

聲明書編號 TW24/00058GG

# 溫室氣體查驗聲明書

2022 年溫室氣體排放資訊

## 一詮精密工業股份有限公司二廠

24890 新北市新莊區五工五路 17、19 號



經本公司依據 ISO 14064-3:2006 完成查驗並符合下列標準要求

### ISO 14064-1:2018

直接溫室氣體排放量

**103.2201** 公噸二氧化碳當量

間接溫室氣體排放量

**124,145.4253** 公噸二氧化碳當量

直接與間接溫室氣體排放量

**124,248.645** 公噸二氧化碳當量

簽署人

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知識與管理事業群副總經理

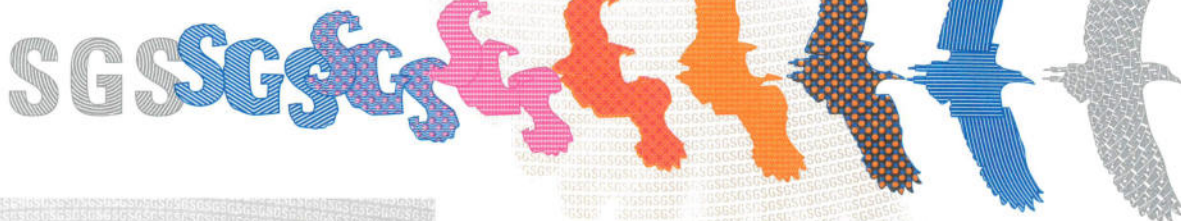
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台灣檢驗科技股份有限公司

新北市五股區(新北產業園區)五工路 136 之 1 號  
t (02) 22993279 f (02)22999453 www.sgs.com



## 【全廠/集團各類別溫室氣體排放量】

單位：公噸二氧化碳當量

報告邊界		溫室氣體排放量	
類別	內容說明		
直接溫室氣體排放	彙整組織邊界內由組織擁有或控制的溫室氣體。	103.2201	
間接溫室氣體排放	輸入能源溫室氣體排放	8,090.0820	
	運輸溫室氣體排放	1. 上游運輸-盤查年度採買的原料、耗材等運輸過程中所產生的溫室氣體排放量(以一詮精密認定之「主要原料」為準則(銅材、銀板、油墨及化學鎳), 收集全廠購買之主要原物料計算排放量, 並以其重量佔比(9.25%)將運輸排放量放大回推至100%)。 2. 下游運輸-盤查年度產品運送過程中產生的溫室氣體排放量(以指定客戶產品年度總出貨重量乘以指定客戶各據點於一詮精密之營收佔比, 計算後再以指定客戶產品佔全廠出貨量(59.56%)放大回推至100%)。 3. 員工通勤-員工通勤上下班運輸排放(搭乘機車、汽車、公車之運輸排放) 4. 商務旅行-員工出差運輸排放(搭乘汽車、飛機、高鐵之運輸排放)。	337.2103
	組織使用產品溫室氣體排放	1. 採購商品的排放-與廠內生產相關的採買(1.以一詮精密認定之「主要原料」為準則(銅材、銀板、油墨及化學鎳), 收集全廠購買之主要原物料計算排放量, 並以其重量佔比(9.25%)將排放量放大回推至100%; 2.採購自來水)。 2. 外購能源之間接排放-外購能源其上游資源開採階段的碳排放量(汽油、柴油、電力、天然氣)。 3. 固體和液體廢棄物處理產生的排放-廢棄物處理/運輸。	115,718.1330

報告邊界		溫室氣體排放量
類別	內容說明	
使用來自於組織產品溫室氣體排放	無	-
其他來源溫室氣體排放	無	-
直接與間接溫室氣體總排放量		124,248.645



台灣檢驗科技股份有限公司(以下簡稱 SGS)，經與成創永續股份有限公司(以下簡稱成創)，臺南市永康區中華路 12 號 15 樓之 5，達成雙邊協議，針對一詮精密工業股份有限公司二廠(以下簡稱一詮精密二廠)，24890 新北市新莊區五工五路 17、19 號，依據 ISO 14064-3:2006 之要求執行直接與間接溫室氣體排放量之查驗，溫室氣體排放量涵蓋期間自 2022 年 01 月 01 日至 2022 年 12 月 31 日，查驗聲明內容說明如下：

### 角色與責任

一詮精密二廠管理階層確保組織溫室氣體資訊系統之發展、紀錄維護及文件化程序已符合標準要求，負責評估、決定及報告溫室氣體排放量資訊，並提供支持溫室氣體主張所需之其他資訊給 SGS。

SGS 秉持第三方查驗單位之準則，依據 2023 年 08 月 15 日簽訂之雙邊協議、ISO 14064-1:2018、ISO 14064-3:2006 要求，於 2023 年 12 月 25 日至 2024 年 1 月 16 日期間執行溫室氣體排放量查驗活動，並根據一詮精密二廠適用範圍、目標、準則及溫室氣體排放量涵蓋期間自 2022 年 01 月 01 日至 2022 年 12 月 31 日之查驗結果，提出溫室氣體查驗聲明。

### 保證等級

SGS 依據查驗準則及雙邊協議執行查驗程序，針對一詮精密二廠於溫室氣體主張所提類別一及類別二之查驗證據顯示，未違反實質性差異門檻，符合主管機關認可之合理保證等級。類別三至六為有限保證等級。

### 查驗範圍

SGS 依據與成創之雙邊協議，確認一詮精密二廠組織邊界及報告範圍內之人為活動溫室氣體排放量與相關標準要求之符合性，根據 ISO 14064-3:2006 準則提出上述保證聲明涵蓋內容如下：

- 查驗一詮精密二廠之 2022 年溫室氣體排放量
- 包含廠區：

廠區	活動範圍地理位置
二廠	24890 新北市新莊區五工五路 17、19 號

- 溫室氣體排放源資訊來源為一詮精密二廠之盤查資訊
- 排放溫室氣體種類：二氧化碳(CO<sub>2</sub>)、甲烷(CH<sub>4</sub>)、氧化亞氮(N<sub>2</sub>O)、氫氟碳化物(HFCs)、全氟碳化物(PFCs)、六氟化硫(SF<sub>6</sub>)、三氟化氮(NF<sub>3</sub>)、氟氯烴(HCFCs)、氟氯化碳(CFCs)
- 全球暖化潛勢(GWP)引用 IPCC 2021 第六次評估報告之全球暖化潛勢值

- 排放係數資料庫來源:
  - 直接溫室氣體排放: 行政院環保署溫室氣體排放係數管理表 6.0.4
  - 間接溫室氣體排放:
    - 輸入能源之電力引用經濟部能源局 2023 年公布之 2022 年電力排放係數: 0.495 公斤二氧化碳當量/度計算
    - 二級資料庫引用產品碳足跡資訊網、SimaPro 9.5.0.0-Ecoinvent v3、ICAO Carbon Emissions Calculator
- 溫室氣體排放量資訊涵蓋週期: 2022 年 01 月 01 日至 2022 年 12 月 31 日
- 盤查清冊版本次: 2024 年 01 月 22 日(版次: V1)
- 盤查報告書版本次: 2024 年 01 月(版本: 1)
- 查驗聲明之預期使用者: 組織自行使用

#### 查驗目標

SGS獨立客觀的取得支持溫室氣體主張揭露資訊的佐證，確保報告資訊符合準確性、完整性、一致性及透明度之準則，其內容包含錯誤或遺漏之項目。

#### 查驗準則

遵守下列相關標準要求執行溫室氣體主張之查驗:

- ISO 14064-1:2018 溫室氣體—第 1 部: 組織層級溫室氣體排放與移除之量化及報告附指引之規範

#### 實質性

一詮精密二廠定義溫室氣體主張符合性之實質性差異門檻判斷準則為5%，SGS依據此準則確認溫室氣體揭露資訊之遺漏或錯誤程度。

#### 結論

一詮精密二廠依據查驗準則要求提出溫室氣體主張，揭露資訊涵蓋期間自2022年01月01日至2022年12月31日，期間溫室氣體排放量為 124,248.645 公噸二氧化碳當量及生質燃燒之二氧化碳排放量為 0.0000 公噸二氧化碳當量。SGS採用風險評估方法為基礎，確保並控管溫室氣體排放資訊揭露風險；規劃及執行查驗流程，包含行前評估、取樣計畫、證據之蒐集，取得查驗聲明需要之資訊、說明及相關佐證，確保揭露之溫室氣體排放量準確性。

## 【全廠/集團各類別溫室氣體排放量】

單位：公噸二氧化碳當量

報告邊界		溫室氣體排放量
類別	內容說明	
直接溫室氣體排放	彙整組織邊界內由組織擁有或控制的溫室氣體。	103.2201
間接溫室氣體排放	輸入能源溫室氣體排放	8,090.0820
	運輸溫室氣體排放	337.2103
	組織使用產品溫室氣體排放	115,718.1330



報告邊界		溫室氣體排放量
類別	內容說明	
使用來自於組織產品溫室氣體排放	無	-
其他來源溫室氣體排放	無	-
直接與間接溫室氣體總排放量		124,248.645

SGS以客觀公正之立場，評估一詮精密二廠溫室氣體資訊系統、監督方法及報告程序，溫室氣體排放量涵蓋期間自2022年01月01日至2022年12月31日，依據查驗結果保證其適用範圍、目標及準則之一致性及適切性，針對類別一及類別二提出合理保證而類別三至六為有限保證之查驗聲明，無保留意見之列舉。

SGS根據自身角色及責任，在此聲明溫室氣體主張具實質性、正確性，以及公平性地陳述溫室氣體數據及資訊，並依據ISO 14064-1:2018製備執行溫室氣體量化、監督及報告溫室氣體資訊，本查驗聲明將視為說明一詮精密二廠溫室氣體主張之查驗結果。

#### 保密性聲明

此報告及附件可能包含屬於一詮精密二廠之機密資訊，未經一詮精密二廠書面同意，其他個人、團體或公司禁止自行複製或發行。

#### 利益衝突迴避聲明

此報告及附件內容完全依照主管機關之標準方法與程序等相關規定，秉持公正、誠實進行查驗作業。絕無虛偽不實，如有違反，就政府機構所受損失願負連帶賠償責任之外，並接受主管機關依法令所為之行政處分及刑事處罰。

所有查證人員瞭解如自身受政府機關委任從事公務，亦屬於刑法上之公務員，並瞭解刑法上圖利罰、公務員登載不實偽造公文書及貪污治罪條例之相關規定，如有違反，亦為刑法及貪污治罪條例之適用對象，願受最嚴厲之法律制裁。

本公司與受查驗單位並無財務投資之關係，且符合主管機關對利益衝突迴避之要求。如有違反前述事實情事，經主管機關查證屬實時，此報告及附件內容願接受主管機關判定為無效之處分。

**查證團隊**

上述聲明係查證團隊依據公正之查驗過程，針對一詮精密二廠之 2022 年溫室氣體排放量所提出之聲明。

主導查驗員：

高維

查 驗 員：

曾偉編

查 驗 員：

孔宇萱

備註：本查驗聲明遵照 SGS 溫室氣體查驗服務條款要求 [http://www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm)，聲明書內容由台灣檢驗科技股份有限公司依據溫室氣體主張之查驗結果進行編製，業經客戶同意後發行。本聲明書非用以解除客戶遵守組織章程、全國或者地方法令，以及任何被發佈國際指南章程之責任；客戶與 SGS 彼此為獨立之個體，客戶非受 SGS 約束，在此 SGS 除客戶之外毋須代表其面對其他組織團體。



# Greenhouse Gas Verification Statement

The inventory of Greenhouse Gas emissions in year 2022 of  
**I-CHIUN PRECISION INDUSTRY CO., LTD.**  
**SECOND FACTORY**

No. 17. No. 19, Wu-Gung-Wu Rd., Shin-Chuang District,  
New Taipei City 24890, Taiwan, R.O.C.



has been verified in accordance with ISO 14064-3:2006 as  
meeting the requirements of

## ISO 14064-1:2018

Direct emissions  
**103.2201** tonnes of CO<sub>2</sub>e

Indirect emissions  
**124,145.4253** tonnes of CO<sub>2</sub>e

Direct emissions and indirect emissions  
**124,248.645** tonnes of CO<sub>2</sub>e

Authorized by

Stephen Pao  
Knowledge Deputy General Manager  
Date: 23 February 2024

Version 1

TGP56A-15-6 2207  
SGS Taiwan Ltd.  
No. 136-1, Wu Kung Road, New Taipei Industrial Park, Wu Ku District,  
New Taipei City 24803, Taiwan  
t (02) 22993279 f (02)22999453 www.sgs.com



The emission of each category is described as below:

Unit: tonnes of CO<sub>2</sub>e

Reporting Boundaries		GHG Emissions
Inventory categories	Description	
Direct emissions	This direct GHG emissions are the sum of owned or controlled by the organization within the organization.	103.2201
Indirect emissions	Imported energy	8,090.0820
	Transportation	<ol style="list-style-type: none"> <li>1. Upstream Transportation - Inspect the annual transportation-related greenhouse gas emissions generated during the procurement of raw materials and consumables. The emissions calculation is based on the transportation process of "major raw materials," as defined by I-CHIUN (copper, silver plate, ink, and chemical nickel). The emissions are calculated by collecting the total amount of major raw materials purchased by the entire factory, and the transportation emissions are then scaled up to 100% based on their weight proportion (9.25%).</li> <li>2. Downstream Transportation - Examine the greenhouse gas emissions generated during the annual product delivery process. The calculation is based on the total annual shipping weight of designated customer products multiplied by the revenue proportion of each designated customer location, as determined by I-CHIUN. The emissions are then scaled up to 100% based on the proportion of designated customer products to the total factory shipments (59.56%).</li> <li>3. Employee Commuting - Emissions from employee commuting for daily transportation to and from work, including motorcycle, car, and bus transportation emissions.</li> <li>4. Business Travel - Emissions from employee travel for business purposes, including transportation emissions from car, airplane, and high-speed rail travel.</li> </ol>



Reporting Boundaries		GHG Emissions
Inventory categories	Description	
Products used by an organization	<ol style="list-style-type: none"> <li>1. Emissions from Purchased Goods - Related to the procurement of goods associated with in-house production.               <ol style="list-style-type: none"> <li>(1) Based on I-CHIUN's definition of "major raw materials" (copper, silver plate, ink, and chemical nickel), calculate the emissions by collecting the total amount of major raw materials purchased by the entire factory. Scale the emissions up to 100% based on their weight proportion (9.25%).</li> <li>(2) Emissions from the purchase of tap water.</li> </ol> </li> <li>2. Indirect Emissions from External Energy Purchases - Carbon emissions from the upstream resource extraction stage of externally purchased energy sources (gasoline, diesel, electricity, natural gas).</li> <li>3. Emissions from Solid and Liquid Waste Handling - Emissions generated from the disposal and transportation of solid and liquid waste.</li> </ol>	115,718.1330
Associated with the use of products from the organization	NA	-
Other sources	NA	-
Direct emissions and indirect emissions		124,248.645



SGS has been contracted by C.C.Sustain ESG Solution Co., Ltd. (hereinafter referred to as "C.C.Sustain"), 15 F.-5, No. 12, Zhonghua Rd., Yongkang Dist., Tainan City 710029, Taiwan (R.O.C.) for the verification of direct and indirect Greenhouse Gas emissions in accordance with

**ISO 14064-3:2006**

as provided by I-CHIUN PRECISION INDUSTRY CO., LTD. SECOND FACTORY (hereinafter referred to as "I-CHIUN SECOND FACTORY"), No. 17. No. 19, Wu-Gung-Wu Rd., Shin-Chuang District, New Taipei City 24890, Taiwan, R.O.C., in the GHG Assertion in the form of GHG report covering GHG emissions of the period 01 January 2022 to 31 December 2022.

**Roles and responsibilities**

The management of I-CHIUN SECOND FACTORY is responsible for the organization's GHG information system, the development and maintenance of records and reporting procedures in accordance with that system, including the calculation and determination of GHG emissions information and the reported GHG emissions.

It is SGS's responsibility to express an independent GHG verification opinion on the GHG emissions as provided in the GHG Assertion for the period 01 January 2022 to 31 December 2022.

SGS conducted a third-party verification of the provided GHG assertion against the principles of ISO 14064-1:2018, ISO 14064-3:2006 in the period 25 December 2023 to 16 January 2024. The verification was based on the verification scope, objectives and criteria as agreed between I-CHIUN SECOND FACTORY and SGS on 15 August 2023.

**Level of Assurance**

The level of assurance for category 1 and category 2 agreed is that of reasonable assurance. Category 3 till category 6 agreed is that of limited assurance.

**Scope**

C.C.Sustain has commissioned an independent verification by SGS Taiwan of reported GHG emissions of I-CHIUN SECOND FACTORY arising from Design and Manufacturing of Stamping, Plating and Plastic Injection Parts for Electronic Components including LED Lead Frame, TFT-LCD, Lamp Reflector, Bezel, Lamp Cover, SMD Chip LED/PLCC and Heat Spreader activities, to establish conformance with ISO 14064:2018 principles within the scope of the verification as outlined below.

This engagement covers verification of emission from anthropogenic sources of greenhouse gases included within the organization's boundary and is based on ISO 14064-3:2006.

- Title or description activities: GHG verification for I-CHIUN SECOND FACTORY in year 2022
- Location/boundary of the activities:
  - No. 17. No. 19, Wu-Gung-Wu Rd., Shin-Chuang District, New Taipei City 24890, Taiwan, R.O.C.
- Physical infrastructure, activities, technologies and processes of the organization: Design and Manufacturing of Stamping, Plating and Plastic Injection Parts for Electronic Components including LED Lead Frame, TFT-LCD, Lamp Reflector, Bezel, Lamp Cover, SMD Chip LED/PLCC and Heat Spreader.
- GHG sources, sinks and/or reservoirs included: Sources as presented in the inventory spreadsheet provided by I-CHIUN SECOND FACTORY
- Types of GHGs included: CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs, SF<sub>6</sub>, NF<sub>3</sub>, HCFCs, CFCs
- The IPCC 2021 AR6 GWP values are applied in this inventory.
- Emission factor:
  - Direct emissions: Greenhouse Gas Emission Factor Table (6.0.4), EPA.
  - Indirect emissions:
    - Electricity emission factor is 0.495 kgCO<sub>2</sub>e/kwh (Announced by Bureau of Energy, Ministry of Economic Affairs in 2023).
    - The secondary database has Carbon Footprint Information Platform, SimaPro 9.5.0.0-Ecoinvent v3, ICAO Carbon Emissions Calculator
- Directed actions: NA
- GHG information for the following period was verified: 01 January 2022 to 31 December 2022
- The version of inventory sheet: January 22, 2024 (Version: V1)
- The version of GHG assertion: January 2024 (Version: 1)
- Intended user of the verification statement: Private

## Objective

The purposes of this verification exercise are, by review of objective evidence, to independently review:

- Whether the GHG emissions are as declared by the organization's GHG assertion
- The data reported are accurate, complete, consistent, transparent and free of material error or omission.

**Criteria**

Criteria against which the verification assessment is undertaken are the principles of ISO 14064-1:2018 .

**Materiality**

The materiality required of the verification was considered by SGS to 5%, based on the needs of the intended user of the GHG Assertion.

**Conclusion**

I-CHIUN SECOND FACTORY provided the GHG assertion based on the requirements of ISO 14064-1: 2018. The GHG information for the period 01 January 2022 to 31 December 2022 disclosing emissions of 124,248.645 metric tonnes of CO<sub>2</sub> equivalent and 0.0000 metric tonnes of direct CO<sub>2</sub> emissions from the combustion of biomass are verified by SGS to a reasonable level of assurance, consistent with the agreed verification scope, objectives and criteria.



The emission of each category is described as below:

Unit: tonnes of CO<sub>2</sub>e

Reporting Boundaries		GHG Emissions
Inventory categories	Description	
Direct emissions	This direct GHG emissions are the sum of owned or controlled by the organization within the organization.	103.2201
Indirect emissions	Imported energy	8,090.0820
	Transportation	<ol style="list-style-type: none"> <li>1. Upstream Transportation - Inspect the annual transportation-related greenhouse gas emissions generated during the procurement of raw materials and consumables. The emissions calculation is based on the transportation process of "major raw materials," as defined by I-CHIUN (copper, silver plate, ink, and chemical nickel). The emissions are calculated by collecting the total amount of major raw materials purchased by the entire factory, and the transportation emissions are then scaled up to 100% based on their weight proportion (9.25%).</li> <li>2. Downstream Transportation - Examine the greenhouse gas emissions generated during the annual product delivery process. The calculation is based on the total annual shipping weight of designated customer products multiplied by the revenue proportion of each designated customer location, as determined by I-CHIUN. The emissions are then scaled up to 100% based on the proportion of designated customer products to the total factory shipments (59.56%).</li> <li>3. Employee Commuting - Emissions from employee commuting for daily transportation to and from work, including motorcycle, car, and bus transportation emissions.</li> <li>4. Business Travel - Emissions from employee travel for business purposes, including transportation emissions from car, airplane, and high-speed rail travel.</li> </ol>

Reporting Boundaries		GHG Emissions
Inventory categories	Description	
Products used by an organization	<ol style="list-style-type: none"> <li>1. Emissions from Purchased Goods - Related to the procurement of goods associated with in-house production. (1) Based on I-CHIUN's definition of "major raw materials" (copper, silver plate, ink, and chemical nickel), calculate the emissions by collecting the total amount of major raw materials purchased by the entire factory. Scale the emissions up to 100% based on their weight proportion (9.25%). (2) Emissions from the purchase of tap water.</li> <li>2. Indirect Emissions from External Energy Purchases - Carbon emissions from the upstream resource extraction stage of externally purchased energy sources (gasoline, diesel, electricity, natural gas).</li> <li>3. Emissions from Solid and Liquid Waste Handling - Emissions generated from the disposal and transportation of solid and liquid waste.</li> </ol>	115,718.1330
Associated with the use of products from the organization	NA	-
Other sources	NA	-
Direct emissions and indirect emissions		124,248.645

SGS's approach is risk-based, drawing on an understanding of the risks associated with reporting GHG emissions information and the controls in place to mitigate these. Our examination includes assessment, on a test basis, of evidence relevant to the amounts and disclosures in relation to the organization's reported GHG emissions.

We planned and performed our work to obtain the information, explanations, and evidence that we considered necessary to provide a reasonable level of assurance that the GHG emissions of category 1 and category 2, and limited level of assurance of category 3 till category 6 for the period 01 January 2022 to 31 December 2022 are fairly stated.

We conducted our verification with regard to the GHG assertion of I-CHIUN SECOND FACTORY which included assessment of GHG information system, monitoring and reporting plan/protocol. This assessment included the collection of evidence supporting the reported data, and checking whether the provisions of the protocol reference, were consistently and appropriately applied.

In SGS's opinion the presented GHG assertion

- is materially correct and is a fair representation of the GHG data and information, and
- is prepared in accordance with ISO14064-1:2018 on GHG quantification, monitoring and reporting.

### **Confidentiality**

The reports and attachments may contain relevantly confidential information of the clients. In addition to being submitted as governmental application or certification documents, the reports and attachments are not allowed to be edited, duplicated, or published without the clients' agreement in written form.

### **Avoidance of Conflict of Interest**

The reports and attachments are completely complied with the standards and procedures that related authorities established. The reports and attachments of auditing process are conduct with fairness and honesty. If not, the auditing institution not only has to bear the relevant compensation duties, but also to receive legal charge and punishment.

This statement shall be interpreted with the GHG assertion of I-CHIUN SECOND FACTORY as a whole.



**Verifier Group**

Above statements coincide with auditing process with fairness and impartiality and aim at the emission of year 2022 of clients.

Lead Verifier: Emma Kao

Verifier: Victor Tseng

Mark Kong

Note: This Statement is issued, on behalf of Client, by SGS Taiwan Ltd. ("SGS") under its General Conditions for Greenhouse Gas Verification Services available at [http://www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm). The findings recorded hereon are based upon an audit performed by SGS. A full copy of this statement, the findings and the supporting GHG Assertion may be consulted at I-CHIUN PRECISION INDUSTRY CO., LTD. SECOND FACTORY, No. 17. No. 19, Wu-Gung-Wu Rd., Shin-Chuang District, New Taipei City 24890, Taiwan, R.O.C., This Statement does not relieve Client from compliance with any bylaws, federal, national or regional acts and regulations or with any guidelines issued pursuant to such regulations. Stipulations to the contrary are not binding on SGS and SGS shall have no responsibility vis-à-vis parties other than its Client.