on a gold basis);

c. a list of all received gold-bearing materials during the audit period (including total amount on a gold basis).

4) The auditor will use the information in step 3a-3c to conduct a total gold material balance to determine if the reported receipts, inventories, sales volume figures provide a general agreement.

- 5) The auditor will summarize total gold receipts by country and mine of origin (see EICC-GeSI Audit Line Item Summary template (?)). The auditor will then compare this summary to the plausibility tables provided by the EICC. Any exceptions will be noted.
- 6) The auditor will review samples of transaction documentation as set forth above in B) Standards for Compliance, according to the Level 1, Level 2A, Level 2B or Level 3 origin of the material, for receipts or purchases of gold-bearing material for compliance to the standard, according to the following formulae for percentages of total transactions and/or minimum transactions:
- a. Mining material: , according to standard industry audit procedures, compliant with ISO 19011
 - b. Recyclable material: , according to standard industry audit procedures, compliant with ISO 19011

For each lot of material sampled, the auditor will determine if the transaction documents create a reasonable doubt as to the authenticity of the origin of the material or confirm that the origin of the material is conflict free by following the provided guidelines. See explanation for all sections of the Standard above.

- 7) The auditor will visually check samples of recyclable material as well as review documentation to ensure that it meets the definitions set forth above.
- 8) If materials are found to originate from Level 3 countries then the auditor will review the refiner's assessment for the key components as defined in the On the Ground Assessment description. The auditor will confirm receipt and signature by the highest ranking employee at that manufacturing site.
- 9) The auditor will verify lot traceability by selecting at least 3 finished lots and follow the documentation back to the source(s). The finished lots may cover materials outside of the provisions of the audit (i.e. gold-bearing materials received prior to the audit period) so will only be used to confirm lot traceability and not compliance. If irregularities are noted within the traceability assessment that covers materials within the audit period then further resolution is required. The traceability will follow 2 specific lots at each step of the process. Source of origin of the ore will be reviewed and will impact compliance if within the audit period or will be noted if outside of audit period.

- 10) The auditor will prepare a summary report by utilizing the Summary Template provided.

Documents supplied to auditors:

Audit Checklist

- Checklist for implementing the audit
- Audit Summary Results Template

EICC GeSI Audit Line Item Summary

- Line item for summarizing documentation for each gold receipt
- Explanation of Documentation items
- Summary of key points in the “On the Ground Assessment”

Plausibility Assessment Summary

- Explanation of purpose and use
- Tables of detailed country capabilities

Example Information

- Certificate of Origin (Acceptable/Unacceptable)
- Export License
- Certified Analysis/Sample
- Mining License/Concession

D) Summary Results of the Audit

1) Types of outcomes

The audit will have 5 different potential outcomes:

- A) The refinery refuses to participate in the audit process or does not provide adequate information or access to facilities. The result is non-compliant.
- B) Conflict material - gold-bearing source was received or purchased within the audit period. Conflict material is defined as gold-bearing material from a Level 3 source without appropriate Level 3 assessment sanctioned by the EICC-GeSI. The result will be non-compliant.
- C) There is insufficient documentation to substantiate the source of all gold-bearing materials received or purchased within the audit period. The refinery cannot or does not agree to provide further information. The result is non-compliant.
- D) There is insufficient documentation to substantiate the source of all gold-bearing materials received or purchased within the audit period. The refinery agrees to provide additional information to address documentation deficiencies identified by the audit. The additional information will be supplied to the auditors within 2 months and a follow-up audit will be completed within 1 additional month. In the follow-up audit, the auditor will then determine if adequate information has been provided to substantiate the source of the gold-bearing materials. The result will be non-compliant if insufficient documentation remains.
- E) If adequate documentation is available which demonstrates the source of all gold-bearing purchases/receipts within the audit period were from non-conflict sources then the result will be compliant.

Should a refinery internal management system be found to be non-compliant then a corrective action plan needs to be implemented and verified in order to become compliant. The details of the action plan will be agreed to between the refiner and the audit review committee of EICC-GeSI. The corrective action plan must contain the following components:

- A) Disposition of any nonconforming gold-bearing material (i.e., material with inadequate documentation or identified as conflict material) such that it is removed from the electronics supply chain. (Any such non-compliant gold-bearing materials identified by the auditor should be quarantined immediately until reviewed by the EICC_GeSI audit review committee to discuss disposition.) This disposition will need to be verified – utilization of this material (or inadequate documentation of disposition) by the refiner will result in continuing noncompliance.
- B) Documented changes in the refinery’s internal management system, in recognition of prior issues raised by auditors. These changes must be implemented within the 3 month period following the audit.

Verification of the corrective action plan will be carried out as follows:

- 1) A verification audit conducted by the initial auditor to ensure disposition of the nonconforming gold-bearing materials and changes to the refinery’s internal management system. The entire audit will be repeated covering the time period from the prior audit to the current audit.
- 2) After review of the information from the second audit, the audit review committee will determine whether the refinery can be identified as compliant or whether additional actions are required. For example a more frequent audit schedule may be required.
- 3) Any refinery that has the same non-compliance issue identified for a second time will be deemed as non-compliant and precluded from participating further in the EICC-GeSI validation process.

Disclosure and Non-Disclosure Agreements:

The refineries that are verified by audit to be compliant will be posted on the EICC /GeSI websites and made known to EICC/GeSI members. Additionally the Conflict Mineral policies of gold refiners will be posted (without details of implementation). The detailed data collected on the audit will be made available only to the EICC_GeSI audit review committee to ensure consistency, compile “rolled up” information and identify concerns as all audits are compiled. The audit review committee members who have access to the detailed information will also sign NDAs with the refineries and will only be comprised of final OEMs (ie Apple, Intel, HP, etc) and those details will not be distributed outside of the review committee. A nondisclosure



agreement will be implemented between the auditing firm, the audit review committee, and the individual refineries.

The following information will be publicly disclosed:

Names of Compliant Refineries

Each Refiner's Conflict Mineral Policy

Consolidated Information from all audits:

Level 1 – Countries of Origin

Level 2A – Countries of Origin, Mines of Origins, and Import / Export routes

Level 3 – Level 2B (including weights) information. Additional disclosure of weights/amount of ore, and capacity of mines. In the case of artisanal mining the country amount can be used.

About EICC (Electronic Industry Citizenship Coalition)

The EICC was established in 2004 to improve social, economic, and environmental conditions in the global electronic supply chain through use of a standardized code of conduct. The EICC was incorporated in 2007 as an association to ensure greater awareness of the code, and to expand its adoption across the industry. The EICC includes 40 global electronics companies. For more information or to view the EICC Code of Conduct, see www.eicc.info.

About GeSI (Global e-Sustainability Initiative)

The Global e-Sustainability Initiative (GeSI) is uniquely dedicated to information and communication technologies (ICT) sustainability through innovation. GeSI brings together leading ICT companies – including telecommunications service providers and manufacturers as well as industry associations – and non-governmental organizations committed to achieving sustainability objectives through innovative technology. In June 2008, GeSI became a legal independent entity, an international non-profit association (AISBL) with an office near the EU institutions in Brussels, Belgium. For more information, see www.gesi.org.

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Revision History

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Changes: Initial release of the protocol. Revised procedures to deal with Copper byproducts